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Anekant Institute of Management Studies (AIMS)

In association with BCUD, University of Pune

National Conference - 2013

"IT & Management : Innovations and Inventions- Global Perspective"

24th, 25th & 26th October, 2013



Anekant Education Society's

Anekant Institute of Management Studies (AIMS), Baramati

(Approved by AICTE, DTE & Affiliated to University of Pune)

Dist. Pune (M.S.) – 413102. Phone : 02112 – 227299

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AES @ A GLANCE

Anekant Education Society (AES), established in 1961 under the dynamic guidance of Late Shri. Fulchandji Gandhi, former Education Minister of the Hyderabad State. Anekant is a Religious Minority (Jain Community) Institution having the reflection of "Anekantavad" in its name. AES founded renowned Tuljaram Chaturchand College (T.C) in 1962, with more than 10,000 students and around 320 faculty members. T.C College celebrated its Golden Jubilee in 2012. It also has another degree college i.e. Jaysingpur College, Jaysingpur, Dist. Kolhapur. AES added another feather to its cap by establishing Anekant Institute of Management Studies (AIMS), in June 2011 and Anekant English Medium School in 2012. Right from its inception, society is providing quality education and in a period of five decades, the society has made its marks on academic, cultural and social environment of Baramati.

Anekant Institute of Management Studies (AIMS)

AIMS, the modern temple of professional learning unfolds a golden career prospect to walk through the avenue of professional skills and managerial leadership that a student dreams always. Our performance is beyond excellence because we create visionary pioneers in management field and not only assist to get mere employment but also beyond that. The Institute is approved by AICTE, DTE and affiliated to University of Pune, Maharashtra for two years Full Time Master in Business Administration (MBA) programme. Being the extended arm of the legendry T.C College, it has already inherited a legacy of high repute at its birth itself.

AIMS has extensive Wi-Fi campus. It provides incredible infrastructure and facilities for the students. Boys' hostel and girls' hostel, Computerized Library, Computer Labs and well equipped Seminar hall, Amphitheatre, Placement cell and well experienced faculties from industry are the uniqueness of AIMS.



Objectives of Conference – 2013

- To identify present scenario of IT and Management
- To provide Knowledge Exchange platform to the Research Scholars, Academicians, Professionals and Students
- To generate and create applied knowledge for betterment of business and society

Commemoration : National Seminar 2012

AIMS conducted a one Day National Seminar on "Agriculture Development – Role of Women: Emerging Perspectives, Issues, Challenges and Strategies" on 31st October, 2012.

It focused on women's significant and crucial role in varied aspects of life, particularly in agricultural development. Their contribution in allied fields including the main crop production, livestock production, horticulture, post harvest operations, agro / social forestry, fisheries etc. is a fact long taken for granted but also long ignored.

Conference Themes 2013

India is marching toward achievement of Vision 2020. Study of various aspects related to IT and Management are required to accomplish the Vision. We need to understand present scenario of all aspects so that we can plan and apply it to lead in global scenario.

Track 01 – IT

- Data Mining Techniques
- Cloud Computing
- Artificial Intelligence
- Social Media Networking
- Role of IT in capacity development of Learning Organization

Track 02 – Marketing

- Shop Lifting
- Pilferages by Demonstration
- Virtual Marketing and its benefits to End-Users
- Retailing and E – Tailing
- Emerging Trends in Film Promotion.

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- Commodity Market
- Behavioural Finance

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- PhD: Academic view Vs Creation of Knowledge
- Managing Work life balance.
- Ethics and Etiquettes of Business
- Management of Library & Information Centres

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Forword



Dr. E. B. Khedkar
Dean-Faculty of Management
University of Pune

In the changing scenario of Globalization, cut-throat competition and predatory strategies, the role of 'IT & Management' is very significant and highly challengeable. At this juncture, Anekant Institute of Management Studies (AIMS), organized 3 days National Conference, on 'IT & Management: Innovations and Inventions-Global Perspective.'

Indeed, it gives me immense pleasure to note that, the workaholic efforts for the National Conference taken by AIMS team under the guidance of Dr. M. A. Lahori, Director of Institute are marvelous and matter of record.

The conference papers received from Tamil Nadu, Karnataka, Kerala, Andhra Pradesh besides home state of Maharashtra both from academia and industry are mind boggling, interesting and really thought provoking in the field of management and application of IT. The whole event and exercise was motivated and inspired by the AES committee. The efforts taken by Shri. Shanti Kumar Shah, Chairman AES, Shri. Jawahar Motilal Shaha, Secretary, AES, Shri. Milind Rajkumar Shah, Joint Secretary, AES and active members Shri. Vikas Shah, Shri. Chandrawadan Shah in envisioning and organizing the conference are commendable.

One can't resist spontaneous and ardent appreciation for the impeccable work done by, Prof. Sachin S. Jadhav, Prof. D. P. More, Prof. Dr. A. V. Thuse, Prof. Manisha Vhora, Prof. Smita Khatri, Prof. A. Y. Dikshit, Prof. P. V. Yadav, Prof. T. V. Chavan, Prof. Preeti Hanchate who have considerably contributed to the success of the Conference.

My Best Wishes to the participant scholars, academicians, NGO personnel, scientists and importantly dynamic youth graduates, who have special sensitivity to the subject and to the entire team of Anekant Institute of Management Studies (AIMS), Baramati.

Dr. E.B. Khedkar

From Chairman's Desk



Shri. Shantikumar Jambukumar Shah (Saraf)
Chairman, Anekant Education Society, Baramati

This book is a compendious set of papers presented at the '2nd National Conference' on 'IT & Management: Innovations and Inventions-Global Perspective', organized from 24th-26th October, 2013 by Anekant Institute of Management Studies (AIMS), a flagship aegis of Anekant Education Society.

It is needless to mention that, now the entire world is economically volatile and packed with lot of fluctuations in market and uncertainties in business. In such a distress, my Management Institute (AIMS) organized a conference in association with the University of Pune, to address the burning & current issues of the business world and global economy at large.

I am pleased to note that, the conference had well packed attendance of students, scholars, industry & NGO personnel and academicians and the participants were from different states viz. Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Jharkhand besides our own state of Maharashtra. The presentations were very systematic, interactive; revealed many practical insights based on the grass root experiences and were much more significant on the title of the National Conference. More than 100 papers were received in different tracks / areas of specialization, even papers were from Riyadh (Saudi Arabia).

My heartiest congratulations for such a voluminous and commending stature of work by the Team of AIMS.

Shri. Shantikumar Jambukumar Shah (Saraf)

From Secretary's Desk



Shri. Jawahar Motilal Shaha (Wagholikar)
Chairman, Anekant Education Society, Baramati

I am happy to learn that Anekant Institute of Management Studies an off- shoot of Anekant Education Society, Organized a National Conference on 'IT & Management: Innovations & Inventions – Global Perspective' in association with BCUD, University of Pune. It is a mark of achievement considering stupendous efforts of the AIMS team.

I am sure you must have enjoyed the Conference concourse for disseminating knowledge, sharing information & ideas in connection with IT & Management spectrum.

I applaud and appreciate the remarkable efforts taken by the staff of AIMS for organizing such a meaningful and relevant National Conference on IT & Management for three days.

I wish AIMS all the success.

Shri. Jawahar Motilal Shaha (Wagholikar)

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KEY NOTE

Indian Ethos for Modern Management : The India Way for Global Managers

(A paradigm of innovation for International Companies, INCS)

Dr. G. R. Kirshnamurthy
Chair-Professor of Eminence and Founder Director
A. J. Institute of Management, Mangalore (Karnataka)

The World is in the process of a great transformation from a highly regulated and controlled economy to a liberal deregulated globally open economy. Due to this transformation, the change in the organisations, whether business corporations or non-profit institutions, is going to be quite sweeping if not tumultuous.

In fact, the overwhelming change is bound to be in the fields such as (1) technology, (2) organisation structure, (3) power hierarchy, (4) decision-making, (5) training practices and (6) communication methods. The change may overpower some of the organisations by seizing them unaware.

To manage this unprecedented change and to cope up with the tremendous stress that it is likely to generate, a modern/futuristic executive needs a totally novel and different mindset and ethos.

It is in this context, the Indian ethos offers some precious insights and tools for an executive life and job in INCS (International Companies).

This paper focuses on presenting some important insights and effective tools from Indian ethos.

Scenario of the Future Organisation in the 21st century and beyond

An impending organisation in the coming decades and centuries does not suffer from organisational – obesity and is bound to be flatter, slimmer and leaner. Its unduly long vertical power structure, its designation-obsessed power hierarchy and its frozen cadres are going to be altered drastically if not to disappear radically. Organisational obesity will be reduced with derecruitment of employees, recruited for the mere creation of jobs and not for their necessity in the production process of the organization. Of course, so called "Golden-Handshake" schemes are going to be "Empty-Handshakes", thereby bereaving our organisations of the few really talented seniors, while most of the mediocre and non-performing employees still stick on to the organisations!

In a future organization, performance appraisal is not going to be the exercise of mere merit-rating of the individual employees, but an exploration into their potentialities and their potential development, so as to develop them and use them in their future careers with the organisations.

Organisations are bound to be extremely and intensely change sensitive – not change resistant. For this, organisations have to transform themselves into "learning-organisations". Training, upto now, in most organisations, is more "trainer-centered". A learning organization is going to be intensely "trainee/learnee-centered". The human resources in the learning organisations may not only learn through formal training programmes/sessions, but also through the process of mentoring and experiential learning on the jobs.

The discipline in the future organisation will not mean mere time-keeping, but a commitment of an employee to the job and performance, thereby increasing the real contact time with his/her job.

The so called span-of-control has to transform itself into a process of mentoring and monitoring on the part of senior executives, towards the juniors.

The inter personal relations in a future organization are not going to be designation-obsessed and cadre-frozen. They are going to be more warm, spontaneous, reciprocal, informal, functional, horizontal, and more humane in nature.

Communication channels in a 21st century organization do not suffer from the block of one-way traffic, i.e., from top to down nor from drainage of grapevine and rumor-mongering. The communication is going to be fundamentally a two-way process, more through suggestions and notes, and guidelines than through memo's, instructions and orders.

The climate in a future organization will be Industrial Relations based and not industrial disputes based. The relationships and bargaining between the managements and the unions are not going to be on the basis of "Who wins" approach, but on the 'Win-Win' approach. For this the so called prerogatives of the management and so called exclusive rights of the workers/ employees will have to be re-interpreted and positively acted upon for the good of the organization.

In an impending organization, overall management is going to be participative in nature. In fact, reducing the organizational obesity and de-layering will help achieve this effectively. In a way, Workers' Participation in Management (WPM) is bound to transform itself to a co-determination process.

Decision making at the top is going to be more and more agonizing, if not an excruciating process. With the fast sweeping unpredictable changes in technology, markets, governmental policies, social forces and environmental calamities, the senior executives, particularly the Chief Executive is going to face the fundamental question of whether "to make a decision or not". It is as fundamental as Hamlet's dilemma of "to be or not be" for the implications of the Chief Executive's decisions in a change-confronted-future organization, is going to be as fundamental as the very survival and success of the organization(as that of Hamlet relating to life).



In this agonizing and unsung process of decision-making, more and more senior executives and CEO's will pass through traumatic but helpless experience of tremendous stress! The executive stress becomes a second nature, if not a helpless challenge for the executive life in the future organization.

Coping mechanisms to stress, by an executive, become vulnerable and are likely to fizzle out, however strongly "cultured" they may be.

Sources of Indian Ethos

Indian ethos derives from the precious literary and spiritual heritage of India. It emanates from the explorations of ancient rishis of India. These sources are Vedas, epics: Ramayana and Mahabharata (particularly Shanthi Parva), Upanishads and Bhagawad Gita; Gita though a part of Mahabharata, is considered to be an Upanishad by itself for its profound wisdom.

In addition to these, Buddhistic texts and Jain treatises also contribute to the rich heritage, from which the Indian ethos derives, Manu-Dharma-Shastra by Manu, and Arthashatra by Kautilya are the classics on economy, polity and society. Some of the precious insights contained in these also form part of the Indian ethos.

However, Upanishadic wisdom is the culmination in the flowering of human understanding and realisation of life and truth, which could be of immense use for the modern organizations and their management.

The Indian ethos is the result of the "Hindu" way of life and catholitic world-view. For a Hindu, nay Indian life has four fundamental goals: Dharma, Artha, Kama and Moksha. To fulfill and achieve these goals, human life is divided into four stages/ phases/ ashramas: Bramhacharya, Grihastha, Vanaprastha and Sanyasa. During a particular period of man's life, strivings towards a particular goal dominates. For instance during Grihasthashrama, fulfillment of artha and kama goals predominate. While during Sanyasashrama, quest for moksha dominates. Dharma, that code of ethics for collective welfare, permeates the whole Hindu way of life, from birth to death.

To achieve these life goals (purusharthas) three fundamental ways/paths are suggested :

Karma, Bhakthi and Jnana Margas. The adoption of a particular way or marga(life-path) depends on the degree and level of man's psychological and spiritual evolution , his individual volition(pravritti), his samskaras, vasanas(subliminal traces and impressions carried from the past and on his qualities/gunas: Satva, Rajo and Tamo gunas.

Based on the composition and predominance of these gunas in a unique proportion, each man's self/ individuality/ personality takes shape. Based on his pravritti each man adopts a particular marga that is suitable to his nature, propensity and volition, which the Gita calls : "Swadharma". If a tamasic person adopts an unsuitable life-path, say jnanamarga (to be an executive), he will end up as a failure and frustrated.

Hence the Gita's insistence on each man selecting his career/job/life style according to his pravritti(volition) and parinathi(maturity).

Based on this Indian way of life and vision of life, and its world view, Indian ethos emerged and evolved through the centuries of explorations by Indian rishis.

Indian Ethos: Insights and Contributions

- Four goals of life: Dharma, Artha, Kama and Moksha
- Deep understanding of human psyche
- Classification into Satva, Rajo and Tamo-Gunas
- 'Pravritti' as the basis of all achievement / success / happiness
- Understanding of life / material / organization / reality as constant flux and change
- 'Even this will pass away' attitude
- A real executive / achiever / leader as a yogi
- With an insight into oneself
- With self-control on emotions / prejudices and weaknesses
- Samyami with samadristi, beyond dualities
- Steadfast mind and determination(Stithaprajnatha)
- 'Nishkamakarma' an understanding that action is only in his hands and not the results / fruits
- Broad perspective / transcendental view in decision making
- With 'freedom in action', not 'freedom from action'.
- Understanding of the 'tunnel-view' as great limitation to an executive
- Learning with a total open mind
- Transcending the known (Ahankara)
- Learning as a freedom from past conditioning
- Freedom from the shackles of his own thought
- Freedom from the known to visualize something new
- Transparency in action and transcendence in thinking
- An executive / CEO / leader as a trustee, as a guardian and custodian of the interests of organisation
- Treating job / position / power / organization not as a private property
- Adopting 'win-win' approach in Industrial relations / in any relationship / in negotiations, in acquisitions and mergers
- Intrinsic, self-propelling motivation
- Non-acquisitive culture / way of life
- Life goal to have fulfillment in being happy and not in having things or unlimited possessions



Fundamental features of Indian Ethos

- It is the result of Rishi-culture and heritage
- Based on eco-friendly and environment conscious development/ business
- Man as a part of nature not as the arrogant master
- Developing both left and right side of the brain:

Left : for logical, sequential and analytical function

Right : for holistic, intuitive, meditative/ pluralistic and random access functions (for decision making).

- Motivation-Self Propelling and intrinsic (For self-actualisation and realisation)
- Motivation, not extrinsic or need fulfillment based exclusively
- Enlightened self-interest/ not exclusive selfishness
- Emphasis on quality of life, as per HDI, not on standard of living Indian Ethos negates:
- Dangers of the western/US model of business/ market characterized by:
- Motivation approach totally based on need satisfaction
- Undue emphasis on competition, leading to unhealthy competition
- No focus on co-operative drives and elements in market/society/people
- Over emphasis on market and irrational consumerism
- Lack of priorities in production
- Distortions in wealth distribution
- Environmental degradation
- 'Hire and fire of employees' with least welfare/ development concern

Relevance of Indian Ethos

Some methods and techniques for application of Indian ethos:

- Attempt / quest for continuous self-awareness through introspection and retrospection.
- A few minutes of reflection / meditation / prayer every day to look into oneself and his 'real self'.
- Courage to rebel against the brain storming of the so-called massmedia and multimedia.
- A retreat without fail annually if not by bi-annually to a small peaceful serene countryside not to metros on airlines.
- Widening the fellowship of like-minded friends.
- Exploration with them into the job / self/ life/nature/world/relationships/ performance etc., in a fellowship.
- A stroll with a freedom to allow the new insight / 6th sense to dawn.

- Reading a chosen book or two at least monthly once if not more.
- Selecting a rare great movie and watching it with an open mind to understand in-between lines.
- To play, to sport and at least to have one hobby of music or any other fine art to indulge in and forget the designation consciousness, at least sometime a day/ night.
- To keep mind open and pure. (Without ego and child like)
- To allow the god's grace/ nature's grace to happen.
- Thus Indian ethos could be of precious and immense help to a chased extensive to withstand the stress and to conquer his emotions so as to achieve the ever expanding and demanding targets in the company.

In essence, the Indian ethos is characterized by the following practical features:

- Ego sublimation and humility
- Synthesising and synergizing approach
- Emphasis on Duty/Dharma
- Self control (control from within)
- Total understanding of life than mere job understanding
- Adjustment and adoptability than dominating
- Emphasis on the flexibility / change
- Focus on the team approach
- Harmonious living with nature
- Highest value accord to sacrifice

On the other, American and European ethos, in short, western ethos, (based on the Greek-Roman ethos and values) is characterised by ego-exaggeration, Reductionist approach to things, over emphasis on rights, dominating on the nature, outside control, over emphasis on money incentives. Unrealistic emphasis on the so called stability and imbalanced emphasis on individual achievements than on the team/community consideration.

Thus, western management science and thought suffered from the narrow confinement to Taylorism, so called human-relations approach (the result of hawthorne experiments) and need gratification based motivation studies.

Many management concepts like six-sigma, 360 degree appraisal, MBO, Kaisen, Just-in-time, customer delight, etc are already becoming clichés in management thought and practices. In this context, Indian ethos offers some refreshing insights which could be used as effective tools for modern management . These are:

- "That the reality/nature/life/organisation is always changing". Indian Upanishads including Bhagavad Gita proclaim. Gita says that "Man is the most ignorant and



foolish who does not realize this truth of flux and change, so as to face the reality bravely and naturally". As modern organization is bound to change, sometimes even abruptly and sweepingly, this insight from Indian ethos could be a great strength to today's executives. "Do not expect so called stability, be ready for a change at any time" is the message. By developing a mind set which welcomes the change as a requisite an executive becomes highly effective in managing it.

- An executive must have a yogic perception: perception into himself, his likes and dislikes, and his emotions. Indian ethos makes "self awareness" as a basic requisite for any great performance including the job performance. "Know yourself before you know others". For this one, must have 'sathvik pravritti, samyami and samadhrishti'. Having developed this quality, an executive performs his actions detached from their results/fruits. Thus Gita teaches 'nishkamakarma' as a modes-operendi for high achievers. This mind set makes a manager, a high success, nay a rare success.
- Self-perception and self awareness as advocated by the Indian ethos are the most effective tools for one's "Emotions-management". In other words, "choiceless awarness" of the organisational reality is the most effective way for stress-coping and stress management.
- Nature of Learning: Indian ethos lays stress on continuous and constant learning throughout life. But it emphasises on open mind and humility as requisites for learning. "Let noble thoughts come from all sides" proclaims the Veda. Then only an executive can avoid "Tunnel-view" approach in understanding. Indian ethos emphasises on trainee-centered-learning than trainer-centered-learning/ exercise.
- CEO as a Trustee: Indian worldview and Indian thought advocates that every Entrepreneur/Industrialist/Executive must act as a Trustee/Custodian /Guardian of the interests of all the stakeholders: Employees,Customers,Consumers,Share-holders and community at large. An executive is a 'Kartha'. He has to build the culture of Trust in an oraganisation which is characterised by the following:
- Participation climate
- Delegation-strategy
- Two-way communication
- Bi-lateral evaluation
- Creative and continuous Training

All successful companies as well as executives practice this culture of trust (which is highly emphasised by the Indian ethos)

Even in the west companies like GE in Colombia and Volvo in Sweeden, Nissan in Tennessee, DEC in Connecticut, adopt the culture of Trust. In Indian context, TATA steel and Infosys are some of the best examples practicing the culture of trust.

In short, present day managers, and organisations could crystallize the above insights

(from Indian ethos) into the following tools and strategies. These in turn could be used as the most effective tools and techniques in today's organisation:

- Forming self-managing teams in the organisation
- Collective goal setting
- Informal verification of the facts and files
- Creation of learning climate for each to learn at his own pace in the organisations.
- Ego sublimation by "you centered approach", not 'I' centered approach
- Environment friendly and ecology conscious approach/paradigm to development.

In short, the Indian ethos enables one to clearly understand the nature of the reality, as a constant change and flux. It empowers the managers and organisations for facing overwhelming changes. In doing this, the ethos enables the executive to have self perception and 'stithaprjnatha'(steadfastmind).

Thus Indian ethos, provides some effective tools and techniques for modern executives for managing today's complex organisations.

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Volatility Modelling of Exchange Rate of Indian Rupee Vs US Dollar

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ABSTRACT

At times of heightened global equity and bond market volatility, high-yielding currencies tend to depreciate while low-yielding ones tend to serve as a "safe haven". Forecasting exchange rate fluctuations is an important financial problem that is receiving increasing attention especially because of its difficulty and practical applications. This paper is present to forecasting Exchange Rate fluctuation and focuses to find the best way to invest. The study used ADF, GRACH (1, 1) model to indentify the volatility of exchange rate.

Key words : *exchange rate , GRACH(1,1), ADF(unit root test) Volatility.*

INTRODUCTION

Price of one country's currency in relation to currency of another country is called "Exchange Rate". Equation of national currency in term of foreign one is expressed by it. It is a ratio, multiplier or conversion factor depending on the direction of that conversion. It is right time to study and investigate whether changes in arrangement of exchange rate have an impact on economic growth or to investigate the extent to which volatility of exchange rate may be responsible for changes in the rate of economic production because development strategies by many developing countries have either been changed or are under consideration to change. Increase in nominal & real exchange rate volatility accompany such moves (Caporale & Pittis, 1995). Domestic & foreign investment decision both are negatively affected by exchange rate fluctuation.

VOLATILITY AS MEASURE OF RISK

In finance, volatility is a statistical measurement of ups and down asset price fluctuation over time. If an asset has rapid dramatic price swings, volatility will be high. If prices are consistent and rarely change, volatility is low. Volatility can be measured as the annualized standard deviation. Volatility is often used to measure risk. Many common

measurements of risk, such as beta, utilize volatility in calculations. It makes sense that an asset that has huge price swings is more risky than an asset that is not volatile.

However, the actual effectiveness of using volatility as a measurement of risk is questionable. The main imperfection of volatility is that it does not differentiate upside and downside price movements. Whether the forex markets might not have become too complacent about risk and have seriously underestimated the possibility of another stock. There are two principal volatility measurements: implied volatility and realized volatility. The former is so-called because it must be deduced indirectly. In the Black-Scholes model for pricing options, volatility is the only unknown variable and thus is implied by current market prices. It serves as a proxy for investor expectations for volatility over the period for which the option is valid. Realized volatility is of course the actual volatility that is observed in currency markets, calculated based on the size of fluctuations over a given period of time. When fluctuations are greater (whether upward or downward), volatility is said to be high.

LIMITATIONS OF PREDICTIONS

In addition, volatility is a measurement over time that relies on historical data. Past events, however, do not guarantee future results. Using historical volatility as a predictive measure of future risk is thus limited by the uncertainty of future returns. In the financial markets, somewhat unpredictable future returns and radical events are especially prevalent.

REVIEW OF LITERATURE

Ancel and M.D. Griffiths (2005) "Long Memory in Rupee-Dollar Exchange Rate – An Empirical Study"[1] analyzed whether the Exchange rate policy of the Government has attempted to make the Indian Rupee more market driven. This study uses last 13 years data to find out if there exists any long memory process in the INR-US$ Exchange Rate. The Classical relationship analysis as well as Variance Ratio Tests has been conducted in the data to find out the results. The stationary condition has been tested using ADF and Phillip - Perron tests and it has been observed that the return series is stationary and has no evidence of ARCH using White's ARCH test. The normality tests on the daily exchange rate returns for the last one-decade indicate the need to explore the application of non-linear modeling techniques while understanding exchange rate behavior. The results from the persistence tests are split. The variance test clearly implies that there exists only short-term memory in the market returns as given by the above study of the pattern is also not clearly established. However, the relationship analysis does give indications of long-term memory. Analysis shows that the movement of exchange rate does not follow a random movement.

Ahmed Nawaz Hakro, (2009) Twin Deficits Causality Link-Evidence from Pakistan[2]. Causal link between twin deficits and other macroeconomic variables is estimated by using multivariate time series on data from Pakistan. The estimates of vector autoregressive

model demonstrate that causality link of deficits is flowing from budget deficits to prices to interest rate to capital flows to exchange rates and to trade deficits. Evidence also suggests that reduction in the budget deficits might help to control the level of prices. Minimum government intervention and a balanced budget could restore the imbalance and a measure of confidence in international trade.

Ayub Siddiqui, (2009). Modeling Pak Rupee Volatility against Five Major Currencies in the Perspective of Different Exchange Rate Regimes Muhammad[3]. Islamabad-Pakistan Currency exchange rates have always been at the core of fiscal and monetary deliberations in emerging economies with exchange rate volatility. The practitioners1 of time series econometrics recommend a sample of at least 300 observations for time series models but previous studies on volatility and forecasting of Pakistani exchange rate do not seem to have met this criterion in addition to some other assumptions. Hence their results are not free of doubts. This study examines volatility in Pakistani rupee against five major currencies using advanced time series econometric models on extended daily data set for the last ten years. It evaluates risk-averse attitude of investors in the foreign exchange (FE) markets, tests asymmetry of volatility across external shocks and estimates dominating negative/positive impacts of exogenous shocks on the FE markets. It explores short-term factors which led an increase in demand for foreign currencies and subsequently caused PKR to dwindle against foreign currencies.

Christos Floros "Modeling Volatility using GRACH Models: Evidence from Egypt and Israel"[4] examined the use of GARCH-type models for modeling volatility and explaining financial market risk. They use daily data from Egypt (CMA General index) and Israel (TASE-100 index). Various time series methods are employed, including the simple GARCH model, as well as exponential GARCH, threshold GARCH, asymmetric component GARCH, the component GARCH and the power GARCH model. They provide strong evidence that daily returns can be characterized by the above models. For both markets, increased risk would not necessarily lead to a rise in the returns. The most volatile series is CMA index from Egypt, because of the uncertainty in prices (and economy) over the examined period. These findings are strongly recommended to financial managers and modelers dealing with international markets.

Engle. F, Daniel Nelson. B and Tim Bollerslevtion , "ARCH Models"[5] . It evaluated the most important theoretical developments in ARCH type modeling of time-varying conditional variances. The coverage include the specification of univariate parametric ARCH models, general inference procedures, conditions for stationary and periodicity, continuous time methods, aggregation and forecasting of ARCH time methods, aggregation and forecasting of ARCH models, multivariate conditional covariance formulations, and the use of model selection criteria in an ARCH context. They discussed the empirical ARCH models, multivariate conditional covariance formulations, and the use of model selection criteria in an ARCH context. They discussed the empirical regularities reties pertaining to the temporal variation in financial market volatility. A new conditional variance model is presented for better estimate of stock return volatility.

Gülin Vardar, Gokce Aksoy and Emrecan , "Effects of Interest and Exchange Rate on

Volatility and Return of Sector Price Indices at Istanbul Stock Exchange"[6] investigate the impact of interest rate and exchange rate on the composite and sector price indices, which are financial, industrial, services and technology in Istanbul Stock Exchange. Examining sector indices for investment purposes makes it essential to understand how various sectors behave over time especially following changes in exchange rate and interest rate. This article uses daily sector data over the 2001-2008 period and Generalized Autoregressive Conditional Heteroscedasticity (GARCH) models are employed in investigating the volatility and return behavior of indices. Analyzing the sources of volatility in the selected indices is crucial for implications regarding asset pricing, risk management, and portfolio selection.

GARCH (Generalized Autoregressive Conditional Heteroscedasticity)

Consider the ARCH model suggested by Geweke (1986), numerous parametric specifications for the time varying conditional variance have been proposed in the literature. In the linear ARCH (q) model originally introduced by Engle (1982), the conditional variance is postulated to be a linear function of the past squared

$$\sigma_t^2 = \omega + \sum_{i=1,q} \alpha_i \varepsilon_{t-i}^2 \equiv \omega + \alpha(L)\varepsilon_{t-1}^2,$$

L denotes the lag or backshift operator, L'y, = Y,_ ~. Of course, for this model to be well defined and the conditional variance to be positive, almost surely the parameters must satisfy w > 0 and c(~ 3 0,. . . , a, > 0.Defining v, = E: - a,

Measuring volatility in financial time series

Most of the statistical tools are designed to model the conditional mean of a random variable. The tools described in this section differ by modeling the conditional variance, or volatility, of a variable. Autoregressive Conditional Heteroskedasticity (ARCH) models are specifically designed to model and forecast conditional variances. The variance of the dependent variable is modeled as a function of past values of the dependent variable and independent, or exogenous variables.

ARCH models were introduced by Engle (1982) and generalized as GARCH (Generalized ARCH) by Bollerslev (1986). These models are widely used in various branches of econometrics, especially in financial time series analysis. See Bollerslev, Chou, and Kroner (1992) and Bollerslev, Engle, and Nelson (1994) for recent surveys.

Objectives of the study

To analyze the movements of exchange rate of INR/USD

To know the performance of exchange rate

To analyze the co-movements between exchange rate and NSE nifty

Methodology

The study focuses to collect secondary data like daily closing price of INR/USD, NSE

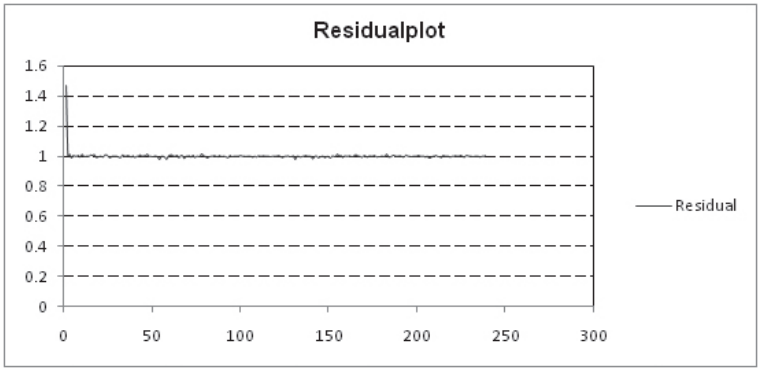
closing price on daily basis for the period 2009-12. And applied ADF test, GRACH (1,1) MAODEL, Regression model to analyze the volatility of exchange rate.

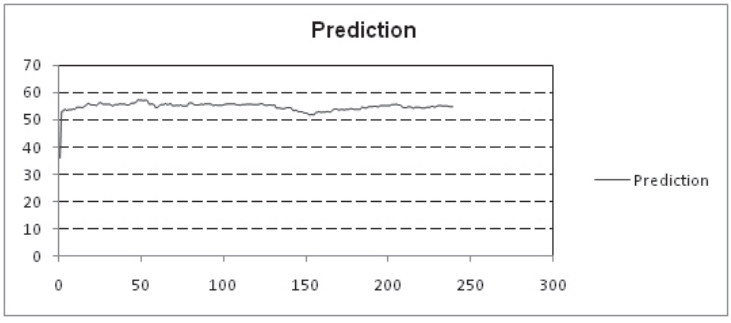
Volatility in Exchange Rate for the year 2012

Table - reveals the result of the GRACH model for testing the price volatility. It shows the coefficient of ARCH parameter α and the GARCH parameter β. It is clear that the GARCH estimate for Exchange Rate is larger than the ARCH parameters. It indicates that shocks to conditional variance take a long time die out and therefore volatility is persistence Beta, Omega, Alpha values are 0.999999018, 0.999999923, and 0.999338563. The values are less than 1. It proves that the series are stationary and the persistence changes in volatility decline for every Exchange Rate.

	Coefficient	Std. Error	z-Statistic	Prob.
Omega	0.9897444	804005.1	1.231E-06	0.999999018
alpha_1	0.0001142	1179.1513	9.6807E-08	0.999999923
beta_1	0.9991225	1205.2311	0.00082899	0.999338563

Source: Computed





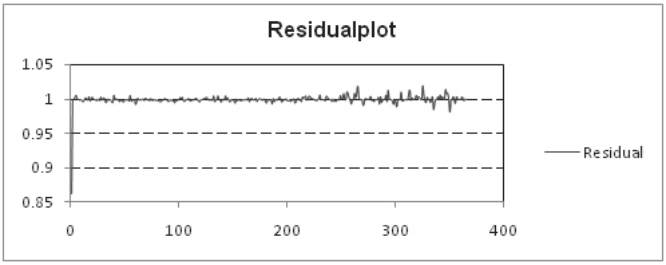
Volatility in Exchange Rate for the year 2011

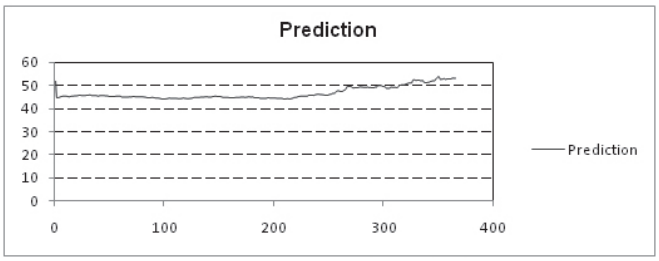
Table - reveals the result of the GRACH model for testing the price volatility. It shows the coefficient of ARCH parameter α and the GARCH parameter β. It is clear that the GARCH estimate for Exchange Rate is larger than the ARCH parameters. It indicates that shocks to

conditional variance take a long time die out and therefore volatility is persistence Beta, Omega, Alpha values are 0.999981952, 0.999999983, and 0.999477948. The values are less than 1. It proves that the series are stationary and the persistence changes in volatility decline for every Exchange Rate.

	Coefficient	Std. Error	z-Statistic	Prob.
Omega	6.501503716	287423.225	2.262E-05	0.999981952
alpha_1	3.2701E-05	1542.557735	2.11992E-08	0.999999983
beta_1	0.997545741	1524.609905	0.000654296	0.999477948

Source: Computed





Augmented Dickey-Fuller Test

ADF Test:

In statistics and econometrics, an augmented Dickey-Fuller test (ADF) is a test for a unit root in a time series sample. It is an augmented version of the Dickey-Fuller test for a larger and more complicated set of time series models. The augmented Dickey-Fuller (ADF) statistic, used in the test, is a negative number. The more negative it is, the stronger the rejection of the hypothesis that there is a unit roots at some level of confidence.

In statistics and econometrics, an augmented Dickey-Fuller test (ADF) is a test for a unit root in a time series sample. It is an augmented version of the Dickey-Fuller test for a larger and more complicated set of time series models. The augmented Dickey-Fuller (ADF) statistic, used in the test, is a negative number. The more negative it is, the stronger the rejection of the hypothesis that there is a unit roots at some level of confidence.

A unit root test tests whether a time series variable is non-stationary using an autoregressive model. The most famous test is the Augmented Dickey-Fuller test. Another test is the Phillips-Perron test. Both these tests use the existence of a unit root as the null hypothesis.

Where,

$$(\Gamma, \Lambda) = (\sum_{i=1}^{\infty} g_i^2 Z_i^2, \sum_{i=1}^{\infty} 2^{1/2} g_i Z_i)$$

with

$\gamma_i = 2(-1)^{i+1}/[(2i-1)\pi]$,

The result with Eq. 22 allows the point estimate ρ to be used by itself to test the null hypothesis of a unit root. Another popular statistic for testing the null hypothesis that ρ = 1 is based on the usual OLS t-test of this hypothesis,

$$t = \frac{\hat{r} - 1}{\hat{s}_{\hat{r}}}$$

wher $\hat{\sigma}_{\hat{\rho}}$ is the usual OLS standard error for the estimated coefficient,

$$\hat{\sigma}_{\hat{\rho}} = s_e \left(\sum_{t=2}^{N} x_{t-1}^2 \right)^{-1/2}$$

and s_e denotes the standard deviation of the OLS estimate of the residuals in the regression model with Eq. 20, estimated as

$$s_e^2 = \frac{1}{N-2} \sum_{t=2}^{N} (x_t - \hat{r} x_{t-1})^2$$

Dickey and Fuller (1979) derived the limiting distribution of the statistic t under the null hypothesis that ρ = 1 as

$$t \xrightarrow{D} 2\Gamma^{-1/2}(\Lambda^2 - 1)$$

The unit root test described above is valid if the time series $\{x_t\}$ is well characterized by an AR(1) with white noise errors. Many hydrological time series, however, have a more complicated dynamic structure than is captured by a simple AR(1) model. The basic autoregressive unit root test can be augmented (referred to as ADF test) to accommodate general ARMA(p, q) models with unknown orders (Said and Dickey, 1984; Hamilton, 1994, pp 516-530). The ADF test is based on estimating the test regression

$$x_t = \beta D_t + \phi x_{t-1} + \sum_{j=1}^{p} \gamma_j \nabla x_{t-j} + \varepsilon_t, \quad t = 1, 2, \ldots, N$$

Where;

D_t is a vector of deterministic terms (constant, trend, etc.). The p lagged difference terms, $\nabla_{xt-j,}$ are used to approximate the ARMA structure of the errors, and the value of p is set so that the error ε_t is serially uncorrelated. Said and Dickey (1984) show that the Dickey-Fuller procedure, which was originally developed for autoregressive representations of known order, remains valid asymptotically for a general ARIMA(p, 1, q) process in which p and q are unknown orders.

Augmented Dickey-Fuller Unit Root Test on Exchange Rate for the year 2012

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-19.626798	0.000000
Test critical values:	1% level	-3.447038	
	5% level	-2.868778	
	10% level	-2.570677	

Source: web.reg.in

Table - Reveals the empirical results from Augmented Dickey-Fuller test (ADF) for US Exchange Rate. The data is stationary when the calculated value is smaller than the critical value. The statistics value for ADF test is (-19.626798). The test produced significant result at 1% level (-3.447038) when time trend was included. It is to be noted that the ADF test provides evidence that the series are stationary. The critical values include three significant level at 1% (-3.447038), 5% (-2.868778) and 10% (-2.570677). The series confirmed that it is stationary in the significant level 1% itself and therefore no further test was required.

Augmented Dickey-Fuller Unit Root Test on Exchange Rate for the year 2011

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-15.575173	0.000000
Test critical values:	1% level	-3.448207	
	5% level	-2.869292	
	10% level	-2.570953	

Source: web.reg.in

Table - Reveals the empirical results from Augmented Dickey-Fuller test (ADF) for US Exchange Rate. The data is stationary when the calculated value is smaller than the critical value. The statistics value for ADF test is (-15.575173). The test produced significant result at 1% level (-3.448207) when time trend was included. It is to be noted that the ADF test provides evidence that the series are stationary. The critical values include three significant level at 1% (-3.448207), 5% (-2.869292) and 10% (-2.570953). The series confirmed that it is stationary in the significant level 1% itself and therefore no further test was required.

Augmented Dickey-Fuller Unit Root Test on Exchange Rate for the year 2010

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-17.258156	0.000000
Test critical values:	1% level	-3.458142	
	5% level	-2.873652	
	10% level	-2.573293	

Sour ce: web.reg.in

Table - Reveals the empirical results from Augmented Dickey-Fuller test (ADF) for US Exchange Rate. The data is stationary when the calculated value is smaller than the critical value. The statistics value for ADF test is (-17.258156). The test produced significant result at 1% level (-3.458142) when time trend was included. It is to be noted that the ADF test provides evidence that the series are stationary. The critical values include three significant level at 1% (-3.458142), 5% (-2.873652) and 10% (-2.573293). The series confirmed that it is stationary in the significant level 1% itself and therefore no further test was required.

SIMPLE REGRESSION MODEL

A simple linear regression is a linear regression in which there is only one covariate (predictor variable). Simple linear regression is a form of regression. Simple linear regression is used in situations to evaluate the linear relationship between two variables. One example could be the relationship between muscle strength and lean body mass. Another way to put it is that simple linear regression is used to develop an equation by which we can predict or estimate a dependent variable given an independent variable.

Formula

$$b_1 = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sum (x_i - \bar{x})^2}, \quad b_0 = \bar{y} - b_1\bar{x}$$

There is a population regression equation, $\beta_0 + \beta_1 X$ and $Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$, where β_0 and β_1 are the population regression coefficients and i is a random error peculiar to the i-th observation. Thus, each response is expressed as the sum of a value predicted from the corresponding X, plus a random error.

Simple Regression Impact on Exchange Rate on NSE Closing Price

Table-1 summarizes the result of the regression analysis. R is the correlation between the observed and predicted values of the dependent variable. The values of R would range from 0 to 1. Larger value of R, stronger is the relationship.

R^2 is the coefficient of determination. It expresses the extent of variation in the dependent variable explained by the independent variables. R^2 can also be interpreted as the proportionate reduction in error in estimating the dependent variable when the independent variable is known. The value of R^2 ranges from 0 to 1. Small values indicate that the fact that when there are large numbers of independent variables, it is possible that R^2 will become artificially high simply because some independent variables change variations "explain" small parts of the variance of dependent variable.

Table-1 revels R is 0.046, R^2 is 0.002 and adjusted R^2 is 0.001. This indicates that correlation between the observed and predicted values of the depended variable is 0.046 and that 2% of variance in the NSE is explained by the exchange rate.

Auto correlation is said to be present in time series data, where many variables tend to increase over time, such that knowing the value of the current observation helps one to estimate the value of the previous observation. The absence of autocorrelation means,

the current values should not be correlated with previous values in a data series. The Durbin – Waston coefficient is between 1.5 and 2.5 it would indicate independence of observations.

The Durbin : Waston coefficient of 0.010 indicates the existence of auto correlation.

Table - 1 : Summary of Regression Analysis of Exchange Rate on NSE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.046a	.002	.001	2103.45168	.010

Source: computed using SPSS

From the ANOVA table it can be stated that the regression model is statistically significant at 91% level, which was revealed from the significance value of 0.112. The residual sum of squares is greater than the regression sum of squares, indicating that the variation in the dependent variable is not fully explained by the regression model.

Table - 2 : ANOVA Analysis of Exchange Rate on NSE

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	1.116E7	1	1.116E7	2.523	.112a
	Residual	5.221E9	1180	4424508.960		
	Total	5.232E9	1181			

Source: computed using SPSS

Table-3 shows the unstandardised coefficients, standardized coefficients, t-values and the level of significance of the influence of independent variable on the dependent variable. It is seen that the exchange rate has a negative and significant influence. This reveals that the increase in the exchange rate causes decrease in the NSE. Otherwise a decrease in the exchange rate causes increase in NSE.

Table - 3 : Coefficient values of Exchange Rate on NSE

	Unstandardised Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
1 (Constant)		6905.599	78.871	87.555	.000
Dollar	-1.702	1.071	-.046	-1.588	.112

Source: computed using SPSS

DESCRIPTIVE STATISTICS

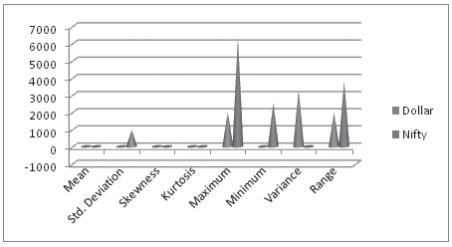
Table provides the descriptive statistics of Exchange Rate and National Stock Exchange indices. The average mean return on the NSE is 0.052 with an average standard deviation of 1.861. From the table it also found that the maximum value is 8.295 for the indices and then minimum value is -12.238. If the returns are normally distributed then co-efficient of skewness should be equal to zero. From this table, NSE indices show a negative skewness

-0.601. The kurtosis value can be three or less than three or greater than three. The table shows a positive kurtosis 5.028 which is greater than three, this indicates that the frequency curve is more flat than normal curve and the curve is Leptokurtic.

Table Showing Descriptive Statistics of NSE

	Dollar	Nifty
Mean	46.4555	4.3703
Std. Deviation	57.12719	974.53636
Skewness	34.231	-0.007
Kurtosis	1.1803	-0.982
Maximum	2006	6312.45
Minimum	39.27	2524.2
Variance	3.26E03	9.5005
Range	1966.73	3788.25

Chart Showing Descriptive Statistics of NSE CNX Nifty



FINDINGS OF THE STUDY

1. GARCH models were used to understand volatility of the NSE (sensex) and US Dollar Exchange rate.
2. The actual values and predicted values were more or less the same during the study period for both indices.

SUGGESTIONS

1. Whenever the market predicted the price movements exactly, it would minimize the risk. Hence it would be beneficial to the investors, hedgers and brokers.
2. The volatility in the stock market provides accurate price prediction. Hence the investors could invest for short term profitability.
3. Regulators should introduce new regulation for forecasting for the benefit of investors, brokers and financial market participants.
4. The study suggested that the US Exchange rate and National Stock Exchange, are highly volatile and therefore the speculative type of investor can use this opportunity.

5. It is also necessary for investors to avail the publicly available information and it plays a major role in the analysis of the market volatility.

CONCLUSION

This study investigated the volatility of US dollar exchange rate and the stock market. The study proves statistically that there is a significant volatility in US Exchange rate and National Stock Exchange measured by different models. The predictive ability of GARCH model used with more modification in the variance equation truly captures the trend of volatility.

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Currency Devaluation : A Study of Depreciation of Indian Rupee

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ABSTRACT

Devaluation means official lowering of the value of country's currency. This is undertaken as a means of correcting deficit in the balance of payment position as weaker currency will boost exports and reduces the imports. Present day situation in India is not devaluation but it is of depreciation of currency. Devaluation takes place at the initiative of government and depreciation is automatic caused by market forces.

The present crises is due to market forces. At the international level, there is problem at Euro zone and downgrading of two largest French Banks and Llyods Insurance withdrawing its deposits from European Bank, thereby euro losing its value against dollar.The dangers of falling rupee are- no foreign investment, not possible to finance account deficit, high interest rates. The reasons are many like-more corruption, excess subsidies, increase in cost of projects due to delay in implementations, no control on gold import, exports are less, popular government schemes. The measures are- exporting value added products, improving the quality of existing products to match foreign goods, better marketing strategy, efficient use of human resources, and cut in government expenditure. The Prime Minister of India Manmohan Singh has also accepted the problem of falling rupee and very much positive to overcome this problem.

INTRODUCTION

Devaluation means official lowering of the value of a country's currency within a fixed exchange rate system, by which the monetary authority formally sets a new fixed rate with respect to a foreign currency. This is monetary policy in which there is reduction of value of a currency with respect to those goods and service or other monetary units with which that currency can be exchanged.

In open market, the perception that a devaluation is imminent may lead speculators to sell the currency in exchange for the country's foreign reserves, increasing pressure on the issuing country to make an actual devaluation, when speculators buy out all of the foreign reserves, balance of payments crises occurs. In practice the onset of crises has typically occurred after the real exchange rate has depreciated below the nominal rate. The reason for this is that speculators do not have a perfect information. In these circumstances,

the currency value will fall very rapidly. This is what occurred during 1994 economic crises in Mexico widely known as Mexican Peso crises. The root causes of the crises an usually attributed to Government policy decisions when ultimately strained the nations' finances. Economists Hufbauer and Scholt from the Institute for International Economics have commented on the Macro economic policy mistakes that precipitated the crises. The mistakes are- on an election year-launched a high spending and a high deficit, to finance the deficit, corrupt practices, decline in dollar reserves

Devaluation is usually undertaken as a means of correcting a deficit in the balance of payment- some analyst are of the view that the weakening the value of currency could actually be good for the economy. Since a weaker currency will boost exports which in turn will lift employment and all this will set in motion economic growth and keep country going. Generally, a steady process of inflation is not considered a devaluation, but when a country deliberately prints money to cover a persistent deficit without borrowing, this may be considered devaluation

Present day currencies are usually fiat currencies with insignificant inherent value. As some countries hold floating exchange rates, others maintain fixed exchange rate policy against the United States dollar or other major currencies. These fixed rates are usually maintained by a combination of legally enforced capital controls or through government trading of foreign currency reserves to manipulate the money supply. Under fixed exchange rates, persistent capital outflows or trade deficit may lead countries to lower their fixed rate policy resulting in devaluation.

OBJECTIVES OF STUDY

The present study intends to study

- Theoretical study of devaluation
- Depreciation of Indian rupee

METHODOLOGY

The information is collected from different sources like journals, magazines books and concerned websites.

Depreciation of Indian Rupee: The effects of devaluation and depreciation of currency are same in nature but the devaluation takes place at the initiative of the government, while the depreciation is automatic caused by market forces. The present rupee crises in India is due to market forces and government has not taken steps to devalue its currency.

Why is rupee falling? Historically the Indian rupee has been depreciating roughly in line with fall in its purchasing power (PPP) since the early 1980. The present spike is rather sharp on the back of debt defaults concern in the euro zone and after the downgrading of two largest French Banks, besides Llyods Insurance withdrawing its deposits from European Banks have led to euro losing its value against dollar. As large banks, investors and financial institutions started selling and bought dollar, the latter appreciated against all major currencies including rupee.

Danger to India from declining rupee: India may face its worst financial crises in decades if it fails to stem a slide in the rupee, leaving the central bank with a difficult choice over how to make the best use of its limited reserves to maintain the confidence of foreign investors.

Unlike most of its Asian peers, India routinely runs large current account and fiscal deficits. That means it must attract sufficient foreign money, namely dollor to close the gap, and a weaker home currency makes that costlier. What makes the current situation so worrisome is that India is grappling with big internal and external threats simultaneously. Growth is slowing, inflation remains high and there is political paralysis. Beyond India's borders. Europe is the biggest worry. As its banks deleverage, investment money has flooded out of Indian markets. If European debt troubles worsen, India could be hit with a balance of payments crises as severe as the one that forced a sharp devaluation in 1991.

According to Rupa Rege Nitsure the Chief Economist of Mumabi-based the Bank of Baroda, "The Indian currency will be the first casualty of a deterioration in the euro zone crises, If the European crises deepens, the Indian trade deficit would widen even more rapidly, and India would have been more trouble attracting foreign capital" and further he said that "Risk appetite will obviously collapse, and gradually the currency crises is likely to take the shape of balance of payments crises" Radhika Rao, Singapore- based Forecast PTE Economist said that "The Indian economy is one of the most vulnerable to liquidity shocks in the region, not help the least by deficits in its balances. And drop in portfolio inflows and the hefty current account and fiscal deficits have been the main factors behind the rupee's decline". According Rajver Malik Singapore –base CLSA economist "It is really bizarre for any Central Bank to openly keep an saying that it will not intervene when there is a already pressure on the currency to weaken and globally things are so uncertain". Further according to J.Moses Harding Mumabi-based Induslnd Bank head (Market & Economic Research) "The Reserve Bank's immediate concern would be stopping the spread of currency woes into the money market".

Dangers of a falling rupee too quickly: The following effects in the economy can be seen by falling rupee value too quickly.

- Foreigners will stop investing the country
- Not possible to finance current account deficit
- Forced to push interest rates.

When a currency loses its value it creates many problems for the economy. It leads to high inflation, as India imports around 70 percent of its crude oil requirement and the government will have to pay more for it in rupee terms. This higher import bill lead to rise in fiscal deficit for government and will push the inflation. India will also have to pay more for procuring their raw materials, despite drop in global commodity price, only because of a depreciating rupee against dollar. Hence all products and commodities are more expensive to import now. This also affects the money flow in the Indian stock markets and individually, travelling abroad becomes more expensive as travel cost can go up by at least 10 percent. Students studying abroad too will be hit as more rupees will

go out to pay for the courses and stay. The main investors in the Indian equity markets, also start withdrawing their investments from the market fearing loss of value in terms of portfolios. The returns from shares of companies like oil and gas, infrastructure, fertilizer or tyre business will also come down.

Positive Impact : The following positive impacts can be seen from rupee depreciation.

- Stimulation of merchandise exports
- Discouraging imports and thus improving the terms of trade.
- Increase revenue collection
- Bringing illegal foreign exchange leakages into official channels and putting and end to gold smuggling.

Particularly the depreciating rupee will be positive for the Indian IT sector who generate more than 80-90 percent of their revenue from the overseas markets and this kind of appreciation in foreign currency will enhance their actual realization of revenue in dollar terms. But however, IDBI chairman R.M.Malla is of the view that "exporters gain only in the short term and after that overseas buyers seek price adjustment"

Corrective measures to overcome the problem: The present financial crises are more of human made. They are:

- Government failed to control corruption, deficit governance, could not control unnecessary expenses
- Fiscal deficit is due to excess subsidies burden, cost over run due to delays in implementation of projects
- Current account deficit has widened due to no control on gold import, lack of promotional measures to boost export and services
- Popular government schemes takes away much of revenue

Hence to set economy on right path a long term plan is required. This includes:

- Proper frame work for exporting value added branded products
- Improving the quality and image of existing products
- Finding new export markets and better marketing strategy
- Effectively utilize the human resources-which is under utilized
- Cut in government expenditure
- Improve in budget and trade deficit

If these things correctly followed and implemented the bad impact on economy due to fall in the value of rupee can be minimized.

CONCLUSION

From the above discussion it is known that that the depreciation of Indian rupee is due to market forces and not due to government action. The results are both in positive



and negative forms. But the negative impacts are more on Indian economy than positive impacts.

This fact is also accepted by Hon'ble Prime Minister of India in his speech in Parliament, He said that "the current account deficit is unsustainable large and to remedy this there needed to be a reduction in demand for gold and oil imports". Further he said that the movement of the exchange rate of the Indian Rupee has been a matter of concern. The rupee has depreciated sharply against the dollar. There are concerns, and justifiably so, of the impact this would have on our economy. What triggered the sharp and sudden depreciation was the markets' reaction to certain unexpected external development. On May 22, 2013 the US Federal Reserve Bank indicated that it would soon 'taper' its quantitative easing as the US economy was recovering. This led to reversal of capital flows to emerging economies which are now sharply pulling down not just the rupee, but also the Brazilian Real, the Turkish Lira, the Indonesian Rupaih, the South African Rand and many other countries.

While global factors such as tensions over Syria and the prospect of U.S. Federal Reserve tapering its policy of quantitative easing have caused general weaknesses in emerging market currencies, the rupee has been especially hit because of our large current account deficit and some other domestic factors. We intend to act to reduce the current account deficit and bring about an improvement in the functioning of our economy."

On causes side he said that "In 2010-11 and the years prior to it, our current account deficit was more modest and financing it was not difficult, even in the crisis year of 2008-09. Since then, there has been a deterioration, mainly on account of huge imports of gold, higher costs of crude oil imports and recently, of coal. On the export side, weak demand in our major markets has kept our exports from growing. Exports have been further hit by a collapse in iron ore exports. Taken together, these factors have made our current account deficit unsustainably large".

On measures to reduce the impact he said that "Clearly we need to reduce our appetite for gold, economies in the use of petroleum products and take steps to increase our exports. We have taken measures to reduce the current account deficit. The Finance Minister has indicated that it will be below $ 70 billion this year, and we will take all possible steps to ensure that outcome. These are already showing results with a declining trade deficit in both June and July. The Government is confident that we will be able to lower our current account deficit to $70 billion. Our medium term objective is to reduce the current account deficit to 2.5% of our GDP. Our short term objective is to finance the current account deficit in an orderly fashion. We will make every effort to maintain a macro economic framework friendly to foreign capital inflows to enable orderly financing of the current account deficit".

Coming back to the effects of the Rupee depreciation, He said that "we must realize that part of this depreciation was merely a needed adjustment. Inflation in India has been much higher than in the advanced countries. Therefore, it is natural that there has to be a correction in the exchange rate to account for this difference. To some extent, depreciation can be good for the economy as this will help to increase our export competitiveness and

discourage imports".

There are many sectors which are regaining competitiveness in export markets as a result of the fall in the exchange rate. Over the next few months, I expect the effects of this to be felt more strongly, both in exports and in the financial position of exporting sectors. This in itself would correct the current account deficit to some extent".

He predicted that India will grow substantially in the coming days due to good monsoon, revival of stalled projects, liberalization of FDI and fuel subsidy reform.

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Learn Negotiation to Earn More

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ABSTRACT

Salary is wage what a person get after rendering the services. In other word it is a price of his / her service. Thus the term salary / remuneration is inevitable in employees' life whether he / she is professional or unprofessional. The amount of knowledge, skill and experience generally commensurate the salary package. The art of salary negotiation based on the various factors plays vital role to earn more with the designated knowledge, skill and experience.

In this paper, the paper presenter has made an attempt to lucid the term salary and negotiations rather than explaining the terms like interview tips and other technical part. Thus for the easiness the study is carried out in two parts; Salary and Negotiation. The negotiation is the main hallmark of this study.

INTRODUCTION

The catching and heading of the paper is 'Learn Negotiation to Earn More' in recent trend the bargain, negotiation, discussion on price etc. is very brilliantly use to get more for right price. A salary is a form of periodic payment from an employer to an employee, which may be specified in an employment contract. To the individual employee, compensation decisions also have important consequences. Salaries and wages represent the main sources of income for most people, and may also be taken as key indicators of a person's social standing or success in life. Benefits, such as health care and pensions, are also important determinants of wellbeing and financial security among employees and their dependents.

Negotiation / what's your salary range?" If the employee offers him/herself in low a number, they could lose out thousands of dollars. If answer is yes for high for number and you could price yourself out of the running. Hence before rating your value in term of salary, do some market study and get an idea of what earnings you should be negotiated. The market as such is very competitive and for the right person salary is not constraint hence one can look up the information in market in the respective domain of job and salary. And other web sites like Salary.com, Glassdoor.com and some professional groups in facebook.com, Linkedin.com. Note that new hires are usually paid along this spectrum at big companies, but smaller companies tend to have less formalized salary structures. Determine the amount you want to be paid annually and settle on a minimum that you're willing to accept.

What if you currently earn less than the market average? This can happen if you've been working at one company for a long period of time, while gaining mostly modest merit increases. In this instance, your chances of securing a salary offer from another firm that's commensurate with the market average are slim. To get ahead, you'll need to communicate why you're worth that additional investment. If it's lower than what your research shows, politely point this out. It's generally perceived as bad business for employers to pay candidates below the market rate for a job. But if an employer just isn't willing to budge, consider asking for benefits such as extra paid time off or the option to work from home as an alternative. And bear in mind that if you perform well in a new job, you may be able to quickly secure a pay raise.

Meanwhile, find out whether a counteroffer from your current employer is likely. Consult with trusted colleagues about how such situations have been dealt with in the past to gauge how much bargaining power you might have. And if you decide to take the leap to another firm without requesting a counteroffer, give your boss ample notice. He or she just might ask you stay in exchange for higher pay without you having to ask.

OBJECTIVES

The objectives are more in number but the main and core objectives directly related to the salary negotiation in precisely are as follows;

1) To judge one's value (salary) in market.
2) To examine the salary pattern in industry.
3) To study need of services to the employer.
4) To analyze the competency map of the employees
5) To suggest the tips and techniques for negotiations

METHODLOGY

This is a totally conceptual paper based on my personal experience, knowledge and dealings with employee. Paper presenter has undergone an extensive study and review of literature and did an in-depth observation.

BACK DROP / DISCUSSION

The very significant point in salary negotiation is 'don't underestimate'. The mantra of don't under estimate yourself in any point of interview makes you to have very right pay package, since you are not allowing to think the interviewer that, he/she will work for any cost, try to keep the positive attitude high, efficient, effective and very high morale all the way. Remember, if you don't yet possess confidence, fake it. Eventually you'll grow into your own power without having sacrificed raises and promotions along the way.

Negotiation is a dialogue between two or more people or parties, intended to reach an understanding, resolve point of difference, or gain advantage in outcome of dialogue, to produce an agreement upon courses of action, to bargain for individual or collective



advantage, to craft outcomes to satisfy various interests of two people/parties involved in negotiation process. Negotiation is a process where each party involved in negotiating tries to gain an advantage for themselves by the end of the process. Negotiation is intended to aim at compromise.

You may have the opportunity to negotiate salary, fringe benefits, and other job details with an employer. Negotiation should end in an agreement that meets your goals and your employer's. Effective negotiationis a skill, and like any skill, it can be learned and a successful negotiation is 'Win-Win-Situation'.

You are in a position to negotiate when the employer understands your value to the organization. During your job search, only negotiate pay and other benefits can be negotiated after a job offer is made. If a potential employer wants to discuss pay expectations or other benefits before extending an offer, you can discuss on perks, incentives, fringe benefits etc. if employer agree you can match it.

Prepare to Negotiate: when you know the market value and market trend, you are prepare to negotiate. One should find out what the employer's needs and try to meet them without losing sight of your own goals and ideals.Consider the following questions:

i. What are you looking for in terms of pay, working conditions, and other considerations?
ii. What does the organization want from you?
iii. What can you offer to the organization?
iv. What can the organization offer you?
v. What kind of environment are you negotiating in?
vi. What does the industry generally pay for your skills, product, or service?

How to Negotiate: Throughout the negotiation, remember to be open and honest. Negotiations should leave both parties feeling satisfied with the outcome. Here are a few additional points to consider:

a. Ask questions. If the interview atmosphere is 'feel good' make a room to seek permission to ask a question, if allowed, you will lay a foundation for agreement and likely to receive a complete answer. Hence, plan for questions you can ask.
   - Ask open-ended questions to gain information and build a relationship. Open-ended questions typically begin with "who," "what," "when," "where," and "why."
   - Use closed-ended questions (questions that encourage short answers, such as "yes" or "no") when you want to gain a concession or confirm a deal point.

b. Be an excellent listener. The more information you get, the better able you'll be to uncover others' needs. It will then be easier for you to show how you are able to meet those needs.

c. Paraphrase to ensure understanding. Restate in your own words what the other person has said to make sure you understand correctly. Be sure to use different words so that it doesn't sounds like you are mimicking.

d. Get it in writing. Take notes during negotiations. The discussion points / notes will

help all parties recall what has already been discussed or decided. Be sure to get all offers in writing.

e. Do step by step discussion. Focus on one issue before you move on to the next till you get better deal.

f. Emphasize your value. If the organization thinks your monetary expectations are too high, indicate what you think your contribution will be to the organization. Use "Power Statements".

g. Be flexible in your negotiations. Take the attitude of "I'm just working out the details." Be willing to give up things that don't really matter to you in order to create a feeling of goodwill.

h. Use silence for consideration. In response to an offer, restate the offer, sit quietly, and silently count to 10. Allow everyone time to consider. This technique may also prompt the employer to justify the offer, which could continue the negotiation process, or it could lead to a better offer.

i. Take time to consider offers. When a final offer is extended, if it is not enough, thank the Employer, provides a Power Statement, and asks for time to consider the offer.

j. Express gratitude. When you reach an agreement, express gratitude and appreciation. And show how anxious you are to join the organization to make a contribution.

Important Tips to Remember:

- "I'm sorry." Apologizing in the negotiating room lessens the weight of your argument. Stay away from saying things like, "I'm sorry to ask for this, but I feel that I deserve a raise or this.", if you're in the position to demand, Do it don't try to use words like I'm sorry, Can I?
- "My market value is Rs 5000 but I'll take 3000 Rs." Don't discount your worth right out of the gate with language like, "My rate is Rs.5, 000, but I'll take Rs.3, 000." Practice with a friend until you sound confident if you can't actually be confident. (Fake it until you make it.)
- "Yes" (to the first offer). If you aren't in a position to make the first offer (and make it more than you're willing to take) then at least don't agree to the first offer given to you. Your employer expects you to negotiate and has more authority than the first offer made. Say, "I appreciate your proposal. I did a little research on my current market value [handing the proposal over] and it's 10 percent (or 20 or 30) more than that."
- Be confident Yourself : In the interview time the employer may make you feel that you are nothing, if you're not confident enough then you may say OK I am ready for that or am ready for this etc. believe in you, just prove that am worth for it.

If asked about your salary history, be honest. If your previous salary was considerably higher or lower than the range being offered, be prepared to address this. Be creative. contextualize your past salary. Note if there was a difference in location of the prior organization. Highlight any additional benefits you may have received, such as

extensive health care coverage or investment options that account for the disparity in compensation.

While benefits are considered standard for many employers and may not be negotiable, some do offer flexible benefit packages that provide employees with choices. A trade-off might be to secure anincreased pension plan, flexible workinghours, tuition reimbursement, bonuses,additional vacation time, or coverage ofmoving expenses. At this point, pursuingall options can bring you closer to your desired goal.

Of course, always maintain a positive and professional communication style when negotiating. Your demeanour during negotiations gives the employer a view of who you are. Even if you don't take the job, you never know if your paths may cross infuture business situations. When salary negotiations conclude, and an offer is made, it is prudent to ask for time to review the offer - if you are still unsure. Once you do accept the job offer, it is important to get the final offer in writing. Regardless of whether you choose to accept or decline, be sure to confirm your response in writing and acknowledge your appreciation for the employer's time and efforts.

Figure 1



This picture concludes the best message to the job hunters to unlock the locked salary envelope than by earn more; keep in mind all the above tips. Fake your confidence level and attitude if you don't have, be ready to fight, be ready with 50 percent and remaining left to the Almighty and the situations

CONCLUSION AND RECOMMENDATION

a) Salary and remuneration is the monetary outcome of the service rendered to the employer hence the employee necessarily meet their requirement out of it. To negotiate the salary the employee must know her/his capabilities and need to the employer.

b) The pay cheque is mix of variable and fix salary most of the time a knowledgeable, skilled, experience person/ employee have sound variable salary apart from the fix

salary, even it differ employee to employee. Hence employee needs to enhance his/her qualities in the working.

c) Professional and growing organization always in haunt of dedicated, self driven, self manage, best hand on approach employees to work in their organization and they don't mind to pay more and negotiate lucratively. Hence it is always good to have the result oriented qualities in employee and it is the basic power for negotiation.

d) In the existing employment beside the results, quality of being good etc. the employees must have best rapport with the employer by way of accepting and working in the unwritten culture of the organization or employer's entity.

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Impact of Spirituality in Business Organization With Special Reference to Co-Optex Chennai

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ABSTRACT

In this paper earnest attempts have been taken by the researcher to analyze the impact of spirituality in the business in general and more particularly in Co-optex. The spirituality in business is a morph into megatrend. Spirit in business is popping up across many geographic regions more particularly in Asian countries, as evidenced by recent local headlines. The rapid and visible force for organizational change and distinct global community has become the wake-up call for 'spirituality in business/organization'. Irrespective of the objectives, mission and vision of the organization, of late focus is put on 'spirituality in the businesses.'

Thus, in the field of business management, the spiritual integrate the basic human nature, i.e. body, mind, emotions, feelings and the spirit. Hence, the need for spiritual leaders is felt in modern organizations. Employees in such business organizations are capable people and competent to achieve bright business prospects. This is a conceptual paper based on my experience in co-operative fold in general and more particularly in Co-optex. I have made an attempt in this paper to see the effect of 'spirituality in business organization' in general and more particular in co-operative fold – CO-OPTEX.

Key words : *morph, modern organization, global community and future challenges.*

INTRODUCTION

The paradigm shifts in the business, dynamism in the competition, congenial nature of work culture are leading to a distinct nature of organizations. Miller, L. (1998), in his journal stated that 'People are searching for a way to connect their work lives with their spiritual lives'. According to Palmer (2001), spirituality at the workplace has been growing. To highlight his viewpoint, he emphasized that large corporations (such as Intel, Wal-Mart, Xerox, Ford, Nike, and Harley-Davidson) have supported spirituality in their work environment. Spirituality in general and in the workplace in particular, has become an important topic in recent years.

Spirituality is an element that is within the essence of each employee and spirituality cannot be separated from the employee. The term spirituality infers a number of conclusions and may firmly imply some form of religious connotation. Several authors have offered different definitions for spirituality. Some with emphasis on atheistic and materialistic

constructions (Dehler & Welsh, 1994; Mitroff & Denton, 1999a; Ashmos & Duchon, 2000), and others with emphasis on pantheistic and deistic visions (Benner, 1989; Mohamed, Hassan & Wisnieski, 2001). Thus, everyone has certain type of spirituality, even if it be a nihilistic or materialistic spirituality, the basic feeling of being connected with one's complete self, others, and the entire universe.

Religion is the formal, institution-based, denominational worship of God. Spirituality is the more personal and universal experience of the Divine, the Sacred, in one's life. 'For a corporate organization to become successfully faith-friendly, it cannot promote a specific religion,' writes Susan Gonzalez in a story about Miller's Centre for Faith and Culture at Yale. 'Instead it must provide a setting in which people of every faith-as well as people who have no particular faith-can feel comfortable.'

Thus spirituality is the relationship of the human person to the transcendent, the relationship between human persons and the way to achieve personal growth are envisioned. For a spiritual organization, the spirituality must be asserted; it must be presented in terms that can be easily understood by all organizational members (Konz and Ryan, 1999, p203).

A spiritual business organization differs from the more ordinary kind of organization. Spiritual business organization has much better 'self-righting' mechanisms. When something goes wrong, people have a natural tendency to bring it back on course, even if that takes a little emotional risk. In other organizations, everywhere you look things have gone wrong - people don't keep agreements, people are angry with each other, teamwork is inadequate, managers treat their subordinates like children rather than delegating responsibility - but these problems get locked in because it takes too much risk to confront and correct them. In a spiritual business organization, people are much clearer that they are there of their own choosing and that they are masters of their own destiny. People are much less likely to think that they are victims. People tend to treat each experience as an opportunity for personal growth. Thus when they get angry or their ego gets bruised, they are more able to work with those situations in constructive ways. The qualities that develop a spiritual business organization are mentioned below;

1) Create a shared vision.
2) Maintain a high level of individual and organizational integrity. Keep agreements.
3) Create an organizational culture that values service, excellence, dedication, contact with the customer and action over personal advancement and personal gain.
4) Create cooperation, communication, and community.
5) Create a supportive environment for the individual.
6) Create an organizational culture that supports personal growth.

CONCEPTS OF SPIRITUAL BUSINESS ORGANIZATION

A sea change in the present day functioning of the business organization and human culture has given very high potential and scope for the 'spirituality in the business

organization'. Workplace spirituality asserts that people bring unique and individual spirits to the workplace and are highly motivated by the spiritual need to experience a sense of transcendence and community in their work (Fry and Matherly, 2007). Spiritual business organization involves motivating and inspiring workers through a transcendent vision and a culture based in altruistic values to produce a more motivated, committed and productive workforce.

A Spiritual Business organization is selfless and reflects shared values. The purpose statement of the organization is reflected in the organization's values. This organization should intertwine spirituality and profits (Gull & Doh, 2004). A Spiritual Business Organization supports both employees who desire a spiritual work environment and employees who might be indifferent to a Spiritual Business Organization.

Types of Spiritual Business Organizations : Mohamed et al. claimed that the attempt to differentiate between spirituality and religiosity is merely artificial. As an alternative to this unnecessary dichotomy, they proposed that the concept of spirituality should be added to the five model of Organizations.

1. Religious-based organization is either positive toward religion and spirituality or positive toward religion but negative toward spirituality.
2. Evolutionary organizations begin with an affiliation with a particular religion and later adopt principles that are more ecumenical.
3. Recovering organization works similarly to institutions like the Alcoholics Anonymous as a way to foster spirituality.
4. Socially responsible organizations- the founders are guided by spiritual principles that they apply directly to their business.
5. Philosophical principles that are not related to any particular religion or spirituality guide the founders and leaders of values-based organizations.

Mitroff and Denton suggested that these five models might offer major change alternatives for the organizational theory and for some of the recent management remedies, as each model is born after the occurrence of a critical event. Thus, the impulse to pursue spirituality comes from the desire to successfully overcome crises.

BENEFITS AND IMPORTANCE OF SPIRITUAL BUSINESS ORGANIZATION

It is experienced that business Organizations that provide their employees with opportunities for spiritual development, perform better than those that do not provide such development opportunities. The general benefits are;

- Better organizational performance.
- Increases level of creativity among employees.
- Greater level of job satisfaction.
- Excellency in team performance and
- Organization commitment.

A spiritual business organization represents these shared values and as the leadership effectively demonstrates these values with behaviour, actions and as these values are upheld throughout the organizational culture, employees' satisfaction is increased. A spiritual business organization can be considered as the new competitive advantage since increased profits and performance has been representative of a spiritual business organization.

Employees who demonstrate spiritual traits have a greater understanding to adapt to a changing environment, the ability to trust others and a high level of commitment to the organization (Mohamed et al., 2004). The ability to adapt to a changing environment with ease is increased with spirituality, since there is a synergy with the elements of trust, responsibility and an understanding of the working elements that can be changed, sustained or improved.

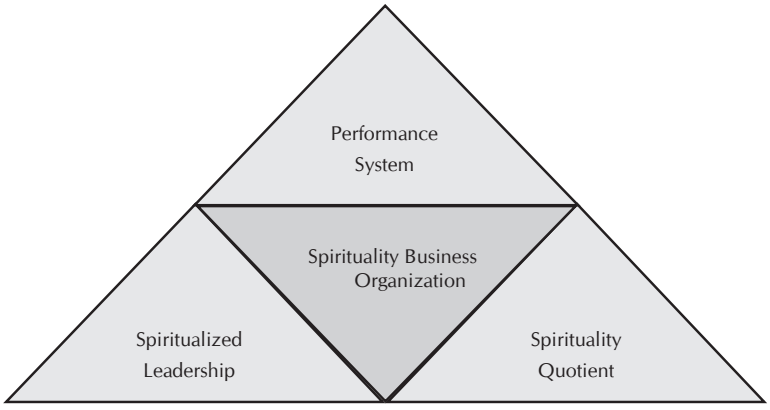
CRITICAL SUCCESS FACTORS :

The critical success factors or rather new Spiritual Business Organization Model was created by Campuzano (2009), who categorized three separate elements for success of the Spiritual Organization that are;

'Performance Systems Metrics, Spirituality Quotient, and Spiritualized Leadership. The three triangles are connected to the main central triangle of a Spiritual Business Organization. All boundaries are permeable acquiring a sense of purpose and meaning through work has been a motivating force. Finding purpose and meaning provides for employee satisfaction and increases motivation.'

Figure 1 : A Spiritual Business Organization Model

(by Campuzano & Seteroff, 2009)



This higher level of consciousness becomes a driving force to perform at a level of excellence. A Spiritual Business Organization entails a higher awareness that motivates employees to perform at a level of excellence (Marques, 2006). The Spiritual Quotient includes mutual trust, respect and responsibilities that are shared values. The responsibilities

benefit the entire organization, therefore, the leadership and employees experience an increased quality of life at work (Marques, 2006). A spiritual employee is more likely to make correct choices for the correct reason, although this varies with each employee (Marques, 2005).

When the organization is toxic, it takes strong leadership to turn the organization into a Spiritual Business Organization. But the spiritual business organization grows as employee satisfaction is obtained through spirituality which provides for increased employee satisfaction. Spiritualized Leadership leads with heart and cognition. Spiritualized Leadership influences employees to reach a state of self-realization and the encouragement to attain goals that once appeared to be an impossibility to actuality. Spiritual Leadership includes self-realization and implements a balance between family, work, and spirituality.

Self-realization is essential since the performances are visible to the employee and others. A balanced lifestyle provides for increased internal peace and satisfaction as all aspects of life come into balance with each other and generates a harmonious state, instead of chaos and experiencing internal and external conflict.

REQUIRED STEPS TO CREATE SPIRITUAL BUSINESS ORGANIZATION

As per Campuzano and Seteroff, 2009, the very purpose of 'a spiritual business organization is to provide an ambience where employee satisfaction goes beyond the routine, but to a level of understanding that the job is being performed with a sense of greater purpose beyond the paycheque. A sense of greater purpose is considered to be spiritual.' Creating and reinforcing a sense of spirituality in the workplace are necessary accomplishments for achieving a unified goal. For this purpose, one approach is practice based on Theory YZ. The critical elements of theory YZ include;

- Recognition of the worth and value of people; pursuing an employee centred management approach.
- Desire to create high integrity work climates.
- Establishing a foundation of trust, faith, justice, respects and love (Marcic, 1997).
- Fostering organizations which jointly meet ownership's economic and individual needs.

Thus spirit at work is a distinct characterized by profound feelings of wellbeing, a belief that one is engaged in meaningful work, a connection to others and common purpose, a connection to something larger than self, and it has a transcendent nature. Four distinct paths to spirit at work are identified as;

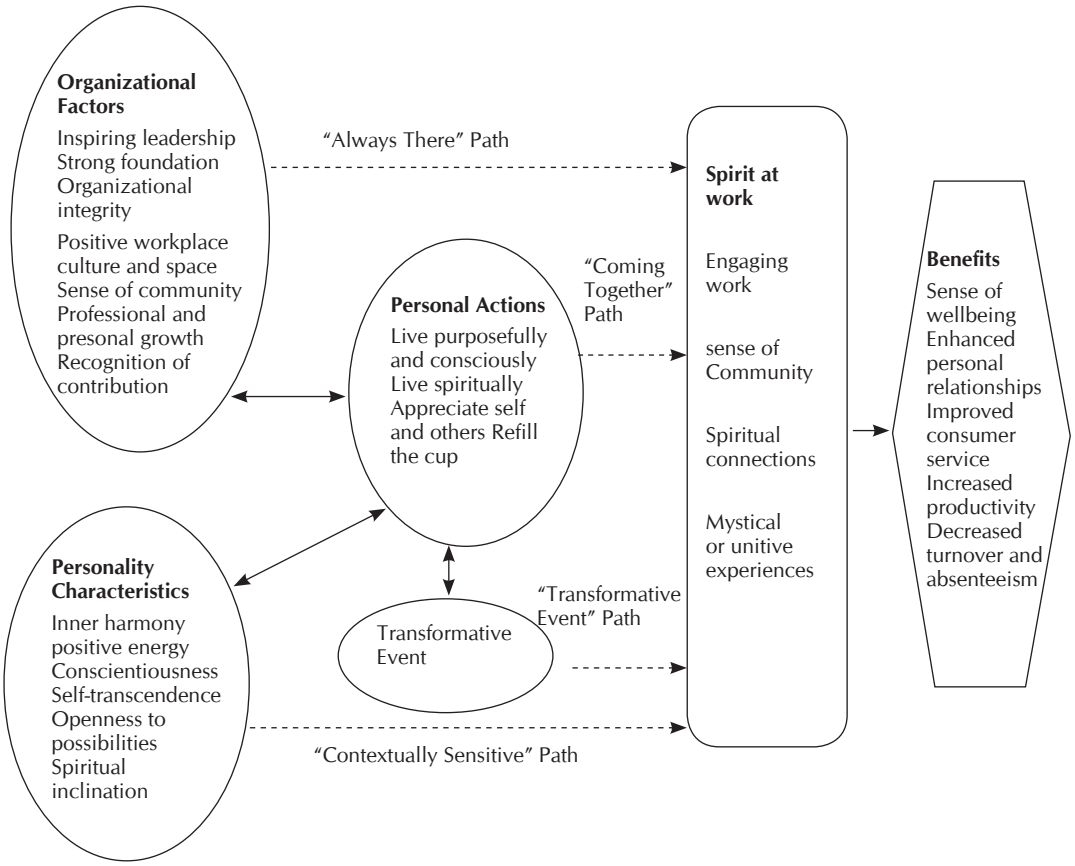
i. Always there path,
ii. Coming together path,
iii. Transformative event path, and
iv. Contextually sensitive path.

These paths are affected by individual factors (personality characteristics and

personal actions) and contextual factors (organizational characteristics and transformative life events) that contribute to the experience of spirit at work. This model posits that personality, personal actions, and organizational characteristics are interconnected and operate to foster or impede an individual's spirit at work. Spirit at work appears to counteract disenchantment and disengagement at work and results in positive outcomes for employees, consumers and organizations.

Figure 2 : An Ecological Model of Spirit at Work

(Kinjerski & Skrypnek, 2006, p234)



CHALLENGES AND THE FUTURE OF SPIRITUAL BUSINESS ORGANIZATION

Managers are faced whit diversity of spiritual traditions and spiritual experiences individuals bring to the workplace. It is easier to maintain the established spirituality of an organization than it is to change an organization's spirituality. At the same time, it is not easy to maintain an organization's spirituality because a human being is very complex and has numerous intricacies towards work culture vs personal issues etc.

The rationality of the spiritual dimension in organizational life, spiritual growth and

fulfilment should not be separated from work because of the challenge of balancing personal, subjective, and unconscious elements of individual experience with rationality, efficiency, and personal sacrifices demanded by organizations. Spirit in business advocates and is often pantheistic, that is, they see the Supreme Being as existing in all things. Such a God is not transcendent and is not a personal God. Thus, they are less likely to have faith in a loving God whose grace is essential for our salvation.

Another limitation of the spirituality in business movement can occur when a particular religious tradition is espoused by a chief executive officer (CEO). Some CEOs are so enthusiastic about their own spiritual beliefs that they seem to demand that others embrace the same religious faith (Cavanaugh, 1999, p192).

CONCLUSION

There are evidences that in cooperative fold organisations like Co-optex, spirituality programs not only lead to beneficial personal outcomes such as increased positive human health and psychological wellbeing but that they also deliver improved employee commitment, productivity and reduced absenteeism and employees turnover. Also, it has been experienced that a high degree of business spirituality and spiritual leadership, as a driver of organizational commitment and productivity, is highly useful to optimizing organizational (co-opex) performance. Thus,although identification and designing spiritual cooperative organizations will be a greater challenge but it would be highly useful to place spirituality in work culture.

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Strategic Agility Manifestations Leading to Organisational Growth

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ABSTRACT

Organizations of modern era are passing through fiercely competitive battlefield scenario. High technology has become a prime mover, driving force as well as a 'force-multiplier', behind the growth and prosperity of a nation. A country, which masters technological innovations, thus derives competitive advantages and respect. Most organizations start competitively and later turn out into mediocrity, loosing the collective outstanding performance momentum after initial higher achievements.

The sources of growth and high performance allow the companies to excel on their current growth trajectory, i.e. to do more of the same activity better and better over time. The longer time horizons extend the life of it's core business, more difficult for managers to sustain the accelerated growth and it is where the 'fast strategy' and 'strategic agility' with due innovative project road maps comes handy for keeping the growth engine of any company keep going regardless.

'Strategic agility' is not about the vitality of small new entrepreneurial firms challenging in tired incumbents, but about the capability to think and act differently, leading to new business innovative models." The companies, those out-manoeuvring all the three dimensions of 'strategic agility'(strategic sensitivity, resource fluidity, and collective commitments) excel their rivals. 'Strategic agility' is diagrammatically opposite to 'rigidity'.

There are pitfalls of any successful organizations- they turn to become complacent gradually with passage of time. We have to be aware of this stark fact and be in creatively 'thinking mode'. Finally with fast and slow strategy one has to be aware of the losses of control for the organizational excellence. These are boundary system, diagnostic control and interactive control system and strategy perspectives.

Herein, the three case studies- first Nokia's mobile telephone, IPCL and other IBM's world's largest IT company- have been discussed and suitably presented.

INTRODUCTION

Most organizations start most competitively with a bold leadership and innovative breakthrough technology with an outstanding momentum but soon turn out into mediocrity after initial higher achievements incisiveness. The clear and compelling vision, high efficiency and bold leaderships are few infallible strategic tools, always upheld by

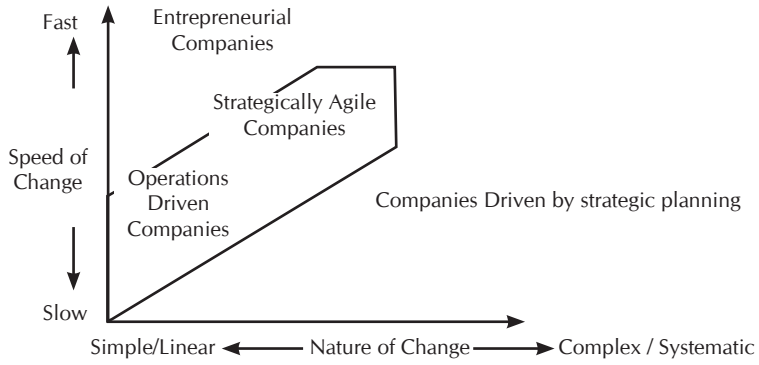
most dynamic leaders. The resources of technical growth and high performance allow the firms to excel in their current growth trajectories to do more of the same activities better and better over a time. The longer time horizons extend the life of its core business, more difficult for managers to sustain the desired accelerated growth. And it is where the 'fast strategy' and 'strategic agility' comes handy for keeping the growth engine survives with its core competence.

THEORETICAL BACKGROUND

'Strategic agility' is not about the vitality of small new entrepreneurial firms, challenging tired incumbents, but about the capability to think and act differently leading to new business strategic options and innovative models. Most organizations have inbuilt some degree of 'adaptability' or 'flexibility' or 'agility'. Adaptability or agility is viable only when the pace of organizational change matches the pace of environmental change. When the environment changes either faster or slower than the organisation, agility is no longer sufficient. The bad news is that every organization will at some point face one or both of two types of mismatch between the two rates of change, and each can prove devastating. "Fast change" leaves an organization's capabilities optimized for an environment that suddenly no longer exists whereas 'slow change' prompts an organization to adapt to incremental changes in the environment around it - and because of these incremental adaptations, , the company may more often than not, fails to see the need for a more fundamental transformation. Thus, it will be observed that responding to fast and slow changes in the most competitive environment; the company's characterized by 'multiple rate of changes'. This creates an impossible and difficult situation for an organization to cope with the different changing rates at the same time. As a result, only adaptability cannot resolve or mitigate the strategy paradox (Raynor, 2007) alone.

The companies, those out manoeuvring all three dimensions of 'strategic agility' (strategic sensitivity, resource fluidity and collective commitments) decidedly excel their rivals.

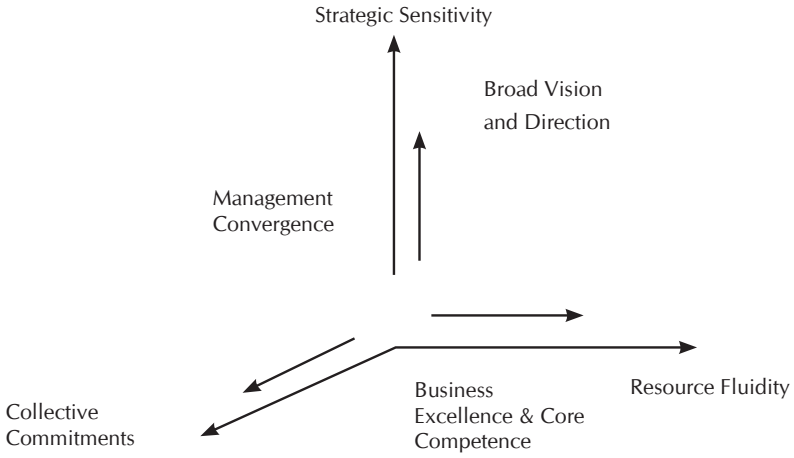
Figure 1 : Where Strategic Agility Needed Most?



Industries, which go through complex but slow changes, can rely on conventional planning. Since the business is not linear and cannot be extrapolated, the corporate entrepreneurship must accept and address fast changes- fast strategy. Fig.1 depicts, where strategic agility is needed most. Most of the entrepreneurship is the function of two variables: speed of change & nature of change- and more often than not, it is fast and complex changes required most. Fig. 2 describes the three components of fast strategy or 'strategic agility', which is the crux of each problem solving technique.

The above tenets hold good in most of the circumstances, but we must remember these are necessary but not sufficient enabler to fast strategy like Johnson & Johnson (J&J) – dealing with healthcare, medical equipments is the example of successful broad range of devices, right from contact lenses to stents, and a whole range of consumables. Innovation and management Web2.0 are the integral part of the 'Strategic agility'.

Figure 2 : Strategic Agility- its Basic Components (Enablers)



Finally, the emerging definition of Strategic agility runs as under:

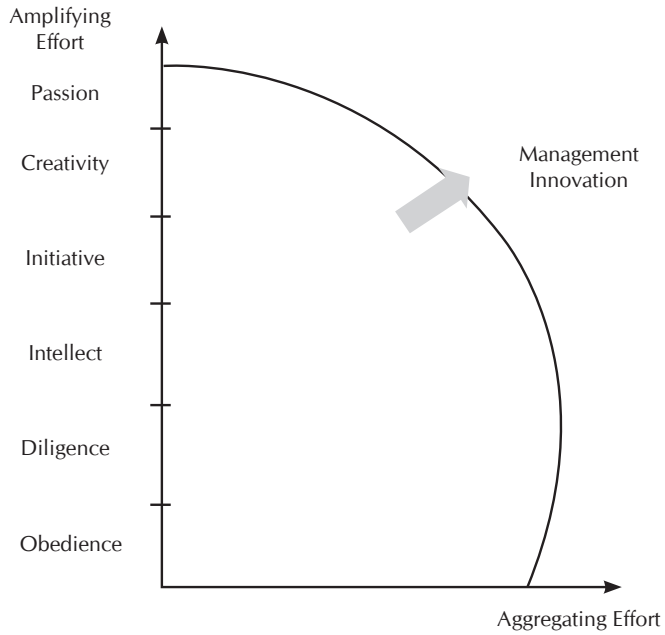
"The ability to continuously adjust and adapt strategic direction in core business, as functions of strategic ambitions, and changing circumstances, and create not just new products and services, but also new business models, and innovate ways to create value for a company." In this present paper the case studies have been discussed analytically under the dominant and infallible tools of 'Strategic agility.'

The Future of the Management and Web 2.0

If all the stock of management armoury and its arsenals have been exhausted, then 'management innovation' and 'Internet- enabled Web2.0' come to rescue. As per Hamel (2007)"management innovation" is anything that substantially modifies customary organizational forms, and, by so doing, advances organizational goals." Simply, the innovative managers manoeuvre the projects in a way that enhances organizational performance.

Web 2.0 as per Bradley.L.Jones(2008), is simply connectivity, architectures of participation, social net-working, wikis,folksonomics, which is above social structure, 'all channel' 'end – to-end networks where everyone is potentially connected to everyone by horizontal as well as vertical processes. In fact, the goal of the management is to firstly amplify and then aggregate the human effort – to get more out of individuals, than one might expect normally and then compound those efforts to achieve collectively. In fact the goal of management innovation is this third dimension of amplifying and aggregating effort, shown on X, Y and Z axis of the Fig.3.

Figure 3 : Dimensions of Managerial Effectiveness



The Web2.0 amplifies creativity and aggregates effort through internet real-time connectivity (aided by the new social technological networks, allowing people to chat, opine, share & collaborate on-line). The Web is also a tool for aggregating creative efforts, having a real economic value, where the whole is more than the sum of the parts (as shown, in the Fig.3).

The Web 2.0 provides a third option and dimension of real- time, distributed leadership and networks – it is simply revolving creativity in an amazing third dimension. Management 2.0 is much beyond Web 2.0 – it is the creative re-invention of technology management and beyond!

RESEARCH METHODOLOGY

The methodology applied in the paper is Qualitative in nature. Herein, three case-

studies of Nokia, IBM and Petrochemicals (IPCL) have been suitably discussed, amply bringing out the application of fast strategic techniques.

RESULTS & DISCUSSION

CASE STUDY 1. NOKIA – Strategic Agility Manifestations

Nokia mobile telephones are the fittest case for 'strategic agility' applications and its developmental strategy. Today, Nokia is the world's number one manufacturer of mobile devices by market share and a dominant leader in convergence of Internet and communications industries. It has out- manoeuvred Motorola and Ericsion as NOKIA strategically changed its technology from ANALOG to DIGITAL mode and its very many derivative manifestations. Nokia enables people to experience, music, maps, media, messaging, games, picturing (photography) and many other functions.

Historical background of Nokia goes as its century – old conglomerates in forest products, cable, rubber products (rubber boot or so), chemicals, and consumer electronics. It has been mobile telephony since 1970sand GSM digital systems and handsets product started only during early 1990s. Basically, Finland in Europe has to be thanked for its "neutral" status that Nokia enjoyed a lucrative and protected position for long as a "gateway" in the technology and raw materials trade between the Soviet Union and the West. Ericson and Motorola are the two technology powerhouse rivals, right from very beginning – a comparison of them has been given in the Table 1.

Nokia's executive team in the early 1990s was a bunch of young men & women with a lot of innovative potential, and their backs to the wall- at the same time Soviet Union has fallen. The true survival instinct prevailed in do-or-die mission to become first global company from Finland – it was time to take bold, collective & compelling decisions as well as applying 'fast strategy'. As will be observed, the Motorola and Ericson both were out - manoeuvred by NOKIA's all the three dimensions of strategic agility.

Table1 : Nokia vs. Ericsson and Motorola in early 1990

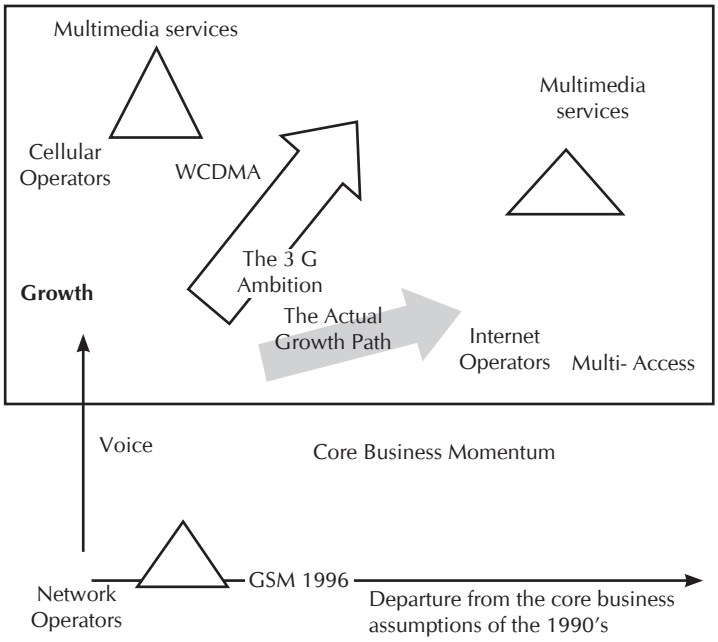
Components	NOKIA	ERICSSON	MOTOROLA
Strategic Sensitivity	Mobiles were used as customer-driven opportunity Huge new opportunities & new operations globally Convergence of strategy	Focus on terminal extensions Fixed customers	Military usage mainly Focused on Japanese competition
Resource Fluidity	Major focus on new operators Cross-functional & convergence of resources flexibility	Local Market Traditional process	Public sector customers US-driven diversified electronic groups
Collective Commitment	Integrated business Young, well knit team Survival instinct USSR crises	Submit advocacy Senior & experienced teams	Sub-unit advocacy Senior & experienced teams

Emerging Technological Reflections

As it can be observed from Fig.5 it's a complete success march for NOKIA from 1996 to 2006, wherein it became the largest supplier of digital cameras embedded in the mobile devices. Right from 2004 onwards, the other applications like audio, video, gaming and entertainment miscellany items were also included – the new trajectory is depicted in Fig.5

Now, Apples' I-pod etc. have got the latest configurations than NOKIA. But Nokia mobile phones of the future (1) and (2) on you Tube have got comparable configurations and Nokia in mobile telephony is world-class and a top market leader – Nokia 97 has secured an eminent position in the world.

Figure 4 : Redirection of Nokia's Core Business and Progressive Growth Trajectory



Case Study 2 – IBM as Powerful Growth Engine.

Another case of 'strategic agility' example is decidedly IBM, which is reigning world over as a giant power house in IT business. With over 3, 20,000 employees and revenues of $91.0 billion, today IBM is the world's largest information Technology (IT) Company. One of the most dynamic CEO Lou Gerstner, took over during 1993 and had a very ambitious growth –plan for the company – has done well throughout.

In Indian context, IBM has re-entered INDIA during 1992 after being pulled out in 1978. And, now it competes with Indian (or World) Tigers companies like INFOSYS, WIPRO, Tata Consultancies and HCL Technologies etc. IBM has a research centre labs (out of eight basic labs) in New Delhi and its 19 offices scattered all over India, including

Software lab in Bangalore and Pune, engineering R&D lab in Bangalore, and five data centres, including two brand-new ones. One of its new centre matches the capabilities of the company's so-called Level III facility in BOULDER, COLO. - the best of the lot. In India the young and talented workforces are doing well and they have to catch with Global IBM and Accenture, according to a top analyst Bill Martorelli of Forrester Research, Boston (USA).

As per IBMs Daksh (Bangalore) CEO, Sanjeev Aggarwal, IBM, BPO (Business Process Outsourcing) is doing well, which the company bought in $150.00 million in 2004. This is also in consonance with the positive reflections of Mats Ageroi, a tall, enthusiastic Swede, who is the Vice- President for Global Delivery at IBM Global Services in INDIA.

IBM recently fired 14,000 service employees in Western Europe, the U.S. and Japan – at the same time fresh hiring is going on in INDIA and Eastern Europe. As per Nandan Nilekani (2008) the talents drawn in the company and the potential of professional is transforming the country with open, wired economy, vast technical software & IT professionals are the towering strength of the emerging India (Engardio,Pete,2007and Hamel,2007).

'Diversity begets creativity' and Pigeonholes are for pigeons, not people. Also, operational efficiency is not equal to strategic efficiency. The company's management processes / practices along with world-culture are few tenets close to the heart of Gerstner, once he wanted to overhaul the IBM for higher productivity. During, the first six years of Gerstner' tenure IBM had one for more patents (12,773) than any other company in America, and yet it consistently failed to convert this technological process into new businesses. He took the following measures:

- He established EBO (Emerging Business Opportunities) during 2000, for identifying, staffing, funding and tracking new business boundaries across IBM. During a tech boom peaked in 1999 & 2000, IBM's only produced 1% growth revenues- and this was disturbing to Gerstner.
- In the first 5 years programme, IBM launched 25 new businesses,. He picked up the experienced people from the company only like, Mike Giersch (a vice president of corporate strategy), John Thompson's a 32 years experienced veteran of the company, Bruce Harreld (IBM's chief strategist) and Jan Jackman (a general manager of Retail on Demand EBO) – who contributed a lot for improving product-processes and its real throughput / productivity Pervasive computing EBO was signed up by a team leader – a senior- Rod Adkins.
- The budgetary control was exercised.
- A collective commitment, involving all the people of company were fully engaged, and a sense of pride was inculcated.
- Thus, all the dimensions of 'strategic agility' were harnessed to improve the throughput by EBO process.

The saga of IBM's EBO process offers aspiring management innovators, a number of important lessons learnt are as under (Eningram):-



- Lesson # 1: To tackle a systematic problem, you need to understand its deep roots.
- Lesson #2 : It is often easier to augment than supplant(Run the new in parallel to old)
- Lesson # 3: Commit to Revolutionary goals, but take evolutionary steps as well.
- Lesson #4: Metrics are essential – be clear about performance & innovation metrics – the no. of EBO launched, early design / design- review etc definitely brought revenue growth.
- Lesson #5: Keep at it – start experimenting in your "own back yard" – where risks are lower.
- Lesson #6: Minimize political risks.
- Lesson #7: Start with Volunteers.
- Lesson #8: Make it a game. Keep it informal and "fun".
- Lesson #9: Iterate- Experiment, learn, finally DO IT. And 'Over Deliver'(Jack Welch,2005)

Case Study 3: Petro-Chemical Industry of India (IPCL)

This is a live example/incidence of Reliance Company – Petro-chemical Industry of India, during January 2001.As, we know Reliance Industries is the leader in refining capacity going to complete its secondary mtpa(million tons per annum)(600,000 barrels per day – bpd), refinery in 2008-09. As per Petroleum Ministry estimates, country's refinery capacity will increase fro 135 million tons per annum (mtpa) about 2.8 million barrels per day) in 2006-07 to 210 to 225 mtpa (about 4.6 million barrels per day) by 2011-12. This expansion would create an exports surplus of refined products between 78 to 93 mtpa by 2011. Otherwise, also, the refinery sector has been India's top performing product exports of products worth $11.3 billion in the period of April to October 2006.

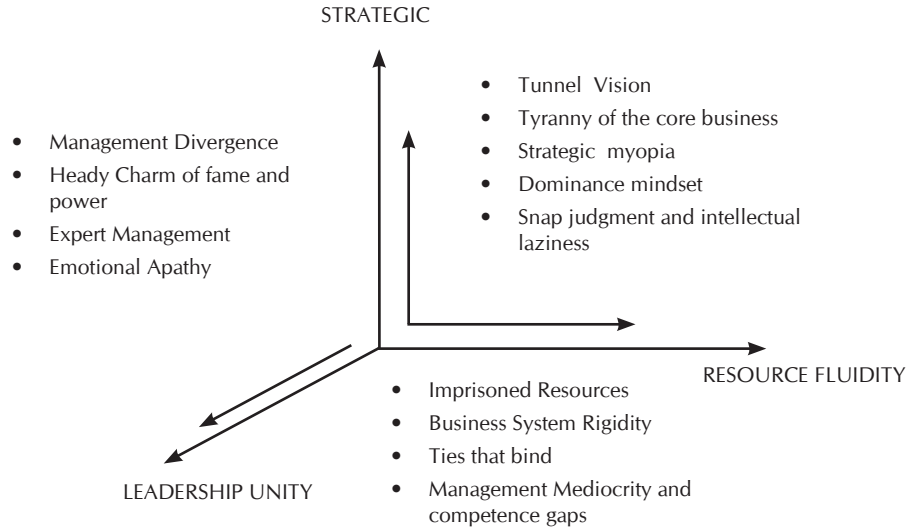
Also, Reliance has about a 70% market share in 'India's petrochemical market (IPCL – Indian Petrochemicals Corporation Ltd). The author, (Pathak, 2001) was attending a conference at Regent Hotel, Mumbai (India), during January 2001 wherein chief guests were Alvin Toffler & his wife Heidi Toffler from Massachusetts (USA) and Guest of Honour was Anil Ambani (DhiruBhai's younger son). Alvin Toffler requested Anil as Guest of Honour to say the success story of IPCL. Anil retorted in one sentence that as per golden policy of the company and his father's cherished principle – if any new idea has crept in (strategic sensitivity) – we must launch that latest by 30th day of the month- we don't wait more than a month. Otherwise the credential and strategic value of that idea will be lost. His father was irrestible till implementing strategically. I personally feel that, while recalling this it may be, the highest example of 'Fast strategy' and 'Strategic Agility'.

Some Pitfalls of Strategic Agility

Most world-class leaders of successful growth companies would readily agree high performance often results from a clear vision & direction, sustained efforts, focused goal, high efficiency, consistent efforts, a strong leadership with a discipline of execution. But, we

all also, agree that doing more of the same thing better and better over time – also leads to some mental blocks and complacency, if passion lacks somewhere. If we lack innovative ideas and loose the site of 'management web 2.0' and pride in the organization, gradually erosion in the value-system and finally in all the components of 'strategic agility'.i.e. strategic sensitivity, 'resource fluidity' and 'collective commitments' takes place. We have to ruthlessly guard this pattern / happening of 'strategic agility 'turning into' strategic paralyses over time- if the companies do not put in place the preventive strategic enablers discussed in the paper. The main toxic side- effects that cause deterioration in strategic agility are depicted in the Fig 5, which is self – explanatory.

Figure 5 : Strategic Agility Easily Turns into Strategic Paralysis over Time.



CONCLUSION

Organizations do not adapt, the people have to adapt, Convergence of the three dimensions of 'Strategic agility', 'strategic sensitivity', 'resource fluidity' and collective commitments have to be harnessed to influence the 'full power of engagement' rather over –stretch and over- delivering the full potentials of the human capital.

'Fast strategy' and 'strategic agility' tenets help the organizations for achieving overall organizational excellence which decidedly creates enhanced throughput of the products. The customer's co-creation of 'Value system', 'evolvability' and 'experiential learning' cannot be over emphasized. And organizational design converge and ushers – in dynamics of the strategic processes as well as mitigate the risk factors obtaining due to external environment (may be internal – company politics or external political or geopolitical etc.). Finally, the management web 2.0 covers all the social as well as technological networks, internet potential, video conferences etc for further improvement of the firms.

The three case-studies of NOKIA, IBM and IPCL have been discussed briefly to bring out the salient ingredients of the 'strategic agility' as well as 'fast strategy'. The various

strategic parameters discussed and the lessons learnt brought out will certainly open up new avenues for further research in the field.

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Work - Life Balance - A Driver of Organizational Growth

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ABSTRACT

The changing dynamics of the workplace has forced the organizations to frame policies which are employee centric.Work life balance entails attaining equilibrium between professional work and other activities so that it reduces friction between official and domestic life. Work lifebalance enhances efficiency and thus, the productivity of an employee increases. It enhances satisfaction inboth the professional and personal lives.The ultimate performance of any organization dependson the performance of its employees, which in turn depends on numerous factors. These factors can berelated to work or family or both. The relationshipbetween personal and professional life can be achieved through emotional intelligence. Better emotion management is necessary in order to accomplish dayto-day objectives of life.

The findings of thestudy will benefit organization as they will be able to design practices which focus on employee work-life issues and thus reap dividends.The secret to work-life balance will vary depending on field of work, family structure and financial position.

Keywords : *Work life balance, Personal life, Professional life, Emotional intelligence, Job satisfaction*

INTRODUCTION

It is important for every organization to take necessary stepsto maintains a healthy balance between work and their private lives so that both employees and the company can be benefited in the long term. Work life and personal life are the two sides of the same coin. Traditionally creating and managing a balance between the work-life was considered to be a big issue. But increasing work pressures, globalization and technological advancement have made it an issue with both the gender, all professionals working across all levels and all industries throughout the world. Achieving "work-lifebalance" is not as simple as it sounds.Work life and personal life are inter-connected and interdependent. Spending more time in office, dealing with clients and the pressures of job can affect the personal life, sometimes making it impossible to even complete the household chores. On the other hand, personal life can also be demanding if you have a kid or aging parents, financial problems or even problems in the life of a dear relative. It can lead to Absenteeism



from work, creating stress and lack of concentration at work. Work-personal life conflict occurs when the burden, obligations and responsibilities of work and family roles become incompatible. Obligation of one canforce an individual to neglect the other.Work life balance can be understood as the balancing pointon the seesaw, one side of which is work while the other sideis domestic and personal life. Emotional intelligence is required to maintain a balance between private and professional life. Emotional intelligence is required in orderto accomplish day-to-day objectives of life which is achallenge to everyone to achieve it. It is the key to achieve the desired balance between work and life which ultimately leads to success in the professional as well as personal life.

At present, industries are more conscious about work life balance and are offering more friendly work life policies. The work life balance of workers is one of the major areas in which they are highly concentrated to make them satisfied and sustained. Work life balance is a person's control over the responsibilities between their work place, family, friend and self. A successful work life balance strategy reduces stress levels and raises job satisfaction of the employee while increasing productivity and health care costs for the employer. Effective work-life balance policies are valuable to businesses and for a number of reasons, such as reduced staff turnover rates, becoming a good employer or an employer of choice, reduced absenteeism and sick life, improved morale or satisfaction and improved productivity. Some researchers have attempted to emphasize the significance of work life policies. To reduce the work-family conflict and efficient in improving attitudes, work-life programs are found to be more effective. Bruce Weinstein2stated that Juggling between the obligations towards the families and expectations of the organization and constant struggle to maintain a balance can have serious implicationson the life of an individual. Therefore, it is important for employees to maintain a healthy balance between work and their private lives.

LITERATURE REVIEW

Global competition renewed interest in personal lives and agile workforce has led to serious consideration of the concept of work-life balance. Companies offering work-life balance programs which were primarily targeted to support working women with children. Twenty-first centuries ushered in an era where organization saw more people friendly practices skewed towards employee welfare. In today's time the work-life balance programs are less gender specific oriented towards duel career couples recognizing other non-work commitments as equally pressing. Fisher-Macaulay Stanton jolton & Gavin (2003) proposed three major dimensions of work-life balance i.e., a) work interference with personal life. B) personal life interference with work and c) work/personal life enhancement.carlson kacmar,wayne,& grzywacz (2006) developed measure of work/life enrichment that measures work to family and family to work potential resource gains through which enrichment might occur. These include time,energy, resources, support, self-fulfillment, perceptions by others, behavior, skills, knowledge, perspectives, self-esttem/self-efficacy, moods, and attitudes.

Work-life balance can be defined as finding the right balance between work and

life and feeling comfortable with both work and family commitments. The concept of work-life balance is built on the idea that working life and personal life are essentially complementary to one another in bringing about completeness to one's life. However they are often seen as competing objectives which may demand prioritization and hence subsidize a fuller life. The reason for increased focus in work-life balance can be attributed to the following factors.

a) More women joining the workforce b) people carrying out part-time jobs c) nuclear families d) people handling work pressures e) expanding job roles/responsibilities

f) International trends coming in g) better lifestyle h) younger workforce. An economic perspective work-life balance is a tradeoff between time given to work and leisure given the market price for labor. A more clear definition of work life balance given by Jones says "work life balance is meant to articulate the desire of all individuals-not just those with families or caring responsibilities-to achieve and maintain a balance between their paid work and their outside work whatever their life involves from childcare and household work to leisure or self development.

OBJECTIVES

1) To identify the challenges faced by employees in managing work and home life.
2) To find out the effect of work life balance on employee satisfaction and employee commitment.
3) To gain an insight into practices adopted by companies to help an employee become more effective.
4) To understand how employees perceive their company as being supportive of their out of work needs.

SCOPE

The study will be helpful in furthering the cause and concern of employee and the amount and kind of support desired from their employer. The employer can gain an insight into understanding the employee perspective and can design their policies that are employee-centric.

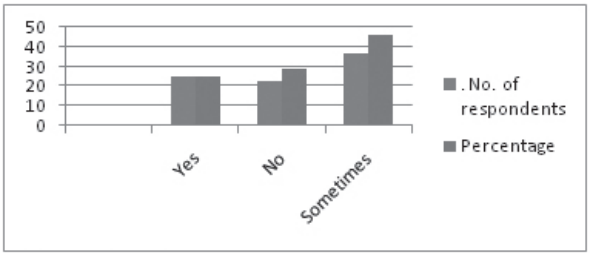
METHODOLOGY ADOPTED

Sampling Technique: Convenience sampling technique isused.Sample Size: Sample size is taken to 80 employees in Pune.

DATA ANALYSIS AND INTERPRETATIONS

Table and Figure 1

Distribution of the respondent's and their relaxation time

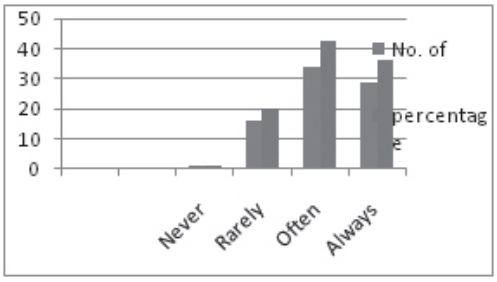


S.N	Particulars	No. of respondents	%
1	Yes	25	25.00
2	No	23	28.75
3	Sometimes	37	46.25

Inference: The above table reveals that 46.3 % of therespondents relax sometimes, 28.75 % of the respondents never find relaxation time and remaining 25% of the respondents said they have relaxation time.

Table and Figure 2

Distribution of the respondents and their spending time with family

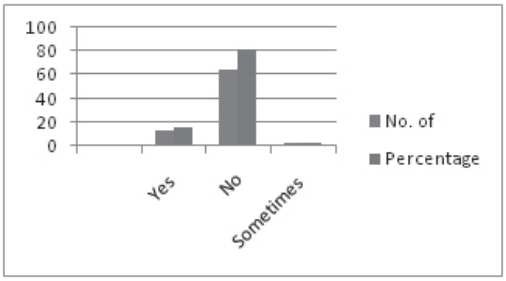


S.N	Particulars	No. of respondents	%
1	Never	1	01.25
2	Rarely	16	20.00
3	Often	34	42.50
4	Always	29	36.25

Inference: The above indicates that 42.5 % of the respondents often spend time with family, 36.25 % of the respondents always spent time with family, 20 % ofthe respondents rarely spend time with family and remaining1.3 % of the respondents never spend time with family.

Table and Figure 3

Distribution of the respondents and their difficulties due to shifts

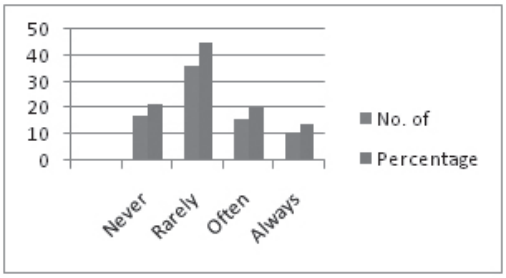


S.N	Particulars	No. of respondents	%
1	Yes	13	16.25
2	No	65	81.25
3	Sometimes	2	2.50

Inference: The above table shows that majority 81.25 %of the respondents was in no difficulties due to shifts, 16.25% of the respondents have difficulties due to shifts and remaining 2.5 % of the respondents have difficulties sometimes.

Table and Figure 4

Distribution of the respondents and their job sharing



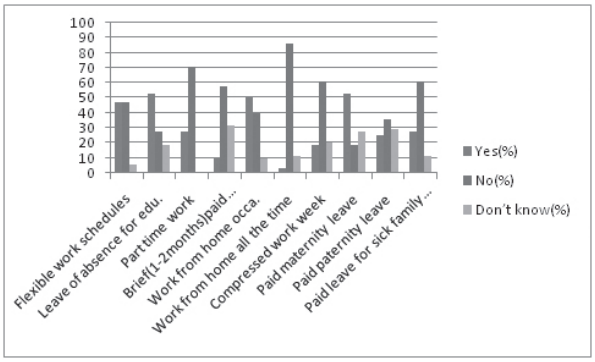
S.N	Particulars	No. of respondents	%
1	Never	17	21.25
2	Rarely	36	45
3	Often	16	20
4	Always	11	13.75

Inference: The above table indicates that 45 % of the respondents were sharing job rarely, 21.3 % of the respondents never shared the job, 20 % of the respondents often shared the job and the remaining 13.75% of respondents always shared the job.

Table and Figure 5

Work life balance programs offered by Corporate.

Sr.no	Program	Yes(%)	No(%)	Don't know(%)
1	Flexible work schedules	47	47	6
2	Leave of absence for edu.	53	28	19
3	Part time work	28	71	01
4	Brief(1-2months)paid sabbatical	10	58	32
5	Work from home occa.	50	40	10
6	Work from home all the time	3	86	11
7	Compressed work week	19	61	20
8	Paid maternity leave	53	19	28
9	Paid paternity leave	25	36	29
10	Paid leave for sick family member	28	61	11



FINDINGS

1. 46.3 % of the respondents relax sometimes during work time
2. 42.5 % of the respondents often spend time with family,
3. majority 81.25 % of the respondents was in no difficulties due to shifts
4. 45 % of the respondents were sharing job rarely, job sharing is less in organization
5. 47 % respondent say that Organization provide flexible work time.
6. 53 % respondent says that organization provide leave for education purpose
7. 58 % respondent says they do not get paid sabbatical.
8. 61% respondent says they don't get paid leave for sick family.

Strategies for employers/organizations:

1. Create a culture that is supportive of work family –from the top.
2. Limit the number of working hours each week.

3. Eliminate Saturday work or provide alternate Saturdays off.
4. Provide flexible work times.
5. Provide flexible work place.
6. Maternity and paternity leave – consider extending paid leave.
7. Extend career leave.
8. Provide work-based after school care for older(school-aged children).
9. Rotate jobs /Job sharing

CONCLUSION

Personal life and professional work are two sides of coin and it is very difficult to separate and form a source of conflict. Companies must strive to develop a special bond with its people, so that they will put in more into their jobs and contribute positively. It is important to recognize that any policies to be initiated by organizations should be carefully tailored to suit the life stages of employees.

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Effects of Iron Oxide Nanoparticles on the Performance and Emission Characteristics of CI Engine

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ABSTRACT

This report is related to investigate the effects of addition of iron oxide nanoparticles to diesel fuel on the performance and exhaust emission characteristics of single cylinder four-stroke compression ignition (CI) engine. Neat diesel and different compositions of iron oxide nanoparticles-Diesel fuel blends with 15ppm, 20ppm and 25ppm were used in a single cylinder four-stroke CI engine. The results indicate that adding iron oxide nanoparticles to diesel fuel has an appreciable effect on engine performance, increasing the brake thermal efficiency and decreasing the brake-specific fuel consumption as compared to neat diesel fuel. From the analysis of gases of engine exhaust, it was found that NOx emissions were lower than that of diesel fuel while the CO emissions increased.

Keywords : *Engine Performance, Emission Characteristics, Fuel additives, Fuel born catalyst, Iron oxide Nanoparticles*

INTRODUCTION

In recent years, the concept of using nanoparticles fuel additives to reduce emissions in compression ignition engines has been an active area of research. Since nanoparticles are small enough, their properties are significantly different from those of large, microsized particles [3]. Nanosized energetic metals possess desirable combustion characteristics such as high heats of combustion and fast energy release rates. Because of their capability to enhance performance, various metals have been introduced in solid propellant formulations, gel propellants, and solid fuels [4]. There are many advantages of incorporating nanosized materials into fuels and propellants, such as shorter ignition delay and shorter burn times. Furthermore, nanosized particles can be dispersed into high-temperature zones for direct oxidation reaction, rapid energy release, and enhanced propulsive performance with increased density impulse. It has been reported that adding nanoparticles to a fuel can enhance its physical properties such as thermal conductivity, mass diffusivity, and radiative heat transfer [5] [6] [7]. Using nanoparticles with a high surface area to volume ratio can considerably increase contact between the fuel and oxidizer [8]. In addition, nanoparticles affect the time scale of chemical reactions, and as a result, the ignition delay time will decrease [9]. It has been reported that adding nanoparticles to diesel fuel can significantly increase the ignition probability of the mixture [10]. An experimental study on a diesel

engine in 2010 showed that adding cerium oxide nanoparticles to diesel fuel will improve the brake thermal efficiency and will reduce the emission level of hydrocarbon and NOx [11]. The studies cited have shown that nanoparticles promote fuel combustion. In this study, iron oxide nanoparticles are added to diesel fuel to explore the effects on engine performance and exhaust emissions of a diesel engine. In addition to the novelty of this study, iron oxide nanoparticles have advantageous compared to other nanopowders as magnetic nanoparticles can be collected at the exhaust of the engine and they will not cause pollution [12].

Requirement of additives

A reduction in consumption and improvements in the quality of diesel oil have been the object of study by various specialists, motivated by growing demands in the transport and electric sectors. Several additives are added to perform specific functions. Additives reduce emissions; improve fluid stability over a wider range of conditions; improve the viscosity index, reducing the rate of viscosity change with temperature; and improve ignition by reducing its delay time, flash point, and so forth [1]. Diesel additives can be classified according to the purpose for which they are designed. Pre-flame additives are designed to correct problems that occur prior to burning and include dispersants, pour point depressants, and emulsifiers, which act as cleaning agents. Flame additives are used to improve combustion efficiency in the combustion chamber, to increase cetane number, to reduce the formation of carbon deposits, to avoid oxidation reactions and contamination of fuel and filters clogging by rust, and to inhibit potential explosions caused by changes in static electricity. Post-flame additives are designed to reduce carbon deposits in the engine, smoke, and emissions [1], [2].

Experimental procedure

The engine used was a Single cylinder, four-stroke, VCR, water cooled compression ignition engine. To measure the speed and the torque of the engine, a dynamometer was coupled with the engine. The engine exhaust was measured by an exhaust gas analyzer & nitric oxide gas analyzer. A schematic of the experimental setup is shown in Figure 1.

1. Engine chassis
2. Exhaust gas analyzing probe,
3. Exhaust gas analyzer,
4. Single cylinder VCR engine,
5. Load cell,
6. Dynamometer,
7. Tachometer,
8. Control unit,
9. Fuel burette,
10. Fuel container

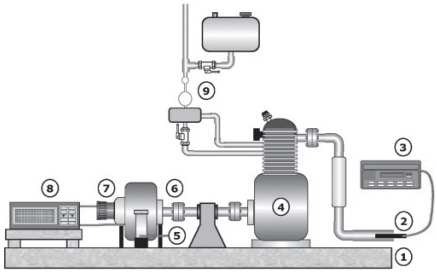


Figure-1 Experimental setup of computerized variable compression ratio test rig

In order to study the effects of adding iron oxide nanoparticles to diesel fuel, tests were conducted at 2200 rpm. Initially, all experiments were carried out with neat diesel fuel. Then, mixtures of diesel with iron oxide nanoparticles having 15ppm and 20ppm and 25ppm proportions respectively were used as fuel, and the experiments were repeated. To minimize the effects of different fuels on each other, the engine was allowed to operate for 15 minutes to clean the fuel system before testing each fuel. In each test mode, the engine was allowed to operate for a few minutes to reach a stable condition. Subsequently, the performance and exhaust emission parameters were collected. During the test, the engine was cooled continuously to maintain the temperature in a certain range.

Result and discussion : The following section illustrates the results obtained from the performance and emission characteristics of the CI engine.

Engine Performance : The brake-specific fuel consumption (BSFC) and the brake thermal efficiency (BTE) can be calculated by the engine torque, the engine speed, and the mass consumption rate of the fuel.

Brake Specific Fuel Consumption : The variation of brake specific fuel consumption (BSFC) with brake mean effective pressure (BMEP) under different loads for 2200 rpm is shown in Figure 2.

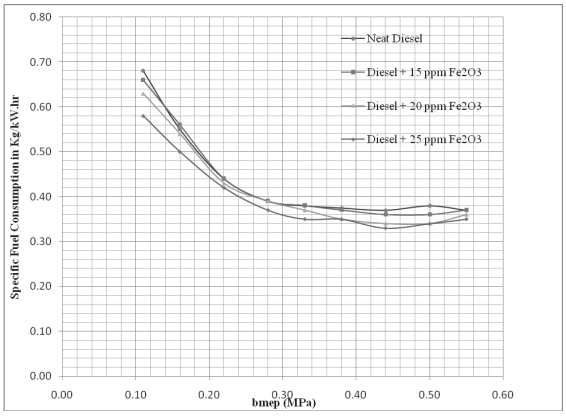


Figure 2: Variation of BSFC with BMEP

Adding iron oxide nanoparticles to diesel fuel will decrease the BSFC. According to experimental results, adding 15ppm iron oxide nanoparticles to diesel fuel decreased the BSFC relatively by 2 to 3 %, adding 20ppm iron oxide nanoparticles to diesel fuel decreased the BSFC relatively by 4 to 6 % and adding 25ppm iron oxide nanoparticles to diesel fuel decreased the BSFC relatively by 10 to 12 %.

The decrease in BSFC can be due to the positive effects of nanoparticles on physical properties of fuel [5] [6] [7] and also reduction of the ignition delay time, which lead to more complete combustion [9]. In addition, it can be due to effects of nanoparticles on fuel propagation in the combustion chamber. On the other hand, nanoparticles added to diesel fuel increase the mixture momentum and, consequently, the penetration depth in the cylinder, as a result, combustion is improved.

Brake Thermal Efficiency

The variation of Brake Thermal Efficiency (BTE) with brake mean effective pressure (BMEP) under different loads for 2200 rpm is shown in Figure 3. For all fuels, the BTE increases with the increase in engine load.

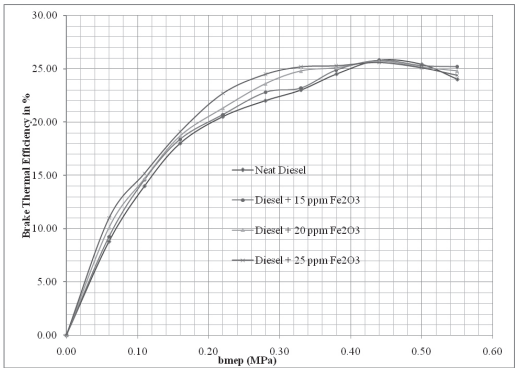


Figure 3: Variation of BTE with BMEP

This is observed that the increase in fuel required to operate the engine is less than the increase in brake power at higher loads. BTE is dependent on BSFC, and thus the BTE of Diesel with addition of iron oxide nanoparticles improved compared to diesel fuel for the same reasons. Adding 15ppm iron oxide nanoparticles to diesel fuel increased the BTE by 3 to 4%, adding 20ppm iron oxide nanoparticles to diesel fuel increased the BTE by 5 to 6% and adding 25ppm iron oxide nanoparticles to diesel fuel increased the BTE by 8 to 10%. Based on the results, it can be concluded that adding iron oxide nanoparticles to diesel fuel improves engine performance.

Emission Characteristics - Oxides of Nitrogen

The variation of nitrogen oxides (NOx) emissions with brake mean effective pressure (BMEP) under different loads for 2200 rpm is shown in Figure 4.

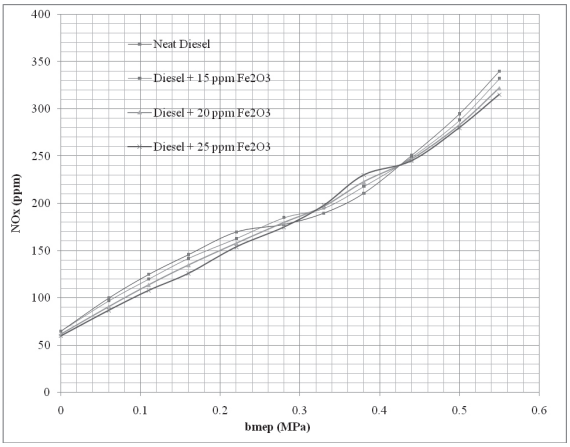


Figure 4: Variation of NOx with BMEP

NOx emissions increase with engine load for all fuels. Compared with diesel fuel, Diesel with 15ppm, 20ppm and 25ppm iron oxide nanoparticles decreased NOx emissions at all loads. Adding 15ppm iron oxide nanoparticles to diesel fuel decreased NOx emissions by 4 to 8 ppm, adding 20ppm iron oxide nanoparticles to diesel fuel decreased NOx emissions by 10 to 15ppm and adding 25ppm iron oxide nanoparticles to diesel fuel decreased NOx emissions by 15 to 20ppm.

Many factors contribute to the formation of NOx emissions. According to the Zeldovich mechanism, the formation of NOx is dependent on oxygen concentration, residence time, and temperature [14]. This reduction may be due to the latent heat of evaporation of water, the high thermal capacity of water, and also nanoparticles, which can reduce the temperature in the combustion chamber and consequently reduce NOx emissions.

Carbon Monoxide

The variation of carbon monoxide (CO) emissions with brake mean effective pressure (BMEP) under different loads for 2200 rpm is shown in Figure5.

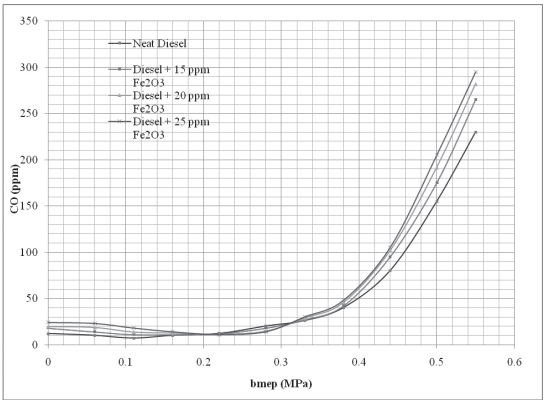


Figure 5: Variation of CO with BMEP

Adding iron oxide nanoparticles to diesel fuel increases CO emissions. Diesel with 15ppm iron oxide nanoparticles increases CO emission by 5 to 10ppm, adding 20ppm iron oxide nanoparticles to diesel fuel increased CO emissions by 15 to 20ppm and adding 25ppm iron oxide nanoparticles to diesel fuel increased CO emissions by 25 to 30ppm.

CO emission greatly depends on the air-to-fuel ratio relative to stoichiometric proportions. Generally, CI engines operate with lean mixture, and hence CO emissions would be low [9]. As mentioned before, nanoparticles may have affected fuel propagation in the combustion chamber. Hence, the increase in CO emission may be due to operation of the engine using iron oxide nanoparticles in different situation compared to diesel fuel.

Conclusion

Experimental measurements and analysis were conducted on a four-stroke diesel

engine to investigate the effects of adding iron oxide nanoparticles to diesel fuel. Engine tests were done for diesel fuels with 15ppm, 20ppm & 25ppm iron oxide nanoparticles at 2200 rpm. The test results indicated that adding iron oxide nanoparticles to diesel fuel not only improves engine performance by increasing BTE by 5-10% and decreasing BSFC by 10-12% but also reduces NOx emissions by 15-20ppm. However, CO emissions are increase by 20-30ppm.

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Dimensions of Marketing Efforts in Virtual Market Space

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ABSTRACT

The Market has become not only highly complex but also competitive. Marketers have been exploring many ways and means to reach out to the consumers at the least cost possible. In fact their competitiveness in the market is directly proportional to how efficiently they serve the consumers. Internet and its creation-Virtual Market space- hold tremendous potential to improve the efficiency of the marketers significantly. Given the globalization of markets across the world and hectic completion in the world market, capitalizing on the opportunities thrown out by internet like virtual market space makes sense as far as improving marketing productivity is concerned. With the help of virtual market space one can do virtual marketing in such a way that each and every consumer can be reached individually with least possible cost. Advent of internet facilitated marketing strategy like virtual marketing makes even mass customization a reality. In this backdrop, the researchers, in this paper, explore various dimensions of virtual market space and marketing efforts in virtual marketing. By the same token, an effort is made to develop a model to explain various constituents of Virtual Marketing Mix (VMM).

Key Words : *Virtual Market Space, Virtual Marketing and Virtual Marketing Mix (VMM).*

INTRODUCTION

Virtualization caused tremendous evolution in the economics of marketing channels, patterns of physical distribution and the structure of distributors and developed a new concept that is known as virtual marketing (VM). VM combines the powerful technologies of interactive marketing and virtual reality. One of the greatest challenges facing business owners and managers – both for traditional and virtual organizations- is finding a way to cost – effectively communicate frequently and consistently with their target markets; and the virtual marketing perform this function at the best possible. "Virtuality" refers to the seeming of anything, as opposed to its reality. With virtuality one can simulate complex environments, markets, decisions, answers, and even build an enterprise without any physical assets!

The new virtual business opportunities are created by e-commerce. World-wide economy is increasingly based on information and intangible value. This evolution causes virtual forms of market-space. Virtual market-place is the platform to bring together supply and demand as well as technology and economic requirements to optimize the employment of resources and administration as well as the selling process. In order to

coordinate various commercial contacts different topic-oriented Electronic Market Places (EM) increasingly emerge, EM is considered to be a trade system initiated for specific business transactions. In other words, it coordinates needs of market participants within the virtual market according to certain competition processes and a virtual market space is created due to the initiative of a market place coordinator who has no ownership of the traded goods. The core function of the EM facilitating trading transactions for buyers and/or sellers-has remained. Virtual market tries to minimize transportation costs, that is, customers can navigate the markets to find goods they want to buy. Thus, there are several kinds of marketing channels which only exists in virtual space, for example, Internet. The key feature of virtual market is the separation of physical goods and information. Therefore, in a typical virtual market transaction, the information will be transferred from physical suppliers, information mediators (information producers and virtual markets) and customers. Virtual market-spaces can be categorized into four virtual spaces: a virtual information space, a virtual communications space, a virtual distribution space and a virtual transaction space. There is an important issue for customers, e-business becomes clear that the race was on to acquire customers, namely, all kinds of virtual market-space should be focused on "customers".

RESEARCH METHODOLOGY

It is an exploratory research. This research attempts to understand nature of virtual market space and how it facilitates virtual marketing efforts. By exploring various research studies undertaken in this area, the researchers tried to throw light on various dimensions of virtual market space and virtual marketing efforts.

OBJECTIVES

1. To understand various dimensions of virtual market space and their impact on Marketing.
2. To know the concept of virtual marketing and various marketing efforts in connection with virtual marketing.
3. To propose a Virtual Marketing Mix (VMM) model to enable the organizations to achieve maximum efficiency in their Virtual Marketing efforts.

Dimensions of Virtual Market-Space and their impact on Marketing

Virtual information space: The virtual information space consists of new Internet-Based channels through which economics agents can display information about themselves and the products and services which they offer; those include web sites which provide information, such as brochure sites where companies can publish catalogues of their products and services. Internet can also create new opportunities to offer related services besides creating new opportunities in virtual information space, such as Internet marketing and advertising, consulting services and information searching, gathering and filtering agents, etc. Therefore, from a consumer perspective, a good virtual information space is designed on the basis of two characteristics: convenient navigation with user-friendly interface in the cyberspace and human oriented design with users' experience.



Virtual communication space : The virtual communication space includes new opportunities in which economic agents can exchange ideas and experiences, influence opinions or negotiate. For examples, blog systems, chat rooms and video conferencing. These opportunities deserve a special note as a number of new marketing practices have developed using Internet, which has the ability for many-to-many communication in virtual communication space. For reasons mention above, Internet is used initially by groups of searchers and hobbyist around the world to communicate with each other. Like communities in the real world, virtual communities often form around shared interests, but allow the normal constrains of distance found in communities in the real world to be transcended. This situation enables the companies to capitalize virtual communication space for Virtual marketing. Interactive marketing is one of the important aspects of Virtual Marketing. Internet facilitates Interactive Marketing. Internet is unlike traditional media, such as television or radio which are consumed passively; it can offer the opportunity to actively engage consumers in a dialogue. People can use Internet more actively, searching for particular information or for a specific purpose, pay more attention to what is presented and are not easily distracted.

Virtual transaction space : The virtual transaction space consists of new Internet-based channels through which economics agents can exchange formal business transactions, such as orders, invoices and payments; this can range from simple email and online order forms to online ordering using a credit or debit card and online accounts.

Virtual distribution space : The virtual distribution space consists of new distribution channels for variety of products and services. The first category of products includes those products that can be efficiently distributed by means of Internet. These are products that can be digitized and transmitted through computer networks, such as text, pictures, digital music, digital video, software and computer games. The second category includes such services as text, voice or video based consulting and training. The ability to serve as a physical distribution medium for certain goods is a unique feature of virtual distribution space. For example, companies involved in online ticketing and reservation, digital products, financial services, telemedicine, etc., can best realize such advantages. This is true for companies that provide digital products. Also for companies that have established virtual distribution other than the Internet can use the established channel to provide after-sales services. By using the Internet as a distribution channel, not only reduce the delivery cost substantially, but also ensure instant delivery of products/services.

Virtual marketing

It encompasses all web-based marketing tools like e-mail marketing, banner advertising, weblogs, news settlers, and using own Web site as a marketing tool, etc. It is important to realize that the Web (or cyberspace) is another means through which a company can market its business. It does not replace the existing marketing channels. Furthermore, a web based marketing strategy is not an optional extra to a company's existing business strategy. Rather, marketing a business on the Web must be part of a tightly coupled action-oriented marketing and advertising plan - one that leverages the individual benefits of print, broadband, and interactive media. There is a drive for multinationals to consider the absolute dislocation of time and space in undertaking marketing transactions. The Internet, in turn, offers a virtual 24 hour experience in any market sector for global information

prospecting. VM as a series of web-based marketing approaches that enable customers to simulate, customize, and experience goods and services in cyber space as like as in real word.

DIMENSIONS OF MARKETING EFFORTS IN VIRTUAL MARKETING (VM)

Launching new and upgraded products : Launching new products requires that a variety of information is distributed to several different audiences. Application of VM enables marketers to package new sales product information into virtual sales kits, provide sales guidance and training through private partner websites, and alert current customers on the products that are relevant to their business. VM continuously market and promote new products to any audience by creating one-stop shops for the content they want.

Adding sales channels : Marketers need to arm their vendors with sales-ready material in order to sell effectively. A VM delivers automated, customized private websites for different vendors, helping to package content that's specifically designed for the user. From sales-ready customer presentations to pricing information, with VM marketers can decide which vendor has access to what content. These private websites also host blogs and other collaborative forms of discussion that enable vendors to bring marketers and sales teams into the process as they are selling. To better understand what vendors the company has or does not have mindshare with, analytics highlight who has downloaded what, and which pieces are making the most impact on those that represent its products.

Re-branding and updating messages : VMs deliver a single repository for all updated information from newly branded presentation decks, product datasheets, and updated customer case studies or posters. With each document, marketers create a description and associate other details, such as target audience and what solution the messaging applies, so that the sales channels know how to effectively and consistently use the messaging.

Driving marketing events : Tradeshows, user conferences, Webinars and other events give marketers instant access to people who are interested in the company and its products. VM help extend that relationship beyond the event and create an opportunity for further communication. Prior to and after the event the company has a persistent place for those interested in an event to find information and collaborate. For example, a user conference portal is used to promote, disseminate information, and ultimately share best practices after the user conference is conducted. Another example is trade show events. Before attendees leave the show, marketers can deliver an e-mail with a portal user account that gives attendees access to an exclusive website. Now marketers have a captive audience for company news, user blogs, new products, features and services to drip content over time to inform and pique the interest of prospective customers.

Reaching customers : Today's savvy customers insist that marketers give them the information they want, when they want it. With the high availability of the Internet, customers know more than ever before about vendors. This requires the vendor to effectively deliver the right information on a continuous basis to differentiate them from the pack. A VM delivers private websites populated with the information they need during the buying process and after the sale. Marketers then gain insight into customer needs by understanding which documents are used and by which audiences. No longer are packages and folders lost through the postal service or via e-mail. Customers have a

centralized location they can access from any computer to learn more about the company and its latest products.

Online retail : In online retailing the most common method used on websites is to mimic aspects of the real store. Online retailer has the same characteristics as real shopping. According to the viewpoint of a traditional retail, store components can be categorized into four groups: merchandise, service, promotion and convenience with two attributes: fast checkout and the ease of navigating through the store. Therefore, for the reason to fit the components and attributes, where there is a real store as well as a website a webcam can be used to provide live video images of the store and the staff. A webcam can also become an added value service in itself.

Online advertising : The most popular form of web advertising is the banner as or display advertising. This is the advertisement often found on web pages at the top of the browser window. However, there are signs that use of banner ads is waning as the "click-through" rates (rates of customers clicking on the advertisement to access the sponsor) fall. Nevertheless, over time, as banner ads have become commonplace, web surfers have become more discriminating. The biggest problem with banner ads arises for brand advertisers. A company with a well-known brand, such as Coca-Cola, gains little from advertising on the Web which will help build the brand. A Coke banner does not allow the user to buy Coca-Cola online, at least at present. All it can do is link the users to a website that provides information on the company and the products. Another popular technique is rich media expanding banners that have some functionality and product identity built into them. This provides immediate benefits for customers, rather than simply forcing them to link to another site. For example, using rich-media techniques, some banners ads now give customers information and left them order products and perform other tasks right on the banner. This model allows more targeted responses.

Online distribution : Internet is ideally suited for distribution of digital products and services and as is discussed in previously, information and news service providers have been providing online distribution ever since the beginning of commercial consumer networks, even pre-dating the popularization of Internet. There is a lot of news and information sites available offering live news reports, stock prices and even the latest prices for fish in markets. What has been made possible or more cost efficient as the technology has improved is the use of Internet for other products, such as software and games and other services, such as live entertainment. Many software companies are now using Internet for software distribution, particularly for updates. The online distribution of software has also led to a wealth of sites offering freeware and shareware, in addition to pay software. Increasingly, more and more entertainment products are also being distributed this way; this has happened to a large extent in music, following the development of the MP3 format, which allows music tracks to be distributed online. As the speed and volume of data that can be carried on Internet improved similar prospects are likely for other form of entertainment.

The Virtual-Marketing Mix (VMM) model

The Virtual Marketing Mix model identifies critical elements of VMM and addresses its main strategic, operational and organizational issues in an integrated and manageable

manner. The VMM is an appropriate for the Web Strategic and Marketing planning, especially intended for click-and-mortars operating in the Business-to-Consumer segment. The tool is designed primarily for conventional, physical planning to establish an Internet presence. The model can be also useful to existing online organizations in re-evaluating their E-Commerce presence, provided that such organizations already have or are considering having a physical presence next to the virtual one. The Virtual Marketing Mix approaches the marketing planning process in an integral manner, on different levels: On strategic level the model identifies the main strategic issues to be addressed in order to build up a flexible, value adding and potentially successful E-Commerce organization.

THE 4 S OF THE VIRTUAL MARKETING MIX

1. Scope : Strategy and Objectives

a) Market Analysis: Competition basis, competitors, market potential, market forecast and market trends

b) Potential Customers: Profiles, motivation, behavior, needs and current way of fulfilling them and priorities.

c) Internal Analysis: Internal resources, processes and values. Is the Web a sustaining or disruptive technology?

d) Strategic Role of the Web Activities: Generic Types: Informational, Educational, Relational, Promotional and Transactional.

2. Site : Web Experience

Customer oriented content. Important questions

a) What does the customer expect in the site? Domain name, content, design, layout, atmosphere, aesthetics and web site positioning and the classic 4P's of Marketing (Product, Place, Price, & Place)

b) Why the customer will make use of the site? Simplicity, functionality, speed, findability, searchability, navigation, interactivity and customization.

c) What motivates customers to come back?

3. Synergy : Integration

a) Front office integration : Integration with the physical marketing strategy and Marketing Activities.

b) Back office Integration : Integration of the Website with Organizational Processes, Legacy systems and Databases.

c) Third Party Integration : Create Network of partners who will assist the commercial, logistic and other site activities.

4. System :

Technology, Technical Requirements and website administration Software, hardware, communication protocols, content management, system service, site administration, hosting decisions, payment systems and performance analysis.

CONCLUSION

In response to a more competitive global environment and the availability of improved Information and Communication Technology (ICT), particularly the networking capability of the internet, there is a demonstrable shift amongst existing and new enterprises towards a new marketing concept known as virtual marketing. The Internet represents a tremendous opportunity. It gives a much wider choice of products, services and prices from different suppliers and means to select and purchase items more readily and easily. As the success stories of companies capturing market share together with the rapidly increasing adoption of Internet by consumers and businesses has become a fast growing realization, all companies must have an effective Internet presence to prosper, or possibly even survive, consequently, there are two things to note: the electronic marketing (E-marketing) and the virtual market-space by using the Information and Communication Technology (ICT), especially Internet and World Wide Web.

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Secure Routing in Wireless Sensor Networks : Attacks and Countermeasures

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ABSTRACT

We consider routing security in wireless sensor networks. Many sensor network routing protocols have been proposed, but none of them have been designed with security as a goal. We propose security goals for routing in sensor networks, show how attacks against ad-hoc and peer-to-peer networks can be adapted into powerful attacks against sensor networks, introduce two classes of novel attacks against sensor networks — sinkholes and HELLO floods, and analyze the security of all the major sensor network routing protocols. We describe crippling attacks against all of them and suggest countermeasures and design considerations. This is the first such analysis of secure routing in sensor networks.

INTRODUCTION

Our focus is on routing security in wireless sensor networks. Current proposals for routing protocols in sensor networks optimize for the limited capabilities of the nodes and the application specific nature of the networks, but do not consider security. Although these protocols have not been designed with security as a goal, we feel it is important to analyze their security properties. When the defender has the liabilities of insecure wireless communication, limited node capabilities, and possible insider threats, and the adversaries can use pow-erful laptops with high energy and long range communication to attack the network, designing a secure routing protocol is non-trivial.

We present crippling attacks against all the major routing protocols for sensor networks. Because these protocols have not been designed with security as a goal, it is unsurprising they are all insecure. However, this is non-trivial to fix: it is unlikely a sensor network routing protocol can be made secure by incorporating security mechanisms after design has completed. Our assertion is that sensor network routing protocols must be designed with security in mind, and this is the only effective solution for secure routing in sensor networks.

We make five main contributions.

We propose threat models and security goals for secure routing in wireless sensor networks.

We introduce two novel classes of previously undoc-umented attacks against Sensor networks1– sinkhole attacks and HELLO floods.

We show, for the first time, how attacks against ad-hoc

BACKGROUND

We use the term sensor network to refer to a heterogeneous system combining tiny sensors and actuators with general-purpose computing elements. Sensor networks may consist of hundreds or thousands of low-power, low-cost nodes, possibly mobile but more likely at fixed locations, deployed en masse to monitor and affect the environment. For the remainder of this paper we assume that all nodes' locations are fixed for the duration of their lifetime.

For concreteness, we target the Berkeley TinyOS sensor platform in our work. Because this environment is so radically different from any we had previously encountered, we feel it is instructive to give some background on the capabilities of the Berkeley TinyOS platform.

A representative example is the Mica mote2, a small (several cubic inch) sensor/ actuator unit with a CPU, power source, radio, and several optional sensing elements. The processor is a 4 MHz 8-bit Atmel ATMEGA103 CPU with 128 KB of instruction memory, 4 KB of RAM for data, and 512 KB of flash memory. The CPU consumes 5.5 mA (at 3 volts) when active, and two orders of magnitude less power when sleeping. The radio is a 916 MHz low-power radio from RFM, delivering up to 40 Kbps bandwidth on a single shared channel and with a range of up to a few dozen meters or so. The RFM radio consumes 4.8 mA (at 3 volts) in receive mode, up to 12 mA in transmit mode, and 5 A in sleep mode. An optional sensor board allows mounting of a temperature sensor, magnetometer, accelerometer, microphone, sounder, and other sensing elements. The whole device is powered by two AA batteries, which provide approximately 2850 mA hours at 3 volts.

Sensor networks often have one or more points of central-ized control called base stations. A base station is typically a gateway to another network, a powerful data processing or storage center, or an access point for human interface. They can be used as a nexus to disseminate control information into the network or extract data from it. In some previous work on sensor network routing protocols, base stations have also been referred to as sinks.

Protocol	Relevant attacks
TinyOS beaconing	Bogus routing information, selective forwarding, sinkholes, Sybil, wormholes, HELLO floods
Directed diffusion and its multipath variant	Bogus routing information, selective forwarding, sinkholes, Sybil, wormholes, HELLO floods
Geographic routing (GPSR, GEAR)	Bogus routing information, selective forwarding, Sybil
Minimum cost forwarding	Bogus routing information, selective forwarding, sinkholes, wormholes, HELLO floods
Clustering based protocols (LEACH, TEEN, PEGASIS)	Selective forwarding, HELLO floods

Rumor routing	Bogus routing information, selective forwarding, sinkholes, Sybil, wormholes
Energy conserving topology maintenance (SPAN, GAF, CEC, AFECA)	Bogus routing information, Sybil, HELLO floods

Fig. 1. Summary of attacks against proposed sensor networks routing protocols.

Base stations are typically many orders of magnitude more powerful than sensor nodes. They might have workstation or laptop class processors, memory, and storage, AC power, and high bandwidth links for communication amongst themselves. However, sensors are constrained to use lower-power, lower-bandwidth, shorter-range radios, and so it is envisioned that the sensor nodes would form a multi-hop wireless network to allow sensors to communicate to the nearest base station. See Figure 3 for a picture illustrating a representative architecture for sensor networks.

A base station might request a steady stream of data, such as a sensor reading every second, from nodes able to satisfy a query. We refer to such a stream as a data flow and to the nodes sending the data as sources.

In order to reduce the total number of messages sent and thus save energy, sensor readings from multiple nodes may be processed at one of many possible aggregation points. An aggregation point collects sensor readings from surrounding nodes and forwards a single message representing an aggregate of the values. Aggregation points are typically regular sensor nodes, and their selection is not necessarily static. Aggregation points could be chosen dynamically for each query or event, for example. It is also possible that every node in the network functions as an aggregation point, delaying transmission of an outgoing message until a sufficient number of incoming messages have been received and aggregated.

Power management in sensor networks is critical. At full power, the Berkeley Mica mote can run for only two weeks or so before exhausting its batteries. Consequently, if we want sensor networks to last for years, it is crucial that they run at around a 1% duty cycle (or less). Similarly, since the power consumption of the radio is three orders of magnitude higher when transmitting or listening than when in sleep mode, it is crucial to keep the radio in sleep mode the overwhelming majority of the time.

It is clear that we must discard many preconceptions about network security: sensor networks differ from other distributed systems in important ways. The resource-starved nature of sensor networks poses great challenges for security. These devices have very little computational power: public-key cryptography is so expensive as to be unusable, and even fast symmetric-key ciphers must be used sparingly. With only 4 KB of RAM, memory is a resource that must be husbanded carefully, so our security protocols cannot maintain much state. Also, communication bandwidth is extremely dear: each bit transmitted consumes about as much power as executing 800– 1000 instructions [3], and as a consequence, any message expansion caused by security mechanisms comes at significant cost. Power is the scarcest resource of all: each milliamp consumed is one

milliamp closer to death, and as a result, nearly every aspect of sensor networks must be designed with power in mind.

Lest the reader think that these barriers may disappear in the future, we point out that it seems unlikely that Moore's law will help in the foreseeable future. Because one of the most important factors determining the value of a sensor network comes from how many sensors can be deployed, it seems likely there will be strong pressure to develop ever-cheaper sensor nodes. In other words, we expect that users will want to ride the Moore's law curve down towards ever-cheaper systems at a fixed performance point, rather than holding price constant and improving performance over time.

This leaves us with a very demanding environment. How can security possibly be provided under such tight constraints? Yet security is critical. With sensor networks being envisioned for use in critical applications such as building monitoring, burglar alarms, and emergency response, with the attendant lack of physical security for hundreds of exposed devices, and with the use of wireless links for communications, these networks are at risk.

 Adversary

Base station

• Sensor node

Low – power radio link

Low latency, high bandwidth link

Fig. 2. Sensor network legend. All nodes may use low power radio links, but only laptop-class adversaries and base stations can use low latency, high bandwidth links.

SENSOR NETWORKS VS. AD-HOC WIRELESS NETWORKS

Wireless sensor networks share similarities with ad-hoc wireless networks. The dominant communication method in both is multi-hop networking, but several important distinc-tions can be drawn between the two. Ad-hoc networks typ-ically support routing between any pair of nodes [4], [5], [6], [7], whereas sensor networks have a more specialized communication pattern. Most traffic in sensor networks can be classified into one of three categories:

1) Many-to-one: Multiple sensor nodes send sensor read-ings to a base station or aggregation point in the network.
2) One-to-many: A single node (typically a base station) multicasts or floods a query or control information to several sensor nodes.
3) Local communication: Neighboring nodes send localized messages to discover and coordinate with each other. A node may broadcast messages intended to be received by all neighboring nodes or unicast messages intended for a only single neighbor3.

Nodes in ad-hoc networks have generally been considered to have limited resources, but as we have seen in Section II, sensor nodes are even more constrained. Of all of

the resource constraints, limited energy is the most pressing. After deploy-ment, many sensor networks are designed to be unattended for long periods and battery recharging or replacement may be infeasible or impossible.

Nodes in sensor networks often exhibit trust relationships beyond those that are typically found in ad-hoc networks. Neighboring nodes in sensor networks often witness the same or correlated environmental events. If each node sends a packet to the base station in response, precious energy and bandwidth are wasted. To prune these redundant messages to reduce traffic and save energy, sensor networks require in-network processing, aggregation, and duplicate elimination. This often 3 By neighbor we mean a node within normal radio range.

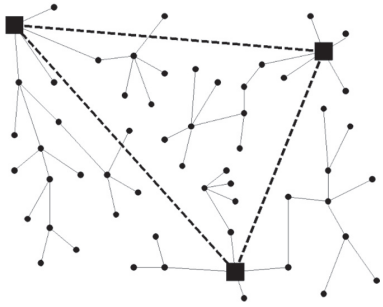


Fig. 3 : A representative sensor network architecture

necessitates trust relationships between nodes that are not typically assumed in ad-hoc networks.

RELATED WORK

Security issues in ad-hoc networks are similar to those in sensor networks and have been well enumerated in the literature [8], [9], but the defense mechanisms developed for ad-hoc networks are not directly applicable to sensor networks. There are several reasons for why this is so, but they all relate to the differences between sensor and ad-hoc networks enumerated in the previous section.

Some ad-hoc network security mechanisms for authen-tication and secure routing protocols are based on public key cryptography [8], [10], [11], [12], [13], [14], [15], [16]. Public key cryptography is too expensive for sensor nodes. Security protocols for sensors networks must rely exclusively on efficient symmetric key cryptography.

Secure routing protocols for ad-hoc networks based on sym-metric key cryptography have been proposed [17], [18], [19], [20]. These protocols are based on source routing or distance vector protocols and are unsuitable for sensor networks. They are too expensive in terms of node state and packet overhead and are designed to find and establish routes between any pair of nodes—a mode of communication not prevalent in sensor networks.

Marti et al. [21] and Buchegger and Boudec [22] consider the problem of minimizing the effect of misbehaving or selfish nodes on routing through punishment, reporting, and holding grudges. These application of these techniques to sensor networks is promising,



but these protocols are vulnerable to blackmailers.

Perrig et al. [23] present two building block security protocols optimized for use in sensor networks, SNEP and TESLA. SNEP provides confidentiality, authentication, and Freshness between nodes and the TESLA sink and provides authenticated broadcast.

PROBLEM STATEMENT

Before diving into specific routing protocols, it helps to have a clear statement of the routing security problem. In the following sections we outline our assumptions about the underlying network, propose models for different classes of adversaries, and consider security goals in this setting.

Network Assumptions

Because sensor networks use wireless communications, we must assume that radio links are insecure. At the very least, attackers can eavesdrop on our radio transmissions, inject bits in the channel, and replay previously heard packets. We assume that if the defender can deploy many sensor nodes, then the adversary will likely also be able to deploy a few malicious nodes with similar hardware capabilities as the legitimate nodes. The attacker may come upon these malicious nodes by purchasing them separately, or by "turning" a few legitimate nodes by capturing them and physically overwriting their memory. We assume that the attacker might have control of more than one node, and these malicious nodes might collude to attack the system. Also, in some cases colluding nodes might have high-quality communications links available for coordinating their attack (see, e.g., Section VI-E for one way in which attackers might put such a capability to use).

We do not assume sensor nodes are tamper resistant. We assume that if an adversary compromises a node, she can ex-tract all key material, data, and code stored on that node. While tamper resistance might be a viable defense for physical node compromise for some networks, we do not see it as a general purpose solution. Extremely effective tamper resistance tends to add significant per-unit cost, and sensor nodes are intended to be very inexpensive.

Trust Requirements

Since base stations interface a sensor network to the outside world, the compromise of a significant number of them can render the entire network useless. For this reason we assume that base stations are trustworthy, in the sense that they can be trusted if necessary and are assumed to behave correctly. Most, but not all routing protocols depend on nodes to trust messages from base stations.

Aggregation points may be trusted components in certain protocols. Nodes may rely on routing information from ag-gregation points and trust that messages sent to aggregation points will be accurately combined with other messages and forwarded to a base station. Aggregation points are often regular sensor nodes. It is possible that adversaries may

try to deploy malicious aggregation points or attempt to turn currently compromised nodes into aggregation points. For this reason aggregation points may not necessarily be trustworthy.

Threat Models

An important distinction can be made between mote-class attackers and laptop-class attackers. In the former case, the attacker has access to a few sensor nodes with similar capabilities to our own, but not much more than this. In contrast, a laptop-class attacker may have access to more powerful devices, like laptops or their equivalent. Thus, in the latter case, malicious nodes have an advantage over legitimate nodes: they may have greater battery power, a more capable CPU, a high-power radio transmitter, or a sensitive antenna.

An attacker with laptop-class devices can do more than an attacker with only ordinary sensor nodes. An ordinary sensor node might only be able to jam the radio link in its immediate vicinity, while a laptop-class attacker might be able to jam the entire sensor network using its stronger transmitter. A single laptop-class attacker might be able to eavesdrop on an entire network, while sensor nodes would ordinarily have a limited range. Also, laptop-class attackers might have a high-bandwidth, low-latency communications channel not available to ordinary sensor nodes, allowing such attackers to coordinate their efforts.

A second distinction can be made between outsider attacks and insider attacks. We have so far been discussing outsider attacks, where the attacker has no special access to the sensor network. One may also consider insider attacks, where an authorized participant in the sensor network has gone bad. Insider attacks may be mounted from either compromised sensor nodes running malicious code or adversaries who have stolen the key material, code, and data from legitimate nodes, and who then use one or more laptop-class devices to attack the network.

Security Goals

In the ideal world, a secure routing protocol should guaran-tee the integrity, authenticity, and availability of messages in the presence of adversaries of arbitrary power. Every eligible receiver should receive all messages intended for it and be able to verify the integrity of every message as well as the identity of the sender.

In our view, protection against eavesdropping is not an explicit security goal of a secure routing algorithm. Secrecy is usually most relevant to application data, and it is arguably not the responsibility of a routing protocol to provide it. However, we do consider it the responsibility of a routing protocol to prevent eavesdropping caused by misuse or abuse of the protocol itself. Eavesdropping achieved by the cloning or rerouting of a data flow should be prevented, for example.

Similarly, we believe protection against the replay of data packets should not be a security goal of a secure routing proto-col. This functionality is best provided at the

application layer because only the application can fully and accurately detect the replay of data packets (as opposed to retransmissions, for example).

In the presence of only outsider adversaries, it is conceivable to achieve these idealized goals. However, in the presence of compromised or insider attackers, especially those with laptop-class capabilities, it is most likely that some if not all of these goals are not fully attainable. Rather, instead of complete compromise of the entire network, the best we can hope for in the presence of insider adversaries is graceful degradation. The effectiveness of a routing protocol in achieving the above goals should degrade no faster than a rate approximately proportional to the ratio of compromised nodes to total nodes in the network.

ATTACKS ON SENSOR NETWORK ROUTING

Many sensor network routing protocols are quite simple, and for this reason are sometimes even more susceptible to attacks against general ad-hoc routing protocols. Most network layer attacks against sensor networks fall into one of the following categories:

Spoofed, altered, or replayed routing information Selective forwarding Sinkhole attacks Sybil attacks WormholesHELLO flood attacks Acknowledgement spoofing In the descriptions below, note the difference between attacks that try to manipulate user data directly and attacks that try to affect the underlying routing topology.

We start with some general discussion of these types of attacks; in Section VII, we show how these attacks may be applied to compromise routing protocols that have been proposed in the literature.

Spoofed, altered, or replayed routing information

The most direct attack against a routing protocol is to target the routing information exchanged between nodes. By spoof-ing, altering, or replaying routing information, adversaries may be able to create routing loops, attract or repel network traffic, extend or shorten source routes, generate false error messages, partition the network, increase end-to-end latency, etc.

Selective forwarding

Multi-hop networks are often based on the assumption that participating nodes will faithfully forward received messages. In a selective forwarding attack, malicious nodes may refuse to forward certain messages and simply drop them, ensuring that they are not propagated any further. A simple form of this attack is when a malicious node behaves like a black hole and refuses to forward every packet she sees. However, such an attacker runs the risk that neighboring nodes will conclude that she has failed and decide to seek another route. A more subtle form of this attack is when an adversary selectively forwards packets. An adversary interested in suppressing or modifying packets originating from a select few nodes can reliably forward the remaining traffic and limit suspicion of her wrongdoing.

Selective forwarding attacks are typically most effective when the attacker is explicitly included on the path of a data flow. However, it is conceivable an adversary overhearing a flow passing through neighboring nodes might be able to em-ulate selective forwarding by jamming or causing a collision on each forwarded packet of interest. The mechanics of such an effort are tricky at best, and may border on impossible4. Thus, we believe an adversary launching a selective forwarding attack will likely follow the path of least resistance and attempt to include herself on the actual path of the data flow. In the next two sections, we discuss sinkhole attacks and the Sybil attack, two mechanisms by which an adversary can efficiently include herself on the path of the targeted data flow.

Sinkhole attacks

In a sinkhole attack, the adversary's goal is to lure nearly all the traffic from a particular area through a compromised node, creating a metaphorical sinkhole with the adversary at the center. Because nodes on, or near, the path that packets follow have many opportunities to tamper with application data, sinkhole attacks can enable many other attacks (selective forwarding, for example).

Sinkhole attacks typically work by making a compromised node look especially attractive to surrounding nodes with respect to the routing algorithm. For instance, an adversary could spoof or replay an advertisement for an extremely high quality route to a base station. Some protocols might actually try to verify the quality of route with end-to-end acknowl-edgements containing reliability or latency information. In this case, a laptop-class adversary with a powerful transmitter can actually provide a high quality route by transmitting with enough power to reach the base station in a single hop, or by using a wormhole attack discussed in Section VI-E. Due to either the real or imagined high quality route through the compromised node, it is likely each neighboring node of the adversary will forward packets destined for a base station through the adversary, and also propagate the attractiveness of the route to its neighbors. Effectively, the adversary creates a large "sphere of influence", attracting all traffic destined for a base station from nodes several (or more) hops away from the compromised node.

One motivation for mounting a sinkhole attack is that it makes selective forwarding trivial. By ensuring that all traffic in the targeted area flows through a compromised node, an ad-versary can selectively suppress or modify packets originating from any node in the area.

It should be noted that the reason sensor networks are particularly susceptible to sinkhole attacks is due to their specialized communication pattern. Since all packets share the same ultimate destination (in networks with only one base station), a compromised node needs only to provide a single high quality route to the base station in order to influence a potentially large number of nodes.

The Sybil attack

In a Sybil attack [2], a single node presents multiple identities to other nodes in the

network. The Sybil attack can significantly reduce the effectiveness of fault-tolerant schemes such as distributed storage [24], dispersity [25] and multipath [26] routing, and topology maintenance [27], [28]. Replicas, storage partitions, or routes believed to be using disjoint nodes could in actuality be using a single adversary presenting multiple identities.

Sybil attacks also pose a significant threat to geographic routing protocols. Location aware routing often requires nodes to exchange coordinate information with their neighbors to efficiently route geographically addressed packets. It is only reasonable to expect a node to accept but a single set of coordinates from each of its neighbors, but by using the Sybil attack an adversary can "be in more than one place at once".

Wormholes

In the wormhole attack [1], an adversary tunnels messages received in one part of the network over a low latency link and replays them in a different part5. The simplest instance of this attack is a single node situated between two other nodes forwarding messages between the two of them. How-ever, wormhole attacks more commonly involve two distant malicious nodes colluding to understate their distance from each other by relaying packets along an out-of-bound channel available only to the attacker.

An adversary situated close to a base station may be able to completely disrupt routing by creating a well-placed wormhole. An adversary could convince nodes who would normally be multiple hops from a base station that they are only one or two hops away via the wormhole. This can create a sinkhole: since the adversary on the other side of the wormhole can artificially provide a high-quality route to the base station, potentially all traffic in the surrounding area will be drawn through her if alternate routes are significantly less attractive. This will most likely always be the case when the endpoint of the wormhole is relatively far from a base station. Figure 6 shows an example of a wormhole being used to create a sinkhole. Wormholes can also be used simply to convince two distant nodes that they are neighbors by relaying packets between the two of them.

Wormhole attacks would likely be used in combination with selective forwarding or eavesdropping. Detection is potentially difficult when used in conjunction with the Sybil attack.

HELLO flood attack

We introduce a novel attack against sensor networks: the HELLO flood. Many protocols require nodes to broadcast HELLO packets to announce themselves to their neighbors, and a node receiving such a packet may assume that it is within (normal) radio range of the sender. This assumption may be false: a laptop-class attacker broadcasting routing or other information with large enough transmission power could convince every node in the network that the adversary is its neighbor.

For example, an adversary advertising a very high quality route to the base station to every node in the network could 5 Specifically, packets transmitted through the wormhole should have lower latency than those packets sent between the same pair of nodes over

normal multi-hop routing. cause a large number of nodes to attempt to use this route, but those nodes sufficiently far away from the adversary would be sending packets into oblivion. The network is left in a state of confusion. A node realizing the link to the adversary is false could be left with few options: all its neighbors might be attempting to forward packets to the adversary as well. Protocols which depend on localized information exchange between neighboring nodes for topology maintenance or flow control are also subject to this attack.

An adversary does not necessarily need to be able to construct legitimate traffic in order to use the HELLO flood attack. She can simply re-broadcast overhead packets with enough power to be received by every node in the network. HELLO floods can also be thought of as one-way, broadcast wormholes.

Note: "Flooding" is usually used to denote the the epidemic-like propagation of a message to every node in the network over a multi-hop topology. In contrast, despite its name, the HELLO flood attack uses a single hop broadcast to transmit a message to a large number of receivers.

Acknowledgement spoofing

Several sensor network routing algorithms rely on implicit or explicit link layer acknowledgements. Due to the inherent broadcast medium, an adversary can spoof link layer acknowl-edgments for "overheard" packets addressed to neighboring nodes. Goals include convincing the sender that a weak link is strong or that a dead or disabled node is alive. For example, a routing protocol may select the next hop in a path using link reliability. Artificially reinforcing a weak or dead link is a subtle way of manipulating such a scheme. Since packets sent along weak or dead links are lost, an adversary can effectively mount a selective forwarding attack using acknowledgement spoofing by encouraging the target node to transmit packets on those links.

ATTACKS ON SPECIFIC SENSOR NETWORK PROTOCOLS

All of the proposed sensor network routing protocols are highly susceptible to attack. Adversaries can attract or repel traffic flows, increase latency, or disable the entire network with sometimes as little effort as sending a single packet. In this section, we survey the proposed sensor network routing protocols and highlight the relevant attacks.

TinyOS beaconing

The TinyOS beaconing protocol constructs a breadth first spanning tree rooted at a base station. Periodically the base station broadcasts a route update. All nodes receiving the update mark the base station as its parent and rebroadcast the update. The algorithm continues recursively with each node marking its parent as the first node from which it hears a routing update during the current time epoch. All packets received or generated by a node are forwarded to its parent (until they reach the base station).

Attacks: The TinyOS beaconing protocol is highly susceptible

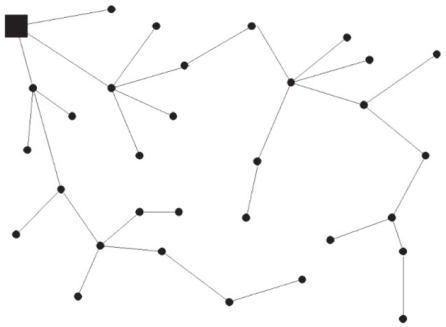


Fig. 4. A representative topology constructed using TinyOS beaconing with a single base station

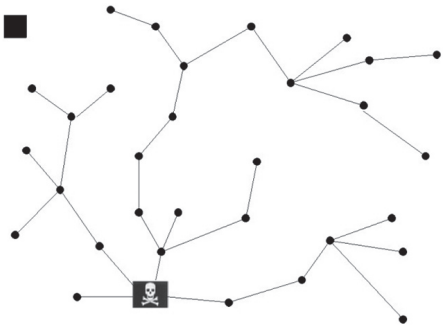


Fig. 5. An adversary spoofing a routing update from a base station in TinyOS beaconing

possible for any node to claim to be a base station and become the destination of all traffic in the network (see Figure 5).

Authenticated routing updates will prevent an adversary from claiming to be a base station, but a powerful laptop-class adversary can still easily wreak havoc. An adversary interested in eavesdropping on, modifying, or suppressing packets in a particular area can do so by mounting a com-bined wormhole/sinkhole attack. The adversary first creates a wormhole between two colluding laptop-class nodes, one near the base station and one near the targeted area. The first node forwards (authenticated) routing updates to the second through the wormhole, who participates normally in the protocol and rebroadcasts the routing update in the targeted area. Since the "wormholed" routing update will likely reach the targeted area considerably faster than it normally would have through multi-hop routing, the second node will create a large routing subtree in the targeted area with itself as the root. As seen in Figure 6, all traffic in the targeted area will be channeled through the wormhole, enabling a potent selective forwarding attack.

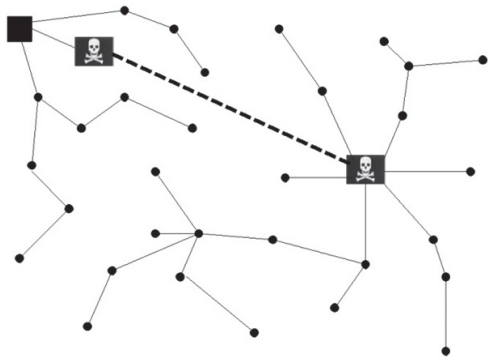


Fig. 6. A laptop-class adversary using a wormhole to create a sinkhole in TinyOS beaconing

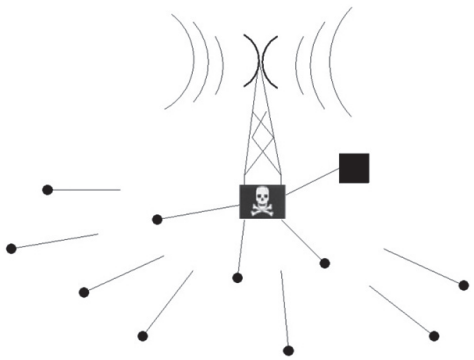


Fig. 7. HELLO flood attack against TinyOS beaconing. A laptop-class adversary that can retransmit a routing update with enough power to be received by the entire network leaves many nodes stranded. They are out of normal radio range from the adversary but have chosen her as their parent.

If a laptop-class adversary has a powerful transmitter, it can use a HELLO flood attack to broadcast a routing update loud enough to reach the entire network, causing every node to mark the adversary as its parent. Most nodes will be likely out of normal radio range of both a true base station and the adversary. As shown in Figure 7, the network is crippled: the majority of nodes are stranded, sending packets into oblivion. Due to the simplicity of this protocol, it is unlikely there exists a simple extension to recover from this attack. A node that realizes its parent is not actually in range (say by using link layer acknowledgements) has few options short of flooding every packet. Each of its neighbors will likely have the adversary marked as its parent as well.

Routing loops can easily be created by mote-class adver-saries spoofing routing updates. Suppose an adversary can determine that node A and node B are within radio range of each other. An adversary can send a forged routing update to node B with a spoofed source address indicating it came from node A. Node B will then mark node A as its parent and rebroadcast the routing update. Node A will then hear the routing update from node B and mark B as it is parent. Messages sent to either A or B will be forever forwarded in a loop between the two of them.

Directed diffusion

Directed diffusion [29] is a data-centric routing algorithm for drawing information out of a sensor network. Base stations flood interests for named data, setting up gradients within the network designed to draw events (i.e., data matching the interest). Nodes able to satisfy the interest disseminate information along the reverse path of interest propagation. Nodes receiving the same interest from multiple neighboring nodes may propagate events along the corresponding multiple links. Interests initially specify a low rate of data flow, but once a base station starts receiving events it will reinforce one (or more) neighbor in order to request higher data rate events. This process proceeds recursively until it reaches the nodes generating the events, causing them to generate events at a higher data rate. Alternatively, paths may be negatively reinforced as well.

There is a multipath variant of directed diffusion [30] as well. After the primary dataflow is established using positive reinforcements, alternate routes are recursively established with maximal disjointedness by attempting to reinforce neighbors not on the primary path.

Attacks: Due to the robust nature of flooding, it may be difficult for an adversary to prevent interests from reaching targets able to satisfy them. However, once sources begin to generate data events, an adversary attacking a data flow might have one of four goals:

Suppression: Flow suppression is an instance of denial-of-service. The easiest way to suppress a flow is to spoof negative reinforcements.

Cloning: Cloning a flow enables eavesdropping. After an adversary receives an interest flooded from a legitimate base station, it can simply replay that interest with herself listed as a base station. All events satisfying the interest will now be sent to both the adversary and the legitimate base station.

Path influence: An adversary can influence the path taken by a data flow by spoofing positive and negative reinforcements and bogus data events. For example, after receiving and rebroadcasting an interest, an adversary interested in directing the resulting flow of events through herself would strongly reinforce the nodes to which the interest was sent while spoofing high rate, low latency events to the nodes from which the interest was received. Three actions result: (1) data events generated upstream by legitimate sources will be drawn through the adversary because of her artificially strong positive reinforcements, (2) alternate event flows will be negatively reinforced by downstream nodes because the adversary provides (or spoofs) events with the lowest latency or highest frequency, and (3) the adversary's node will be positively reinforced due the high quality spoofed and real data events she is able to provide. With this attack, an adversary is able to ensure any flow of events propagates through herself on the way to the base station that originally.

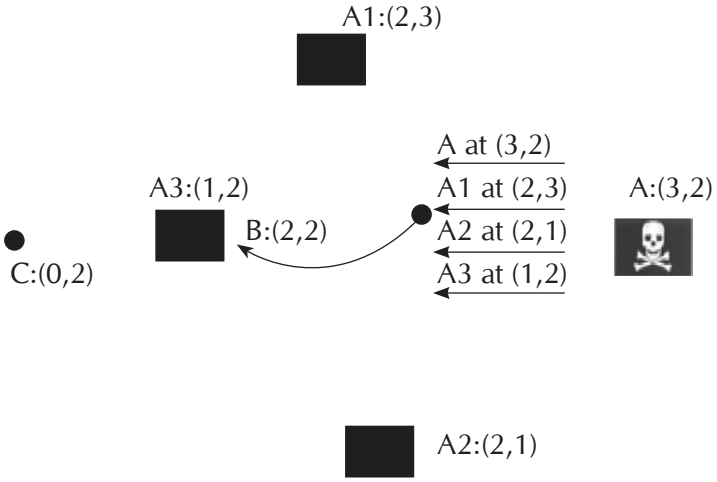


Fig. 8. The Sybil attack against geographic routing. Adversary A at actual location (3,2) forges location advertisements for non-existent nodes A1, A2, and A3 as well as advertising her own location. After hearing these advertisements, if B wants to send a message to destination (0,2), it will attempt to do so through A3. This transmission can be overheard and handled by the adversary A. advertised the associated interest.

Selective forwarding and data tampering: By using the above attack to insert herself onto the path taken by a flow of events, an adversary can gain full control of the flow. She can modify and selectively forward packets of her choosing.

A laptop-class adversary can exert greater influence on the topology by creating a wormhole between node A located next a base station and node B located close to where events are likely to be generated. Interests advertised by the base station are sent through the wormhole and rebroadcast by node B. Node B then attracts data flows by spoofing strong positive reinforcements to all neighboring nodes while node A broad-casts spoofed negative reinforcements to its surrounding nodes. The combination of the positive and negative reinforcements pushes data flows away from the base station and towards the resulting sinkhole centered at node B.

The multipath version may appear more robust against these attacks, but it is just as vulnerable. A single adversary can use the Sybil attack against her neighbors. A neighbor

will be convinced it is maximizing diversity by reinforcing its next most preferred neighbor not on the primary flow when in fact this neighbor is an alternate identity of the adversary.

Geographic routing

Geographic and Energy Aware Routing (GEAR) [31] and Greedy Perimeter Stateless Routing (GPSR) [32] leverage nodes' positions and explicit geographic packet destinations to efficiently disseminate queries and route replies. GPSR uses greedy forwarding at each hop, routing each packet to the neighbor closest to the destination. When holes are encountered where greedy forwarding is impossible, GPSR recovers by routing around the perimeter of the void. One drawback of GPSR is that packets along a single flow will always use the same nodes for the routing of each packet,

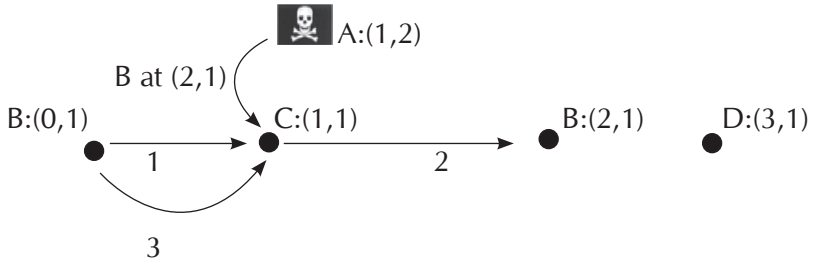


Fig. 9. Creating routing loops in GPSR. By forging a location adver-tisement claiming is at (2,1), an adversary can create a routing loop as described in Section- VII-C.

leading to uneven energy consumption. GEAR attempts to remedy this problem by weighting the choice of the next hop by both remaining energy and distance from the target. In this way, the responsibility for routing a flow is more evenly distributed among a "beam" of nodes between the source and base station. Both protocols require location (and energy for GEAR) information to be exchanged between neighbors, although for some fixed, well-structured topologies (a grid for example) this may not be necessary.

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Relevance of Quality of Work Life in Human Resource Management

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ABSTRACT

This study quantifies the effects of quality of work life on employees. It aims to gain an insight into current working life policies and practices, as well as work-life balance issues of employees. Several notable factors that influence quality of work life are Adequate and Fair Compensation; Safe and Healthy Working Conditions; Opportunity to Use and Develop Human Capabilities; Opportunity for Career Growth etc.

QWL provides for the balanced relationship among work, non- work and family aspects of life. In other words, family life and social life should not be strained by working hours including overtime work, work during inconvenient hours, business travel, transfers, vacations, etc.

INTRODUCTION

This write up quantifies the effects of quality of work life on employees. It aims to gain an insight into current working life policies and practices, as well as work-life balance issues of employees. Several notable factors that influence qualities of work life are Adequate and Fair Compensation; Safe and Healthy Working Conditions; Opportunity to Use and Develop Human Capabilities; Opportunity for Career Growth etc.

QWL provides for the balanced relationship among work, non- work and family aspects of life. In other words, family life and social life should not be strained by working hours including overtime work, work during inconvenient hours, business travel, transfers, vacations, etc.

WHAT IS QWL?

The term refers to the favourableness or unfavourableness of a total job environment for people. QWL programs are another way in which organisations recognise their responsibility to develop jobs and working conditions that are excellent for people as well as for economic health of the organisation. The elements in a typical QWL program include – open communications, equitable reward systems, a concern for employee job security and satisfying careers and participation in decision making. Many early QWL efforts focus on job enrichment. In addition to improving the work system, QWL programs

usually emphasise development of employee skills, the reduction of occupational stress and the development of more co-operative labour-management relations.

Vigorous Domestic and International competition drive organisations to be more productive. Proactive managers and human resource departments respond to this challenge by finding new ways to improve productivity. Some strategies rely heavily upon new capital investment and technology. Others seek changes in employee relations practices.

Human resource departments are involved with efforts to improve productivity through changes in employee relations. QWL means having good supervision, good working conditions, good pay and benefits and an interesting, challenging and rewarding job. High QWL is sought through an employee relations philosophy that encourages the use of QWL efforts, which are systematic attempts by an organisation to give workers greater opportunities to affect their jobs and their contributions to the organisation's overall effectiveness. That is, a proactive human resource department finds ways to empower employees so that they draw on their "brains and wits," usually by getting the employees more involved in the decision-making process.

A Rationale

Job specialisation and simplification were popular in the early part of this century. Employees were assigned narrow jobs and supported by a rigid hierarchy in the expectation that efficiency would improve. The idea was to lower cost by using unskilled workers who could be easily trained to do a small, repetitive part of each job.

Many difficulties developed from that classical job design, however. There was excessive division of labour. Workers became socially isolated from their co-workers because their highly specialised jobs weakened their community of interest in the whole product. De-skilled workers lost pride in their work and became bored with their jobs. Higher-order (social and growth) needs were left unsatisfied. The result was higher turnover and absenteeism, declines in quality and alienated workers. Conflict often arose as workers sought to improve their conditions and organisations failed to respond appropriately. The real cause was that in many instances the job itself simply was not satisfying.

Forces For Change

A factor contributing to the problem was that the workers themselves were changing. They became educated, more affluent (partly because of the effectiveness of classical job design), and more independent. They began reaching for higher-order needs, something more than merely earning their bread. Employers now had two reasons for re-designing jobs and organisations for a better QWL:

1. Classical design originally gave inadequate attention to human needs.
2. The needs and aspirations of workers themselves were changing.



Humanised Work Through QWL

One option was to re-design jobs to have the attributes desired by people, and re-design organisations to have the environment desired by the people. This approach seeks to improve QWL. There is a need to give workers more of a challenge, more of a whole task, more opportunity to use their ideas. Close attention to QWL provides a more humanised work environment. It attempts to serve the higher-order needs of workers as well as their more basic needs. It seeks to employ the higher skills of workers and to provide an environment that encourages them to improve their skills. The idea is that human resources should be developed and not simply used. Further, the work should not have excessively negative conditions. It should not put workers under undue stress. It should not damage or degrade their humanness. It should not be threatening or unduly dangerous. Finally, it should contribute to, or at least leave unimpaired, workers' abilities to perform in other life roles, such as citizen, spouse and parent. That is, work should contribute to general social advancement.

Trade unions claim that they are responsible for the improvement in various facilities to workers whereas management takes credit for improved salaries, benefits and facilities. However, P/HR manager has (identified) specific issues in QWL besides normal wages, salaries, fringe benefits, etc. and takes lead in providing them so as to maintain higher order QWL. IKlott, Mundick and Schuster suggested 11 major QWL issues. They are:

(I) Pay and Stability of Employment : Good pay still dominates most of the other factors in employee satisfaction. Various alternative means for providing wages should be developed in view of increase in cost of living index, increase in levels and rates of income tax and profession tax. Stability to a greater extent can be provided by enhancing the facilities for human resource development.

(ii) Occupational Stress : Is a condition of strain on one's emotions, thought process and physical condition. Stress is determined by the nature of work, working conditions, working hours, pause in the work schedule, worker's abilities and nature and match with the job requirements. Stress is caused due to irritability, hyper—excitation or depression, unstable behaviour, fatigue, stuttering, trembling psychometric pains, h smoking and drug abuse. Stress adversely affects employ productivity. The P/HR manager, in order to minimise the stress, has identify, prevent and tackle the problem. He may arrange the treatment of the problem with the health unit of the company.

(iii) Organisational Health Programmes : Organisational health programmes aim at educating employees about health problems, means of maintaining and improving of health, etc. These programmes cover drinking and smoking cessation, hypertension control, other forms of cardiovascular risk reduction, family planning, etc. Effective implementation of these programmes result in reduction in absenteeism, hospitalisation, disability, excessive job turnover and premature death. This programme should also cover relaxation, physical exercise, diet control, etc.

(iv) Alternative Work Schedules : Alternative work schedules including work at home, flexible working hours, staggered hours, reduced work week, part-time employment which may be introduced for the convenience and comfort of the workers as the work sch which

offers the individual the leisure time, flexible hours of work is preferred.

(v) Participative Management and Control of Work : Trade unions and workers believe that workers' participation in management and 1e improves WL. Workers also feel that they have control over their work, use their skills and make a real contribution to the job if they are allowed participate in creative and decision-making process.

(vi) Recognition : Recognising the employee as a hum being rather than as a labour increases the QWL Participative management, awarding the rewarding systems, congratulating the employees for their achievement, job enrichment, offering prestigious designations to the jobs, providing well furnished and decent work places, offering membership in clubs or association, providing vehicles, offering vacation trips are some means to recognise the employees.

(vii) Congenial Worker-Supervisor Relations : Harmonious supervisor-worker relations gives the worker a sense of social association, belongingness, achieve of work results, etc. This in turn leads to better QWL.

(viii) Grievance Procedure : Workers have a sense of fair treatment' when the company gives them the opportunity to ventilate their grievances and represent their case succinctly rather than settling the problems arbitrarily.

(ix) Adequacy of Resources : Resources should match with st4ted objectives, otherwise, employees will not be able to attain the Objectives. This results in employee dissatisfaction and lower QWL

(x) Seniority and Merit in Promotions : Seniority is generally taken as the ba for promotion in case of operating employees. Merit is considered as the basis for advancement for managerial people whereas seniority-c is preferred for promotion of ministerial employees. The promotional policies and activities should be fair and just in order to ensure higher QWL.

(xi) Employment on Permanent Basis : Employment of workers on casual, te probationary basis gives them a sense of insecurity. On the dther hand, employment on permanent basis gives them security and leads to higher order QWL.

CRITERIA OF MEASURING QWL

(i) Adequate and Fair Compensation : There are different opinions about the adequate compensation. The committee on Fair Wages defined fair wage as "the wage which is above the minimum wage but below the living age."

(ii) Safe and Healthy Working Conditions : Most of the organizations provide safe and healthy working conditions due to humanitarian requirements and/or legal requirements. In fact, these conditions are a matter of enlightened self-interest.

(iii) Opportunity to Use and Develop Human Capabilities : Contrary to the traditional assumptions, QWL is improved the extent that the worker can exercise more control over his or her work, and the degree to which the job embraces an entire meaningful task" but not a part of it. Further, QWL provides for opportunities like autonomy in work and



participation in planning in order to use human capabilities.

(iv) Opportunity for Career Growth : Opportunities for promotions are limited in case of all categories of employees either due to educational barriers or due to limited openings at the higher level. QWL provides future opportunity for continued growth and security by expanding one's capabilities, knowledge and qualifications.

(v) Constitutionalism In the Work Organisation : QWL provides constitutional protection to the employees only to the level of desirability as it hampers workers. It happens because the management's action is challenged in every action and bureaucratic procedures need to be followed at that level. Constitutional protection is provided to employees on such matters as privacy, free speech, equity and due process.

(vi) Work and Quality of Life : QWL provides for the balanced relationship among work, non- work and family aspects of life. In other words, family life and social life should not be strained by working hours including overtime work, work during inconvenient hours, business travel, transfers, vacations, etc.

(vii) Social Relevance of Work : QWL is concerned about the establishment of social relevance to work in a socially beneficial manner. The workers' selfesteem would be high if his work is useful to the society and the vice versa is also true.

STRATEGIES FOR IMPROVEMENT OF QWL

The strategies for improvement in quality of worklife include self-managed work teams, redesign and enrichment, effective leadership and supervisory behaviour, career development, alternative work schedules, job security, administrative orgastisational and participating management.

(i) Self-managed Work Teams : These are also called autonomous work groups or integrated work teams. These work teams are formed with 10 to 20 employees who plan, co-ordinate and control the activities of the team with the help of a team leader who is one among them. Each team performs all activities including selecting their people. Each team has authority to make decisions and regulate the activities. The group as a whole is accountable for the success or failure. Salaries are fixed both on the basis of individual and group achievement.

(ii) Job Redesign and Enrichment : Narrow jobs can be combined into larger units of accomplishment. Jobs are redesigned with a view to enriching them to satisfy higher order human needs.

(iii) Effective Leadership and Supervisory Behaviour : For effective leadership and supervisory behaviour '9-9' style of managerial grid is suitable.

(iv) Career Development : Provision for career planning, communicating and counselling $he employees about the career opportunities, career path, education and development and for second careers should be made.

(v) Alternative Work Schedules : Provision for flexible working hours, part-time employments, job- sharing and reduced work week should be made.

(vi) Job Security This tops the employees' list of priorities. It should be adequately taken care of.

(vii) Administrative or Organisational Justice : The principles of justice, fair and equity should be taken care of in disciplinary procedure, grievance procedures, promotions, transfers, demotion, work assignment, leave, etc.

(viii) Participative Management Employees should be allowed to participate in management participative schemes which may be of several types. The most sophisticated among them is quality circle.

Implementation of these strategies ensures higher level of quality of work life.

Conclusion

It was suggested that a psychologically healthy work environment is one in which the individual's needs are fulfilled and that organisational members experience quality of work life when facets of work life that they regard as important are satisfactory. This research did not find conclusive confirmation for these suppositions, but did find that the satisfaction in the various facets of work life contribute to overall satisfaction. Therefore, the attention was focused on those facets that are seen as possible problem areas and certain suggestions were made.

It is important that the leadership of the organisation accept the responsibility to provide people with a high quality of work life for the sake of well-being and health, whether or not it makes people more productive. However, according to The Worklife Report (2000), organisations that did implement programmes to improve work life satisfaction also experienced improved efficiency. It is especially hoped to see an eventual outcome where members of the organisation can report to be proud to belong to the organisation. For this reason more effective research and organisational surveys should be investigated and utilized continuously to focus improvements in areas where a positive change can become operative.

Declaration : *This article is prepared by me and is not a copied one from any other article prepared by the respected authors.*



A Study of Library Automation Software: Libsys Used by CSIBER, Kolhapur

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ABSTRACT

Library automation refers to the use of computers to automate the typical procedures of Libraries such as acquisition, cataloging, circulation and serial control. Automation of library will give new infrastructure to the library. Computers are used in libraries to increase the efficiency and effectiveness of their operation and services; they have also provided information management for taking effective decisions. Today Academic libraries are developing their libraries with library automation software. There is number of library software available in the market. In the light of above discussion the researcher has selected the problem of the study "A Study of Library Automation Software Package 'LIBSYS' Used By Chh. Shahu Institute Of Business Education & Research (CSIBER), Kolhapur". LIBSYS, a New Delhi based software company, is engaged in providing software solutions since 1984. Continuous growth for last 26 years, has made LIBSYS the most trusted brand for libraries in India.

KEYWORDS *: Library Automation, ICT, LIBSYS*

INTRODUCTION

Development and use of information and communication technology (ICT) enable the libraries not only to offer their clientele the appropriate information available within their libraries but also gain access to catalogues of other libraries.

Library automation in India started in the late 1970s in few specialized libraries has now reached most of the academic libraries. Today, there is a greater responsibility on the part of the library and information centers to provide the latest and timely information to their users to facilitate improving the quality of education. Library automation systems are elaborately designed, and crafted computer applications require considerable programming skills together with an extensive knowledge of the functional needs of libraries and standards that are applied in such systems. Software technologies used in library automation systems include database management systems, client-server architectures.

Automation of libraries will give them altogether a new life. They become tremendously potential. Computerized cataloging enormously enhances access to books and magazines. Automation of Library functioning streamlines the whole library functioning in favor of the reader. Networking of Libraries vastly widens the student access. They can read rare and precious books sitting at their own place. Internet offers access to thousands of e-Journals,

e-textbooks and other valuable information simultaneously to lakhs of students, unlike hard copies.

On the basis of this the researcher has selected the topic "Study of library Automation Software Package 'Libsys' used by Chh. Shahu Institute of Business Education & Research (CSIBER), Kolhapur". Study the use and applications of the software in the daily work of the libraries.

Automation is a state of replacing the human performance of activities with mechanical or electronic processes. Library Automation is a process of adding electronic resources to its bibliographic resources and replacing its human performances with electronic processes.

Library automation started in late 70s in few special libraries and has now reached most of the university libraries. Owing to various problems of budget & infrastructure, it is yet to take off in college libraries in India. Library Automation provides two major areas of Conventional Library Management System in Decision Support & Transaction Support. Intervention of Library Automation has benefits for both Library Staff and Readers, starting from Procurement, to access Cataloguing, to Circulation and, Library maintenance. Another area that Library Automation facilitates is availability to a larger Bibliographic Database through a Collaborated Inter-Library System of neighboring libraries and above all the access to e-resources take all local libraries to a global platform.

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THEORETICAL BACKGROUND

The LibSys systems at a glance:

Acquisition System: It deals with approval and ordering of library materials, monitoring their receipt, invoice processing and accessioning. It also maintains expenditure and budget analyses under a variety of accounts/heads. The Acquisition process consists of:

- Selecting materials for a library;
- Placing orders for the supply of books to be purchased;
- Processing materials received as gifts;
- Arranging for exchange of books;
- Receiving the books in the library;
- Accessioning them; and
- Passing the bill for payment for the books purchased.

Cataloguing System: It provides online catalogues in various orders maintained in traditional libraries. Additionally, it makes available instant listings under a variety of searchable fields to suit the requirements of a modern reference center.

Other than data entry facility, the system has the additional facility to accept data in standard machine readable formats such as CCF (ISO-2709), MARC (ANSI-Z39.x), etc. This makes import/export of bibliographic data in standard exchange formats possible. The system provides facilities to generate bibliographies, current awareness services and selective dissemination of information (SDI). Multimedia files can be attached and viewed



in OPAC, meeting the requirements of certain specific libraries.

Circulation System: It maintains up-to-date membership records as well as the latest status of the collection meant for circulation. It facilitates printing of bar-coded ID cards, along with an optional facility to attach member's photograph. It performs all the functions related to circulation, providing suitable checks at every stage. It also takes care of infrequent but routine functions such as bindery record management, books on display in the library, latest additions to the library, etc.

Serial System: It provides control of subscription of periodicals and subsequent monitoring of the scheduled arrival of individual issues. It maintains records of the budget sanctioned for serials under different categories, amounts spent, thus providing complete budgetary control. It also handles serials which are received gratis or in exchange.

Article Indexing System: It provides the facility to create and maintain a separate articles database. It facilitates special services such as SDI, listing of current articles, bibliographies, etc.

OPAC System: As the acronym suggests, it provides an Online Public Access Catalogue. The bibliographic databases can be accessed with printed indexes. The system includes a word-based search facility using Boolean operators that can narrow down a search to meet very specific needs. Additional features of this system are:

- Periodic listing of recent additions to the library;
- Members can find the materials checked-out to them; and
- Reserve materials that are currently in circulation.

WEB-OPAC System: It is an optional module and provides an advanced GUI interface to enable searching of the library database through an industry standard Web browser having all the features of OPAC.

RESEARCH METHODOLOGY

The survey method is very useful for the collection of data. So it is used for the study. This chapter describes the formulation of a research design and methodology adopted to achieve the stipulated goals for the study. After considering the objectives of the study, the research questions, the limitations and the scope, the researcher felt the appropriateness for adopting both the qualitative and quantitative data gathering techniques i.e. the survey method, using the questionnaire as the instrument and supported by qualitative data obtained through structured interviews. A combination of these research design helped provides more data to work with and ultimately a more accurate evaluation

The survey is based on observation, interviews, structured questionnaire, and personal visits. The opinions of librarians regarding library software were acquired using a structured questionnaire. The interview was carried out on the basis of the questionnaire. Opinions on different issues pertaining to the library housekeeping operations among the respondent librarians were sought.

The objectives of the study were to identify the extent of readiness of Library software

LIBSYS in providing library operations and services. Research design essentially refers to the plan or strategy of shaping the research that might include the entire process of research from conceptualizing a problem to writing research questions, and on to data collection, analysis, interpretation and report writing. The interviews were structured and guided in order to get the best possible answers in tandem with the project objectives. Subsequently for the quantitative method, the self completion questionnaire was used as the instrument for the survey. An advantage of using self completion questionnaire was that they were an entirely standardized measuring instrument because the questions were always phrased exactly in the same way for respondents. It was also of the opinion that the biggest advantages of self-completion questionnaires were their cheapness and saving of the researcher's time.

RESULTS & DISCUSSION

Description of the Interview questions asked to the Librarian/Staff Members:

When researcher personally visited to the library and asked some questions to the software users:

Q.1 Is the software is suitable for use?

The library staff members mentioned that the software they are using (LibSys) is suitable for automation of functions in their departments and functions in the library as a whole. The software is user friendly.

Q. 2 What about the Cost and Maintenance Cost of the Software?

Librarian mentioned that the cost of the software (LibSys) is high but the maintenance cost of the software is not high.

Q. 3 Is the software is user friendly?

Respondents are asked whether the software they are using is user friendly or not. All users said that the software is user friendly.

Q. 4. Is there any limit for entering data?

As an answer to the question asked on maximum number of records that the software could accommodate, librarian replied that there is no limitation in maximum number of records.

Q. 5 Is there Facility for Marathi Fonts?

Librarian replied that both software packages (LibSys) is having facilities to enter data using Marathi fonts and search Marathi keywords.

Q. 6 Are there Manuals provided with the Software?

Respondents are asked whether there is a difficulty in understanding the manuals provided with the software. Although respondents replied that there is no difficulty in understanding the manuals provided.

Q. 7 What is about the Training and vendor support?

According to the responses to the questionnaire, it was clear that both libraries were



provided with software training by the vendors of the packages. Librarian was asked whether they obtain after purchase support from vendors of the software. The answers revealed though gets vendor's after sale support.

Q. 8 Asked to mention any Other Software Problems.

Respondents were asked to mention any other software problems they have and they came up with some of problems. In CSIBER, all the modules accept acquisitions are used and their work is going on smoothly.

Usefulness of the LIBSYS software and Reports getting from it in Both Libraries collected after observation:

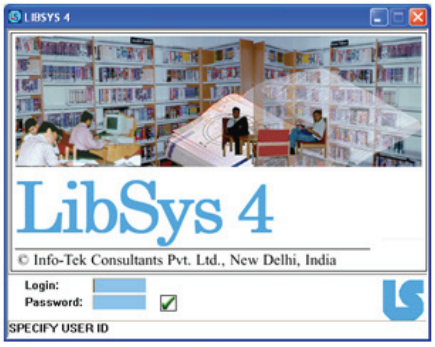
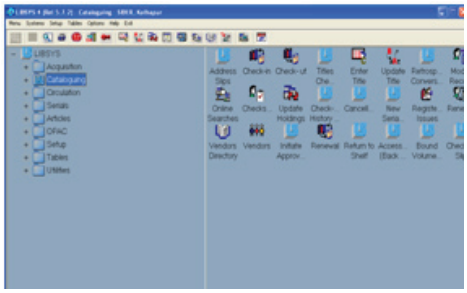
The LIBSYS software also features the Library Maintenance assistance through records and automatically generated reminders as per predefined schedules of physical verification, Shelf Rectification, Dusting and Preservation of Bibliographic resources. Finally the software shall also generate following reports as and when required to facilitate routine and policy decisions of library administration.

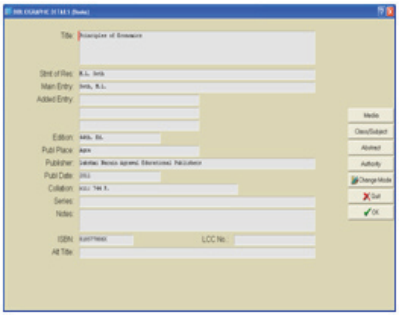
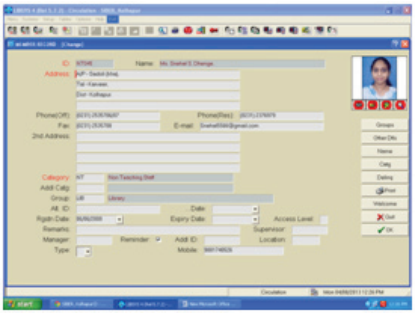
1) MEMBERS LIST for one or all categories (Subject / Gender / Status (UG, PG, Teacher, Non Teacher, Research Scholar, and Others)).
2) READERS visited the library on any date or between any two dates. Customized results for Subject, Gender, and Status can also be generated.
3) Generates the Catalogue as per requirement.
4) Prepare the barcodes for the books.
5) Prepare member card with barcode.
6) ITEM TRANSACTION HISTORY on any date or between any two dates.
7) ITEMS ISSUED on any date or between any two dates.
8) ITEMS RETURNED on any date or between any two dates.
9) OVER-DUE LIST on any date or between any two dates.
10) FINE CALCULATION for delayed returns or lost or damage to item.
11) RESOURCE AVAILABILITY to search books or any resource with this library or other neighbouring library. Also information will be generated for the selected items about whether the selected items are available or issued and if issued when are they due (date) for return.
12) CIRCULATION PERFORMANCE through measuring the request - delivery time gap.
13) MOST FREQUENTLY USED ITEMS (Single / Multiple) on any date or between any two dates.
14) MOST FREQUENTLY USER (Single / Multiple) on any date or between any two dates.
15) HIGHEST FINE PAYER (Single / Multiple) on any date or between any two dates.
16) MEMBER TRANSACTION DATA (Single / Multiple) on any date or between any two dates.

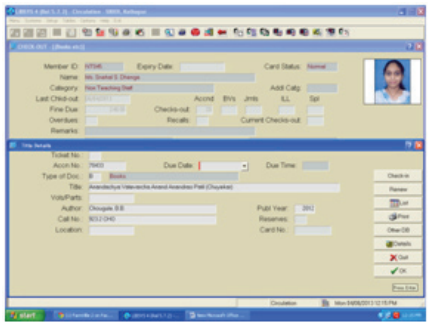
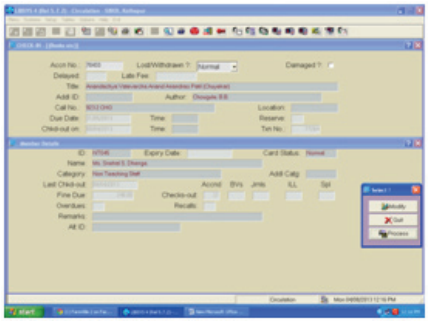
17) DEPARTMENT TRANSACTION DATA (Single / Multiple) on any date or between any two dates.
18) COLLEGE TRANSACTION DATA (Single / Multiple) on any date or between any two dates.
19) DAMAGE ASSESSMENT on any date or between any two dates.
20) LOST ASSESSMENT on any date or between any two dates.
21) WITHDRAWL RECORD on any date or between any two dates.
22) BEST USER on any date or between any two dates.
23) Stock verification report also prepared.
24) Member report details of members per year.
25) Subject wise report of books & all journal record reports on any date or with year or month.

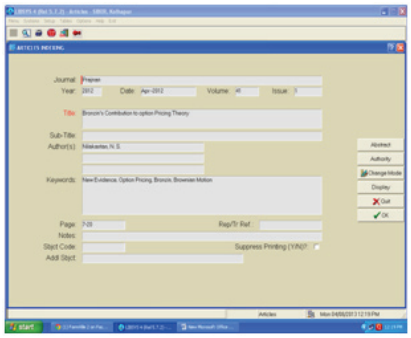
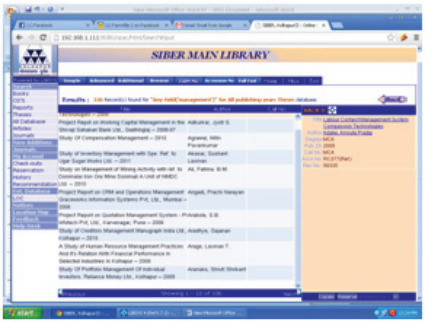
SNAPT SHOTS OF LIBSYS

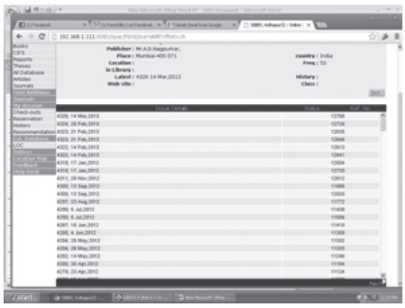
USED IN CHH. SHAHU INSTITUTE OF BUSINESS EDUCATION & RESEARCH (CSIBER), KOLHAPUR.

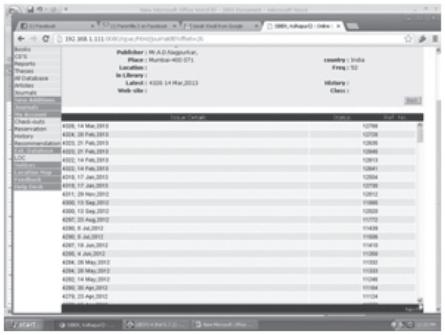
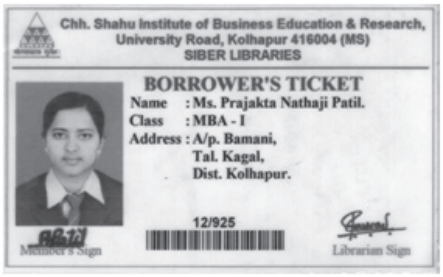
LOGIN SCREEN	MAIN PAGE
	

BOOK ENTRY	MEMBER ENTRY
	

BOOK ISSUING	BOOK RECEIVING
	

JOURNAL ISSUE ENTRY	ARTICLE INDEXING
	

OPAC HOME PAGE	FOR BOOK SEARCH
	

PROJECT REPORT SEARCH	JOURNAL LIST SEARCH
	
	LIBRARY CARDS FOR STUDENTS WITH BARCODE:
	

FINDINGS

1) After the study of the LIBSYS software, all the activities, aims and objectives of automation are fulfilled by the software. LIBSYS is very good software in all areas of library.
2) The successful implementation of the library automation software package LIBSYS was attributed to a number of factors, among them ensuring strategic management buy-in, extensive consultations with key stakeholders, alignment of library automation with goals of CSBER, Kolhapur, capacity building of librarians and assuring librarians that their jobs were safe.
3) The impact of the automation software included increased access to diversity of electronic resources, enhanced image of librarians, introduction of new services, freeing of library physical space, transformation of the library into a social learning environment, new skills acquisitions, and increased roles and responsibilities for librarians.
4) Challenges faced included staff anxiety about learning of new skills, added responsibilities for librarians, and raised expectations of users.
5) Libsys is user friendly software.
6) Training is given by the software organization to the staff members. There are some

problems in this case the staff members which are not aware of the computer are required to give more training for working on it.

7) All modules are well developed which covers all the working in library such as acquisition, cataloguing, circulation, serial control, article indexing and mainly the OPAC system.
8) Cataloguing of books is faster in the system. Same title of the books comes in library then it directly added to the same book title which is added previously. Because of this duplication of books is avoided.
9) Cataloguing of the book is divided into three parts so that the all data about the software should be collected and all details about the accounting of the book are recorded.
10) After cataloguing bar-codes for the books are printed and accession register also printed with all the data as needed.
11) Because of the Bar-coded books, Circulation becomes so faster and this saves the time of the reader as well as library staff members.
12) Because of the smart card the identification of the library user is become easy. The smart cards are also having the photograph of member and bar-code number given for the library identification.
13) All circulation detailed report is also printed daily, monthly or as required on the basis of which daily circulation of books is obtained.
14) OPAC is the very good system in the software for the search of documents which the reader wants. Both libraries are having the facility of OPAC limited to their campus only.
15) In CSIBER all the modules are used for the working of library. This library is fully automated.
16) In CSIBER all the journals are entered in the system. They feel easy to enter the issues in the system.
17) In CSIBER the departmental libraries are connected to the central library. All the departmental libraries are working through the software.
18) There is electricity problem which is very effective area of the system such as circulation & OPAC. Data have to enter after the convenient time is very difficult for the staff.

CONCLUSION

The study of the software package namely LIBSYS package has got its own capabilities and limitations. Libsys has got its uniqueness to run any selected platforms which makes Libsys one of the most popular in Indian library software. The powerful data entry facility in Libsys provides option to import data entry facility in Libsys in MARC and non MARC formats established bibliographic databases. Cataloguing module of Libsys also include catalogue production, catalogue maintenance, catalogue cards generation, bar-code printing etc. All modules are well developed as per library requirements.

LibSys is integrated multiuser library management software that caters to the needs of an advanced library and information professionals. It provides a tree structure system with each system comprising of several sub-systems having unmatchable depth in functionality. It has a powerful and user-friendly WEB-OPAC along with Windows-based OPAC.

It runs on various platforms such as WINDOWS (95/98/NT/2000/XP), UNIX (various flavors), LINUXM, etc. Further, it adheres to standards such as MARC and Z39.50 that makes it suitable for cooperative networking and resource sharing. It however remains the decision of individual library to select software that serves its requirements in the best way.

Libsys is a comprehensive, user friendly and well designed system. The experience at Shivaji University and CSIBER, Kolhapur widely reveals that the adoption of Libsys has helped them to increase the efficiency and speed of all housekeeping operations in general and OPAC in particular.

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Social Media Networking for Hospitals

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ABSTRACT

In modern age the social media is one of the fastest growing platforms to share and gain varied information and knowledge. Social media is a term defining online technology and practices used to share opinion, insights, experience and perspectives. Social media are cost effective marketing tools that help in facilitating the building of networks, instant dissemination of information and thus encouraging trust and confidence of public. It can take many forms like text, images, audio and video.

The prime objective of this paper is to explain the use of social media networking in hospitals and health care promotion, health education issues and discussion on various interventions done. Extensive study and literature review was done from a range of sources like journals, books and internet websites of relevant disciplines, including public health organizations, hospitals and case studies prepared on each type exploring the use of social media in health promotion.

Finally, it is discussed like every coin has two sides, social media provides large opportunity for health promotion in the public health community, enabling public health professionals to reach out far and wide and directly to the public on multiple public health issues and at the same time its cautious use is imperative to prevent colossal damage. Social media, a communication boon for the public health community has the potential to promote and change many health-related behaviors and issues particularly in times of crisis.

Key words : *Social Media, Hospitals, Networking.*

INTRODUCTION

Social media in simple term, refers to the means of interactions among people in which they create, share, and/or exchange information and ideas in virtual communities and networks. It depends on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. According to Kaplan and Haenlein, there are six different types of social media namely;

1. Collaborative projects (e.g., Wikipedia),
2. Blogs and micro blogs (e.g., Twitter),
3. Content communities (e.g., YouTube, Flicker),

4. Social networking sites (e.g., Facebook, MySpace),
5. Virtual game worlds (e.g., World of Warcraft, Whyville), and
6. Virtual social worlds (e.g., Second Life).

Easy availability and cheap tariffs have boosted Internet adoption which in turn has played a significant role in the emergence of a completely new medium called "Social Media". Increasing usage of smart phones in India and availability of social media applications on phone is encouraging more participation in social media networks. The use of internet /social network is shown in the following table No.1

Figure.1

Internet Users Statistics	
Internet	
Internet users in India	111 million
Active internet users	89 million
Total social media users	66 million
Mobile Internet	
Active mobile base in India	39.7 million
Active social media users in India	32.5 million

Source: Social Media Framework for Indian banking sectors.

In India, there are 66 million social media users out of 89 million active internet users and 40 million use internet on mobile handsets and 82 percent of these users use social media applications on mobiles. With this magnitude of users present on the social media, it provides tremendous amount of customer information in terms of opinion/values/ behavior/likes/dislikes on various social media platforms.

On the other hand, from a population of 1.2 billion where the active internet users are 89 million, it shows that a vast population is unfamiliar with the use of internet and hence the applicability and complete exploitation of the power of social media in Indian scenario is still a thing of future and has a very vast scope of high potential.

Much of the criticism of social media is about its exclusiveness as most sites do not allow the transfer of information from one to another, disparity of information available, issues with trustworthiness and reliability of information presented, concentration, ownership of media content, and the meaning of interactions created by social media. However, it is also argued that social media has positive effects such as allowing the democratization of the internet while also allowing individuals to advertise themselves and form friendships, to build reputation and bringing in career opportunities and monetary income.

Healthcare is at its core social business and very important issue for the wellbeing of humanity. All service providers rely on the word-of-mouth publicity to drive sales. Hospitals are no different. Without overt advertising on TV channels, it has been very difficult for any hospital to create an image of a well run hospital which provides efficient, effective, qualitative care and services. All traditional media have had the inherent weakness of

being lopsided. This is why social media is such a boon for hospitals and health sector, particularly in developing countries like India. Social media adds that much needed human touch which is of paramount importance in healthcare. Hospitals that promote regular social media communication with real and potential healthcare consumers foster a sense of trust. Patients then carry that sense of trust with them as they enter or leave the hospital.

'Out-of-pocket' expenses account for 70% of healthcare expenditure in India. Most often, patients simply walk in to the OPD to present themselves to private practitioners and pay for the encounter with cash. The newly launched Rashtriya Swasthya Bima Yojna, health insurance scheme for 200 million Indian poor too follows the same trend. The rich self paying patient and a poor smart card holding health insured patient in India both have complete freedom to choose the hospital they want to be treated in. Hospitals with greater mind share will get more footfalls. Social media presence thus becomes a necessity for all urban hospitals in India. Social media is changing the nature and speed of health care interaction between consumers and healthcare organizations.

Guiding Principles to Participate in Social Media:

1. **Be Transparent:** Honesty / dishonesty will be quickly noticed in the social media environment, use real name, identify and be clear about your role.

2. **Be Judicious:** Ask permission to publish or report on conversations that are meant to be private or internal to work. All statements must be true and not misleading and all claims must be substantiated and approved.

3. **Write What is known:** Write and post about areas of expertise. Respect brand, trademark, copyright, fair use, confidentiality, and financial disclosure laws.

4. **Perception Is Reality:** In online social networks, the lines between public and private, personal and professional are blurred.

5. **It's a Conversation:** Talk to readers like talking to real people in professional situations. Consider content that is open-ended and invites response. Encourage comments.

6. **Is it Value adding?:** Write things that people will value. It should be thought-provoking and build a sense of community. If it helps people improve knowledge of health related topics or skills, improve their lifestyle or solve problems, then it's adding value.

7. **Your Responsibility:** What you write is ultimately your responsibility. Failure to abide by these policies and the HIPAA Privacy and Security Rules could put employment at risk. Also follow the terms and conditions for any third-party sites.

8. **Be a Leader:** Do not denigrate other physicians, hospitals or other healthcare providers, or other employees/providers, and do not engage with others who have done so. Nor do you need to respond to every criticism or barb.

9. **Made a Mistake?** If yes, admit it. Be upfront and quick with correction.

10. If it Gives a Pause, Pause: Before publishing something review these guidelines

and try to figure out what's wrong, then fix it. Take time, be sure of what to publish.

OBJECTIVES

The basic objectives of study are;

1. To assess the importance of social media networking for hospitals.
2. To create awareness about social media networking in health care.
3. To suggest measures to implement social media networking for hospitals for better services.

THEORETICAL BACKGROUND

The wild fire significance of social networking with multiple benefits made some of the hospitals embrace social media early, especially children's hospitals. Boston Children's Hospital, United States of America, for example, has 722,000 Face book followers. Albany Medical Center, United States of America, which launched its Face book page in 2010, has 4,000 followers who have "liked" its page; Glens Falls Hospital, United States of America, has 500 followers and Saratoga, United States of America, has 860 followers.

About 60 percent of adults use the Internet to make health care decisions, and 62 percent of adult Internet users are on social media, according to "The Social Life of Health Information," a 2011 survey by the Pew Research Center. The survey found that adults don't use social media for health decisions yet, but they follow their friend's trials with illness through social sites and watch video clips that explain medical procedures. "Social network sites are not a significant source of health information for most people, but they can be a source of encouragement and care," the study said.

Most hospitals have not discovered the value of social media, said Andrea J. Simon, an anthropologist and business strategy consultant who founded Simon Associates Management Consultants based in Westchester County, United Sates of American. "Social media provides an extremely powerful way of communicating: People trust you, and trust is extremely valuable," Simon said, "From a business perspective, (hospitals) are missing a great opportunity find people who would like to use them when they need them." Only 16 percent of hospitals are actively using social media, according to Simon's 2011 Second Annual Survey of Hospital Use of Social Media. The survey of 140 hospitals described the four main reasons hospitals avoid social media: patient privacy, employees wasting time on social media, not enough staffing to sustain a social media effort and fears of people talking about them online. Negative comments are part of the package. A quick search of Face book or Twitter on a given day turns up a handful of unpleasant comments about local hospitals.

METHODOLOGY

A descriptive study is done on the use of Social media networking for hospitals and health care. All secondary data is collected from Health Magazines, World Wide Web,

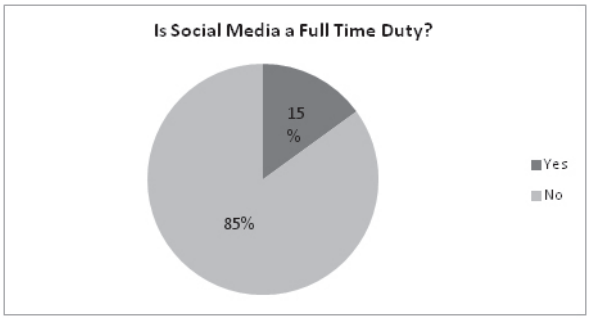
Newspaper articles and published matter on similar topic. A pragmatic experience is driven with help of our course curriculum (Hospital Administration) and this study is carried out.

DISCUSSION & RESULTS

As patients are becoming more used to the convenience of online information, they are more likely to choose a hospital not only by its services as well as by its social functionality. In fact, according to a recent survey conducted by YouGov Healthcare, United States of America, 57% of patients said that a hospital's social media connections would strongly affect their decision to receive treatment at that facility.

It is important to note that a fully social hospital should refer to more than just the creation of a Face book page. In a study it is revealed that, for viewing the information on social networking is not time consuming and moreover very cost effective. The following picture depicts the results;

Figure 2



Source: A Healthy Dose of Social media, Ohio Hospital Association.

The above diagram clearly indicates that, social media is not at all taking valuable time of user. In a survey 85 percent respondents stated that it is not full time work and only 15 percent respondents indicated that it is taking time which is insignificant according to the study. As in west all hospital are leveraging the Social media tools to reach their patients but if we analyze the situation of Hospitals in India in the area of using social media it seems it will take much time to come in main stream. Still, in India hospitals and physicians are not fully utilizing social media to reach patient and perspective audience more particularly health care. Most of the hospitals just mentioned social media logo on their websites to connect but those are not active, if active but not maintained since one year its shows that they are not inclined towards use of social media. The following table depicts the same.

Table 1

List of Hospitals in Mumbai Using Social Media Networking

Name of the Hospitals	Twitter	Face book	Blog	You Tube	Mob. App	Community Education Webpage
Bombay Hospital & Research Centre	No	No	No	No	No	No
Breach Candy Hospital	No	Yes (Not active)	No	No	No	No
Hinduja National Hospital & MRC	Yes (Active)	Yes (Active)	Yes	Yes	No	Yes
Dr. LH Hiranandani Hospital	Yes (Not active)	Yes (Active)	No	No	No	No
Jaslok Hospital & Research Centre	Yes (Not active)	Yes (Not active)	Yes	No	No	No
Kokilaben Dhirubhai Ambani Hospital	No	Yes (Active)	No	No	No	No
Lilavati Hospital & Research centre	No	No	No	No	No	No
RG Stone Urology & Laparoscopy Hospital	No	Yes (Active)	No	No	No	No
Tata memorial Hospital	No	No	No	No	No	No
Wockhardt Hospitals	Yes (Active)	Yes (Last post 0f 2010)	No	No	No	No

Source: Healthcare Marketing in 21st Century, HealthcareUpdate Blog.

A select number of elite hospitals of India have grasped this concept and have begun to create robust, patient-centric hospital sites. But none of the above hospital is actively updating the information on their social network. Whereas in other countries the impact of social networking is very effective and has more utilitarian for instance; Pinnacle Health System in Pennsylvania, The Mayo Clinic in Minnesota, the Cleveland Clinic in Ohio and Massachusetts General are just a few of the hospitals that have begun to embrace the benefits of social interconnectivity in United States of America. The hospitals that will continue to thrive in the evolving marketplace understand that their online communities must be personalized and social rather than static and information laden.

A Healthy dose of social media, produced by the Ohio Hospital Association (comprising of 207 hospitals and 22 health systems) and Mindset Digital, is based on a statewide survey of OHA member hospitals and health systems conducted in late 2012. It

focuses on how hospitals utilize and manage social media. Over half of OHA's member hospitals and health systems responded to the online survey, revealing that 90 percent are using social media.

Table 2

Social Networking in Hospitals Campaign

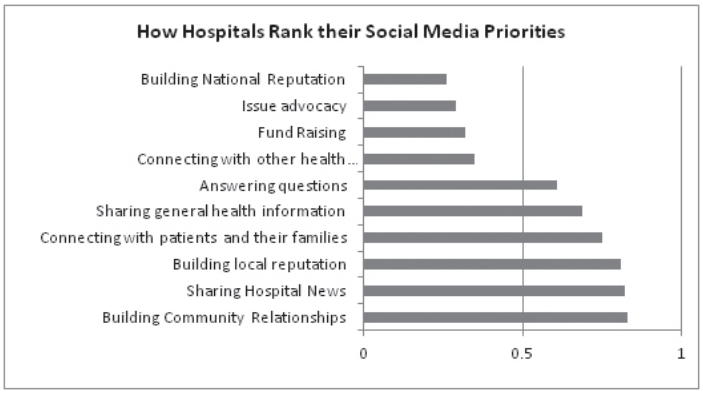
Areas of campaign	Percentage
General health/ awareness	80%
Brand marketing	51%
Community Building	44%
Fitness	44%
Fund Raising	29%
Employee development/ Hiring	24%
Issue Advocacy	24%
Customer Service	22%

Source: A Healthy Dose of Social media, Ohio Hospital Association.

From the above table it is understood that, 80 percent of hospitals campaign on General Health/awareness, 51 percent of hospitals use the social media for Brand Marketing, 44 percent hospitals contribute to community building, Fitness accounts for 44 percent, 29 percent of the hospitals campaign for fund raising, 24 percent campaign for employee development/hiring, issue advocacy by hospitals accounts for 24 percent and 22 percent hospitals campaign for customer service. Hence more significant is that 80 percent hospital focus on health awareness and health care. But in India the elite hospital has long way to go to do their social networking and generate total awareness on health and health care issues.

Figure 3

How Hospitals rank their social media priorities?



Source: A Healthy Dose of Social media, Ohio Hospital Association.

According to the above diagram, Hospitals rank "Building Community relationships" as their top priority, followed by "Sharing hospital news", "Building local reputation", "Connecting with patients and their families", "Sharing general and health information", "Answering questions", "connecting with other health officials/institutions", "Fund raising", "Issue advocacy", and "Building national reputation".

An in-depth Health Research Institute report of United States of America dives into what some of the largest health care companies are doing in and with social media. The report's findings are based on a survey of more than 1,000 consumers and 124 health care executives. According to the survey, a total of 24 percent respondents posted about health experiences or updates; 27 percent of all respondents commented on other's health experiences; 16 percent of all respondents posted reviews of medications or treatments; 18 percent of all respondents tracked and shared health symptoms or behaviours; 20 percent of all respondents supported a health related cause and 28 percent of all respondents joined a health forum or community.

Table 3

What Consumers Do with Healthcare Social Media

Activities	Percentage
Posted about health experiences or updates	24%
Commented on other's health experiences	27%
Posted reviews of medications or treatments	16%
Tracked and shared health symptoms or behaviours	18%
Supported a health related cause	20%
Joined a health forum or community	28%

Source: Health Research Institute report of United States of America

CONCLUSION

A hospital can publicize hospital-sponsored events in the community with social media networking. The hospital can also set patient care reminders, provide care tips to new patients, introduce new staff members and research candidates, provide smoking cessation assistance, strengthen patient-provider relationships, physician opinion sharing, hazardous safety communication, send appointment reminders, promote domestic violence awareness, issue food safety alerts, issue alerts for missing patients. Social media can also be harnessed to announce facility updates, publish health news first, publish drug safety alerts from FDA, to give disaster alert and response, monitor hospital's reputation, provide dietary tips, facilitating rural healthcare communication, to support health-related groups, for community health outreach and clinical trial awareness.

A shift is occurring, and soon a social hospital will not be classified by its presence on Facebook and Twitter, but by its ability to translate its services and offerings into the

online realm. Hospitals that are able to create a personalized and relevant community and position themselves as thought leaders will prevail. The fact is, conversations are going to happen either way, so it's now a matter of "how" to shape the conversation about your hospital rather than "if" to shape the conversation. It seems the industry is witnessing the birth of new breed of hospital websites, the Social Hospital.

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Web-Based Corporate Reporting in India

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ABSTRACT

This research paper tries to investigate the utilization of web-based facilities for communicating corporate information by companies in India. Being the fastest mode of communication Internet has the widest reach in the present world. Recently the companies have started reporting their financial results and other information relating to business on their websites. Almost every company today maintains its website. It has been observed that information disclosed by companies on their websites largely depends on disclosure practices of competitors and industry standards. The paper examines the disclosures of financial and non-financial information on websites by Indian companies. A sample of top 200 companies, which constitute BSE-200 Index, has been taken for the study. The sample comprises of 19 diverse industry sectors. To measure the type and extent of web disclosure by the sample companies a worksheet referred as Internet Disclosure Index (IDI) has been prepared. The results indicate that there is a positive relationship between industry sector to which a company belongs to and its internet reporting practices.

This research focuses on some issues that are involved in online corporate reporting. This is required to create a new mind set to execute such an online corporate reporting strategy which focuses on enhancing the benefits to organization & customer both.

INTRODUCTION

The developments in the field of information technology during the recent past have influenced significantly the various aspects of economy. The use of internet has gone deep into the various functional areas of business. It has become a very popular mode for internal and external communications. Web-based reporting has emerged as a popular practice with companies at national and international levels. The present paper focuses on examining the practices in Indian corporate sector with regard to reporting of their performance results on websites.

Corporate reporting relates to communication of financial and non-financial information regarding resources and performance of a company. The key object of corporate reporting is to provide all useful information and extend accountability to numerous stakeholders. The changed economic scenario with increased market and regulatory pressures require companies to accumulate and publish information regarding financial performance, social and environmental issues, corporate governance, marketing and other information with more frequency, detail and variety of formats. Greater disclosures enable regulators and



stakeholders to better monitor and control excessive risk-taking by corporations. Almost every company now maintains its website in India. It has rather become mandatory with every public organization to disclose information on website with the implementation of Right to Information Act, 2005. However, the information disclosed on website has yet to standardize in format and content and different companies are adopting different practices in this regard.

The quantum and sophistication of information needed by its users have also grown during the recent times. The need for information has been driven by changes in society profile accompanied by revolutionary changes that has taken place in the field of communication. Despite the rapid adoption of the web-based reporting practices by corporates there are currently no regulations and standard guidelines that specifically apply to corporate reporting. As such companies appear to be free to select any specific presentation combination. Since web-based corporate reporting has become a popular practice with companies, there is a need to establish some standardized formats and uniform practices to regulate the process and ensure adequate information for end users.

REVIEW OF LITERATURE

The prime source of the studies reviewed here includes various websites, selected referred national and international journals such as European Accounting Review, An International Journal, Accounting Horizons, Journal of International Financial Management, There are many studies conducted in abroad, but very little work has been done on this subject in India.

Some of the studies which deserve reference here include Lymer (1997), Marston and Leow (1998) and Craven and Marston (1999) who carried out a study on web reporting practices in UK based companies. Lymer, A. and Tallberg, A. (1997), Hedlin, P. (1999), Molero, L. J., Martin, Prado A. and Sevillana, Martin, F. (1999), Brennan, N. and Hourigan, D. (2000), Hassan, S., Jaffar, N. and Johl, S.K. (2000), Oyelere, P., Laswad, F. and Fisher, R. (2001), Ettredge, M., Larran, M. and Giner, B. (2002), Lybaert, N. (2002), Lodhia, S. (2003), Marston, C. (2003), Oyelere, P., Laswad, F. and Fisher, R. (2003), Marston, C. and Polei, A. (2004), Adham, K.A. and Ahmad, M. (2005), Pervan, I. (2005), Momany, M.T. and Shorman, S. (2006), Richardson, V. J. and Scholz, S. (2002) and Boesso, G. and Kumar, K. (2010) researched web reporting practices of Finland, Sweden, Madrid, Irish, Kuala Lumpur, New Zealand, Spain, Netherlands, Croatia, Jordan and US. So far there has been no study conducted on Indian companies. Xiao et al. (2005) developed a conceptual framework of the impact of the Internet on corporate financial reporting on the basis of the issues and concerns elicited through an open-ended questionnaire survey of 17 UK-based experts in Internet and accounting. Ashbaugh, H.. (1999) made a study on corporate reporting on Internet on 290 companies. It was found that corporate size was statistically significantly correlated with Internet financial reporting. Craven and Marston (1999) examined the extent of financial information disclosure on the Internet by the largest companies in the UK in 1998. The study found that there was no significant association between industry type and disclosure. Debreceny and Gray (1999) studied

financial reporting on the Internet and its implications for external audit by surveying forty five large listed UK, French and German corporations. A total of thirty-six of these corporations published their annual financial statements in HTML or Adobe Corporation's Acrobat.

From the above discussions we can conclude that many research studies have been carried out on web reporting in abroad but no study has been done on this subject in Indian context. Today almost all the companies are reporting some sort of financial and non-financial information through their websites. From review of literature it has been found that a number of studies have prepared a worksheet (Internet Disclosure Index) to measure the reporting practices of companies. Relationship of the company characteristics like size, profitability, leverage, industry type, age with internet disclosure has also been studied.

OBJECTIVE AND SCOPE OF THE STUDY

The main objective of the present study is to examine the extent, adequacy and usefulness of web-based corporate reporting practices in India and to study the types and extent of web-based financial and non-financial disclosures. The main objective of the study was to examine the disclosures of financial and non-financial information on websites of Indian companies. To achieve this objective, the focus was on determining the internal disclosure index and its relationship with industry.

The scope of the present study has been explained with reference to the concept, units covered and time framework. Web-based corporate reporting refers to the disclosure of accounting and other business information on website by companies. The study covers all the 200 companies of BSE-200 Index. For the purpose of sample identification the companies listed on BSE-200 Index on January 15, 2010 has been taken.

BASIC CONCEPT OF WEB-BASED CORPORATE REPORTING

World Wide Web is one of the most rapidly growing areas of information technology, which is used for business communication in various forms. It has the potential to be used in almost all functional areas of management and business. In the past few years, rapid developments in Information Technology (IT), particularly in communication, electronic service network, multimedia, websites, e-mail, video conferencing, e-commerce, chatting, file transfer applications have opened up new opportunities for the corporate. All these are contributing towards new and effective ways of processing business transactions, integrating business processes, transferring payments and delivering services.

Corporate reporting on internet includes both financial and non-financial reporting. The financial reporting includes some statutory reports like profit and loss account, balance sheet, cash flow statement, statement of changes in financial position, director's report, auditor's report and interim reports. In addition to this there are some non statutory financial reports also which includes value added statements, summarized financial statements, current cost accounts, human resources accounting, social accounting, financial highlights,



segment reporting, financial ratios, economic value added, price level accounting, etc. Non-financial reporting has its own value to evaluate a firm's performance in this dynamic and competitive environment. This non-financial information includes information on corporate governance, corporate social responsibility, corporate history, environmental reporting, sustainable development reporting, etc. The websites report a large amount of non-financial information also which is useful for the stakeholders.

WEB-BASED CORPORATE REPORTING PRACTICES IN INDIA

Website contains updated information relating to a particular organization. It includes graphics, text, objects, multimedia, hypertext and hypermedia, which allow users to access any information by click of a mouse. A website is open to all users and any one can get relevant information from a website.

Growth of Internet has been very rapid in India. Because of global competition, international presence of Indian companies, boom in the stock markets, increased professionalism, convergence to international accounting standards, wide markets and presence of global customers, Indian companies are using Information technology in the best possible way. Almost all Indian companies have web presence by creating their websites. But the type of information disclosed on the websites varies from website to website. Some companies are disclosing a lot of information on the website and they are updating their websites as soon as any new information comes to them. But some other companies are not disclosing much information through the websites.

The disclosure of information on websites of Indian companies can be broadly classified as financial reporting and non-financial reporting. Financial reporting covers the complete annual reports that are provided on the websites. Interim statements of the current year, annual and interim statements of the past years are also available on website of a company. Information about the current share prices, dividend paid, financial review, and ratio analysis is also a part of financial disclosure. Some companies also present their annual reports as per International Accounting Standards (IAS) and US GAAP. The financial disclosure on the website is available under the heading of financials or investors relations on a company's website. But, everything disclosed is a voluntary exercise to have advantages from its reporting.

Non-financial Reporting can be further classified as :

Corporate Governance: It is the set of processes, customs, policies, laws and institutions affecting the way a corporation is directed, administered and controlled. Corporate governance also includes the relationships among the many players involved and the goals for which the corporation is governed. The principal players are the shareholders, management and the board of directors. Other stakeholders include employees, suppliers, customers, banks and other lenders, regulators, the environment and the community at large. This would include information with regard to history of the company, organizational structure, vision, mission, board of director information, remuneration of the management,

code of corporate governance, citizen's charter, etc.

Corporate Social Responsibilities (CSR) : It is a concept, which emphasizes that organizations are under an obligation to consider the interests of customers, employees, shareholders, communities and ecological considerations in all aspects of their operations. CSR is closely linked with the principles of sustainable development, which argues that enterprises should make decisions based not only on financial factors such as profits or dividends, but also based on the immediate and long-term social and environmental consequences of their activities. So, CSR reporting includes environmental policy statement, product quality and safety information, social and community contribution information, CSR initiatives, contribution to educational institutions, research and employment opportunities, etc.

Investors Relations : Investor relations are a set of activities that relate to the way in which a company discloses for regulatory compliance and good investment judgement to shareholders and the wider financial markets. Most public quoted companies now have dedicated IR officers or managers who looks after the company's investor relations activities and deal with buy-side and sell-side investment professionals or other investors wishing to know more about the company. Functions of investor relations'personnel often include collection of information on competitors and dissemination of information via press conferences, one-on-one briefings, investor relations' sections of company websites, and company annual reports. In particular, it must be able to assess the likely impact or reaction of any announcements (or any research reports issued by financial analysts) to be made on the share price of a company. Thus information related to investor relation officer is available under investor relations 'page. In some websites financial information also becomes a part of investor relations page.

E-Commerce : Electronic Commerce means buying and selling of goods and services across the Internet. An e-commerce site can be as simple as a catalogue page with a phone number, or it can range all the way to a real time credit and processing site where customer can purchase downloadable goods and receive them on the spot. Because of numerous benefits of online buying and selling many companies have started adopting it. The websites would contain detailed information about the goods and services, which can be purchased. An order form would be available to be filled in by the buyer, payment mechanism is specified and the security aspect is taken care of.

DATA COLLECTION

Data for this study were collected from the websites corporate websites of sample companies were browsed for collecting data relating to corporate reporting on the internet. Secondary data sources have been used for this study. Data for the Internet Disclosure Index has been taken from the websites of 200 companies. The secondary data related to company size, profitability, leverage, liquidity, ownership spread, business house, industrial sector and date of establishment has been taken from PROWESS Database in January 2010.

DATA AND METHODOLOGY SAMPLE :

For this study, a sample of top 200 companies, which constitute BSE-200 Index, has been taken. The rationale behind selecting BSE-200 Index as sample base is that these 200 companies account for a sizeable share of market capitalization in Indian security market and reflect the performance of almost the entire corporate sector in the country. For the purpose of this study the sample taken is all the companies, which were a part of BSE-200 Index, as on January 15, 2010 (Annexure - I).

Table 1 : Industry Sector-wise Distribution of Sample Companies

Industry Sector	Number of Companies	Per cent
Capital Goods	18	9
Housing Related	15	7.50
Diversified	12	6
Finance	27	13.50
Textile	4	2
Transport Equipments	15	7.50
Health Care	19	9.50
Chemical and Petrochemicals	6	3
Agriculture	8	4
FMCG	12	6
Oil & Gas	16	8
Telecom	5	2.50
Power	5	2.50
Transport Services	6	3
Tourism	3	1.50
Information Technology	13	6.50
Metal and Mining	12	6
Media and Publishing	2	1
Consumer Durables	2	1
Total	**200**	**100**

The sample 200 companies come from 19 diverse industry sectors. Table 1 shows distribution of companies having websites as per industry sector. A maximum of 27 companies come from financial sector. 19 companies are from health care and 18 from capital goods. Oil and gas companies constitute of 16 companies. Information Technology companies are well represented with a sample size of 13 companies. Tourism, media and publishing and consumer durables are also represented in the sample. This shows that BSE-200 Index is a good representative all the industries.

For the purpose of this study the sample taken is all the companies which were a

part of BSE-200 Index as on January 15, 2010. To measure the type and extent of web disclosure by the sample companies a worksheet referred to as Internet Disclosure Index (IDI) has been prepared. The information has been collected under seven major themes. Definitions applied in the checklist model are based on an extensive literature review of prior web-based disclosure studies. A pilot survey has been conducted on some websites of Indian companies and contents of Internet Disclosure Index (IDI) have been revised accordingly. A brief description of these seven variables is given below:

- **Financial Reporting Index (FRI) –** The criteria in this group measures the content of financial information available on the website like balance sheet of current year, P&L A/c of current year, interim statements of current year, cash flow statement of current year, share prices, dividend information, press releases or news, auditor's report, link to SEBI (EDIFAR), segment reporting, price level accounting, human resource accounting, compliance with international accounting standards and ratio analysis.
- **Corporate Governance Information (CGI) –** This category examined whether company make available Corporate Governance Information on web or not. It included information on vision, mission, company history, board of director's profile, remuneration of management, code of corporate governance, citizen's charter, members of audit committee, discussion and disclosure of risks, investor grievance committee and the like.
- **Corporate Social Responsibility & Human Resource Information (CSRI)** – It assessed the level of social responsibility fulfilled by and disclosed by a company like CSR page, environmental policy statement, recycling and related energy saving information, donations/ sponsoring to community groups and charitable bodies information, discussion on product quality and safety, employee profiles and training, articles, speeches, case studies, employment opportunities and community information.
- **Marketing Information (MI) –** It assesses how much companies use websites for e-commerce purposes. It includes information regarding product, customer, advertisements, system of e-commerce, goods and services sold online, their own primary goods and services, promotional goods and other company's goods, etc.
- **Investor Relations Communication (IRC)** – It measured the extent to which company provide adequate investor relation contact details including name, email, postal address, phone no., frequently asked questions, etc.
- **Right to Information Act (RTI) –** It examines the compliance of information disclosed under RTI Act, 2005. It is mandatory for all public companies to disclose some minimum information through websites. The content under RTI varies from company to company like special section for RTI, name and contact details of Information officer are given, list of Appellate Authorities, details about the organization, functions and duties of officers and employees, remuneration of employees and request form for asking information.
- **Technological Aspects and User Support (TAUS)** – This criterion examined whether company made use of advanced technological options in order to make website more



user friendly and updated. It includes information like one click to get to investor relations page, internal search engines, site map, defines minimum required browser, page divided into frames, industry statistics or data, printer friendly page, real time information updating, browsing aids- is the pull down menu available, are download files zipped, annual report in which format (html/PDF/word), web cast of corporate meetings and presentation, number of hits on website (counting of the users who are visiting the website), privacy and security, etc.

The data for computing the Internet Disclosure Index has been taken from the websites of the sample companies. The maximum score of IDI as per the worksheet developed comes to 135. The maximum possible scores for each of the sub-categories are given in Table 2.

Table 2 : Maximum Possible Scores of Disclosure Index

Categories in Disclosure Index (Dependent Variable)	Maximum Possible Score
Financial Reporting Index (FRI)	36
Corporate Governance Information (CGI)	18
Corporate Social Responsibility & Human Resource Information (CSRI)	14
Marketing Information (MI)	9
Investor Relations Communication (IRC)	12
Right to Information Act (RTI)	7
Technological Aspects and User Support (TAUS)	39
Non – Financial Reporting Index (NFRI) (It is a sub total of CGI + CSRI + MI + IRC + RTI + TAUS)	99
Internet Disclosure Index (IDI) (It is subtotal of FRI + NFRI)	135

CLASSIFICATION OF COMPANIES AS PER INTERNET DISCLOSURE INDEX

Classification of companies in the public sector and private sector companies on the basis of Internet Disclosure Index (IDI) percentage has been depicted in Table 2. It can be seen from Table 3 that 36.36 per cent of public sector companies have IDI score between 40 to 50 per cent as well as between 50 to 60 per cent. Only 3.03 per cent companies have disclosure score between 60 to 70 per cent and above 70 per cent. The companies with IDI score between 30 to 40 per cent are 18.19 per cent.

In case of private sector companies 28.74 per cent companies have IDI score between 40 to 50 per cent and 28.14 per cent companies have IDI score 50 to 60 per cent. 23.25 per cent private sector companies have IDI between 30 to 40 per cent. Only 0.6 per cent of companies have IDI above 70 per cent.

Table 3 : Distribution of companies according to Internet Disclosure Index Percentage

Internet Disclosure Index Percentage	Number of Public Sector Companies	Number of Private Sector Companies	All Companies
Less than 30	1 (3.03)	20 (11.98)	21 (10.50)
30-40	6 (18.19)	39 (23.35)	45 (22.50)
40-50	12 (36.36)	48 (28.74)	60 (30.00)
50-60	12 (36.36)	47 (28.14)	59 (29.50)
60-70	1 (3.03)	12 (7.19)	13 (6.50)
70 and above	1 (3.03)	1 (0.60)	2 (1.00)
total	33	167	200

Note: Figures in brackets represents percentages

On the basis of above analysis it can be concluded that 30 per cent of the companies fall in the category of 40 to 50 per cent disclosure. Almost the same percentage of companies (29.50 per cent) fall in the category of 50 to 60 per cent IDI score. Only 1 per cent companies are having IDI above 70 per cent. 10.50 per cent of companies are having IDI score below 30 per cent. Around 22.50 per cent companies have disclosure index between 30 to 40 per cent. This shows that on an average 60 per cent of the companies has Internet Disclosure Index between 40 to 60 per cent, which shows that websites of majority of Indian companies are relatively better in terms of content, quality, presentation and technological aspects.

PERCEPTIONS OF STAKEHOLDERS ON WEB REPORTING

To assess the perceptions of various stakeholders on adequacy and usefulness of web reporting two separate questionnaires have been used, one administered on stakeholders and second on companies. To analyse the perceptions of stakeholders on web-based corporate reporting practices a questionnaire has been developed and administered on 600 respondents out of which only 264 responses were generated, of which 103 filled questionnaires came from Internet response by stakeholders. Some questionnaires were incomplete so, were rejected and only 255 questionnaires have been found suitable for the study. The questionnaire contained questions relating to uses of web reporting by stakeholders, Internet penetration among the stakeholders, reliability of different internet sources, quality of website content, benefits of web reporting, present status of web reporting and future prospects of web reporting (Annexure IV). A pilot survey of the structured questionnaire was carried out from investors, financial analysts, employees of companies and relevant changes have been made in questionnaire. Questionnaires were uploaded online to get response from stakeholders across the world. Some questionnaires were personally sent to regulators like employees in SEBI, nationalized banks, income tax authorities, chartered accountants, and academicians to get relevant viewpoints of such people. Table 4 shows the responses given by stakeholders against the requested questionnaire.

Table 4 : Number of Respondents

Category	Questionnaire sent	Responses received
Investor	300	98
Employee of company	60	44
Customer	50	31
Regulator	15	4
Financial Analyst	100	51
Corporate Lender	10	1
Auditor	15	4
Academician/ Researcher	50	22
Total	**600**	**255**

EMPIRICAL RESULTS

Internet disclosure index is a composition of Financial Reporting Index and Non-Financial Reporting Index. Non-financial reporting includes Corporate Governance Information, Corporate Social Responsibility and Human Resource Information, Marketing Information, Investor Relations Communication, Right to Information Act and Technological Aspects and User Support. The data for computing the Internet Disclosure Index has been taken from the websites of the sample companies. The maximum score of IDI as per the worksheet developed comes to 135. The maximum possible scores for each of the sub-categories are given in Table 2. On the basis of Table 3 it can be concluded that 30 per cent of the companies fall in the category of 40 to 50 per cent disclosure. Almost the same percentage of companies (29.50 per cent) fall in the category of 50 to 60 per cent IDI score. Only 1 per cent companies are having IDI above 70 per cent. 10.50 per cent of companies are having IDI score below 30 per cent. Around 22.50 per cent companies have disclosure index between 30 to 40 per cent. It concludes that on an average 60 per cent of the companies has Internet Disclosure Index between 40 to 60 per cent, which shows that websites of majority of Indian companies are relatively better in terms of content, quality, presentation and technological aspects.

LIMITATIONS OF THE STUDY

a) This research has been conducted on a limited sample size for studying the web reporting practices of Indian companies, which could be large. Even sample may include companies from developed nations for international comparison purpose.

b) The sample size for stakeholders' perception analysis could have been more from the regulators and experts from the field. But due to busy schedule of these experts they could not respond to the questionnaire even after repeated reminders.

c) The information on websites keeps on changing. The information drawn is relevant for the period when it has been downloaded.

CONCLUSION

The development of internet as a medium of global corporate communication creates a new channel of disseminating corporate financial and non financial information. As the nature of web-based reporting is voluntary and internet penetration is fastly growing. There is need for the global regulatory bodies to make it standardized so that web reporting becomes the main medium of reporting instead of an alternate medium to reach to the stakeholders.

In India all the 200 companies taken in the sample have their websites. But the contents of each website vary. On an average 60 per cent of the companies has Internet Disclosure Index between 40 to 60 per cent, which shows that websites of majority of Indian companies are very good in terms of content, quality, presentation and technological aspects.

The findings suggest that companies bigger in size tend to disclose more information on websites, because they derive some benefits by disclosing more information. Overall the disclosure practices of all Indian companies are fairly good.

This paper concludes that the corporate reporting in the form of financial and non financial reporting has become essential for any organization. Financial reporting is mandatory to be disclosed in the form of printed annual reports to various stakeholders. But with the technological and economic reforms that have taken place in the economy web-based corporate reporting is becoming popular.

Almost all the companies have websites and they disclose financial and non-financial information through websites. But the type of information disclosed, quality of disclosure, standardization of format of disclosure, timeliness of reporting are some of the issues which need to be deliberated upon by the researchers, regulators and other stakeholders so that the maximum potential of the technology combined with international standards of reporting give birth to a new system of web-based corporate reporting for this competitive global world.

This subject of study is emerging and new in Indian context. The extent of Internet disclosure has been studied for 200 Indian companies in the present study. So, a lot of scope exists for further research.

RECOMMENDATIONS

- Information provided on the websites should be regularly updated.
- Most companies in all countries have provided the information only in English which may not be useful for all consumers in India.

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A Study on Brand Management

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ABSTRACT

In this paper attempt has been made to analyze the benefits of good brand management in the competitive market since there is a lot of clutter in branding and it gives the empirical experience of some industry. The survival of companies of course depends on the competitive edge and the internal fundamental strength of the organization. In the market the vibrant message creators is the brand of the organization, most of the regular as well as new customer see the brand image of the companies and the companies to sustain in the market because of brand and be a Business leaders.

Crafting a sustainability strategy doesn't guarantee success. In fact, it can stifle success unless you look at constraints as opportunities for creativity. Sustainability requires a re-imagination of the art of branding — just as branding requires a re-imagination of the science of sustainability. The old branding paradigm stamped a commodity with a logo and a slogan, but we are champions for a new paradigm that delivers practical, social and tribal benefits and offers consumers authentic, meaningful and empowering experiences.

Keywords : *brand management, clutter in branding, vibrant message creators, re-imagination.*

INTRODUCTION

When it comes to change strategies for embedding sustainability, having a powerful brand is both a blessing and a curse. Instantly recognizable, Coca-Cola, Virgin or Apple evoke an immediate cluster of associations, and depending on whether you're a customer, activist or investor those associations may have halos, horns or otherwise. Having a strong brand can confer a social license to push boundaries on behalf of your stakeholders; but it can also limit the freedom to experiment and innovate.

In the realm of business and management domain, the sustainability is still a contested and ill-defined concept. One organization will frame the term using language borrowed from Quality and Lean processes (efficiency, waste reduction); another will borrow from risk management (mitigation, control, resilience). Depending on the dominant identity labels, some frames will resonate and get traction faster than others. For Virgin, the challenger brand identity is a compelling one, and framing sustainability as ground breaking innovation, beating the competition, as adventure, reflects well the image staffs have of their company. For Coca-Cola Enterprises, the youthful, fresh lifestyle identity will connect more readily with Gen Y and their desire for greater meaning and freedom in



their work. Connecting with stakeholders and employees through these common identity labels generates positivity and goodwill, enabling more stretching change strategies that have a greater chance of traction.

Branding can be rational or irrational. Customers buy brand not only for the intrinsic values associated with it but also because the brand has surprised them in the past with newer and more novel experiences. Branding is a promise made to the customer that will deliver values beyond expectation. Branding strategy hence should also involve continuously communicating to the customer of the novel experiences that he/she has had with the brand. The paper presenter has made earnest attempt to discuss brand strategy in this paper later on.

OBJECTIVES

The objectives are formed to focus and arrive at meaning full findings and conclusion. The major objectives are;

1) To examine the strength of brand in open market.
2) To analyze the power and pull of brand in competitive market.
3) To study the significance of brand to companies.
4) To examine different brand and its customers.
5) To assess the good will of brand.

METHODOLOGY

A descriptive study is done on mileage of brand in business houses and suitability of business. All secondary data is collected from business and management magazines, companies' reports, newspaper articles and published matter on similar topic. A pragmatic experience is driven with help of my academic experience in management course. A review of case study is taken into account to strengthen this research work.

DISCUSSION

Marketing is going through a paradigm shift. Today's customers are more focused than their predecessors and better informed due to a process accelerated by the internet. They want to know more about the details of the brand. They remove the shells and get into the core of the processes to understand the real value of the brand. They not only want to know the quality of the product but also the policies and practices of the organization. The ethics, production processes and quality are taken for granted by the customers. In this paper researcher has made an attempt to elucidate the brand strategy on the lines of the following discussion and framework;

a) Experimental Marketing; The customers demand experiences instead of products or services today. This creates a challenge to the organizations to find new ways to involve the customers in the value chain so that they themselves can decide the product features and uniqueness that they expect from the brand. For example, Eli Lilly, one of the largest pharmaceutical manufacturers, involved visitors on the website to solve the issues related to the new product development. The responses received are being evaluated by the experts in the industry and by the organization. The company has the option to implement or not,

the suggestions given by the visitors. The company in this way increases its resources as they now have the access to the visitors' capabilities. The visitors are also enjoying the experiences because they can be rewarded for the value additions. The feeling of being participative for a product creation can also be satisfying to the consumers. The ownership develops for the products automatically and the customer becomes more loyal to the organization.

The modern customer demands transparency in the systems of the organizations and involving the customers in the process to deliver value. The Saffola health care initiative by Marico was one such experience delivered to the customers. The customers were allowed to come together and discuss the major issues while Marico hired cardiologists and other experts to brainstorm on the quality improvements in Saffola. The results were increase in sales substantially and definitely a better customer loyalty. The Saffola brand enjoys a price premium of 10% over other brands and large market share in the market today.

b) Siddhivinayak Temple decided to offer services of e-Puja (Prayer) to the devotees on the website. Anyone can visit the website and book the e-Puja (Prayer) and purchase the prashad (ceremonial sweet) online. This suggestion was implemented to take care of devotees who could not reach the temple because of physical disability. That's how a traditional organization decided to deliver value to the customers by involving them into the value chain of the business. Modern organizations have to learn to involve the customers in a similar way to create value together. This synergy will lead to better experiences for the customers and better customer loyalty and financial results for the businesses.

THEROTICAL BACKGROUND

Indeed the brand is most essential for the organization to survive, because it does lot of work to the organization to generate better market share and business. The effectiveness of brand is in the Functional Dimension, Social Dimension, Spiritual Dimension, and Mental Dimension. The researcher has studied the framework of Airtel brand.

Airtel

The Functional Dimension; The role of the technology is to make thing easier for the consumers. Airtel has been very successful in simplifying the use of mobile services by modifying the technology to suit the common users. Even the simplest of the consumer can use the products and services. Airtel says, "Your world of communication just got simpler.

The Social Dimension; Airtel is a recognized brand to be associated with. I satisfy my esteem and it gives me opportunity to be a part of the culture. It is associated with high level of social value.

The Spiritual Dimension; "Building telecom, building relationships." It is important to be in touch with the relatives and dear ones but this is possible today through the mobile communication. Airtel encourages everyone to be more involved in building relationships and spread the happiness.

The Mental Dimension; Airtel gives me the opportunity to "Express Myself." The message is very clear to be open and daring to express. The expression gives me a lot of pleasure and an opportunity to think that I am a separate individual and have the right to communicate and express myself.

Buzz Marketing; Branding increasingly nowadays is moving into Internet-based applications. Online blogs and forums have reinforced the concept of buzz marketing. The "Wow Factor" which was previously associated with the product is increasingly taken over by the advertisement campaign but engaging in this viral campaign strategy has its drawbacks. The case in point is fords viral campaign involving the sport car "Evil Twin Cat" in which the car's sun roof decapitates the cat that is featured in the advertisement. Though it cannot be debated that such a controversial ad has helped raise a lot of brand awareness but this kind of ad can have a negative branding effect in countries like India where animal are worshiped and hold religious significance. Hence it's very important to understand the culture and values that people associate with symbols in order to involve in the right buzz marketing.

Religious Branding; Religion is a way of life in India. Brand management has always exploited the emotional quotient of people and in India people treasure their religion and culture to a great extent. If religion has the power to bind people and unify them under one common ideal then an effective brand strategy must take into account this powerful force which plays on the minds of the Indian consumers.

The strategy to build a sustainable Indian brand is to work on the minds of people and help them answer the question "What is there in it for me?" Every time a customer invests in a product he does so hoping that the product will meet his expectation. This investment constitutes a risk. The idea of a value-based brand is to ensure that the brand minimizes the customer's perception of risk. A simple strategy to ensure this is to minimize the expectations created through promising less and delivering more. A more comprehensive way of achieving this is by creating a faith in the brand that is on the same lines as that of social organizations. The goal of a brand should be to build a trust that the customer's satisfaction is the top priority. A brand that reveals authenticity, values and humanity's drive toward conscientiousness, offers a powerful strategic advantage in a country like India.

FINDINGS

1) The success of the brands and organizations will be determined by their ability to train the employees to ensure that the differentiation is created in the experience provided to the customers.
2) Customer in need of 'Novel Brand Strategies' since they owe the brand of the company, for instance; Monsanto had the resources and the competency to become a successful brand in Europe, but failed to recognize how strongly consumers felt about genetically modified organisms in the agricultural system. No amount of scientific data and evidence could dislodge this negative perception that people had against GM food. This clearly shows that the value perception of consumers sees little logic once established strongly in their minds.

3) In brand establishing process, a sale is never the ending of a transaction but the beginning of a beautiful relationship. Lexus and Disney have become synonymous with loyal customer services. Some customers are treated with breakfast buffets, free lifetime car washes, etc. Lexus was the first company to provide the customer with a replacement car while his/her car was being serviced. These examples go to show that the customers don't like being sold a product but like being serviced.
4) An effective and positive after sales service makes the difference. What customer service does is to create a positive effect on the minds of the customer and this positive influence on the mind of the consumer makes them more open to new ideas and reduces their skeptism towards the brand.
5) A new product launch can leverage on the strength and success of the previous product and ensure that the trust that has been created with the customer is carried forward. The future success of a brand lies in the strategy of involving the existing customers and making them brand ambassadors. More specifically this involves making the customer believe that he is getting the best service in the industry.
6) In competitive market a strong brand make the organization on firm footing and customer pull is generated easily. In growth of business and diversifications brand of the organization plays vital and significant role.

Hence from the above the paper presenter state that, the brand is certainly has tangible and qualitative meaning to the organization and at the same time brand is driving force for the customers to shape their purchasing decision.

CONCLUSION

In nutshell BRAND is a promise made to the consumers by the company/organization. Brand, not only has Functional and Mental dimensions but also Social and Spiritual dimensions. The challenge in front of organizations today is to first understand and then satisfy the needs of the customers. The needs of the customers today are experiences and not just the products. The Organizations have to concentrate on delivering the experiences to the customers leading to satisfaction and association with all the dimensions of the brand. These experiences can be delivered by involving the customer in the supply chain which demands improvement from the organization in terms of training the employees and aligning the culture to deliver value to the customers. The participation of the customers can be ensured by using novel methods of communication and branding. The Profit and Sustainability of Brands will depend on how efficiently and quickly the organization can adapt to these new demands of the customers.

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Primary Study of Artificial Intelligence

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ABSTRACT

There are many ways to represent Artificial Intelligence (AI). It is branch of Computer science concerned with making computers behave like humans. AI is technology that studies and develops intelligent machines and software. AI includes games playing, natural language, and neural network, robotic. Also artificial intelligence beneficial for the time saving technology.

Key Word : *Artificial Intelligence*

INTRODUCTION

Artificial Intelligence (AI) is the branch of computer science concerned with making computers behave like humans. The term was coined in 1956 by John McCarthy at the Massachusetts Institute of Technology. Artificial intelligence involves two basic ideas. First, it involves studying the thought processes of human beings. Second, it deals with representing those processes via machines (like computers, robots, etc.).AI is technology and a branch of computer science that studies and develops intelligent machines and software. It is the science and engineering of making intelligent machines, especially intelligent computer programs. Artificial intelligence involves two basic ideas. First is, it involves studying the thought processes of human beings and second is, it deals with representing those processes via machines (like computers, robots, etc.). AI works with the help of Artificial Neurons (Artificial Neural Network) and scientific theorems (If-Then statement, logics). Artificial intelligence includes games playing: programming computers to play games such as chess and checkers expert systems : programming computers to make decisions in real-life situations (for example, some expert systems help doctors diagnose diseases based on symptoms) natural language : programming computers to understand natural human languages neural networks : Systems that simulate intelligence by attempting to reproduce the types of physical connections that occur in animal brains robotics : programming computers to see and hear and react to other sensory stimuli. Currently, no computers exhibit full artificial intelligence (that is, are able to simulate human behavior). The greatest advances have occurred in the field of games playing. The best computer chess programs are now capable of beating humans. In May, 1997, an IBM super-computer called Deep Blue defeated world chess champion Gary Kasparov in a chess match. In the area of robotics, computers are now widely used in assembly plants, but they are capable only of very limited tasks. Robots have great difficulty identifying

objects based on appearance or feel, and they still move and handle objects clumsily. Natural-language processing offers the greatest potential rewards because it would allow people to interact with computers without needing any specialized knowledge. You could simply walk up to a computer and talk to it. In the early 1980s, expert systems were believed to represent the future of artificial intelligence and of computers in general. To date, however, they have not lived up to expectations. Many expert systems help human experts in such fields as medicine and engineering, but they are very expensive to produce and are helpful only in special situations.

"AI can have two purposes. One is to use the power of computers to augment human thinking, just as we use motors to augment human or horse power. Robotics and expert systems are major branches of that. The other is to use a computer's artificial intelligence to understand how humans think in a humanoid way. If you test your programs not merely by what they can accomplish, but how they accomplish it, they you're really doing cognitive science; you're using AI to understand the human mind."[1].

I thought today, the hottest area of artificial intelligence is neural networks, which are proving successful in a number of disciplines such as voice recognition and natural-language processing. I also want AI was work in Bank, Hospital, Online and telephone customer service, Online and telephone customer service, Toys and games, Music etc.

THEORETICAL BACKGROUND

In the 21st century artificial intelligence (AI) has become an important area of re-search in virtually all fields: engineering, science, education, medicine, business, account-ing, finance, marketing, economics, stock market and law, among others (Halal (2003),Masnikosa (1998), Metaxiotis et al. (2003), Raynor (2000), Stefanuk and Zhozhikashvili (2002), Tay and Ho (1992) and Wongpinunwatana et al. (2000)). The field of AI hasgrown enormously to the extent that tracking proliferation of studies becomes a difficulttask (Ambite and Knoblock (2001), Balazinski et al. (2002), Cristani (1999) and Goyache (2003)). Apart from the application of AI to the fields mentioned above, studies have been segregated into many areas with each of these springing up as individual fields of knowledge (Eiter et al. (2003), Finkelstein et al. (2003), Grunwald and Halpern (2003), Guestrin et al. (2003), Lin (2003), Stone et al. (2003) and Wilkins et al. (2003)). The necessity for research in AI is being motivated by two factors that are (i) to give the new entrants into the AI field an understanding of the basic structure of the AI literature (Brooks (2001), Gamberger and Lavrac (2002), Kim (1995), Kim and Kim (1995), Patel-Schneider and Sebastiani (2003) and Zanuttini (2003)). As such, the litera-ture discussed here answers the common query, "why must I study AI?" (ii) the upsurge of interest in AI that has prompted an increased interest and huge investments in AI facilities.

RESEARCH METHODOLOGY

Two closely related aspects of Artificial Intelligence that have received comparatively little attention in the recent literature are research methodology and the analysis of

computational techniques that span multiple application areas. It is imperative to analyze the repertoire of AI methods with respect to past experience, utility in new domains, extensibility, and functional equivalence with other techniques, if N is to become more effective in building upon prior results rather than continually re inverting the proverbial wheel. Similarly, awareness of research methodology issues can help plan future research by learning from past successes and failures. We view the study of research methodology to be similar to the analysis of operational AI techniques.

RESULTS AND DISCUSSION

Artificial Intelligence is a concept that used for many areas like gaming, robotic, computer etc. I was found that the AI works with the help of Artificial Neurons (Artificial Neural Network) and scientific theorems (If-Then statement, logics). AI researchers and textbooks define the field as "the study and design of intelligent agents" where an intelligent agent is a system that perceives its environment and takes actions that maximize its chances of success. AI research is highly technical and specialized, deeply divided into subfields that often fail to communicate with each other. Some of the division is due to social and cultural factors: subfields have grown up around particular institutions and the work of individual researchers. Artificial intelligence is a common topic in both science fiction and projections about the future of technology and society. The existence of an artificial intelligence that rivals human intelligence raises difficult ethical issues, and the potential power of the technology inspires both hopes and fears.

CONCLUSION

Artificial Intelligence generally involves borrowing characteristics from human intelligence, and applying them as algorithms in a computer friendly way. A more or less flexible or efficient approach can be taken depending on the requirements established, which are use for prediction of result and also save the time and money of experiment work.

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A Study on Role of Social Media in Marketing

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ABSTRACT

Social Media, today, is among the 'best opportunities available' to a brand for connecting with prospective consumers and a medium to socialize. These new media win the trust of consumers by connecting with them at a deeper level. Social media marketing is the new mantra for several brands since early last year. Marketers are taking note of many different social media opportunities and beginning to implement new social initiatives at a higher rate than ever before. Social media in marketing and businesses that utilize have become more sophisticated and technology oriented. One cannot afford to have no presence on the social channels if the competitor is making waves with its products and services. The explosion of social media phenomenon is as mind boggling as that and the pace at which it is growing is maddening. Global companies have recognized social media marketing as a potential marketing platform, utilized them with innovations to power their advertising campaign with social media marketing. This paper discusses about the concepts of social media and social media marketing and other aspects like the growth and benefits, role and relevance of social media in marketing, social media marketing strategies. It also presents an overview on social media marketing in India.

Keywords : *social media, social media marketing, growth and benefits of social media, social media marketing strategy, social media marketing in India*

INTRODUCTION

Social media is a leading marketing tool and trend. And for businesses it represents a marketing opportunity that transcends the traditional middleman and connects companies directly with customers, that's why every business on the planet-right from giants like Starbucks and IBM to the local ice cream shop-are exploring social media initiatives for marketing. At the initial period the response and the utility for the social media was poor because the business expectation were not certain but now one can experience sea change in business with a social media as marketing tool. Now companies are rapidly adopting social media marketing for their business. Much like email and websites first empowered businesses, social media is the next marketing wave.

Social media marketing is marketing using online communities, social networks, blog marketing and more. It's the latest "buzz" in marketing. India is probably among



the first proponents of social media marketing. These days, the organizational cause has replaced the social cause as companies seek to engage with their audience via the online platforms.

The explosion of social media phenomenon is as mind boggling as that and the pace at which it is growing is maddening. Trust and goodwill are the basis of social networking, and by marketing in the realm of social media these fundamental notions need to be adhered. It is probably the only marketing platform that encourages fool proof communication and accountability among sellers as well as consumers. Global companies have recognized Social Media Marketing as a potential marketing platform, utilized them with innovations to power their advertising campaign with social media marketing.

According to Wikipedia, social media is internet-based tools for sharing and discussing information among human beings. Social media is all about networking and networking in a way that espouses trust among parties and communities involved. Any website which allows user to share their content, opinions, views and encourages interaction and community building can be classified as a social media. Some popular social media sites are: Face book, YouTube, Twitter, Digg, MySpace, Stumble Upon, Delicious, Scribd, Flickr etc. Social media uses the "wisdom of crowds" to connect information in a collaborative manner. Social media can take many different forms, including Internet forums, message boards, weblogs, wikis, podcasts, pictures, and video. Social media is made up of user-driven websites that are usually centered on a specific focus (Digg = news) or feature (del.icio.us = bookmarking). Sometimes, the community itself is the main attraction (Facebook and Myspace = networking) Andreas Kaplan and Michael Haenlein define social media as "a group of Internet based applications that build on the ideological and technological foundations of We 2.0, which allows the creation and exchange of user-generated content."

There are two benefits of social media that are important to businesses, they include:

1. Cost reduction by decreasing staff time.
2. Increase of probability of revenue generation.

Social media enables companies to :

- Share their expertise and knowledge.
- Tap into the wisdom of their consumers.
- Enables customers helping customers.
- Engages prospects through customer evangelism.

Thus the benefits of social media include: brand reach and awareness, consumer interactions through transactions, referrals and reputation management.

METHODOLOGY

Paper presenter has undergone an extensive study and review of literature and did an in-depth observation. Basically it is a conceptual paper, the secondary data such as review of literatures, books, journals etc. was referred to make the study more meaningful and

comprehensive. It is a descriptive study done on the use of Social media networking in marketing.

THEORETICAL BACKGOUND DISCUSSION

Social media marketing consists of the attempt to use social media to persuade consumers that one's company, products and/or services are worthwhile. Social media marketing is marketing using online communities, social networks, blog marketing and more.

Lazer and Kelly's (1973) define social marketing as "concerned with the application of marketing knowledge, concepts, and techniques to enhance social as well as economic ends. It is also concerned with the analysis of the social consequences of marketing policies, decisions and activities."

Growth of social media marketing: A recent study, "The State of Small Business Report," sponsored by Network Solutions, LLC and the University of Maryland's Robert H. Smith School of Business, points to economic struggles as the catalyst for social media's rapid popularity. The study results show that social media usage by small business owners increased from 12% to 24% in just the last year, and almost 1 out of 5, actively uses social media as part of his or her marketing strategy. In 2009, only 23% of marketers were using social media for years. Now that number has grown to 31%. Here's a breakdown of what the small businesses reported as the main uses of social media marketing.

- 75% have a company page on a social networking site.
- 69% post status updates or articles of interest on social media sites.
- 57% build a network through a site such as LinkedIn.
- 54% monitor feedback about the business.
- 39% maintain a blog. 26% tweet about areas of expertise.
- 16% use Twitter as a service channel.

According to the study, different industries are adopting social media marketing at different rates, and while many industries have started using social media marketing in their efforts to reach more customers, many still have not positioned it as their top priority. A research shows that charitable organizations are still outpacing the business world and academia in their use of social media. A study conducted in 2008, a remarkable eighty-nine percent of charitable organizations are using some form of social media including blogs, podcasts, message boards, social networking, video blogging and wikis. A majority (57%) of the organizations are blogging. Forty-five percent of those studied report social media is very important to their fundraising strategy. While these organizations are best known for their non-profit status and their fundraising campaigns, they demonstrate an acute, and still growing, awareness of the importance of Web 2.0 strategies in meeting their objectives.

In just the last few months, marketers have shifted their attitudes toward social media marketing spending. This was recently affirmed in the new study, "The CMO Survey", from

Duke University's Fuqua School of Business and the American Marketing Association. A key finding: Social media marketing budgets continue to rise. According to the results, businesses currently allocate 6% of their marketing budgets to social media, an allotment they expect to increase to 10% during the next year and 18% over the next 5 years. Back in August 2009, marketers had already planned on devoting more money to social media. However, in February 2010, marketers reported that they plan to allocate one-fifth of their marketing budgets to social media marketing in the next 5 years. This is a definite increase from the 2009 projections. The study features the following comparison from August 2009 to February 2010:

Table 1 :

Current Mktg budget spending on social media	Mktg budget spending on social media in the next 12 months	Mktg budget spending on social media in the next 5 years
August 2009: 3.5% February 2010: 5.6%	August 2009: 6.1% February 2010: 9.9%	August 2009: 13.7% February 2010: 17.7%

Benefits of social media marketing : Significantly different from conventional marketing strategies, Social Media Marketing (SMM) offers three distinct advantages. One, it provides a window to marketers, to present products / services to customers but also to listen to customers' grievances and suggestions. Two, it makes it easy for marketers to identify various peer groups or influencers among various groups, who in turn can become brand evangelist and help in organic growth of a brand. And, third, all this is done at nearly zero cost (as compared to conventional customer outreach programmes) as most of the social networking sites are free. Hence, Social media marketing helps in:

- Generating exposure to businesses.
- Increasing traffic/subscribers.
- Building new business partnerships.
- Rise in search engine rankings.
- Generating qualified leads due to better lead generation efforts.
- Selling more products and services.
- Reduction in overall marketing expenses.

Companies in the west are investing increasingly in SMM to get in touch with their customers. They are indulging in constant interaction with their prospects in order to understand their needs and hence make products better. It's the best way to learn from your customers about their needs and your own shortcomings. However, SMM is a very personalized way of advertising and promotions can be targeted only to particular groups which are interested in a particular domain, quite unlike conventional advertising.

SIGNIFICANCE OF SOCIAL MEDIA

Of late social media by and large has become the way of life in the most of business houses, since it has very huge potential and usage. The primary significances are narrated herein;

- **Size :** Facebook has over 250 million users globally. On an average, 70-100 tweets happen by the second. An average user on Facebook has 120 friends. This is the kind of enormity Social networking sites espouse and with this comes the license to communicate powerfully. But when such large numbers are involved, there is a danger of something going wrong and when it does, happens in a big way. An expert should be hired to do what is best for business.
- **Transparency :** No cheat code involved. No black hat techniques allowed. Everything that happens in the social networking landscape is fool proof. Companies cannot fake authenticity in an attempt to get more people involved. Members can choose to associate with the company or opt out. Opinions made on social networking platforms are taken seriously and the more authoritative the companies get, more seriously they are taken.
- **Reach :** It is possible to make mark globally and do it quickly using social networking sites.
- **Boost website traffic :** Social media is probably the fastest and easiest means of redirecting traffic to company's website. By simply placing their website URL in their profile, the company can have all their profile visitors check out their website and a percentage of traffic is sure to get converted in course of time. This is the virtual way version of "word-of mouth".
- **Branding :** Buying a candy may have been impulsive all your life, but if it is discussed on a social networking site, there is likely to get brand conscious even a candy. Social media is a smart way to build brands. Social media platforms are known to be one of the most powerful and fast means of branding. Some of the big brands like Coke, Ford, Dell, IBM, Burger King are some of the well known brands have powerfully used social media platforms to endorse themselves.

SOCIAL MEDIA MARKETING IN INDIA

India has 71 million active internet users. Social Media is really picking up new heights in India. According to the 2010 Regus Global Survey of business social networking, India tops the usage of social networking by business – it has the highest activity index, 127, far more than the US'97, and 52% of the Indian respondent companies said that they had acquired new customers using social networks while 35% American companies managed that. Many companies are coming big way for Social Media Optimization for their Product or Services nowadays.

During Election 2009 Social Media was used for Influence Indian Voters. Social Media Marketing in India is being undertaken by brands like Tata Docomo, MTV India, Channel V, Clear Trip, Tata Photon, Axe deodorants, Microsoft, Naukri, Shaadi and many



more. Besides, numerous Indian celebrities are also using SMM platform to promote their movies, music and events via Twitter, Facebook and personalized blogs. Social Media Marketing is also boosting public relations business. Several PR agencies in India are undertaking brand building exercises for corporate organizations, brands and celebrities.

However, to the delight of many among us, the biggest gainers from SMM till date have been the organizations from the Not-for-Profit sector. Several Campaigns like 'Bell Bajao' and 'Jaago Re' have been quite successful on Social Networking Sites. These campaigns have been spreading the word about their cause through blogs, Twitter and Facebook.

FINDINGS

The major findings of social media in relation with marketing are as follows;

1) By virtue of social media companies are accessible, products are visible and brands are builds.
2) According to 2010 Social Media Marketing Industry Report 2010, a majority of marketers (56%) are using social media for 6 hours or more each week, and nearly one in three invest 11 or more hours weekly. Twitter, Facebook, LinkedIn and blogs were the top four social media tools used by marketers, in order. A significant 81% of marketers plan on increasing their use of blogs. A majority of the marketers are employing social media for marketing purposes and small businesses were slightly more likely to use social media. 76% of marketers are spending at least 4 hours each week on their social media marketing efforts.
3) According to Softpedia, during the last quarter of 2009, 86 percent of online retailers in US had a Facebook page. It was expected that this figure would reach 99 percent very soon. During this same period, e-marketer pointed that 65 percent of its surveyed online retailers were active on Twitter. Another 26 percent were planning to incorporate Twitter in their plans. E-marketer projects that by 2011, 91 percent of online retailers will be Twitter ready and all of them will have a Facebook page. Presently, greater than 700 thousands businesses have an active Facebook page. And around 80 thousand web portals are Facebook Connected presently.
4) Adult beverage companies, exotic automobile manufacturers, pastry shops have been using social media tool. Pepsi Coke, Nokia and many of the top brands have effectively used social media for achieving their business objectives.
5) SMM is still in its infancy and growing phase. It is about interacting rather than selling products. There is a lot to learn from the customers, to improve and innovate on products or services.
6) SMM calls for novel advertising methods as the attention span of online junta is very low. This is largely due to the multitasking phenomena. A person watching a video clip on YouTube might be simultaneously updating a blog, while reading another one and watching friend's photographs on Facebook.
7) Social Media Marketing can also be used by brands to ward off any negative publicity. But the brands will have to be cautious here as over doing it may further aggravate

their customers / stakeholders.

Until recent past, social media effectively served as another customer outreach activity of organizations – essentially building brand awareness and generating leads. However, trends are now changing towards utilizing social media for positively impacting sales. A mindset shift towards making social media a committed engagement channel is already underway. An analysis by Wetpaint and Altimeter – engagementdb.com, concurs that the most successful companies on social platforms were maintaining profiles on 7 or more channels.

CONCLUSION

There is no escaping from social media these days, either for individuals or for businesses. Today, it is impossible to separate social media from the online world. The social media conversation is no longer considered a Web 2.0 fad -- it is taking place in homes, small businesses and corporate boardrooms, and extending its reach into the non-profit, education and health sectors. From feeling excitement, novelty, bewilderment, and overwhelmed, a growing number of people now speak of social media as simply another channel or tactic. Blogging can have a very positive effect on your Company's branding & growth. It is imperative to understand that today, social media have exponential potential.

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An Introduction to Cloud Computing

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ABSTRACT

Just a few years ago, people used to carry their documents around on disks. Then, more recently, many people switched to memory sticks. Computing facilities and applications will increasingly be delivered as a service, over the Internet. In the future, governments, companies and individuals will increasingly turn to the cloud. Cloud computing therefore holds significant potential to help organizations reduce IT complexity and costs, while increasing agility. The present paper highlights the various aspects related with Cloud computing. It provides a high-level overview of cloud computing, Definitional analysis, outlines some of its key benefits, Architectural models, looks at some of the Challenges and barriers to undertake, and finally conclusions are made toward its adoption.

Keywords : *Cloud computing, Information Technology, Service and deployment model, Internet, Cloud services, Security & Privacy*

INTRODUCTION

Cloud computing consists of a set of technologies and service models that focus on the Internet-based use and delivery of IT applications, processing capability, storage and memory space. Cloud computing can generate important economic benefits, because on-demand resources can be configured, expanded and accessed on the Internet quite easily. Next to economic benefits, cloud computing may also bring security benefits; enterprises, especially small-to-medium sized ones, may acquire, at a marginal cost, top-class technologies, which would otherwise be out of their budget range.

Cloud computing refers to the ability to access and manipulate Information stored on remote servers, using any Internet-enabled platform, including smart phones. Cloud computing is the delivery of computing services over the Internet. Cloud services allow individuals and businesses to use software and hardware that are managed by third parties at remote locations. The cloud computing model allows access to information and computer resources from anywhere that a network connection is available. Cloud computing provides a shared pool of resources, including data storage space, networks, computer processing power, and specialized corporate and user applications. Examples of cloud services include online file storage, social networking sites, webmail, and online business applications. We are already making use of cloud computing when, for example, we use applications such as Google Mail, Microsoft Office365 1 or Google Docs.

Cloud computing can be used to provide clients with access to the latest technologies without a costly investment in hardware and software. The cloud computing paradigm changes the way in which information is managed, especially where personal data processing is concerned. End-users can access cloud services without the need for any expert knowledge of the underlying technology. This is a key characteristic of cloud computing, which offers the advantage of reducing cost through the sharing of computing and storage resources, combined with an on demand provisioning mechanism based on a pay-per-use business model.

THEORETICAL BACKGROUND

What is cloud?

Cloud computing is receiving a great deal of attention, both in publications and among users, from individuals at home to the U.S. government. Yet it is not always clearly defined.1 Cloud computing is a subscription-based service where you can obtain networked storage space and computer resources. One way to think of cloud computing is to consider your experience with email. Your email client, if it is Yahoo!, Gmail, Hotmail, and so on, takes care of housing all of the hardware and software necessary to support your personal email account. When you want to access your email you open your web browser, go to the email client, and log in.

The most important part of the equation is having internet access. Your email is not housed on your physical computer; you access it through an internet connection, and you can access it anywhere. If you are on a trip, at work, or down the street getting coffee, you can check your email as long as you have access to the internet. Your email is different than software installed on your computer, such as a word processing program. When you create a document using word processing software, that document stays on the device you used to make it unless you physically move it. An email client is similar to how cloud computing works. Except instead of accessing just your email, you can choose what information you have access to within the cloud.

Definitional Analysis

1. The following definition of cloud computing has been developed by the U.S. National Institute of Standards and Technology (NIST):

"Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability and is composed of five essential characteristics, three service models, and four deployment models".



2. Cisco defines cloud computing as: "IT resources and services that are abstracted from the underlying infrastructure and provided "on-demand" and "at scale" in a multitenant environment".

The Cisco definition of cloud computing is general; however, three key attributes of the definition include:

- "On-demand" means that resources can be provisioned immediately when needed, released when no longer required, and billed only when used.
- "At-scale" means the service provides the illusion of infinite resource availability in order to meet whatever demands are made of it.
- "Multitenant environment" means that the resources are provided to many consumers from a single implementation, saving the provider significant costs.

In the Cisco point of view, all three attributes are required to be considered as a cloud service. One interesting point to note is that the physical location of resources (On-premise or off-premise) is not a part of the definition.

Essential Characteristics

Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model is composed of five essential characteristics, three service models, and four deployment models.

a. On-demand self-service- A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service provider.

b. Broad network access- Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, tablets, laptops, and workstations).

c. Resource pool in- The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. There is a sense of location independence in that the customer generally has no control or knowledge over the exact location of the provided resources but may be able to specify location at a higher level of abstraction (e.g., country, state, or datacenter). Examples of resources include storage, processing, memory, and network bandwidth.

d. Rapid elasticity- Capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be appropriated in any quantity at any time.

e. Measured service- Cloud systems automatically control and optimize resource use by

leveraging a metering capability1 at some level of abstraction appropriate to the type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service.

Benefits of Cloud Computing

Clouds computing fundamentally changes the way that IT services are delivered to organizations. Instead of both owning and managing IT services for themselves, or using an outsourcing approach built around dedicated hardware, software, and support services, organizations can use cloud computing to meet their IT requirements using a flexible, on-demand, and rapidly scalable model that requires neither ownership on their part, nor provision of dedicated resources. Some of the benefits that cloud computing brings are as follows:

- **Direct cost savings (reduced cost per unit of output):** the largest and most identifiable economic benefit of cloud computing is the direct cost savings from charges within the organization (e.g. reduced IT maintenance) and external economies of scale.
- **Productivity improvements (increased output per unit of cost):** changes to business can be achieved without the need for detailed capacity planning. Changes to installed technology or new technology purchases.
- **Innovation (ability to deliver new and evolving products):** organizations can gain further benefits in business flexibility and agility, collaboration and taking new products and services to market.
- **Improved Automation:** Cloud computing is based on the premise that services can not only be provisioned, but also de-provisioned in a highly automated fashion. This specific attribute offers significant efficiencies to enterprises.
- **Focus on Core Competency:** Government agencies can reap the benefits of cloud computing in order to focus on its core mission and core objectives and leverage IT resources as a means to provide services to citizens.
- **Sustainability:** The poor energy efficiency of most existing data centers, due to poor design or poor asset utilization, is now understood to be environmentally and economically unsustainable. Through leveraging economies of scale and the capacity to manage assets more efficiently, cloud computing consumes far less energy and other resources than a traditional IT data center.

RESEARCH METHODOLOGY

It comprises basic two Infrastructure Models and their different services as follows:

Service Models

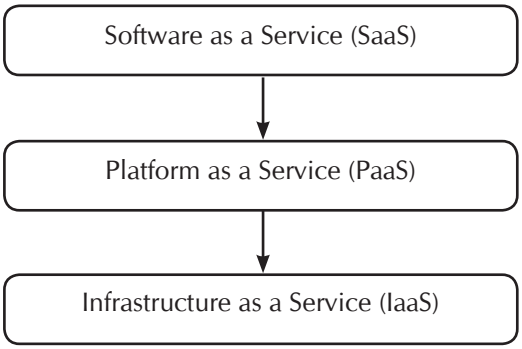
Service models identify different control options for the cloud customer and cloud provider. The three most commonly used service models are described as follows:

i. **Software as a Service (SaaS):** The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user-specific application configuration settings.

ii. **Platform as a Service (PaaS):** The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider.3 The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

iii. **Infrastructure as a Service (IaaS) :** The capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls).

Figure 1 : Service models



Deployment Models are defined to distinguish between different models of ownership and distribution of the resources used to deliver cloud services to different customers. Cloud environments may be deployed over a private infrastructure, public infrastructure, or a combination of both. The most common deployment models include:

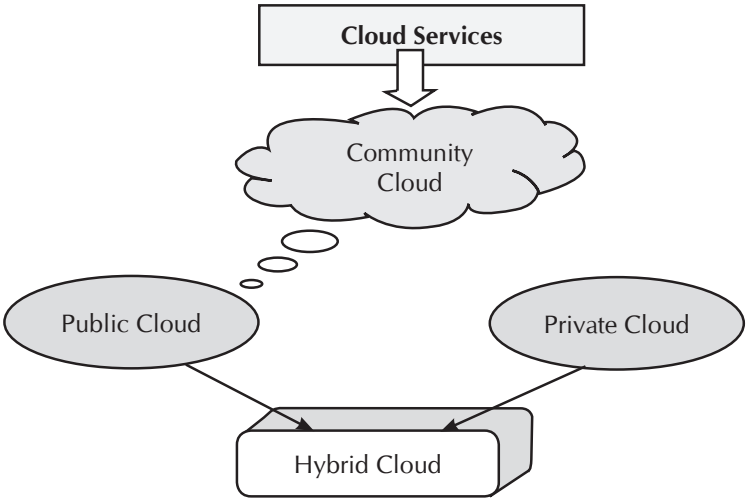
i. **Private cloud –** The cloud infrastructure is operated solely for a single organization (client). It may be managed by the organization itself or a third-party provider, and may be on-premise or off-premise. However, it must be solely dedicated for the use of one entity.

ii. **Community cloud –** The cloud infrastructure is shared by several organizations and supports a specific community with shared requirements or concerns (for example, business model, security requirements, policy, or compliance considerations). It may be managed by the organizations or a third party, and may be on-premise or off-premise.

iii. **Public cloud –** The cloud infrastructure is made available to the general public or a large industry group and is owned by an organization selling cloud services. Public cloud infrastructure exists on the premises of the cloud provider.

iv. **Hybrid cloud –** The cloud infrastructure is a composition of two or more clouds (private, community, or public) that remain unique entities but are bound together by technology to enable portability. Hybrid clouds are often used for redundancy or load-balancing purposes—for example, applications within a private cloud could be configured to utilize computing resources from a public cloud as needed during peak capacity times.

Figure2 : Deployment models



RESEULTS & DISCUSSION

Why cloud services are popular ?

Cloud services are popular because they can reduce the cost and complexity of owning and operating computers and networks. Since cloud users do not have to invest in information technology infrastructure, purchase hardware, or buy software licenses, the benefits are low up-front costs, rapid return on investment, rapid deployment, customization, flexible use, and solutions that can make use of new innovations. In addition, cloud providers develop some other benefits to users include scalability, reliability, and

efficiency. Scalability means that cloud computing offers unlimited processing and storage capacity. The cloud is reliable in that it enables access to applications and documents anywhere in the world via the Internet. Cloud computing is often considered efficient because it allows organizations to free up resources to focus on innovation and product development.

Another potential benefit is that personal information may be better protected in the cloud. Cloud computing will enable more flexible IT acquisition and improvements, which may permit adjustments to procedures based on the sensitivity of the data. Widespread use of the cloud may also encourage open standards for cloud computing that will establish baseline data security features common across different services and providers. Cloud computing may also allow for better audit trails.

Figure 3 : Cloud Computing



Potential privacy risks

While there are benefits, there are privacy and security concerns too. Data is travelling over the Internet and is stored in remote locations. In addition, cloud providers often serve multiple customers simultaneously. All of this may raise the scale of exposure to possible breaches, both accidental and deliberate. Security issues, the need to segregate data when dealing with providers that serve multiple customers, potential secondary uses of the data—these are areas that organizations should keep in mind when considering a cloud provider and when negotiating contracts or reviewing terms of service with a cloud provider. Given that the organization transferring this information to the provider is ultimately accountable for its protection, it needs to ensure that the personal information is appropriate handled.

Challenges

The following are some of the notable challenges associated with cloud computing,

and although some of these may cause a slowdown when delivering more services in the cloud, most also can provide opportunities, if resolved with due care and attention in the planning stages.

- Security and Privacy
- Lack of Standards
- Continuously Evolving
- Compliance Concerns

Barriers to Uptake

While there is often a strong economic case for the adoption of cloud services, there are nevertheless several constraints that need to be overcome. The natural barriers to full adoption include, but are not limited to:

- Speed/latency issues and reliance on telecommunications services providers.
- compatibility of an organization's internal processes with cloud offerings
- location of data and related security and data sovereignty issues
- Business continuity/disaster recovery and integration
- Limited knowledge of product offerings and lack of familiarity of businesses with opportunities

CONCLUSION

Cloud computing is the delivery of computing services over the Internet. Cloud services are popular because people can access their e-mail, social networking site or photo service from anywhere in the world, at any time, at minimal or no charge. Some cloud providers may, however, use the personal information of users for advertising purposes or to learn more about the users for other reasons. Cloud computing offers benefits for organizations and individuals. There are also privacy and security concerns, be aware of the security risks of having data stored on the cloud. The security and privacy of personal information is extremely important. Given that personal information is being turned over to another organization, often in another country, it is vital to ensure that the information is safe and that only the people who need to access it are able to do so.

There is the risk that personal information sent to a cloud provider might be kept indefinitely or used for other purposes. Such information could also be accessed by government agencies, domestic or foreign. For businesses that are considering using a cloud service, it is important to understand the security and privacy policies and practices of the provider. The terms of service that govern the relationship with the provider sometimes allow for rather liberal usage and retention practices.

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Performance of District Central Co-Operative Banks from Maharashtra State

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INTRODUCTION :

DCCB is a link joining state co-operative bank with the primary credit society. After the report of all India rural advances inquiry committee in 1945, the central co-operative banks earned much importance the flow of rural advances reach to every farmer's home through these banks via credit society. In reality central co-operative banks were establish to supply financial help to primary credit society.

The Co-operative Banking system in India has widespread and elaborate organizational structure. The short term and medium term credit are handled by the PACS at the grass root level, the Central Co-operative Banks (CCBs) at the district level and the State Co-operative Bank (SCB) at State Level. The long term credit structure has the Primary Co-operative Agricultural and Rural Development Banks (PCARDBs) at the base levels which are affiliated to the State Co-operative Agricultural and Rural Development Banks (SCARDBs) at State level.

In Pune district PDCC Bank plays an important role in relation to the co-operatives at the district level. The PDCC Bank exists mainly for serving the PACS. The bank also provide the block capital and working capital loans to various agro based industries, sugar factories, spinning mills and the like which help to generate rural employment. As the principal co-operative agencies in the district, the PDCC Bank provides finance to other functional societies like Employee's Co-operative Societies, Industrial Co-operative Societies, Consumer Co-operative Societies and the like.

The PDCC Bank undertakes various promotional and developmental activities for the welfare of co-operative movement in the district. The leadership for the co-operative movement necessarily comes through the PDCC Bank. PDCC Bank is the spokesmen not only for the PACSs but also for other kinds of co-operative institutions in the district. The PDCC Bank act as a depository and balancing centres between surplus and deficit societies. The PDCC Bank also act as an intermediary agencies between the PACSs and other affiliated societies on the one hand and the SCB and money market on the other hand.

Risk management and income recognition is the basic principle to restore and enhance the financial Strength of the banking industry. At International level this principle has



constituted in 1974 by the Basel Committee to strengthen the supervisory standard and risk management strategies and suggested the assets classification and recognition norms. Reforms in the financial sector went through two distinct phases. The first phase of reforms, introduced after the release of the Report of the Committee on Financial System, 1991, Chaired by Mr. Narasimham, focused mainly on enabling and strengthening measures. The second phase that followed the recommendations of the committee on Banking Sector Reforms, 1998 was also Chaired by Mr. Narasimham, placed greater emphasis on structural measures and improvement in standards of disclosure and levels of transparency in order to align Indian Standards with international best practices.

The Narasimham Committee has suggested that the classification of assets and loan recovery should be disclosed clearly in the balance sheets, and to show the performing and Non-performing transactions of banks, the concept of NPAs is implemented from 1st April 1992.

Co-operative banks are small-sized cooperatively organized banking units which operate in metropolitan, urban and semi-urban centers to cater mainly to the needs of small borrowers, owners of small scale industrial units, retail traders, professionals and salaried classes.

Co-operative banks can play a more proactive role than scheduled commercial banks (SCBs) in achieving financial inclusion, a senior RBI official said.

"Role of co-operative banks is very important in the real last-mile financial inclusion. They can play a greater role than scheduled commercial banks in achieving the goals of financial inclusion," Reserve Bank's General Manager (Urban Co-operative Banks Department), Uma Shankar, said at a seminar.

Co-operative banks are playing a larger role for the grass root community.

HYPOTHESIS :

The researcher had a plan to test following statements of hypothesis through this study at hand:

- If the loan repaid in time then the percentage of NPA is low. The NPA of DCC is increasing.

OBJECTIVES :

- To study the number of branches, number of membership, share capital and reserve fund of DCC Bank in Maharashtra.
- To study the loan overdue and the ratio of NPAs of DCC Banks in Maharashtra State.
- To study the number of DCCBs in profits/losses and Audit Class they got.

METHODOLOGY :

This is an attempt to revise the past performance of District Credit Co-operative Bank in Maharashtra State. The present study is based on secondary data collected for the period from 2008-09 to 2010-11. There are 31 DCC Banks in Maharashtra at the end of March, 2011. This study includes the number of braches, number of membership, paid up

capital, total reserve, % of over dues to demand, number of branches in profit and number of branches in losses of DCC banks in Maharashtra State. This data is collected through website.

DATA COLLECTION :

The collection of data of 31 DCC banks from Maharashtra is from website:

1. Number of Branches (including Head Office) of DCC Banks in Maharashtra
2. Number of Members of DCC Banks in Maharashtra
3. Total Paid-Up Capital of DCC Banks in Maharashtra
4. Total Reserve & Other Fund of DCC Banks in Maharashtra
5. Total Borrowings taken from SCB/NABARD & Govt. by DCC Banks.
6. Total Working Capital of DCC Banks in Maharashtra
7. Total Short Term Agricultural Loan Issued by DCC Banks in Maharashtra
8. Total Short Term Non-Agricultural Loan Issued by DCC Banks.
9. Total Medium Term Agricultural Loan Issued by DCC Banks.
10. Total Medium Term Non-Agricultural Loan Issued by DCC Banks.
11. Total Short Term Agricultural Loan Outstanding, Issued by DCC Banks.
12. Total ShortTerm Non-Agricultural Loan Outstanding Issued by DCC Banks.
13. Total Medium Term Agricultural Loan Outstanding, Issued by DCC Banks.
14. Total Medium Term Non-Agri Loan Outstanding Issued by DCC Banks.
15. Total Short Term Agricultural Loan Demanded by DCC Banks.
16. Total Short Term Non-Agricultural Loan Demanded by DCC Banks.
17. Total Medium Term Agricultural Loan Demanded by DCC Banks.
18. Total Medium Term Non-Agricultural Loan Demanded by DCC Banks.
19. Total Short Term Agricultural Loan Collected by DCC Banks.
20. Total Short Term Non-Agricultural Loan Collected by DCC Banks.
21. Total Medium Term Agricultural Loan Collected by DCC Banks.
22. Total Medium Term Non-Agricultural Loan Collected by DCC Banks.
23. Total Short Term Agricultural Loan Overdue to Demand by DCC Banks.
24. Total Short Term Non-Agri Loan Overdue to Demand by DCC Banks.
25. Total Medium Term Agricultural Loan Overdue to Demand by DCC Banks.
26. Total Medium Term Non-Agri Loan Overdue to Demand by DCC Banks.
27. DCC Bank Branches in Profits / (Loss) in Numbers.
28. DCC Bank Branches in Profits / (Loss) in Amount, Dividend Declared (%) and Audit Classification.

FINDINGS :

1. Number of DCCB increased upto 2011 from 2009 are 38. Most of the Branches



of DCCBs increased in Gadchiroli and Sindhudurg districts. Apart from these two districts Bhandara, Gondia, Latur, Mumbai, Satra and Thane district also had increased number of Branches of DCCB in the specific period. But Akola, Buldhana, Jalgaon and Kolhapur district had decreased the number of Branches of DCCB in the same period.

2. DCCB members include Individual and Co-operative Societies. The number of members of DCCB had get increased by 2963 in 2009-2011 period. Cooperative Society Membership was increased by 2694 and individual memberships were also increased by 269. Maximum numbers of members are increased in Mumbai district in the same period. In Beed, Gondia, Jalgaon, Kolhapur, Sindudurg and Thane district also, members of DCCB get increased in 3 digits. But in Nasik and Raigad district the members of DCCB get decreased by 230 and 714 respectively.
3. The total paid-up capital of the DCCB in Maharashtra gets increased by Rs. 28570 lakhs in 2009-2011 periods. Paid-up capitals of DCCBs in 2011 were increased by 21 % over 2009. As considering member wise Paid-up capital from Cooperatives were increased by Rs. 29723 lakhs, from Government it get decreased by Rs. 1147 lakhs and through Individual members it also got decreased by Rs. 6 lakhs. It means cooperatives contribute averagely Rs. 11 lakhs in paid-up capital of the DCCBs. Only in Nanded district the paid-up capital get decreased in the said period by Rs. 415 lakhs.
4. As regards to Total Reserve and other funds in 2009-2011 period, DCCB from Maharashtra got increased by 40280 lakhs. Major share of it from Nasik and Mumbai district which is around 24642 lakhs and 10406 lakhs respectively. But certain districts like Beed, Jalgaon, Dhule & Nandurbar, Raigad, Buldhana, Parbhani, Sangli and Nanded had decreased their Reserve and other funds in the said period. The total decreased in the fund of these districts was 18830 lakhs and major portion is of Beed i.e. Rs. 15302 lakhs.
5. The borrowings taken by DCCB in Maharashtra from State Co-operative Bank, NABARD and Govt. were increased by Rs. 53165 lakhs in 2009-2011 periods. Major portion of loan taken were from SCB and NABARD for Agri & Non-Agri purpose in mode of Short Term and Medium Term. As individual district analysis shows that Nanded DCCB had decreased their borrowing by Rs. 22951 lakhs over the period of study. The total reduction in borrowings of certain DCCBs was Rs. 90232 lakhs and total increase in borrowings in certain DCCBs was Rs. 143397 lakhs. The maximum increase in borrowings of Rs. 22525 lakhs of Solapur DCCB.
6. As regards to Working capital of DCCB from Maharashtra, total of Rs. 1101829 lakhs of working capital increased. But Nanded, Nagpur, Kolhapur and Jalana DCCBs had decreased amount of working capital in the same period. Pune, Ahmednagar & Thane DCCBs had the largest increase in Working capital in the same period.
7. The amount of Short Term Loan issued for Agricultural purpose by the DCCB increased by Rs. 527343 lakhs in period of 2009-2011. Only Ahmednagar and Nanded DCCB's issuing amount of Short Term loan for Agriculture issued had decreased in the

same period. The highest increase in issuance of Short Term loan for Agriculture in Maharashtra by Nasik DCCB. The total amount of Short Term Agri loan issued in Maharashtra was Rs. 969086 lakhs in 2011 and in 2009 it was Rs.441743 lakhs. As territory of Mumbai DCCB has no agriculture area, so there was no issuance of Short Term Agricultural loan. The highest issuance of Short Term Agri loan was by Nasik DCCB.

8. As regard to Non-Agricultural Short Term loan there was an increase in issuance by DCCB in Maharashtra totally by Rs.86246 lakhs. There are nine DCCBs who's issuance of this type of loan got decreased in the same period by Rs. 187378 lakhs. Amravati DCCB didn't issue any Non-Agri Short Term loan in the same period. The remaining twenty one DCCBs Non-Agri Short Term loan issuance was increased by Rs. 273624 lakhs. The highest increase in issuance of Non-Agri Short Term loan was by Sangli DCCB. Kolhapur DCCB issued the largest amount of Non-Agri Short Term loan in 2009-2011 period.
9. The Agricultural Medium Term loan issued by DCCB in Maharashtra in 2009 was Rs. 42032 lakhs and in 2011 was Rs. 142043 lakhs. Pune DCCB issued the highest amount of Agricultural Medium Term loan in Maharashtra in 2009-2011 period. In the same period total Agri Medium Term loan was increased in Maharashtra by Rs. 100011 lakhs.
10. Non-Agri Medium Term loan was increased by Rs. 35886 lakhs from 2009 to 2011. The highest loan issued for this purpose is by Solapur DCCB in Maharashtra. Solapr DCCB has get increased their issuance for this type of loan is Rs. 31672 lakhs from 2009 to 2011. Aurangabad, Buldhana, Jalana and Nanded DCCBs didn't issue these types of loan in the same period. Sangli DCCB's issuance is reduced by Rs. 15299 lakhs from 2009 to 2011.
11. Amount of Agricultural Short Term Loan outstanding had been increased by Rs. 100844 lakhs from 2009 to 2011. Highest loan outstanding of Agri Short Term loan in 2011 is of Pune DCCB. In 2009 Ahmednagar DCCB had the highest outstanding Agri Short Term loan. Total amount of 10 DCCB get decreased in outstanding loan by Rs. 103657 lakhs. And the amount of 20 DCCB get increased in outstanding loan by Rs. 204501 lakhs.
12. As regards to Non-Agri Short Term loan, it is get increased by Rs. 58740 lakhs from 2009 to 2011. Total outstanding in 2009 was Rs. 579021 lakhs and in 2011 was Rs. 637761 lakhs. The highest decrease in this type of loan outstanding from 2009 to 2011 in Parbhani DCCB by Rs. 58044 lakhs. And highest increase in this type of loan outstanding by Rs. 66241 lakhs in Pune DCCB.
13. There was an increase in Outstanding Agri Medium Term Loan by Rs. 13275 lakhs from 2009 to 2011. Pune DCCB was the highest Agri Medium Term loan outstanding in 2011 of Rs. 69113 lakhs.
14. Non-Agri Medium Term loan outstanding was get increased by Rs. 91914 lakhs from 2009 to 2011 in Maharashtra. Amount of outstanding of Solapur DCCB was the



highest than other DCCBs of Rs. 78282 lakhs which is increased by Rs. 58867 lakhs in 2011.

15. As regards to Overdues of Agri Short Term Loan there was an reduction of overdues by Rs. 62894 lakhs in 2009-2011 period. Nanded, Ahmednagar and Solapur DCCBs were highest reduction in overdue of Agri Short Term Loan by Rs.29478 lakhs, Rs. 18628 lakhs and Rs. 17767 lakhs respectively. As compare with these DCCBs Beed DCCB had increased in overdue by Rs. 10583 lakhs.

    But while considering the overdue amount with demanded amount Gondia and Wardha DCCBs had the highest percentages of overdue, which were as much constant from 2009. In Maharashtra out of 31 DCCBs 13 DCCBs had overdue percentages are above 50 and 11 DCCBs had overdue percentages are above 20.

    Nanded, Latur and Aurangabad DCCBs had good performed about recovery as tremendous fall in overdue percentages in 2011 as compared with 2009.

    Sangli, Latur, Satara and Kolhapur DCCBs also performed good as its overdue percentages were below 5.

16. In case of Non-Agri Short Term Loan, total overdue amount was increased in 2011 as compare with 2009 by Rs.26021 lakhs. Latur DCCB had the highest overdue percentage of 100 against demanded loan which is near about same in 2009.

    Kolhapur, Amravati and Parbhani DCCBs performed well in 2009-2011 period as its overdue percentages were reduced considerably.

    Sangli also performed good throughout 2009-2011.

    But Yavatmal and Wardha DCCBs had considerably increased overdue percentages in 2011 as compare with 2009.

17. Overdue of Agriculture Medium Term Loan overall get decreased by Rs. 21262 lakhs in 2011 as compare with 2009. Wardha, Parbhani and Gondia DCCBs were the highest overdue percentages in 2011. Gondia DCCB had the same performance throughout the 2009-2011.

    Akola, Nanded and Gadchiroli DCCBs performed well in 2011 as compare with 2009 as their overdue percentages get reduced.

    Out of 31 DCCBs from Maharashtra, 28 DCCBs had overdue percentages as demanded loan were above 20%, out of which 11 were above 50%.

    But Yavatmal, Wardha, Chandrapur, Raigad and Amravati DCCB's overdue percentages were increased considerably in 2009-2011.

18. Overdue of Non-Agri Medium Term Loan overall get decreased by Rs. 15235 lakhs in 2009-2011 period. Latur, Nanded and Osmanabad DCCBs had absolute 100% of overdue. Osmanabad DCCB Beed, Gondia, Buldhana, Aurangabad and Amravati DCCBs also had overdue percentages over 80. Gadchiroli and Sangli DCCBs performed good, as their overdue percentages to demanded loan get reduced in 2011 considerably as compare to 2009.

    Out of 31 DCCBs in Maharashtra 24 DCCBs had overdue percentages in Non-Agri

Medium Term Loan more than 20, out of which 16 DCCBs were above 50%.

19. While considering the profits and losses of the Branches of DCCBs from Maharashtra, average 24 % of Branches are in losses in 2009-2011 period. Ahmednagar DCCBs performs very well as in 2010 and 2011 no branch was in loss. As compare to this Nanded and Kolhapur DCCBs had 65 and 67 branches respectively in losses in 2011.
20. While considering the total profits and losses of all DCCB in Maharashtra, in 2009 there was total profits of Rs. 13199 lakhs, in 2010 there was a total loss of Rs. 10160 lakhs and in 2011 there was also loss of Rs. 15967 lakhs. That's mean from 2009 to 2011 the performance of DCCBs were got declining from financial point of view.

In 2009 there were 6 DCCBs in losses, in 2010 also 6 DCCBs were in losses and 2011 there was 4 DCCBs in losses. Buldhana, Dhule & Nandurbar, Kolhapur and Nagpur DCCBs show consistently poor performance over the period of study.

Out of 31 DCCBs only 13 DCCBs declared and paid dividend in 2009 (average dividend 7.38%), 15 DCCBs in 2010 (average dividend 6.87%) and 13 DCCBs in 2011 (average dividend 7.62%) declared the dividend.

Considering the Audit classification that DCCBs get in Audit, in 2009 out of 31 DCCBs 13 DCCBs were in "C" and "D" category, 10 were in "B" category and only 8 DCCBs were in "A" category. In 2010, 14 DCCBs were in "C" and "D" category, 8 were in "B" category and only 9 DCCBs were in "A" category. And in 2011, 12 DCCBs were in "C" and "D" category, 6 were in "B" category and only 13 DCCBs were in "A" category.

There are only 8 DCCBs who gets consistently "A" category in Audit in 2009-2011 period, viz. Ahmednagar, Latur, Mumbai, Pune, Raigad, Satara, Solapur and Thane.

Total 6 DCCBs were get consistently "D" category in Audit in 2009-2011 period, viz. Buldhana, Dhule & Nandurbar, Jalana, Nagpur, Osmanabad and Wardha.

CONCLUSION :

Primary Agricultural Credit Societies, the credit institutions at the grass-root level deal directly with individual members / clients. A large proportion of PACS also serve as outlets for inputs and for the public distribution system for food and other essential items. And DCCBs are the sources of funds to PACS. The total membership of DCCBs as on 31 March 2011 aggregated to 125235, increased by 2963 against 2009. Paid-up Capital and Reserve Fund of DCCBs increased by 21 and 6.95%, respectively, as on 31 March 2011 over the 2009. Borrowings raised by DCCBs also increased by 17.25% in 2010-2011 over 2008-2009. The Total loans (Short Term and Medium Term Agri/Non-Agri) issued increased by 52.13% during 2010-11 over the 2009.

District Central Cooperative Banks (DCCBs) witnessed a slowdown in their balance sheet in 2010-11. The slowdown in the balance sheet of DCCBs was on account of a slowdown in deposits on the liabilities side and investments on the assets side, although the credit growth of DCCBs posted an increase.

Although DCCBs as a whole reported profits in 2010-11, there was a decline in



the quantum of profits reported by these institutions. The decline in profitability mainly emanated from a high growth in operating expenses, which outpaced the growth in income of these institutions.

There was a continued improvement in the asset quality of DCCBs, with a decline in the NPA ratio between 2009-10 and 2010-11. The recovery ratio of DCCBs increased in 2010-11.

Soundness Indicators of District Central Co-operative Banks

(Rs. In Billion)

Particulars	Amount		% of variations	
	2010	2011	2010	2011
A. Total NPA	164	153	-8.7	-6.9
i) Sub-Standard	73	60	-9.4	-17.1
	(44.4)	(39.6)		
ii) Doubtful	64.8	65.0	-10.3	0.3
	(39.6)	(42.6)		
iii) Loss	26	27	-1.8	3.5
	(16.0)	(17.8)		
B. NPA to Loans Ratio (%)	14.8	11.6	-	-
C. Recovery to Demand Ratio (%)	75.7	78.8	-	

Notes : 1. Figures in parentheses are percentages to total NPAs.

2. % variation could be slightly different as absolute numbers have been rounded off to ` billion.

Source: NABARD.

There was a distinct improvement in the financial health of DCCBs in recent years, again partly reflecting the outcome of the reform package being implemented for these institutions. The recovery ratio of DCCBs showed a consistent increase, while the NPA ratio posted a decline.

In present century to conclude, though there is significant growth of the DCCBs in terms of financial parameters their performance is weakening over the years. They have a weak capital base and huge NPAs. Moreover, due to poor recovery these NPAs are being converted from Sub-standard Assets into Doubtful and Loss Assets. To improve the financial performance of the DCCBs it is essential to improve their recovery performance. In fact, bulks of the NPAs of DCCBs are contributed by the agricultural loans. Unless effective measures to improve conditions of the agricultural sector are initiated, the recovery performance of the DCCBs is not going to improve.

Enlightened members through member education try to strengthen PACS by generating positive public opinion and influencing the decisions of government.

The summarized findings are:

1. It is apparent that the growth NPA has become a major problem of the DCCBs.
2. Poor resource base is the main constriction of the DCCBs.
3. Most of the DCCBs follow conventional credit policy.
4. One another problem, which sufferings co-operative movement, is the interference of the politicians in the organization.
5. District Central Co-operative Banks are suffering from the lack of professional management and in most of the cases approach is very much casual.

RECOMMENDATIONS :

Keeping in view of the present position, some following devices are used to kick out the defects /problems of DCC bank:

1. The management should keep NPAs under control and reduce the net NPAs to the expected level so that the bank does not fall in lower category. It should adopt the strategies at two stages, i.e. Pre-sanction in depth scrutiny and Post-sanction supervision and follow up.
2. The bank should follow the professional management approach and very effective financial portfolio for proper financial ratio.
3. It is suggested that the bank should prepare coming 10-15 years planning regarding loans and recovery.
4. It is suggested that the bank should nominate the bank officials and employees to guide the PACS, farmers and bank members regarding agriculture and agro business activities. The bank officials should do close monitor of borrowers, which will solve the recovery problem and it will increase productivity of borrowers.
5. It is suggested that the more than 50% directors should be nominated from the field of Economics and Finance. For this make the necessary changes in the cooperative laws.
6. Government, Cooperative Department and RBI should monitor closely the functions of the cooperative banks for improving their performance.

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Review on Speech Compression Techniques

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Abstract

Speech coding is widely used in application such as digital broad casting, Internet audio or music database to reduce the bit rate of high quality audio signal without comprising the perceptual value. Techniques have also been emerging in recent years that offers enhanced quality bit rate over traditional methods. Wideband audio compression is generally aimed at a quality that is nearly indistinguishable from consumer compact-disc audio. Sub band & transform coding methods contained with sophisticated perceptual coding techniques dominate in this area with good quality bit rates. Hence the efforts are taken to present the comparative study of various types of source coding techniques such as below.

Keywords— Bit rate, Compression, LPC, speech analysis, speech coding.

1. INTRODUCTION

Speech Compression and Coding Techniques:

Speech compression aims to remove redundancy in speech representation to reduce transmission bandwidth and storage space (and further to reduce cost). There are in general three basic speech compression techniques, which are waveform-based, parametric-based and hybrid coding techniques [1].

2.1 Waveform-based compression:

Again it is classified as time domain and frequency domain

Time domain: such as

- PCM (Pulse code modulation)
- ADPCM (Adaptive Differential PCM)

Frequency domain or Transform coding:

- Fast Fourier Transform (FFT)
- Discrete Cosine Transform (DCT)
- Continuous Wavelet Transform (CWT)
- Discrete Wavelet Transform (DWT)

As the name implied, waveform based speech compression is mainly to remove redundancy in the speech waveform and to reconstruct the speech waveform at the decoder side as closely as possible to the original speech waveform. Waveform-based speech compression techniques are simple and normally low in implementation complexity, whereas their compression ratios are also low. The typical bit rate range for waveform-based speech compression coding is from 64 kb/s to 16 kb/s. At bit rate lower than 16 kb/s, the quantization error for waveform-based speech compression coding is too high, and this results in lower speech quality. Typical waveform-based speech compression codec's are PCM and ADPCM (Adaptive Differential PCM) and these will be covered in Sect. 2.3.1.

2.2 Parametric-based speech coding:

Linear Predictive coding (LPC)

Mixed excited predictive coding(MELP)

Parametric-based speech coding is based on the principles of how speech is produced. It is based on the features that speech signal is stationary or the shape of the vocal tract is stable in short period of time (e.g., 20 ms). During this period of time, a speech segment can be classified as either a voiced or unvoiced speech segment. The spectral characteristics of the vocal tract can be represented by a time-varying digital



filter. For each speech segment, the vocal tract filter parameters, voiced/unvoiced decision, pitch period and gain (signal energy) parameters are obtained via speech analysis at the encoder. These parameters are then coded into binary bit stream and sent to transmission channel. The decoder at the receiver side will reconstruct the speech (carry out speech synthesis) based on the received parameters. Compared to waveform-based codec, parametric-based codec are higher in implementation complexity, but can achieve better compression ratio. The quality of parametric based speech codec is low, with mechanic sound, but with reasonable intelligibility. A typical parametric codec is Linear Prediction Coding (LPC) vocoder which has a bit rate from 1.2 to 4.8 kb/s and is normally used in secure wireless communications systems when transmission bandwidth is very limited. The details of parametric-based speech coding will be discussed in Sect. 2.3.2

2.3 Hybrid speech compression:

- Mixed excited predictive coding(MELP)
- Codebook Excitation Linear Prediction (CELP)

As parametric-based codec cannot achieve high speech quality because of the use of simple classification of speech segments into either voiced or unvoiced speech and simple representation of voiced speech with impulse period train, hybrid coding techniques were proposed to combine the features of both waveform-based and Parametric-based coding (and hence the name of hybrid coding). It keeps the nature of parametric coding which includes vocal tract filter and pitch period analysis, and voiced/unvoiced decision. Instead of using an impulse period train to represent the excitation signal for voiced speech segment, it uses waveform-like excitation signal for voiced, unvoiced or transition (containing both voiced or unvoiced) speech segments. Many different techniques are explored to represent waveform-based excitation signals such as multi-pulse excitation, codebook excitation and vector

quantization. The most well known one, so called "Codebook Excitation Linear Prediction (CELP)" has created a huge success for hybrid speech codec in the range of 4.8 kb/s to 16 kb/s for mobile/wireless/satellite communications achieving toll quality (MOS over 4.0) or communications quality (MOS over 3.5). Almost all modern speech codecs (such as G.729, G.723.1, AMR, iLBC and SILK codecs) belong to the hybrid compression coding with majority of them based on CELP techniques. More details regarding hybrid speech coding will be presented in Sect. 2.3.3.

No attempt is made to offer a complete review of the numerous contributions that have been made in recent years. Nevertheless, the major ideas & trends are covered here & attention is focused on those contributions which have had the most impact on current technology. Hence the efforts are taken to present the comparative study of various types of source coding techniques such as: PCM and ADPCM (Adaptive Differential PCM) Linear Predictive coding (LPC)
Code Excited Linear Predictive coding (CELP).

2.3.1 Waveform Compression Coding

Waveform-based codecs are intended to remove waveform correlation between speech samples to achieve speech compression. It aims to minimize the error between the reconstructed and the original speech waveforms. Typical ones are Pulse Code Modulation (PCM) and Adaptive Differential PCM (ADPCM). For PCM, it uses non-uniform quantization to have finer quantization steps for small speech signal and coarse quantization steps for large speech signal (logarithmic compression). Statistics have shown that small speech signal has higher percentage in overall speech representations. Smaller quantization steps will have lower quantization error, thus better Signal-to-Noise Ratio (SNR) for PCM coding. There are two PCM codecs, namely PCM μ-law which is standardized for use in North America and Japan, and PCM A-law for use in Europe and the rest of the world. ITU-T G.711 was



standardized by ITU-T for PCM codecs in 1988 [5]. For both PCM A-law and μ-law, each sample is coded using 8 bits (compressed from 16-bit linear PCM data per sample), this yields the PCM transmission rate of 64 kb/s when 8 kHz sample rate is applied (8000 samples/s × 8 bits/sample = 64 kb/s). 64 kb/s PCM is normally used as a reference point for all other speech compression codecs. ADPCM, proposed by Jayant in 1974 at Bell Labs [6], was developed to further compress PCM codec based on correlation between adjacent speech samples. Consisting of adaptive quantiser and adaptive predictor, a block diagram for ADPCM encoder and decoder (codec) is illustrated in Fig. 2.1. At the encoder side, ADPCM first converts 8 bit PCM signal (A-law or μ-law) to 16 bit linear PCM signal (the conversion is not shown in the figure). The adaptive predictor will predict or estimate the current speech signal based on previously received (reconstructed) N speech signal samples $\hat{s}(n)$ as given in Eq. (2.1).

$$\hat{s}(n) = \sum_{i=1}^{n} a_i(n)\, \hat{s}(n-i) \qquad (2.1)$$

Where ai, i = 1,...,N are the estimated predictor coefficients, and a typical N value is six. Difference signal e(n), also known as prediction error, is calculated from the speech signal s(n) and the signal estimate ˆs(n) and is given in Eq. (2.2). Only this difference signal (thus the name differential coding) is input to the adaptive quantiser for quantization process. As the dynamic range of the prediction error, e(n) is smaller than that of the PCM input signal, less coding bits are needed to represent the ADPCM sample.

$$e(n)=s(n)-\hat{s}(n) \qquad (2.2)$$

The difference between e(n) and $e_q(n)$ is due to quantization error (n_q (n)), as given in Eq. (2.3).

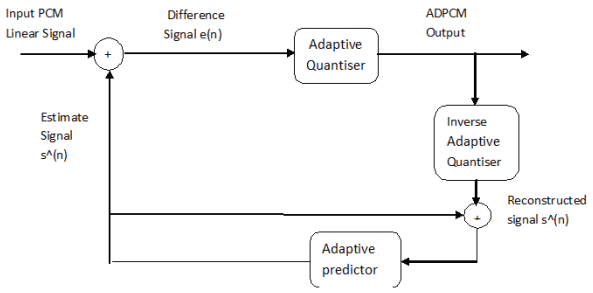


Fig. 2.1 Block diagram for ADPCM encoder

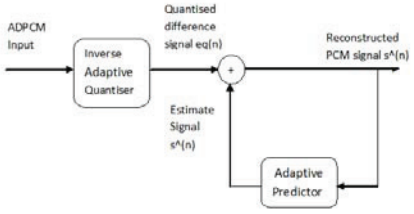


Fig. 2.1 Block diagram for ADPCM decoder

$$e(n)=e_q(n)+n_q(n) \qquad (2.3)$$

The decoder at the receiver side will use the same prediction algorithm to reconstruct the speech sample. If we don't consider channel error, $e_q(n) = e_q'(n)$. The difference between the reconstructed PCM signal at the decoder (˜ s(n)) and the in- put linear PCM signal at the encoder (s(n)) will be just the quantization error of n_q (n). In this case, the Signal-to-Noise Ratio (SNR) for the ADPCM system will be mainly decided by the signal to quantization noise ratio and the quality will be based on the performance of the adaptive quantiser. If an ADPCM sample is coded into 4 bits, the produced ADPCM bit rate is 4×8=32 kb/s. This means that one PCM channel (at 64 kb/s) can transmit two ADPCM channels at 32 kb/s each. If an ADPCM sample is coded into 2 bits, then ADPCM bit rate is 2×8=16 kb/s. One PCM channel can



transmit four ADPCM at 16 kb/s each. ITU-T G.726 defines ADPCM bit rate at 40, 32, 24 and 16 kb/s which corresponds to 5, 4, 3, 2 bits of coding for each ADPCM sample. The higher the ADPCM bit rate, the higher the numbers of the quantization levels, the lower the quantization error, and thus the better the voice quality. This is why the quality for 40 kb/s ADPCM is better than that of 32 kb/s. The quality of 24 kb/s ADPCM is also better than that of 16 kb/s.

2.3.2 Parametric Compression Coding

Waveform-based coding aims to reduce redundancy among speech samples and to reconstruct speech as close as possible to the original speech waveform. Due to its nature of speech sample-based compression, waveform-based coding cannot achieve high compression ratio and normally operates at bit rate ranging from 64 kb/s to 16 kb/s. In contrast, parametric-based compression methods are based on how speech is produced. Instead of transmitting speech waveform samples, parametric compression only sends relevant parameters related with speech production to the receiver side and reconstructs the speech from the speech production model. Thus, high compression ratio can be achieved. The most typical example of parametric compression is Linear Prediction Coding (LPC), proposed by Atal in 1971 [2] at Bell Labs. It was designed to emulate the human speech production mechanisms and the compression can reach the bit rate as lower as 800 bit/s (Compression Ratio reaches 80 when compared to 64 kb/s PCM). It normally operates at bit rates from 4.8 to 1.2 kb/s. The LPC based speech codecs can achieve high compression rate, however, the voice quality is also low, especially the naturalness of the speech (i.e., can you recognize who is talking). The speech sound based on simple LPC model is more like mechanic or robotic sound, but can still achieve high intelligibility (i.e., understanding the meaning of a sentence). In this section, we will discuss briefly how human speech is generated and what a basic LPC model is.

Speech Generation Mathematic Model Based on the nature of speech production, a speech generation mathematical model can be shown in Fig. 2.2. Depending on whether the speech signal is voiced or unvoiced, the speech excitation signal ($x(n)$) is switched between a period pulse train signal (controlled by the pitch period of T for the voiced signal) and random noise signal (for unvoiced speech). The excitation signal is amplified by Gain (G or energy of the signal) and then sent to the vocal tract filter or LPC filter. The vocal tract filter can be modeled by a linear prediction coding (LPC) filter (a time-varying digital filter) and can be represented approximated by an all-pole filter as given by Eq. (2.4). The LPC filter mainly reflects the spectral envelope part of the speech segment.

$$H(z) = \frac{s(z)}{X(z)} = \frac{G}{1 - \sum_{j=1}^{p} z^{-1} a_j} \qquad (2.4)$$

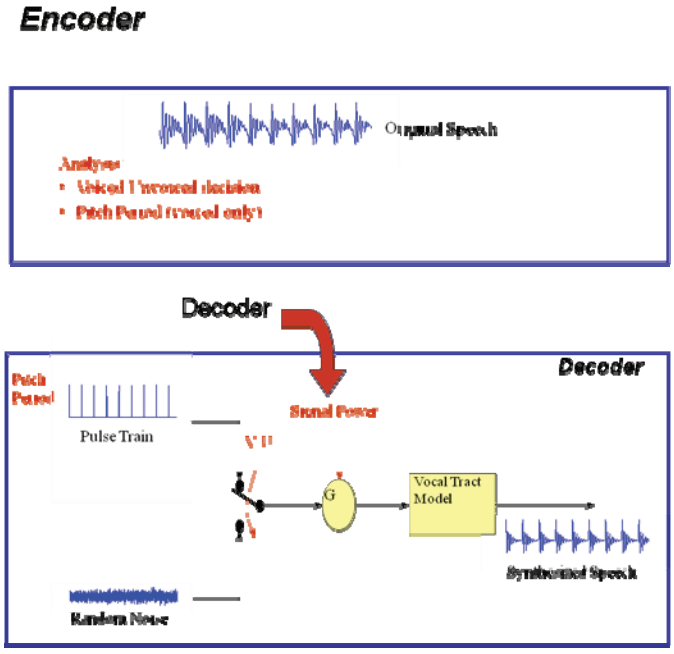


Fig. 2.2 Block diagram for LPC model



Where *aj* , *j* = 1, . . . , *p*, represents *p*-order LPC filter coefficients and the *p* value is normally ten for narrow-band speech (normally named as the ten-order LPC filter). When converted to the time-domain, we can obtain the generated speech signal *s(n)* from a difference equation (see Eq. (2.5)). This means that the output speech signal *s(n)* can be predicted from the weighted sum of the past *p* speech output signal samples (*s(n − j)*, *j* = 1, . . . , *p*), or from the linear combination of previous speech outputs (thus, the name of Linear Prediction Coding, LPC), and the present excitation signal *x(n)* and the gain (*G*). Equation (2.5) represents a general expression for LPC-based model which includes mainly two key elements, i.e. the excitation part and the LPC filter. In a basic LPC model, only impulse pulse train (for voiced) or white noise (for unvoiced) is used for the excitation signal. This simplified excitation model can achieve high compression efficiency (with bit rates normally between 800 bit/s to 2,400 bit/s), but with low perceived speech quality (due to mechanic sound) and reasonable intelligibility. They are mainly used in secure telephony communications.

$$S(n) = Gx(n) + \sum_{j=1}^{p} a_j \, s(n-j) \qquad (2.5)$$

Linear Prediction Coding (LPC) Model

The LPC model, also known as the LPC vocoder (Voice encoder), was proposed in 1960s and is based on the speech generation model presented in Fig. 2.2. The idea is that for a given segment of speech (e.g., 20 ms of speech, which corresponds to 160 samples at 8 kHz sampling rate), if we can detect whether it is voiced or unvoiced and estimate its LPC filter parameters, pitch period (for voiced signal) and its gain (power) via speech signal analysis, we can then just encode and send.

These parameters to the channel/network and then synthesize the speech based on the received parameters at the decoder. For a continuous speech signal which is segmented for 20 ms speech frames, this process is repeated for each speech frame. The basic LPC model is illustrated in Fig. 2.2. At the encoder, the key components are

pitch estimation (to estimate the pitch period of the speech segment), voicing decision (to decide whether it is a voiced or Unvoiced frame), gain calculation (to calculate the power of the speech segment) and LPC filter analysis (to predict the LPC filter coefficients for this segment of speech). These parameters/coefficients are quantized, coded and packetized appropriately (in the right order) before they are sent to the channel. The parameters and coded bits from the LPC encoder are listed below. Pitch period (T): for example, coded in 7 bits as in LPC-10 (together with voicing decision) [7]. Voiced/unvoiced decision: to indicate whether it is voiced or unvoiced segment. For hard- decision, a binary bit is enough. Gain (G) or signal power: coded in 5 bits as in LPC-10. Vocal tract model coefficients: or LPC filter coefficients, normally in 10-order, i.e. $a1, a2. . . a10$, coded in 41 bits in LPC-10. At the decoder, the packetized LPC-bit stream are unpacked and sent to the relevant decoder components (e.g., LPC decoder, pitch period decoder) to retrieve the LPC coefficients, pitch period and gain. The voicing detection bit will be used to control the voiced/unvoiced switch. The pitch period will control the impulse train sequence period when in a voiced segment. The synthesizer will synthesize the speech according to the received parameters/coefficients.

LPC-10 [7] is a standard specified by Department of Defense (DOD) Federal Standard (FS) 1015 in USA and is based on 10th order LP analysis. Its coded bits are 54 (including one bit for synchronization) for one speech frame with 180 samples. For 8 kHz sampling rate, 180 samples per frame which is 22.5 ms per frame (180/8000 = 22.5 ms). For every 22.5 ms, 54 coded binary bits from the encoder are sent to the channel. The encoder bit rate is 2400 bit/s or 2.4 kb/s (54 bits/22.5 ms = 2.4 kb/s). The compression ratio is 26.7 when compared with 64 kb/s PCM (64/2.4). LPC-10 was mainly used in radio communications with secure voice transmissions. The quality of voice is low in its naturalness (more mechanic sound), but with reasonable intelligibility. Some variants of LPC-10 explore different techniques (e.g., sub



sampling, silence detection, variable LP coded bits) to achieve bit rates from 2400 bit/s to 800 bit/s.

2.3.3 Hybrid Compression Coding—Analysis-by-Synthesis

Problems with Simple LPC Model

Using a sharp voiced/unvoiced decision to differentiate a speech frame as either voiced or unvoiced, and using a periodic impulse train to emulate voiced speech signal and noise for unvoiced speech are major limitations of LPC-based vocoders. LPC filter (vocal tract filter or spectral envelope) and the residual signal after removing the short-term LPC estimation from the original speech signal. From the residual signal, we can see that the signal energy is greatly less than that of the original speech and the period pattern is still there. This is because LPC filter can only remove short-term correlation between samples, but not long-term correlation between period pattern signals. Residual signal spectrum is more flat (with formants are removed via LPC filter). However, the pitch frequency and its harmonic frequencies are still there and this needs to be removed by Pitch filter, or the so-called Long-Term Prediction (LTP) filter which removes correlation between pitch period patterns. For a voiced speech segment, we can see that LPC residual signal is not a simple period pulse signal. If we can find the best match of excitation signal which can represent as close as possible to this residual signal, then when this residual signal is passed through the LPC filter, a perfect reconstruction signal will be produced. In order to find the best match of the excitation signal, a synthesizer (including LPC synthesizer and pitch synthesizer) is included at the encoder side and a closed loop search is carried out in order to find the best match excitation signal (which results in a minimum perceptual error estimation between the original and the synthesized speech signal). This is the key concept of hybrid speech coding (combines the features of both waveform and parametric coding), also known as Analysis-by- Synthesis (AbS)

method. The LPC synthesizer predicts the short-term vocal tract filter coefficients, whereas, the pitch synthesizer predicts the long-term pitch period and gain for the voiced segment. The parameters for the best match excitation signal, together with pitch period, gain and LPC filter coefficients are transmitted to the receiver. The decoders will synthesis the speech signal based on the optimum excitation signal. The difference between the synthesized at the output of the decoder and the one estimated at the encoder is due to channel error. If there is no channel transmission error, the synthesized signals at the encoder and the decoder are the same.

In hybrid compression coding, the most successful one is Code-Excitation Linear Prediction (CELP) based Abs technique which was a major breakthrough at low bit rate speech compression coding in later 1980s. CELP-based coding normally contains a codebook with a size of 256 to 1024 at both sender and receiver. Each codebook entry contains a waveform-like excitation signal, or multi-pulse excitation signal [3] (instead of only periodic impulse train and noise in parametric coding). This resolves a major problem in the coding of a transition frame (or "onset" frame), for example, a frame contains transition from unvoiced to voiced, such as the phonetic sound at the beginning of the word "see" [si:] or "tea" [ti:] which is very important from perceptual quality point of view (affects the intelligibility of speech communications). The closed-loop search process will find the best match excitation from the codebook and only the index of the matched excitation of the codebook will be coded and sent to the decoder at the receiver side. At the decoder side, the matched excitation signal will be retrieved from the same codebook and used to reconstruct the speech. For a codebook with the size of 256 to 1024, 8–10 bits can be used for the coding of codebook index. In order to achieve high efficiency in coding and low in implementation complexity, a large codebook is normally split into several smaller coded books. Example of CELP used in the AMR codec [8] which includes two codebooks, an adaptive codebook to search for pitch excitation and a fixed codebook

containing a set of fixed pulse train with preset pulse position and signs of the pulses. Pitch excitation codebook contains waveform-like excitation signals. Due to the successful use of the CELP techniques, the voice quality of hybrid compression coding has reached toll quality (MOS score over 4) or communications quality (MOS score over 3.5) at bit rates from 16 kb/s to 4.8 kb/s. This is impossible for waveform or parametric codecs to achieve high speech quality at this range of bit rates. The hybrid Abs-based codecs have been widely used in today's mobile, satellite, marine and secure communications. In general, there are two categories in hybrid compression coding based on how the excitation signal is generated. One is based on excitation signal analysis and generation in the time-domain and aims to reconstruct the speech frame as close as possible on the speech waveform. Majority of CELP variants belong to this category, such as ACELP (Algebraic Code Excited Linear Prediction) and RELP (Residual pulse Excitation Linear Prediction). Another category is based on excitation signal analysis in the frequency-domain and aims to reconstruct the speech frame as close as possible from the speech spectrum point of view. Multiband Excitation (MBE) model proposed by Griffin and Lim in 1988 at MIT [4] is in this category. MBE divides the speech spectrum into several sub-bands (about 20 and a binary voiced/unvoiced parameter is allocated to each frequency band. This will make the spectrum of the reconstructed speech frame more close to the spectrum of the original speech frame and will produce better speech quality than traditional time-domain CELP at low bit rates, for example, 2.4 to 4.8 kb/s.

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Conclusion:

Speech coding is currently an active topic for research in the areas of Very Large Scale Integrated (VLSI) circuit technologies and Digital Signal Processing (DSP). For real time speech processing however, its performance is not as good. After reviewing some papers we got results as follows.

Waveform-based speech compression- Bit rate range -16 kb/s to 64 kb/s. Speech quality is excellent.

Parametric-based speech coding- Bit rate range-1.2 kb/s to 4.8kb/s. but with low perceived speech quality (due to mechanic sound) .

Hybrid coding- Bit rate range - 4.8 kb/s to 16 kb/s. Speech quality is good.

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A Study on Awareness, Attitude and Problems of Customers towards E-banking : A Financial Inclusion Perspectives

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Abstract :

Majority of Public sector banks in India are characterised by huge customer base, complex banking transactions, high transaction time and lengthy queues. Banking transactions with these banks has become more cumbersome day by day. This has posed a new challenge in front of public sector banks to manage and expand their banking operations in all the areas of country. However Information Technology has given a supportive hand to banking sector by enabling E banking Technology. Though E banking has accepted in India during 1990's only 7 % of the customers are using E banking services. The operational burden on banks can be reduced only through E Banking and these banks can expand their activities in uncovered rural area of the country, which is essential for improving financial inclusion in the county. Though RBI has deployed thorough security policies for of E-banking still the acceptance of E banking is not satisfactory especially in public sector banks.

Through this paper researcher has made an attempt to know the attitude of customers towards E banking, their problems and expectations from E banking are also studied. The research is based on analysis of primary data collected from the customers of public sector banks through structured questionnaire. This paper will be useful to know the effective ways of increasing the acceptance of E banking among the customers.

(Keywords: E-Banking, Cumbersome, Financial Inclusion, Information Technology)

Introduction :

In March 2009 Government of India has given emphasis on Financial Inclusion under the objective of Inclusive Growth. The objective of Financial Inclusion is to extend financial services to the large hitherto unnerved population of the country to unlock its growth potential In addition; it strives towards a more inclusive growth by making financing available to the poor in particular. Though there are total 21 Public Sector Banks, 8 SBI

allied Banks, 80 Regional Rural Banks and 18 private sector banks operating with 102343 branches in India. With this expanded network of Public, Private and Cooperative banks only Only 58.7% household are availing with banking services. This percentage is less in rural areas where banking network is not spread.

Position of households availing Banking Services

	As per Census 2001			As per Census 2011		
House holds	Total number of households	Number of households availing banking services	Percent	Total number of households	Number of households availing banking services	Percent
Rural	138,271,559	41,639,949	30.1	167,826,730	91,369,805	54.4
Urban	53,692,376	26,590,693	49.5	78,865,937	53,444,983	67.8
Total	191,963,935	68,230,642	35.5	246,692,667	144,814,788	58.7

(Source: Census Report 2011)

Government of India is striving to provide banking services to all households in country but banking at a time cannot expand their operation with constraint of resource limitations. One another problem especially with public sector banks are heavy workload and lengthy queues as all government schemes are disbursed through branches of government sector banks. To overcome this challenge E –Banking can help government a lot the acceptance of e-banking is less especially amongst the customers of public sector banks, they are visiting branch at every time for any type of transaction which can be done through e-banking.

Facilities Provided under E-banking

- Automated Teller Machines (ATMs)
- Internet Banking
- Mobile Banking
- Electronic Clearing Services
- Electronic Clearing Cards
- Smart Cards
- Electronic Fund Transfer

The three broad facilities that e-banking offers are:

- Convenience- Complete your banking at your convenience in the comfort of your home.
- No more Qs- There are no queues at an online bank.
- 24x7 service- Bank online services are provided 24 hours a day, 7 days a week and 52 weeks a year.

Looking in to the benefits offered by E banking, all public sector banks should emphasis



on maximising the use of E- banking among all their customers. This will reduce down their workload and enable them to expand their operations in uncovered rural areas.

Challenges of Financial Inclusion

Expansion of Banking Infrastructure: As per Census 2011, 58.7% households are availing banking services in the country. There are 102,343 branches of Scheduled Commercial Banks (SCBs) in the country, out of which 37,953 (37%) bank branches are in the rural areas and 27,219 (26%) in semi-urban areas, constituting 63 per cent of the total numbers of branches in semi-urban and rural areas of the country. However, a significant proportion of the households, especially in rural areas, are still outside the formal fold of the banking system. To extend the reach of banking to those outside the formal banking system, Government and Reserve Bank of India (RBI) are taking various initiatives from time to time some of which are enumerated below:-

Opening of Bank Branches: Government had issued detailed strategy and guidelines on Financial Inclusion in October 2011, advising banks to open branches in all habitations of 5,000 or more population in under-banked districts and 10,000 or more population in other districts. Out of 3,925 such identified villages / habitations, branches have been opened in 3,402 villages/ habitations (including 2,121 Ultra Small Branches) by end of April, 2013.

Objectives of Study

The objectives of this study are:

1. To study the awareness and acceptance of various E-banking services among the customers.
2. To study the efforts made by public sector banks in increasing acceptance of E-banking.
3. To study the attitude of customers towards various services of E-banking
4. To study the general problems regarding usage of E-banking.

Control on Extraneous Variable

Use of E banking may influenced by so many other variables like Education, IT literacy, Availability of IT infrastructure etc which researcher has not considered under study. Influence of these variables is reduced by restricting the scope of research to educated peoples having basic working knowledge of computers and internet.

Research Methodology

Present research is descriptive in nature as facts and figures are already exists. This is survey or ex-post facto research. The Major objectives of this paper are studied from primary data collected from customers of public and private sector banks in Baramati. Primary data is collected through structured questionnaire. Secondary data regarding Number of banks in India, their branches, households covered under banking services referred from various secondary sources like census report, RBI publications is also reflected. Simple Random sampling is used to select the samples from said universe.

Findings of the study

1. Profile of the Respondents

Sr. No	Criteria		Percentage
1	Age	20-30	63
2		30-40	32
3		40-50	4
4	Employment	Private Sector employee	70
5		Businessman	8
6		Public Sector employee	12
7		Otters	8
8	Bank Account	Multiple	23
9		Private	35
10		Public	29

(Source: Primary Data)

Majority of the respondents (i.e. 60%) are from the age group 20-30 years and 70% of the respondents have maintained their account with private sector banks.

2. Findings Related to Awareness, attitude and problems of peoples towards E banking

i. 59% of the customers are aware about E banking services. The awareness of E banking is high (i.e. 60%) in customers of private banks as compared to public sector banks.

ii. The usage of E banking is more in the customers of private sector banks i.e. 65% whereas it is less in the customers of public sector banks which is 42%.

iii. Out of total services provided under E banking only ATM is widely accepted service by 92% of the customers, followed by E banking, Mobile banking, Electronic transfer etc.

iv. 40% of the customers are at the opinion that the E banking transactions are not secured whereas 35% of the customers are the opinion that E banking Transactions are highly Secured.

v. Majority i.e. 77% respondents visiting the banks for the purpose of depositing money, followed by 55% for drawing the DD.

vi. 42% of the customers are strongly agreed on the statement that public sector banks are not promoting the use of E banking services to their customers.

Suggestions

Based on the finding researcher is interested to recommend following suggestions



i. It is observed that awareness of E banking is less especially in customers of public sector banks, awareness can be increased by counselling the customers regarding the services offered and their benefits at the time of opening the account.

ii. Public sector banks should organise the training programme regarding use of E banking services.

iii. Virtual banks equipped with IT infrastructure can reduce the transaction workload of banks.

iv. Majority of the customers are visiting banks for the purpose of deposit and drawing the DD, these services should be introduced in E banking.

v. The load of distributing government schemes can be reduced by taking help of private sector banks.

Conclusion

Government of India is planning to achieve the objective of financial inclusion in coming years. To achieve this objective the optimum use of E-banking plays an important role. So, all Government banks should emphasis on maximising the use of E-banking in the educated customers having basic IT knowledge. Further for the unaware customers awareness can be increased though various promotional campaigns.

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Survey of Various Classification Techniques in Data Mining

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Abstract :

The amount of data kept in computer files and database is growing at phenomenal rate. At the same time the users of these data are expected more sophisticated information from them.[1] As data growing rate is high day by day classification of data is necessary for obtaining right and accurate information .This paper focuses study and survey of different classification techniques in data mining.

Keywords : *Data mining, Classification Techniques, ANN, GA, Fuzzy Logic.*

Introduction

Data mining is often defined as finding hidden information in a database. [1] Classification is a data mining technique used to predict group membership for data instances. Classification maps data into predefined groups or classes. It is often referred to as supervised learning because the classes are determined before examining the data. Classification algorithms require that the classes be defined based on data attribute values. They often describe these classes by looking at the characteristics of data already known to belong to the classes. [1]

Data Mining Algorithms

Data mining algorithms can follow three different learning approaches:

i) Supervised

ii) Unsupervised, or

iii) Semi-supervised.

In supervised learning, the algorithm works with a set of examples whose labels are known. The labels can be nominal values in the case of the classification task, or numerical values in the case of the regression task.

In unsupervised learning, in contrast, the labels of the examples in the dataset are unknown, and the algorithm typically aims at grouping examples according to the similarity of their attribute values, characterizing a clustering task.

Finally, semi-supervised learning is usually used when a small subset of labeled



examples is available, together with a large number of unlabeled examples.

Classification Techniques

There are many different method used to perform data mining tasks. These techniques not only require specific types of data structures, but also imply certain types of algorithmic approaches. As data volume increases, making meaningful decisions becomes increasingly difficult. To address these issues, researchers turned to a new research called Data Mining and Knowledge Discovery in Databases. In the past decades data mining methods have been widely used for the purpose of extracting knowledge from large data. Classification, a supervised method used to partition variables into several classes, represents the most widely used data mining method.

Following are the some classification techniques

i) Rule Based Classifiers
ii) Bayesian Networks
iii) Decision Tree
iv) Nearest Neighbor
v) Support vector machines
vi) Rough Sets
vii) Memory based reasoning
viii) Artificial Neural Network (ANN)
ix) Fuzzy Logic
x) Genetic algorithms (GA)

Applications of Classification Techniques:

Classification is perhaps the most familiar and most popular data mining technique examples of classification applications include :

i) Medical diagnosis
ii) Image and pattern recognition
iii) Education system
iv) Industry-Detecting faults in industry
v) Financial Industry -Classifying financial market trends
vi) Science: Chemistry, Physics, Medicine
vii) Bioscience
viii) Pharmaceutical companies, Insurance and Health care, Medicine
ix) Banks- Loan approval, Businesses, E-commerce
x) Market analysis and management
xi) Risk analysis and management
xii) Fraud detection and management
xiii) Sports and Entertainment
xiv) Astronomy
xv) Campaign Management and Database Marketing

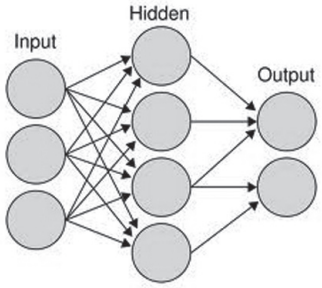
xvi) Classification and Prediction

In the classification task the set of examples being mined is divided into two mutually exclusive and exhaustive sets, called the training set and the test set. The classification process is correspondingly divided into two phases: training, when a classification model is built from the training set, and testing, when the model is evaluated on the test set. One of the major goals of a classification algorithm is to maximize the predictive accuracy obtained by the classification model when classifying examples in the test set unseen during training. The knowledge discovered by a classification algorithm can be expressed in many different ways like rules, decision trees, Bayesian network etc. Various techniques used for classification are explained in the following section.

Artificial Neural Network

Neural network (NN) is an adaptive system that learns from examples using interconnected processing nodes. Artificial neural networks (ANN) serve as general purpose mechanisms for training a machine by examples. Neural networks are classified as artificial intelligence because of their ability to learn and its basis in biological activities of the human brain. They are modeled after the human brain, which are perceived as highly connected network of neurons termed as nodes. It has three parts (layers): an input layer, a hidden layer and the output layer. The number of input, hidden, and the output nodes is referred to as the neural network topology or the network architecture.

Figure :- Simple Neural Networks



An artificial neural network, often just called a neural network is a mathematical model or computational model based on biological neural networks, in other words, is an emulation of biological neural system. In most cases an ANN is an adaptive system that changes its structure based on external or internal information that flows through the network during the learning phase A Neural Network Classifier is based on neural networks consisting of interconnected neurons. From a simplified perspective, a neuron takes positive and negative stimuli (numerical values) from other neurons and when the weighted sum of the stimuli is greater than a given threshold value, it activates itself. The output value of the neuron is usually a non-linear transformation of the sum of stimuli. In more advanced models, the non-linear transformation is adapted by some continuous functions.

Fuzzy Logic

Fuzzy set theory, first introduced by zadhe in 1965, deals with cognitive uncertainty and seeks to overcome many of the problems found in classical set theory. In classical set theory, A certain element either belongs or does not belong to a set. Fuzzy set theory, on the other hand, permits the gradual assessment of the membership of elements in relation to a set.

Fuzzy logic works with reasoning rules very close to the human way of thinking, which is approximate and intuitive. The main characteristic of fuzzy logic is that it allows us to define values without specifying a precise value, something which is not possible with classical logic, upon which computer development has been based so far. In classical logic, the membership to one class or set is binary , i.e. one is either member or not so that only two precise values are worked with (1 & 0, yes or no). [4]

Genetic Algorithms

GAs are stochastic search methods, which have been inspired by the process of biological evolution. Because of GAs' robustness and their uniform approach to large number of different classes of problems, they have been used in many applications. Data mining is also one of the important application fields of GAs. In data mining, a GA can be used either to optimize parameters for other kinds of data mining algorithms or to discover knowledge by itself. In this latter task the rules that a GA finds are usually more general because of its global search nature. In contrast, most of the other data mining methods are based on the rule induction paradigm, where the algorithm usually performs a kind of local search. The advantage of GAs becomes more obvious when the search space of a task is large. [5]

Conclusion

This survey mainly focuses on three types of classification techniques that are used to classify data. The study is done for Artificial Neural Network (ANN), Fuzzy Logic and Genetic Algorithms (GA) techniques used in data mining. The above three techniques are used to get sophisticated information for the users.

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Application of Graph Theory to Electronics Engineering

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Abstract

In this paper an introduction to graph theory is presented which can be used as a lecture material for introducing graph theory in the fields of electrical and electronic engineering. The mathematics of graph theory is presented in detail, supported by different applications ranging from representing basic electric circuits into digital computers to printed circuit board (PCB) layout problems.

Index Terms— Graph, planar graphs, Bipartite, Electric network.

INTRODUCTION

In 1736, Swiss mathematician Leonhard Euler presented a general theory that included a solution to a problem known as the Königsberg bridge problem, a problem that has ignited the thorough study of graph theory until now. Fig. 1(a) presents a map of a part of Königsberg, which is already currently known as Kaliningradskaya in Russia. It contains two islands connected to each other and the river banks having a total of seven bridges.

The problem is to start at any location in the map, for example—point A; walk over each bridge exactly once; then return to the starting location. As seen in Fig. 1(a), the bridges of Königsberg can be modeled using a graph as shown in Fig.1 (b). The vertices of the graph represent the locations of the map, while the edges of the graph represent the seven Königsberg bridges.

Since then, researches around the world have attempted and successfully develop mathematical analyses of graphs, meanwhile, scientists and engineers were able to successfully apply these concepts in their own respective fields. One of the reasons for the recent interests in graph theory is its applicability in many diverse fields, in which electrical and electronics engineering is the main focus of this paper. It can be applied to different problems such as determining whether a circuit can be implemented in a printed circuit board without the use of jumpers or through-holes for double sided ones and determining the optimum layout of CMOS circuits.

TERMINOLOGY

A graph basically is a pictorial representation of a system using two basic elements: nodes (some call it vertices) and edges. A node or vertex is represented by a circle (either hollow or shaded), and an edge is represented by a line segment connecting two nodes. The graph shown in Fig. 1(b) is called an undirected graph because all of its edges do not indicate any direction from one node to the other. However, if the edges of a graph direct one node to another node, as shown in Fig. 2, then the graph is said to be a directed graph.

A graph G can be mathematically represented by a double (V, E), where V is the set of all vertices, and E is the set of all edges. If the graph G (V, E) is undirected, then each edge e in E is associated with the vertices v and w, and is written as either e = {v, w} or e = {w, v}, i.e. the edge e connects vertices v and w. However, if the graph G (V,E) is a directed graph, then each edge e in E is associated with an ordered pair of vertices v and w , and is uniquely written as e = (v, w), i.e. the edge connects vertex v to vertex w , and not the other way around. The association of an edge e to a pair of vertices, for example v and w, means that e is incident on v and w, and v and w are said to be incident on e. Vertices v and w, on the other hand, are adjacent.

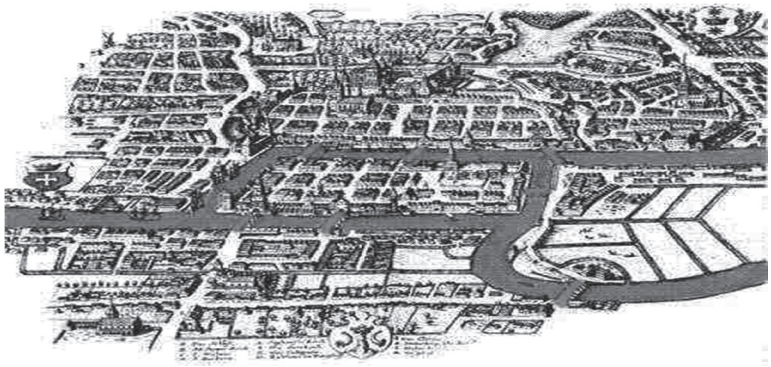


Fig 1(a) - Satellite view of Kaliningradskaya in Russia with five (yellow/lighter) of the seven Königsberg bridges

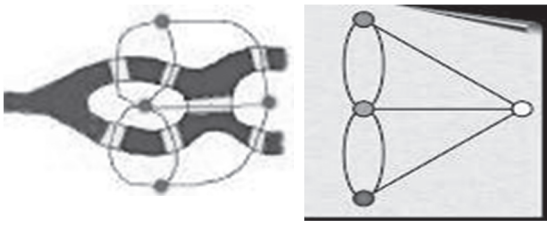


Fig 1(b) The Königsberg problem representation

A graph can have infinite number of vertices and edges. However, in this lecture note, it is assumed that the number of vertices and edges are both finite and nonempty unless otherwise specified.

Sometimes, graphs are constructed with each edge having a corresponding label. Such graphs are called labeled graphs because each edge is labeled by a certain value. If the value is numerical, they are called weighted graphs. For example, if an edge e has a weight of 10.0, then that edge e has a weight of 10.0. Most graphs in engineering and sciences are weighted. As an example consider an electric network as shown in Fig. 3(a) with its graph representation in Fig. 3(b). It is seen that Fig. 3(b) is a good example of a directed graph and weighted graph with its weights representing the values of current flowing through each resistor. Another way of representing the circuit is shown in Fig. 3(c). Fig. 3(c) is an example of an undirected weighted graph with its weights representing the values of the resistances of each branch. Either way, both Fig. 3(b) and 3(c) are good representations of the electric network in Fig. 3(a).

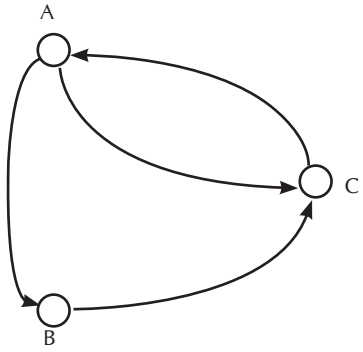


Fig- 2, an example of a directed graph with three nodes/vertices and four edges

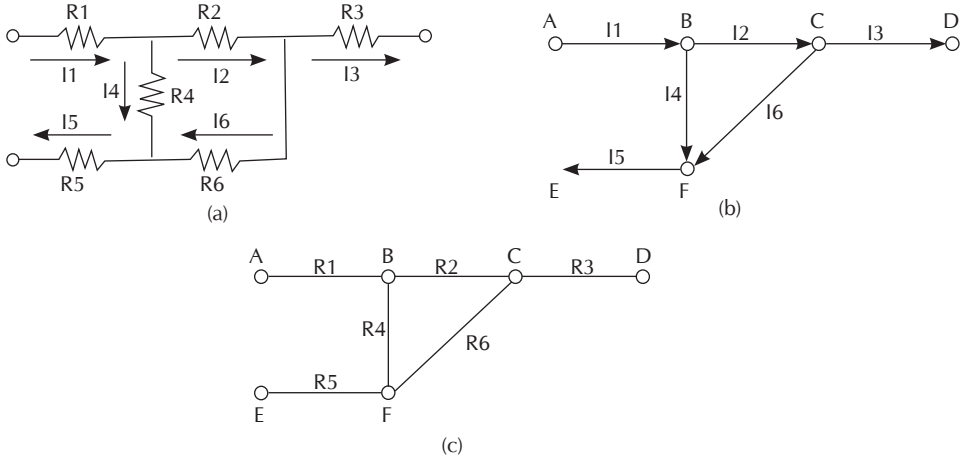


Fig 3, an electric network composed of resistors

In a graph, two or more edges are called parallel edges if all of these edges are associated with the same pair of vertices v and w. If an edge, on the other hand, is incident on a single vertex, then that edge is called a loop. A vertex that is not incident on any edge

is called an isolated vertex. A graph with neither parallel edges nor loops is called a simple graph, as shown in Figs. 3(b), and 3(c). Examples of graphs with parallel edges are shown in Figs. 1(b) and 2, while a graph with a loop and an isolated vertex is shown in Fig. 4

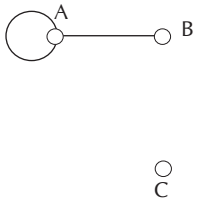


Fig 4, an example of a graph with an isolated vertex (i.e. vertex C) and a loop in vertex A

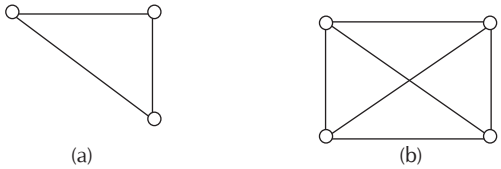


Fig 5, Examples of complete graphs

(a) The complete graph K3 (b) The complete graph K4

A graph is said to be complete if it is simple and there is an edge between every pair of distinct vertices. Such graphs can be denoted by Kn, where n is the number of vertices. Figs. 5(a) and (b) show examples of complete graphs. A graph G (V, E) is called a complete bipartite if the set of all vertices V is partitioned into two parts V1 and V2 such that each vertex in V1 is adjacent to each vertex in V2. Complete bipartites are denoted by Km,n, where m and n are the number of vertices in each partition. One of the applications of complete bipartites can be seen in the field of computational intelligence. Examples are Artificial Neural Networks (ANNs) 1 [1]-[5], and Ant Colony Optimization (ACO) [6] - [10] construction graphs2. Furthermore, a bipartite is a graph in which each vertex in V1 is adjacent to any vertex in V2.

PLANAR GRAPHS

A graph is said to be planar if it can be drawn in a plane so that its edges do not cross. Fig. 6 shows good examples of planar graphs. Fig. 6(a) is obviously a planar graph since its edges do not cross. Fig. 6(b) is also a planar graph since it is just a reconstruction of Fig. 6(a), thus they are isomorphic. Fig. 6(c) is another example of a planar graph.

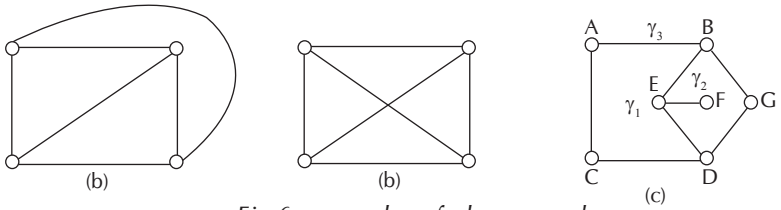


Fig 6, examples of planar graphs

A planar graph is also called a map since the graph is said to "divide the plane" in different regions. In each region of the map, the borders are actually the edges of the planar graph. Figs. 6(a) and (b), for example, have 4 regions, while Fig. 6(c) have 3 regions. The degree of a region γ, written as deg (γ), is the number of edges cycling bordering that region. The degrees of the regions of Fig 6(c) are: deg (γ1) = 5 , deg(γ2) = 6 , and deg (γ3) = 5 . The degree of γ2 is 6 because the edge {E, F} is repeated twice. Considering again Fig. 6(c), it is seen that the sum of the degrees of the regions is 16 and the number of edges of the map is 8. There is actually a theorem stating that the sum of the degrees of the regions of a map is twice the number of edges. Furthermore, the number of vertices and regions of a map is equal to two plus the number of edges. This theorem is actually called the Euler's Formula and is mathematically stated as

$$V + R = E + 2$$

Where V is the number of vertices,

R is the number of regions, and

E is the number of edges.

Another theorem states that $E \leq 3V - 6$ as long as $V \geq 3$.

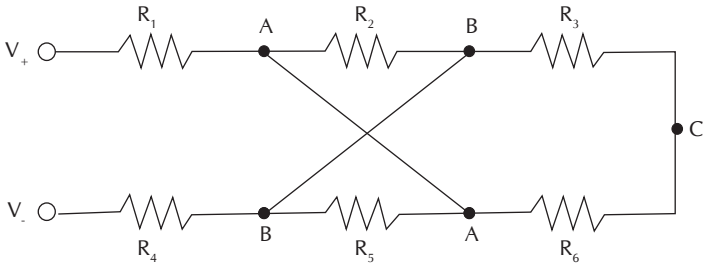


Fig. 7. An example of a simple electric circuit

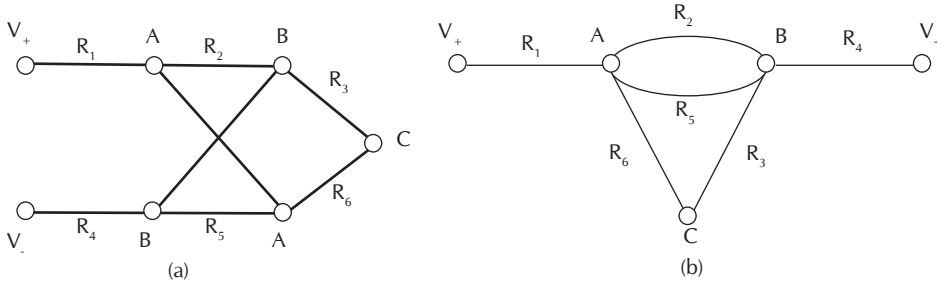


Fig. 8 Graph representations of the simple electric circuit

One typical application of planar graphs is in the design of printed circuit board (PCB) layouts for electric/electronic circuits. Consider, for example, a simple electric circuit shown in Fig. 7 with corresponding graphs shown in Figs. 8 (a) and (b). Figure 8(a) is a straight graphical model of the electric circuit in Fig. 7, with the vertices representing the nodes of the electric circuit, and the edges representing the resistors and wires connected the elements. However, due to the redundancy in the use of nodes, some nodes can be

merged to form a single node, thus, minimizing the graph as shown in Fig. 8 (b). Since it is obvious that Fig. 8(b) is planar; the PCB electric circuit layout can be designed in such a way that no jumper wires are to be used. The use of the Euler's formula and the other theorems would verify the claim, having $V = 5$, $E = 6$, and $R = 3$, with $V + R = E + 2$ and $E \leq 3V - 6$, $V \geq 3$, being both satisfied.

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Virtual Marketing

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ABSTRACT

Third millennium business is extremely dynamic, mobile and flexible, constantly changing. To meet the constant changes we have to keep up with the innovations, the trends and the new technologies. In this context we see the economy move to e-economy, the business to e-business, the market to virtual market.

Virtualization caused tremendous evolution in the economics of marketing channels, patterns of physical distribution and the structure of distributors and developed a new concept that is known as virtual marketing (VM). VM combines the powerful technologies of interactive marketing and virtual reality. Virtual enterprise (VE) refers to an organization not having a clear physical locus. In other words, VE is an organization distributed geographically and whose work is coordinated through electronic communications. Virtual marketing performs the task of cost – effectively communicating frequently and consistently with their target markets at the best possible.

The main objective of this paper is to understand the concept of Virtual marketing and studying its benefits to the end users, the challenges it faces and the recent trends in Virtual marketing. Extensive study and literature review was done from a range of sources like journals, books and internet websites of relevant disciplines, including business organizations, case studies on each type exploring the use of virtual marketing.

Key words : *Virtuality, Virtual marketing, Virtual Enterprise.*

INTRODUCTION

Today's trend is shifting away from traditional media to virtual media with 70% of Americans being online. Internet use was offered as a way of social networking which includes emails, texts, blogs, and voice chat. Blogs are also a great way to share new information, receive feedback, and get ideas. Blogging is a growing area because it is not limited to time and space. Tapping into this network will open up ways to have forums and other open communication processes.

The global digital media spending in 2007 has increased by 28.2 percent whereas other media grew only by 3.9 percent, this shows a drastic shift of the customers from common print media to the digital media and the use of internet becoming more popular.

Virtual marketing encompasses all web-based marketing tools like e-mail marketing,



banner advertising, weblogs, news settlers, and using your own Web site as a marketing tool, etc. It does not replace the existing marketing channels that are currently being used and are successful. Marketing the business on the Web must be part of a tightly coupled action-oriented marketing and advertising plan - one that leverages the individual benefits of print, broadband, and interactive media. VM is a series of web-based marketing approaches that enable customers to simulate, customize, and experience goods and services in cyber space as like as in real word.

Much of a company's marketing can be done through their main webpage. More interaction can be added to the main webpage like links, videos and podcast, and downloads. Videos and podcast can also be used for marketing different programs. For any business to truly expand and make profits, a holistic understanding of the market is must, based on which effective marketing strategies can be developed, to promote one's products and services effectively.

The Virtual Marketing

- Creates and delivers digital content
- Engages and interacts with individuals
- Provides and exchanges information

The various Virtual Marketing Channels include the following:

- Web sites
- Search engine marketing
- Keyword marketing
- E-mail blasts
- Blogs
- Podcasts
- Online banner ads
- Streaming video
- Mobile messaging

Virtual marketing is location and time independent for the company and the user, making it more efficient and current. With the virtual agency approach, a close working relationship must be developed with the outside partners which improves efficiency and response time.

A great way for a company to get started with virtual marketing is by

- Checking with staff to see what they know and can do in relationship with virtual media.
- Create a virtual marketing plan which would include what will be done and goals for the future including a timeline.

While deep-seated and time honored business laws are always valid, survival and success in the virtual commercial environment requires some distance from the established, customary patterns of management thought and behavior. At the end of the day, it's still about the expectation of the client: results and delivery.

10 Tips for Marketing Virtual Reference Services

1. Treat online services like a branch library: Provide appropriate budget and staffing for both developing and marketing "the product".
2. Have a communications plan: The look, tone and voice should be consistent with the image of the library. Assign a coordinator to manage and carry out the plan.
3. Don't forget the most important audience – The staff: All frontline staff need to be up to speed, know the URL and be able to answer questions. They should understand both the message and why it's important for the library.
4. Remember you're only new once: The launch of a VRS is newsworthy, take advantage of it. Make news releases.
5. Focus on what's unique: The expert, personalized service that librarians provide.
6. Have a clear and consistent message: One that can be used over and over again in all publicity materials. Make sure the "salesforce" (the whole staff, Board, Friends, etc.) understands the message and is prepared to answer questions.
7. Harness the power of word-of-mouth marketing: Prepare and encourage all frontline staff to put in a plug for VRS at every opportunity. Encourage Friends and trustees to spread the word.
8. Track positive feedback: Provide an interactive form for VRS customers to give feedback. Remind the "salesforce" to forward any positive comments to the publicity coordinator.
9. Work the Web: Seek links with other Web sites of schools, government and other organizations to bookmark or link from their homepage. Offer an e-mail newsletter to keep customers informed of developments.
10. Evaluate: Evaluation is critical to any marketing effort. Track publicity. Watch to see what works and what doesn't. Aim to do it better next time.

Following are the steps to start Virtual Marketing:

1. Ascertain budget and staffing capabilities
2. Determine minimum of three strategic new media service areas
3. Create a strategic virtual marketing plan
   Choose three to four areas of online media
   Develop action list for implementation
   Create timeline
4. Train Google Analytics

OBJECTIVES

The basic objectives of study are;

1. To understand the concept of Virtual marketing
2. To study the benefits of Virtual marketing to the end users
3. To study the Advantages and Disadvantages of Virtual Marketing

THEORETICAL BACKGROUND

There are many examples of different types of companies that operate as virtual companies. One company, Ensemble - a division of Hallmark, is an example of the virtual enterprise that relies on outsourcing to become a more successful company. They rely on other companies to handle their manufacturing and distribution. Under an agreement, USCO handles their entire order fulfillment, receipt of inbound goods, warehousing, and outbound transportation. Customers call in, fax, or transmit their orders to Ensemble via EDI. These orders then go to USCO. One of the main benefits Ensemble gains is that they only pay for the space and service they require. By this, they can control costs, have flexibility, and still generate dynamic sales and marketing programs.

Insurance or financial service company have become some type of virtual company to achieve optimum efficiency. The greatest improvement for insurance companies is to eliminate tasks by outsourcing, not by working to make them more efficient. By relying on telecommunications, they are more flexible and able to meet the consumer's demand for speed and responsiveness.

Consumers use virtual companies for almost everything these days. From buy.com to amazon.com, they can purchase anything imaginable on the Internet. Amazon.com and buy.com are virtual companies that only exist on the web. buy.com, a leading Internet superstore and low price leader, sells a broad range of categories including computer hardware and peripherals, software, consumer electronics, books, videos, DVDs, games, music, golf, clearance equipment, and travel booking services. The buy.com e-commerce portal links ten specialty stores and features products from thousands of popular manufacturers such as IBM, Hewlett Packard, Microsoft, and many more. Product reviews in technology categories, easy search functionality across all categories, product recommendations, best sellers, and music clips are among some of the features that help customers make better buying decisions. Individuals can shop at buy.com 24 hours a day, seven days a week, as well as track packages online and have access to customer service representatives at any time.

Wedding Channel.com, shaadi.com, jeevansaathi.com etc. are virtual enterprises. These companies work by linking all of the needs of a bride-to-be and groom-to-be into one central location. They offer tips, advice, links to invitation providers and registry stores, and planning tools. The company does not sell everything one may need for a wedding, but instead provides a central location for a customer to go for all their wedding planning needs.

Jobs.com, monster.com, naukri.com etc. are of the many virtual companies that have

brought together job seekers with companies. These websites link individuals with job openings. They allow an individual to search for a job by location, salary range, field and level of experience. These allows the candidates to submit a resume on line and a recruiter to receive emailed resumes from candidates. This service has had a drastic impact on the world of recruiting.

CheMatch.com is an Internet exchange and information resource for buying and selling bulk commodity chemicals, polymers and fuel products. It allows customers and buyers to buy and sell chemicals 24 hours a day 7 days a week around the world. Just one click puts the consumer in touch with a global pool of pre-qualified buyers and sellers. In addition to the industry leading exchange capability, CheMatch.com offers online auctions, reverse auctions and tenders a choice of market formats to meet a company's strategic sales and sourcing requirements.

METHODOLOGY

A descriptive study is done on the concept of Virtual Marketing and its benefits to users. All secondary data is collected from Magazines, World Wide Web, Newspaper articles and published matter on similar topic.

DISCUSSION & RESULTS

For every marketer there are key events that drive the workday, month or even year. Virtual Marketing helps marketers easily achieve their biggest goals. The VM automates every step of the process, from conception to retirement, enabling marketers to reach more audiences than ever before with customized messages and materials — and in half the time. A corporation uses VM runs 24/7 delivering resources, enabling teams, collaborating with partners and customers around the clock, and helping marketers manage the five key events that drive their day.

Application of VM enables marketers to package new sales product information into virtual sales kits, provide sales guidance and training through private partner websites, and alert current customers on just the products that are relevant to their business. VM continuously market and promote new products to any audience by creating one-stop shops for only the content they want. Marketers are able to update new content and automate the retirement of old product collateral with just a few steps.

A VM delivers automated, customized private websites for different partner audiences, helping to package content that's specifically designed for the user. From sales-ready customer presentations to pricing information, with VM marketers can decide which partner has access to what content. These private websites also host blogs and other collaborative forms of discussion that enable partners to bring marketers and sales teams into the process as they are selling.

With a VM, marketers can update every single piece of marketing and sales collateral, partner extranets, Customer extranets and e-mail campaigns in a fraction of the time .VMs deliver a single repository for all updated information from newly branded presentation



decks, product datasheets, and updated customer case studies or posters.

VM help extend that relationship beyond the event- Tradeshows, user conferences, Webinars - and create an opportunity for further communication. For example, a user conference portal is used to promote, disseminate information, and ultimately share best practices after the user conference is conducted. Another example is trade show events. Before attendees leave the show, marketers can deliver an e-mail with a portal user account that gives attendees access to an exclusive website. Now marketers have a captive audience for company news, user blogs, new products, features and services to drip content over time to inform and pique the interest of prospective customers.

Today's savvy customers insist that marketers give them the information they want, when theywant it. A VM delivers private websites populated with the information they need during the buying process and after the sale. Marketers then gain insight into customer needs by understanding which documents are used and by which audiences. Customers have a centralized location they can access from any computer to learn more about the company and its latest products.

Advantages of Virtual Marketing

Following are a few of the benefits to be gained with virtual marketing:

- Ability to give the user the true experience of product ownership, without shipping the product anywhere.
- Ability to demonstrate products in real time, using user-defined parameters.
- Ability to involve the user emotionally with the product (through sensory immersion).
- Ability to prototype and test factors, realizes cost and time savings, and enhances decision making.
- Closer association between the media and the message, since users enter the media channel and become a part of it.
- Vast increase in market potential since the product experience can be shared by anyone in the world who has the necessary computer hardware/software.
- Ability to use all four elements of the new communications paradigm.

Disadvantages of Virtual Marketing

Not every company will benefit from marketing its products with virtual technology. Following are some of the disadvantages of the virtual medium:

- Very expensive. Even with the moderately priced authoring systems expected to announced, virtual reality will still be an expensive marketing tool.
- High user expectations. Users will cut their virtual reality teeth on high quality, entertainment-oriented programs.
- Marketing programs that don't measure up to these standards will be unsuccessful.

- Not suitable for certain products. Virtual reality works best with products that require a great deal of user interaction.
- Long lead times. Creating virtual reality is a complex process. As such, virtual reality promotions will take longer to create and produce than media such as the Internet, print, radio, and television.
- Small prospect base. Only a small fraction of users will have the hardware and software necessary to access the applications.

CONCLUSION

E-marketers have a difficult and complicated task in the battle to win the online consumers. The marketer of the 21st Century will deal not only with a fast changing market context but also with a different customer: changing, empowered and unpredictable. The critical issue for attracting and retaining online customers becomes a very delicate issue. The fact that the composition and elements of the Web Experience can vary depending on circumstances and target groups makes it imperative that E-marketers should recognize and understand not only the online customers' needs but also their behavior and attitudes in different commercial settings.

E-Marketers should distance themselves from customary managerial approaches when dealing with online management questions on procedural, strategic and operational levels.

On a strategic level, Virtual Marketing requires a new managerial attitude based on efficiency, innovation and flexibility. On an operational level it is important for online marketers to understand differences between traditional and virtual marketing as well as learn more about the marketing tools available for influencing online customer behavior.

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Crashing Rupee... Another Asian Financial Crisis??

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Abstract

This paper effort to study the concerns of a country facing depreciating currency, the factors that led to the depreciation and the measures government can take to improve the situation. Price of a currency in respect to other country's currency is called as exchange rate. The price of a currency moves upward or downward depending upon the demand and supply forces. If a demand for a currency rises, its price rises and it is called as appreciation, on the contrary, if the demand of other country's currency increases, the home currency's price falls and it is called as depreciation. Indian rupee has depreciated more than 26 per cent since 2011.earlier also India has faced two major devaluations of the rupee in 1966 and 1991.Both phases resulted in high inflation rate and continued to run in to great trade deficit. Devaluation of 2013 is still on, this paper will attempt to analyze the current situation and study what measures can be taken to stabilize the same.

Key words : *Depreciation, Trade deficit, appreciation, inflation rate and price fall etc.*

Introduction

Since its Independence in 1947, India has faced two major financial crises and two consequent

Devaluations of the rupee. These crises were in 1966 and 1991. Foreign exchange reserves are an extremely critical aspect of any country's ability to engage in commerce with other countries. A large stock of foreign currency reserves facilitates trade with other nations and lowers transaction costs associated with international commerce. If a nation depletes its foreign currency reserves and finds that its own currency is not accepted abroad, the only option left to the country is to borrow from abroad. However, borrowing in foreign currency is built upon the obligation of the borrowing nation to pay back the loan in the lender's own currency or in some other "hard" currency. If the debtor nation is not credit-worthy enough to borrow from a private bank or

From an institution such as the IMF, then the nation has no way of paying for imports and a financial crisis accompanied by devaluation and capital flight results.

Objectives

1. To know the concept of devaluation.
2. To understand the major reasons for devaluation of rupee.

3. To observe the relation of Indian rupee and Dollar.
4. To study the implications of crashing rupee on the Indian economy.
5. To study the majors taken by government to stabilize the situation.

Data and Methodology

The data collected is of historical in nature.it helps to understand the journey of rupee in the past.it makes us easy to analyse current situation. The data collected is from secondary sources.mainly from various journals, books and various research papers .The record of rupee to Dollar valuation has been takan from website www.wikipedia.com and www.moneycontrol.com.

History of Rupee

The Indian currency has witnessed a roller-coaster journey since independence. Many geopolitical and economic developments have affected its movement in the last 66 years. - India got freedom from British rule on Aug 15, 1947. At that time the Indian rupee was linked to the British pound and its value was at par with the American dollar. There were no foreign borrowings on India's balance sheet.

- To finance welfare and development activities, especially with the introduction of the Five-Year Plan in 1951, the government started external borrowings. This required the devaluation of the rupee.

- After independence, Indian chooses to adopt a fixed rate currency regime. The rupee was pegged at 4.79 against a dollar between 1948 and 1966.

As a developing economy, it is to be expected that India would import more than it exports. Despite government attempts to obtain a positive trade balance, India has had consistent balance of payments deficits since the 1950s. The Indian Rupee was pegged to the British Sterling from 1926 to 1966 at INR 13.33 to 1 Pound. The peg was changed to the US Dollar in 1966 at Rs 7.5 to 1 USD.

1966 Economic crisis

The 1966 devaluation was the result of the first major financial crisis the government faced. As in 1991, there was significant downward pressure on the value of the rupee from the international market and India was faced with depleting foreign reserves that necessitated devaluation. There is a general agreement among economists that by 1966, inflation had caused Indian prices to become much higher than world prices at the pre-devaluation exchange rate. When the exchange rate is fixed and a country experiences high inflation relative to other countries, that country's goods become more expensive and foreign goods become cheaper. Therefore, inflation tends to increase imports and decrease exports. Since 1950, India ran continued trade deficits that increased in magnitude in the 1960s.

Furthermore, the Government of India had a budget deficit problem and could not

borrow money from abroad or from the private corporate sector, due to that sector's negative savings rate. As a result, the government issued bonds to the RBI, which increased the money supply, leading to inflation. In 1966, foreign aid, which had hitherto been a key factor in preventing devaluation of the rupee, was finally cut off and India was told it had to liberalize its restrictions on trade before foreign aid would again materialize. The response was the politically unpopular step of devaluation accompanied by liberalization. Furthermore, the Indo-Pakistani War of 1965 led the US and other countries friendly towards Pakistan to withdraw foreign aid to India, which necessitated more devaluation. Defense spending in 1965/1966 was 24.06% of total expenditure, the highest it has been in the period from 1965 to 1989 (Foundations, pp 195). Another factor leading to devaluation was the drought of 1965/1966 which resulted in a sharp rise in prices.

1991 Economic crisis

1991 is often cited as the year of economic reform in India. In 1991, India still had a fixed exchange system, where the rupee was pegged to the value of a basket of currencies of major trading partners. India started having balance of payments problems since 1985, and by the end of 1990,Surely, the government's economic policies changed drastically in that year, but the 1991 liberalization was an extension of earlier, albeit slower, reform efforts that had begun in the 1970s when India relaxed restrictions on imported capital goods as part of its industrialisation plan. Then the Import-Export Policy of 1985-1988 replaced import quotas with tariffs. This represented a major overhaul of Indian trade policy as previously, India's trade barriers mostly took the form of quantitative restrictions. After 1991, the Government of India further reduced trade barriers by lowering tariffs on imports. In the post-liberalisation era, quantitative restrictions have not been significant. While the devaluation of 1991 was economically necessary to avert a financial crisis, the radical changes in India's economic policies were, to some extent, undertaken voluntarily by the government of P V Narasimha Rao. Still by the end of 1999, the Indian Rupee was devalued considerably.

September 2013 rupee depreciation

Indian rupee has depreciated more than 26 per cent since 2011.

The persistent decline in rupee is a cause of concern. Depreciation leads to imports becoming costlier which is a worry for India as it meets most of its oil demand via imports. Apart from oil, prices of other imported commodities like metals, gold etc will also rise pushing overall inflation higher.

Even if prices of global oil and commodities decline, the Indian consumers might not benefit as depreciation will negate the impact. The depreciating rupee will add further pressure on the overall domestic inflation and since India is structurally an import intensive country, as reflected in the high and persistent current account deficits month after month, the domestic costs will rise on account of rupee depreciation.

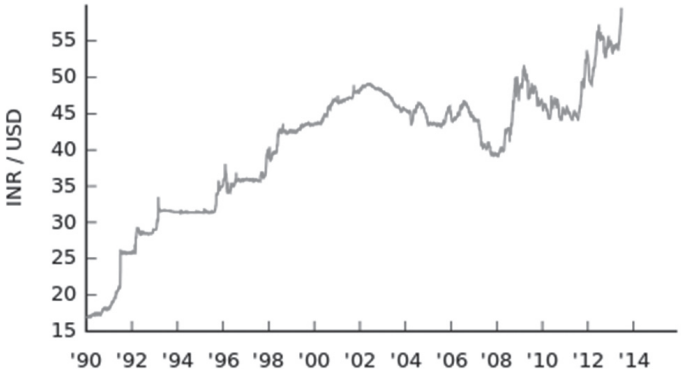
As the exchange rate risk increases in such situations foreign investors also start

withdrawing their investment which in turn depreciates the local currency. Indian Rupee is currently caught in this vicious cycle; it will have to find a stable level to regain investors' confidence. The depreciating rupee has serious effects on the external debt figures of the nation.

Owing to uncertainty prevailing in Europe and slump in international market, investors prefer to stay away from risky investments. This has significantly affected the portfolio investment in India. Consequently, flow of dollars start decreasing with respect to demand, and thus resulting in the fall of Rupee. Credit rating agencies also downgrade India's rating.

Any outward flow of currency or decrease in investment will put a downward pressure on exchange rate. This Global uncertainty has adversely impacted the domestic factors (current and capital account etc.) and caused the depreciation of rupee.

Let us see how Rupee and Dollar valuation is moved from year 1990 to year 2013 with the following graph and table.



INR Value against USD Rupee vs dollar: From 1990 to 2013

Year	Currency (DOLLAR)	Currency (RUPEE)
1990	1USD	Rs 18.11
1991	1USD	Rs 25.79
1992	1USD	Rs 28.95
1993	1USD	Rs 31.44
1994	1USD	Rs 31.39
1995	1USD	Rs 34.92
1996	1USD	Rs 35.83
1997	1USD	Rs 39.15
1998	1USD	Rs 42.58
1999	1USD	Rs 43.45

2000	1USD	Rs 46.88
2001	1USD	Rs 47.93
2002	1USD	Rs 48.23
2003	1USD	Rs 45.66
2004	1USD	Rs 44.00
2005	1USD	Rs 46.11
2006	1USD	Rs 44.49
2007	1USD	Rs 39.33
2008	1USD	Rs 49.82
2009	1USD	Rs 46.29
2010	1USD	Rs 45.09
2011	1USD	Rs 51.10
2012	1USD	Rs 54.86(Dec)
2013	1USD	Rs.65.32(Sept)

Interpretation

The Indian Rupee was pegged to the British Sterling from 1926 to 1966 at INR 13.33 to 1 Pound. The peg was changed to the US Dollar in 1966 at Rs 7.5 to 1 USD.

Thus we can see that since 1990 besides few appreciations rupee is depreciating against US

Dollar consistently. The above graph shows that barring the year 2007, almost every year since 1990 rupee is depreciated against Dollars.

The results of crashing rupee are to be felt through:

- **Increase in the Import Bill:** Depreciation of the local currency results in higher import costs for the country. Failure of a similar rise being experienced in the prices of exportable commodities is going to result in a widening of current account deficit of the country.
- **Higher Inflation:** Increase in import prices of essential commodities such as crude oil, fertilizer, pulses, edible oils, coal and other industrial raw materials are bound to increase the prices of the final goods. Thereby making it costlier for the consumers and hence inflation might be pushed up further.
- **Fiscal Slippage:** The central government fiscal burden might increase as the hike in the prices of imported crude oil and fertilizer might warrant for a higher subsidy provision to be made for these commodities.
- **Increase in Cost of Borrowings:** Interest rate differentials in domestic and global markets encourage the industry to raise money through foreign markets however a

fall in the rupee value would negate the benefits of doing so.

The advantages from depreciating Rupee to the export industry have been negated by its adverse effect on inflation, sluggish demand from western world, and increase in oil imports.

Therefore, stability in exchange rate is required to stabilize the economy and bring in additional investments. RBI can sell forex reserves and buy Indian Rupee leading to demand for rupee. But using forex reserves poses risk also, as using them up in large quantities to prevent depreciation may result in a deterioration of confidence in the economy's ability to meet even its short-term external obligations.

Moreover, interest rates can be increased to prevent sudden capital outflows and will ultimately lead to higher capital inflows. But India's interest rates are already higher than most countries. This is done to tame inflationary expectations. So, further increase in interest rates would lead to lower growth.

However, RBI can increase the FII limit on investment in government and corporate debt instruments. It can also invite long term FDI debt funds in infrastructure sector. The ceiling for External Commercial Borrowings can be enhanced to allow more ECB borrowings.

Government should take some measures to bring FDI and create a healthy environment for economic growth. Key policy reforms that should be initiated include rolling of Goods and Services Tax (GST), Direct Tax Code (DTC) etc.

The Indian Rupee has depreciated significantly against the US Dollar marking a new risk for Indian economy. Grim global economic outlook along with high inflation, widening current account deficit and FII outflows have contributed to this fall.

Steep fall in exchange rate will affect almost every sector either directly or indirectly, therefore, reforms measure should be undertaken to instill the confidence among the investors by assuring business friendly environment in order to make country move on the high growth path once again.

Preventive measures taken by Government:

During July-August 2013, following measures were announced by the Indian authorities to stem the depreciation of rupee and contain the current account deficit:

- The duties on the import of gold, silver and platinum were increased to 10 percent.
- The limits on foreign ownership of sensitive sectors (such as telecoms and insurance) were further liberalized.
- New restrictions were imposed on Indian residents seeking to send money abroad to buy property.
- In mid-August, the existing limits on overseas direct investments by Indian companies were substantially reduced. However, this policy was withdrawn by the new governor of RBI on September 3.
- The interest rates limits for deposits meant for non-resident Indians were liberalized.



- New restrictions on open interest on USD-INR trades were imposed.
- Banks have been banned from trading in domestic currency futures and the exchange-traded options market on their own. Banks can only trade on behalf of their clients.
- The margin requirement on the domestic dollar-rupee forward trade was increased to 100 percent of the traded amount, which means investors will have to give the entire amount of the transaction upfront.
- The state-owned oil marketing companies (OMCs) – which buy dollars to finance their imports – were asked to trade only with a single state-owned bank.

Other Developments

There are a host of other factors which have added to the bearish sentiments on the rupee. Economic growth in India in the first quarter (April-June 2013) slipped to 4.4% due to a contraction in manufacturing and mining. A sharp rise in domestic food prices has also put a grinding pressure on the rupee.

Apart from economic factors, the rupee remains vulnerable to rising global oil prices and geo-political tensions in the Middle East and North Africa. As the threat of US-led war against Syria rises, oil prices are expected to rise which will further make it difficult for the Indian government to reduce CAD since India imports over 80 percent of its oil.

What are the Policy Options for India?

Several episodes of financial crises in the 1990s (from Mexico to Southeast Asia) highlight the eminent role played by current account deficits in triggering a currency crisis. An economic boom fueled by short-term capital inflows and debt-driven consumption is a recipe for currency crash.

India's external sector vulnerability is a symptom of a much deeper malaise in overall development strategy and domestic policymaking. Despite the deterioration in major indicators of external sector vulnerability, the policymakers remain complacent in defending India's growth story. There are no quick fixes to country's imbalanced external sector and the Indian economy remains vulnerable to external shocks and global liquidity conditions.

Firstly, New Delhi should take urgent policy measures to curb inessential imports. Since increasing exports may take considerable time, it is desirable to impose more curbs on gold, silver and non-essential items. In addition to higher custom duties, strict quantitative restrictions on the import of gold, silver and non-essential items should be imposed. The government should also consider imposing higher custom duties on those consumer electronics goods which are not part of Information Technology Agreement of the WTO. Indeed, such a policy regime may encourage smuggling but there are ways and means to check it.

Since oil is the biggest item in its import bill, India should immediately accept Iran's offer to sell crude oil entirely in rupees and at concessional terms. By accepting this offer,

India could potentially save $8.5 bn in foreign exchange spending. Oil imports from Iran have declined substantially in the last five years due to unilateral sanctions imposed by the US and the European Union.

Government has tried several things to control downward spiraling rupee but those steps are too little, too late and many are pointed in wrong direction; like curbing import of gold. A government should not be telling people what to buy and what not to buy. Demand of gold in India is culture induced. Also, demand of gold increases when economic uncertainty increases. Trying to micromanage people's behavior will have undesirable impact in long term.

Conclusion

"India being a developing economy with high inflation, depreciation of the currency is understandable. Depreciation of rupee is good, so long as it is not volatile. A random depreciation that we are observing from last few months is definitely not favorable. Estimations based on fundamentals quickly become meaningless because the crisis changes fundamentals hugely. The crashing rupee has already changed the economy's fundamentals so we cannot think that the rupee has just temporarily overshot, and revert back again…may be it is just the beginning!

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Human Resource Development : A Key Driver for Growth of Social and Service Sector Organizations

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Abstract

Human resource development (HRD) is an interdisciplinary field with the focus on systematic training and development, career development and organizational development to improve processes and enhance the learning and performance of individual's organizations, communities and society. Human resources development is the process of increasing knowledge, skills and the capacities of all people in a society. In economic terms, it could be described as the accumulation of human capital and its effective investment in the development of an economy. It is the process of participation particularly in a democratic way. Human Resource Development process unlocks the door organization for the modernization.

Human resource development (HRD) provides the framework for the expansion of human capital within and organization through the development of both the organization and individual to achieve performance improvement. HRD includes the areas of training and development, career development and organization development. This is related to human resource Management which includes HR research and information system, Union / Labor and relation, employee assistance, compensation / benefits, selection and staffing, performance management system, and HR planning and organization / job design. Human resource development (HRD)is the frame work for helping employees to develop their personal and organizational skills, knowledge and activities.

Key words : *Human Resource Development (HRD), Organizational development (OD), Human Capital, Career Development, Performance Management, Compensation.*

Introduction

Human resource development (HRD) is an interdisciplinary field with the focus on the systematic training and development, career development and organizational development to improve processes and enhance the learning and performance of individuals, organizations, communities and society. Human Resource Development policies concern the quality of the labour force and the regulation of market. The quality and adaptability of the labor force is a key driver in creating a favorable environment for both domestic and foreign enterprises to go through new investment and to adapt quickly to changing circumstances. HRD policies are interaction among the organization.

Human resource development (HRD) requires a comprehensive strategy takes full account of the linkages between employment policies and labor productivity. Human resource development (HRD) deals with the policies that makes environment more attractive to domestic and foreign investors and enhance the benefits of investment to society. HRD is the part of people management of that deals with the process of facilitating, guiding and coordinating work-related learning and development to ensure that individually, terms and organization can perform as desired.

Features of HRD of Social / Service Sector

1. **HRD is a system:** It is the system having several interdependent parts or such system such as procurement appraisal, development etc. Change in one sub- system leads to change in other parts.
2. **HRD is a planned Process:** It is a planned and systematic way of developing people.
3. **HRD is a Inter- Disciplinary concept:** HRD is an amalgamation of various ideas concepts, principles and practices drawn from a number of soft sciences such as sociology, psychology, anthropology, economics etc.
4. **HRD is continuous learning process:** It is continuous learning process and merely a set of mechanism or techniques. HRD is not an engineering process having a set of mechanism. The techniques such as OD, training and development, performance appraisal career advancement etc. are used to initiate facilitate and promote this process is a continuous way.
5. **HRD is an Administrative function:** HRD Manager is a line manager and has an important place in the organization chart. Previously it was treated as a staff function. HRD cerates opportunities for the employees and minimizes performance gaps.
6. **HRD is science as well as an Art:** It is a science because of its mechanism and principles and it is an art due to its philosophy and skills. But the degree of art is greater than the degree of science as it is related with the skills, values attitudes and perception of human beings.
7. **Training and development:** HRD involves training and developing employees and managers. It improves their qualities, quantification and skills. It makes them more efficient in their present jobs. It makes them more efficient in their present jobs. It also prepares them for their future jobs.
8. **Organizational development:** HRD involves organizational development. OD tries to maintain good relation through out the organizations. It also solves problems of absenteeism, internal conflicts, low productivity and resistance to change.
9. **Key element for solving problems:** Many problems dare now faced by organizations. Many economic technological and social changes are taking place. These problems can be solved only by knowledge, skills etc is achieved from HRD.

Need of HRD of Social / Service Sector

The real strength lies in the development of human mind and body,



"If you wish to plan for a year, saw seed,
If you wish to plan for ten year, plant tree,
If you wish to plan for life time, develop man"

With the increasing competition in the business world it is necessary for the business world it is necessary for the business organization to change according to changing situation. Employees of organization must be motivated to perform better. It is the duty of the organization to maintain well qualified experienced, efficient staff in the organization. Human resource development through the training programmes, career plans and adequate salary system should be given special emphasis to improve the knowledge and skills of the staff. This can be achieved by developing proper job description and understanding training programmes for employees of organization.

The basic need that felt for the human resource development can be fulfilled by following

- Job description
- Training needs assessment
- Training for capacity building
- Training for refreshing skills
- Training of trainers
- Training in outside institutions
- Long term training needs
- Short-Term training needs
- On the job Training

By the above techniques we can impart the human resources development in the various organizations.

Issues in HRD of Social / Service Sector

HRD is the emerging and multidisciplinary field. These issues are as follows.

1. There is not one dominat professional organization or publication: There is no dominat professional organization available which can be role model for the effective implementation of human resource development concept. There is also no proper information available in printing format.
2. There is no professional accreditation for HRD: Proper system for the accreditation is not developed so far due to this proper evaluation is not done in the organization.ro
3. The field lakes a set of defined terms specific to field: Like the other field of human resource management HRD lacks a set of defined terms. Proper guidelines are not available.
4. Gaps exist in the research from researcher to practioner and vice versa: In HRD there is gap which exists between researchers thinking. There is a gap between theory concept and actual practice.

Problems in HRD of Social / Service Sector

The problems in HRD are as follows

Qualitative Aspects of Human Resource: Economic development depends not only on the supply of the brute muscular power but also on the skill embodied in the manpower applied to the production processes. Today HRD is facing problem related to the skills of employee thousands of graduates and masters degree holders in academic discipline has flooded the market of Educated manpower. These manpower is lacking in which is required for the industry so they are becoming unemployable ones.

Human resource and social capital: The quality aspects of manpower also relates to the social capital i.e. attitudes and institutions. This determines how people live, earn their live hood use or misuse resources to meet their ends and generate, preserve and economics the resource, innovate or imitate take risks and so on.

Mass poverty and efficiency of Human resources: From the quality point of view of human resources mass poverty is important. Poverty is the issue of distribution of regional wealth and closely relates to social welfare. When poverty leads to that has direct poor health and low efficiency it has direct impact on production. Poverty issues are related to rural as well as urban areas. Our development models have not considered the difference between consumption and investment function. This have considered investment as productive while consumption is considered as unproductive.

Importance of HRD of Social / Service Sector

Importances of HRD of Social / Service Sector are as follows

1. **Success of Organization:** The success of organization depends to a large extent upon the capability, competence efficiency and effectiveness of its human resource. The HRD system is essential tool of management in order to develop a strong sense of capability, competence and responsibility among the employees of a concern. HRD is the aid to the efficient running of the enterprises.
2. **Fulfillment of Goals:** HRD is useful in the fulfillment of committed goals of an individual, organization and society. It increases the capabilities and efficiency of individual. Integrated growth of employee is achieved.
3. **Higher Productivity:** HRD helps to find out the hidden talent of employees and then motivate the employee to give higher productivity.
4. **Good return on investment:** HRD reduces the cost of production and earns good return on investment and consequently contribute to competitive advantage in the fact of cut-throat corruption. Labor turn over labor absenteeism is minimized. Surplus of man power is avoided.
5. **As the soul of personal development:** HRD is the very new knot of personal department. It helps in proper manpower planning and training. It promises to fulfill the career aspiration of the working force and meets the future requirements of working force in



the light of organization goals.

6. **Strong superior subordinate relationship:** HRD develops strong subordinate relationship creates job satisfaction, improves organizational health and employees moral, team spirit and loyalty the sense of belonging or we feeling in the minds of employee and awareness of larger organizational goals.
7. **To Cope with changes:** HRD is essential to meet requirements of changing environment of the industrial sector due to educational social cultural and economic change and technological advancement.

Literature Review

Pedrick and Gibson (2007):- Researched over 4300 journals articles from academic and professional journals. The aim is to find out the gap between research and actual practices taken place in the human resource development. This is useful for determining the importance of each group contribution in the organization activity.

Short et al(2009) Stated that there is no formal barriers and no educational requirements to prevent an individual from claiming to be an HRD professional without professional certification available for those in the field the practice is susceptible to situations that could cause a conflict of interest of violate ethical standards.

Goldman (2008) Stated that expertise is in the eye of the beholder. One person's idea of an expert may not be another's. Choices made by those professional could have moral implications for the workers, learners, organizations and society. HRD professional have a responsibility to co-ordinate an environment that is safe, non treating and protective of all employees.

Gilley and Eggland (1989) Stated that HRD professional must also develop skills and abilities that foster cultural change. Among these is the ability to act as facilitators and problem solving specialist. In many organizations, HRD professionals act as the HRD professionals must be able to support participative management approaches and help to develop the environment that exemplifies co-operation and mutual respect.

Kayes (2002) Outlines five sociological issues facing organization in the global HRD context. These include breakdown of traditional institutions emergence multiple perceptive internal consultant responsible for helping facilitate organizational cultural change. shift to an information based economy, increased rate of change and inadequacy of traditional models. He contends that HRD professionals who respond to these changes rely on their ability to adapt to these changing institutional structures. Such changes include response to changing demographics and values of the workforce, increased professional specialization, better equipping the workforce programs, learning in a term environment greater sensibility to diversity and engagement of the workforce in development or long term learning programme.

Schwendiman (1987) Stated that organization that creates the most nourishing environments for personal growth will attract the most talented people. This takes on special significance given the fact that the shortages of qualified employees are expected

during the first two decades of this century.

Objectives

1. To maximize the utilization of human resource for the achievement of individual and organizational goals through Human Resource Practices.
2. To provide an opportunity and comprehensive frame work for the development of human resources in organization for full expression of their latent and manifest potentials

Research Methodology

Research Design : A research design specifies the method and procedures for conducting a particular study. The research was design taking into account of Social and Service sector. Focus was to design a questionnaire for Social and Service sector. The survey is proposed to be conducted in Pune city and district.

Data Sources : Data is collected for the research project from secondary sources. Secondary data which is already exist somewhere.

Secondary Data Sources : The secondary are those which have already been collected by someone else and which have already passed through the statistical process. Secondary data required for the research project has been collected, from following sources.Internet, Books, Magazines, Reports.

Conclusion : In the today globalized world every service sector and social sector organizations must implement human resource development practices in their organizations. By implementing HRD practices in the organizations efficiency and productivity of labors/ employees can be improved.

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Cloud Computing in Libraries : Pros and Cons

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ABSTRACT

Now a days cloud computing, a new technology model for IT services is adopted by many business and organizations. As libraries are using current IT for management of its resources, how these are lag behind in using cloud computing? In cloud computing, information and software do not need to be stored on personal computer. User can access Central Data Centre, Remote server and Internet services through Cloud Computing. This abstraction of hardware and software allows user to take different approaches in selecting and implementing library services. Cloud Computing is more popular for libraries because of number of benefits like reduced cost, security and storage, backup technologies, IT infrastructure etc. This paper attempts to give brief account, benefits and drawbacks of cloud computing. It also covers the applications of cloud computing in libraries.

Keywords : *Central Data Centre, Remote server*

INTRODUCTION

In India for many businesses Cloud Computing are virtualized adaptable services especially in Information technology. It is a most cost effective development and expansion of this extends boundary to cover data centers, servers and network infrastructure.

Cloud Computing is a technology, which delivers applications as a service over the internet, using hardware and software resources. Cloud is the data center of network with hardware and software system. The Cloud symbol was used to represent the Internet services in 1994. In 1960 – John McCarthy opinioned that –"Commercially Cloud term was used in 1990, for computation to represent software as a service. Cloud Computation may be organized as a public utility".

In libraries computers are used for running services such as web site or portal , digital libraries, institutional repository and integrated Library management Software. These are maintained by parent organizations system administrator or Library staff. It involves investment on hardware , software and staff to maintain these services and undertake back up and upgrade as and when new version of software get released.

Now cloud computing has become a new buzz word in the field of libraries, which promotes availability and is composed of essential characteristics like – on demand self

service, broad network access, resource pooling, rapid elasticity and measured services.

Cloud computing technology advances in Information Technology (IT) infrastructure and scalable sophisticated applications facilitated individuals, students and information centre (Libraries) around the world to connect to data, information and computing resources anywhere and anytime.

OBJECTIVES

Following are the objectives of the study

- To study the different areas of libraries where Cloud Computing is being used.
- To study efficiency and effectiveness of Cloud Computing in Libraries .
- To study and different types of services provided by Cloud Computing in Libraries.
- To study the advantages and drawbacks of Cloud Computing in Libraries.

METHODOLOGY

This paper is of exploratory research based on secondary data. Secondary data collected from from various sources like past records, magazines, academic journals, News articles, books papers from conferences and Internet websites.

Cloud Computing for Library

Cloud Computing is rapidly changing landscape of Information Technology to teachers and students through cloud based services. It can be accessed anytime, anywhere from any device by lowering the cost simplifying the delivery of educational services in terms of skills and training.

Cloud Computing is particularly valuable to Libraries, where effective and affordable IT tools have become more productive without spending more money. It increases profitability by improving resource utilization. Thus, it implies a service oriented architecture with great flexibility, reduced total cost, on demand service.

Cloud Computing Applications in Libraries

The Library community can apply the concept of cloud computing to amplify the power of cooperation and to build a significant unified presence on the way. This approach to computing can help libraries save time, and money while simplifying workflows. A brief list of areas where cloud computing can be used in Libraries include :

Digital Library Services

The Digital Library Services are presently being offered by libraries mostly using hosted open source software such as DSpace, E-prints , Fedora, Commns etc. for providing



open access to Scholarly resources. Apart from adding resources, this involve the libraries to main tain the servers , undertake back up and carry on regular updates as and when the new version of the software is released. Thus putting lot of pressure on the library or the IT staff. With the help of cloud technology digital library services can be offered

Library Automation

For library automation until now libraries are using locally hosted servers using different types of Open Source and commercial integrated Library Management Software and manage by Library staff. But now a days for Library automation there are several commercial suppliers already offering various adoptions of their products which make the use of the cloud possible to a greater or lesser extent. This save library from investing on hardware.

Web Site Hosting

Website hosting is the one of the earliest adoptions of cloud computing. Many organizations including libraries preferred to host there web sites on third party server providers rather than hosting and maintaining there own servers. This is owing to either organizations not having the required bandwidth of the Internet or technical manpower to maintain the servers.

Search Services :

Libraries have already migrated key services such as Open URLs provided and federated pre-indexed search engines on the cloud either by using commercial or open source solution.

Office Applications

In libraries various office applications like word processing, spread sheets, power point presentations etc. are performed using Microsoft office on the local computers. However by using cloud computing there are many applications which are made freely available on the internet.

Knowledge Services and Storage

Libraries required space to store the print and electronic documents . The documents are of various types like Full Text, Bibliographic records, tutorials etc. At present these are stored and access using personal Desktops or from servers which are locally hosted. The cloud computing offers space at no cost to store the files and documents. Therefore with the aid of cloud computing Librarians wont have to maintain their own equipments or deal with consultation personally. Librarian will have more time and energy to offer users with their needed knowledge based service but not only information.

All oriented services

Besides the professors , teachers or students , all the people of the country can access to the Library resources. In addition the libraries also permit users access to many libraries resources by handling related certificate of that Library. Any body who can through the legal network Identity Authentication ahs the right to visit the joint resources of Libraries on the Internet.

Challenges in Library Cloud Computing

There are some frequent challenges face while deploying the applications for library with the help of cloud computing. In a traditional computing environment organization typically have direct control over all computing resources involved in delivering a particular service and can control everything from the client application to the backend database, from the network infrastructure to supporting services like directories and disaster recovery tools. Organization can measure the performance of these various elements and use its own intelligence and experience to gauge when the performance is becoming unacceptable. In cloud environment , however organization give up a level of decontrol as a resource move into the cloud –based hosting environment. In a typical cloud based application, organizations are at a minimum giving up control over its backend database and application layer.

Library professional many a times find it difficult to manage the technologies owing to their skill levels, lack of support from IT departments or for not having IT facilities with the organizations. This kind of situation always hinders library professionals in undertaking automation of Library activities, developing digital library services etc.

Advantages of Cloud Computing :

1) Cost Reduction: Ability to increase or decrease the consumption of hardware or software resources immediately and in some case automatically.
2) Scalability: "Pay as you go" policy of cloud computing allows a more efficient control of expenditures.
3) Mobility: The staff and the users of the library can connect to the Library servers from any place or from wherever they are.
4) Flexibility: Cloud computing offers much more flexibility than other local network computer systems and saves time plus cost for organization.
5) Lower Investment, reduced risk: Immediate access to improvements in the resource proposed (hardware and software) and debugging.
6) Easy on Installation and Maintenance: There is no worry about constant server updates and other computing issues, organizations will be free to concentrate on other tasks.
7) Increased Storage: Cloud can hold more storage than a personal computer or the servers available in the libraries or organizations.



8) Shared resources: It allows people within and outside the organizations to have access to the resources.

Drawbacks of Cloud Computing

1) **Data security and privacy:** The biggest concerns about cloud computing are security and privacy, especially if the organizations are dealing with sensitive data such as credit card information of customers. If the proper security model is not yet in place, then the data stored on the cloud is vulnerable to attacks from the viruses.
2) **Cost:** Initially the cost could be higher but may reduce depending on the uses of services.
3) **Limited flexibility:** Flexibility may be limited in terms of special customization and services on the cloud will be common for all the customers.
4) **Network Connectivity:** As the cloud computing is offered over the internet , if the connection goes down due to any reason then the organizations suffer from loss of data connectivity till the time it is set.
5) **Knowledge:** Deeper knowledge of cloud computing is essential as working of the service is totally dependent on the service provider.

Conclusion

Libraries have the opportunity to improve their services and relevance in today's information society. Cloud computing is one avenue for this move into the future. It can bring several benefits for libraries and give them a different future.

After studying the cloud computing applications for Libraries, it is beneficial to reduce the cost effect for new system installation and suggesting flexibility in software applications.

The vision is to use cloud computing to deliver library resources , services and expertise at the point of need , within user workflows and in a manner that users want and understand. It should free libraries from managing technology so they can focus on collection building , improved services and innovations.

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Access of E-Resources through Consortia

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Abstract

Technological revolutions(ICT) in academic libraries have not only changed the ways in which libraries use and find information today but its emergence has changed the modes of communication information demands of the users and information management system in the library. The advancement of ICT brought new challenges before the library & information professionals to full text accesses to scholarly publication both in print & electronic version to its end user. Increasing cost of journals and low library budget libraries are shifting from print format to electronic format. In this context consortium is a solution to this problem.

Introduction

Information is integral part of human beings in today's world and this environment is currently undergoing a rapid and dynamic revolution leading a new generation of libraries. The advent of IT has covered the way of reducing the size of the libraries form biggest to the smaller form, in fact modern libraries moving towards smaller with rich information potential and also they are reducing most of the problems that libraries have been facing due to its bigness. The ICT also helps to use different types of knowledge based elements which are available in library at anytime, anywhere in the world with an emphasis on its effective use of e-resources. Subscribing to and providing e-resources through Consortium will help to improve the reading habits and academicians

E-resources

An electronic document is the result of integrating classical book with features that can be provided within an electronic environment is referred to as an electronic book, which is intended as interactive document that can be composed and read on a computer. As a result the form of documents is also changing and not many of them are available in electronic form. Many of these are also available on internet these are called electronic resources.

Types of e-resources

The main e-resources of a library are as follows

1. E-Journal



2. E-books
3. E-online databases
4. Websites
5. ETD
6. CD-ROM
7. Other portable computer databases

Advantages of e-resources

1. It allows remote access
2. It can be used by many users simultaneously
3. It is interactive and allows interaction between author / publishers and users.
4. It provides timely access to documents.
5. It support searching capabilities
6. It accommodate unique feature such as links related item.
7. It eliminate printing
8. It does not require physical processing
9. It can be easily merge with altering services

Need for e-resources

1. A large amount of information can be stored in e-resources in comparison to print resources,
2. E-resources basically are text based files, so anyone can easily access needy material without reading the whole document.
3. Subject catalogues of e-resources are available for downloading in personal computers of the users at any time.
4. E-resources are available on websites; hence anyone can access these web sites by paying some money while websites free of cost.
5. As the computer is also linked with high quality printer, so anyone if wants can get the copy of any page of the document through printer.

Characteristics of e-resources

1. E-resources need no place like printed books.
2. They may be accessed at very low price.
3. The user residing anywhere in the world can get required information from these resources.
4. More than one person can read a text at the same time.

5. E-resources can be accessed quickly.
6. They can be searched at anyplace in the world and information can quickly be searched.
7. E-information through e-commerce
8. Advanced search and retrieval can be used simultaneously by more than one user.

Consortia

A consortium is derived from the latin word for fellowship. The meaning emphasizes the coming together of separate groups for a purpose.

The consortia involves relatively informal cooperatives founded just to realize economics of scale in purchasing to highly organized, centrally, staffed, centrally funded organization intended to share resources and to engage in all manner of collaboration within member of libraries. In brief the consortium is another form of cooperation for resource sharing,

According to Charrron the term consortium is derived from the field of economics & refers to the grouping together of different independent companies in order to bring together financial or material resources under a single managing body for the joint performance of specific operation.

Indian library consortia for e- resources

India does not have a very rich tradition of consortia arrangements or resources sharing amongst libraries. Indian libraries are faced with several environmental circumstances (Cultural, Economical, Political) etc. that are unique to India, but in the 1990's the emerging change in publishing industries and phenomenal increase of web based resources. As well as other organizational imperatives perhaps forced Indian libraries to move towards a strategic parternership as a measure of last resort. Therefore a few effort have been made a different levels to provides share web based electronic resources amongst research, academics and technical libraries in India such major initiatives are shown in table 1.1

Table No.1.1

SR. NO	NAME	PARTICIPATING LIBRARIES	URL	RESOURCE
1	UGC-INFONET (INFLIBNET)	160 UNIVERSITY LIBRARIES	http://web.inflibnet.ac.in/info/ugcinfonet/ugcinfonet.jsp	1. 5790 E-Journals 2. 10 Databases 3. JCCC

2	INDEST(MHRD)	120 INSTITUTE	http://paniit.iitd.ac.in/indest/	1. 12000 E-Journals 2. 6 Databases 3. JCCC
3	FORSA (Astronomy & Astrophysisc)	11	http:/www.iiap.re.n/library/forsa.html	1. 25 E- Journals 2. Nature 3. Journals
4	DAE	50	http://www.tifr.res.in/libws/	1. 1600 E Journals
5	CSIR	40	http://www.niscair.res.in/activitesandservices/major projects/majporj.htm# ejournalconsortia	1. 31 E Journals
6	ISRO	12	http://www.isro.org	1. 900 E Journals 2. JCCC
7	IIM	6	http://www.iimahd.ernet.in/ http://www.iimb.ernet.in/ http://www.iimcal.ac.in/http://www.iimidr.ac.in/	1. 1050 E Journals 2. 6000 aggregated Titiles 3. 12 databases 4. JCCC
8	HELINET (RGUHS, Karnatakka)	26	http://www.rguhs.ac.in/hn/newhell.htm	1. 600 E Journals 2. JCCC
9	ICICI Knowledge Park	7	http://www.icicknowledgepark.com/	1. 500 E Journals 2. JCCC
10	ICMR	24	http://www.jccc-icmr.infromindia.co.in/about/about.asp	1. 693 E Journals 2. JCCCC

In India INDESET & UGC INFORNET Digital consortium are two large consortiums covering most of the Universities and technical education institution and e- resources are discussed brief.

UGC INFONET

It was launched in the year 2004 by UGC throughINFLIBNET (Information & Library Network) for providingaccess of e-resources to the universities in different phases.All universities covered under Section 12B of the UGC Act,1956 are eligible to get access to e-resources through theConsortium. The consortium started functioning in phasedmanner in the year 2004. In 2009 'Associate Membership Programme' has been launched by the consortium to enrollprivate universities and other institutions as member's foraccessing to e-resources at the same rates of subscription that are being offered to the core member universities. Various Full text E- resources and Bibliographic databases subscribed to under

UGC INFONET.

1. American Chemical Society. (http://www.pub.acs.org)
2. Royal Society of Chemistry (http://www.rs.org)
3. Nature (http://www.nature.com)
4. Cambridge university press (http://www.journal.cambridge.org)
5. EncyclopadeiaBrittannica (http://www.brittannica.com)
6. JSTOR (http://www.jstor.org)
7. American physical society (http://www.aps.org)
8. Science online (http://www.scienceonline.org)
9. Emerald library science Collection (http://www.emralfinsight.com)
10. Elesvier Science Life Science Collection (http://www.sciencedirect.com)
11. J-Gate gateway Portal (http://www.jgateinformaindia.co.in)

Bibliographic Databases

1. Chemical Abstract Service (http://www.cas.org)
2. BIOSIS : Biological Abstracts (http://biosis.org)

INDEST AICTE Consortium:

The ministry of Human Resource Development (MHRD) has set up the 'Indian national Digital Library in Engineering Sciences and Technology (INDEST) Consortium'. The ministry provides fund required for subscription of electronic resources for 38 institution including IISc, NITs, IIMs and few other centrally funded government institutions through the consortium headquarter set up at IIT Delhi. The INDEST consortium as an open-ended



proposition, to provide the access of e-resources to all AICTE affiliated institutions.

Electronic resources subscribed to by the INDEST-AICETE consortium can be broadly divided into full text electronic resources and Bibliographic Databases.

1. ABI/INFORM Complete (http://www.il.proquest.com/pqdauto)
2. EBSCO Databases (http://search.epnet.com)
3. Elsevier's Science Direct (http://sciencedirect.com)
4. Emerald Full text (http://iris.emeraldinsight.com)
5. Complete IEEEE/IEEE Electronic (http://ieeexplore.ieee.org)
6. Nature (http://www.nature.com)
7. Insight (http://insight.assianerc.com)
8. Proquest science (ASTP) (http://www.il.proquest.com)
9. Springer Verlag ((http://www.springerlink.com)

Bibliographic Databases

1. Compendex Plus (http://www.ei.org/ev2/home)
2. INSPEC On Ei Village (http://www.ei.org/ev2/home)
3. J-Gate Custom content for (http://jccc.indest.informindia.co.in)
4. Scifinder Scholar (http://www.cas.org/scifinder/scholar/index.html)
5. Web of Science (http://isiknowledge.com)

NLIST

The endeavor of UGC INFONET digital Library consortium & INDEST AICTE Consortium is to launch college model of the consortium under a joint project entitled "NLIST" sanctioned to INFLIBNET center & IIT Delhi by MHRD under its National mission of education through ICT.

So it is seen that the UGC thorough the INFLIBNET centre has successfully infused a new culture of electronic access to scholarly information amongst academic community in universities, Technical Institutions and Colleges. Under N-LIST, selected resources of these consortiums are accessible to the users of both the consortium. Besides 12B/2F colleges, NLIST Programme is now opened to Non -Aided Colleges (except Agriculture, Engineering, Management, Medical, Pharmacy, Dentistry and Nursing) can now access e-resources i.e. more than 6000+ e-journalsand 97,000 + e-books directly from the publisher's website.

E-resources accessible through the INFLIBNET's proxy server (http://.nlist.inflibnet.ac.in) are as follows

E-resources/ Publishers of electronic Journals

1. American Institute of Physics

2. American Physical Society
3. Annual Review
4. Cambridge University Press
5. Economic and Political Weekly
6. Indian Journals.com
7. Institute of Physics
8. Oxford University of Press
9. Royal Society of Chemistry
10. Wilson omnifile
11. MathSciNet (Bibliogrphic Database)

E-resources/ Publishers of Electronic Books

1. Ebray
2. Mylibrary-McGraw Hill
3. Oxford Scholarship
4. Netlibrary
5. NetLibrary (open access books)

Conclusion

There is information explosion and information generation which is much faster due the application of different technologies in libraries with emphasis on e-resources. The effective use of e-resources brought drastic change in the activities and function of library. The tremendous growth of digital information has necessitated consortia based services for economics and effective delivery of information to the end user. It benefits the libraries to procure more electronic resources in the library with limited library budget and this is what the libraries require in the present scenario.

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Knowledge of Social Sciences Needed in Today's Business World

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ABSTRACT

A change is a natural phenomenon. So is Education. Basically, it is transforming rapidly into fragmentation, may it be in business, medicine or any other field. It is evident to witness the dynamic changes in all aspects of social, economical, political environments at all levels of society, national and international. The impact of technological advances, physical mobility of the population and availability of information on any subject is bringing the world closer to interact and response at a touch of a button.

Despite the concern about pros and cons of constant changes in all fields, it appears that the much of the concern has been in understanding human learning and behavior patterns. The author strongly believes the study of social sciences foundation will be beneficial and advantageous for practicing business owners, entrepreneurs, economists, politicians, legislators, health providers, educationist, consumers, employees and even members of family.

The ultimate goal is to make human life more natural, happy, comfortable, safe, and cooperative without creating any conflicts, anarchy and life threatening situations.

INTRODUCTION

From the beginning of time immemorial, humans evolved the means of communication from bodily gestures, unspoken means by demonstrating the objects to finally the spoken words. As the humans formed the groups of their immediate families and neighbors close to the natural resources like water, trees, forest and habitable land for sustainability, security and food, they created communities.

The study of social sciences is helpful in all spheres of human lives. The spectrum covers Sociology, Psychology, Cultural Anthropology, Civic Science, Economics, Philosophy and Politics. Though this sounds very complex, the participants in all transactions can make it very easy if needed.

The application of this in-depth study of social sciences can solve many international, national and local, social, communal and political conflicts in all areas of global dynamics without loss of lives and other limited natural resources. M.K. Gandhi strongly believed in self dependency, participating democracy which he prophesized as "Team Spirit".

The author also believes the understanding of social sciences foundation will broaden the horizon of all participants of societies in all walks of lives.

As said by a world scholar, "The world is not as it appears to you- the world is how your thoughts are".*1

THEORETICAL BACKGROUND

Social Sciences refer to the academic disciplines concerned with society and the relationships among individuals within a society, which often rely on empirical approaches. It is commonly used as an umbrella term to refer to Anthropology, Economics, Political Science, Psychology and Sociology. In a wider sense, it may often include Humanities *2 such as Archaeology, Area Studies, Communication Studies, Cultural Studies, Folkloristic, History, Law, Linguistics, and rhetoric.

The study of Sociology offers the necessary knowledge to understand social behavior in our societies and communities. The members of society introduced few convenient social norms and etiquettes in dealing with each other. May it be in social institutions like family, marriage and institutions of learning, religious institutions, humans adopt certain acceptable norms. Breach of mutual trust and breaking of society's written, unwritten rules and norms result in growth of prisons, breaking, separation of families, increase in law enforcement and vigilance. Thus, the basic institutions of society collapse creating more anomalies and overall disruption. When faced with such critical situations and more social disruptions occur in all social, economic, political, business institutions, citizen take the brunt of consequences.

The author also found the evidences of impact of religion and religious beliefs on human behavior. It is a learned behavior in the basic unit of society, the family, one is born in.

Social responsibility and social sensitivity play very important role in lives of human beings. It also makes good sense when dealing with customers, vendors, employees, investors, business executives , many governmental and law enforcement agencies.

The study of Psychology encompasses wide spectrum of human mind including all stages of Consciousness, Sub-Consciousness, Id and Ego. A child learns all basics of mind-sets, likes and dislikes good and bad habits, self-motivation, spiritual belief from members of family and people around him. Though many of these beliefs and faiths are learned by imitating elders in the family, neighborhood, teachers and now from entertainment industry, social behavioral scientists believe that these can be modified by training. Also, the effective techniques and concepts of Industrial Psychology are of utmost necessary to foster the "Team Spirit" to accomplish organizational objectives and goals.

The study of Cultural Anthropology gives us the insight into cultures, social etiquettes, ethics, faith- beliefs- traditional systems of people from all religions, casts, creeds, national as well as international societies. Here again, we can witness the immediate effect of faith and belief systems of each section of the society. Also, evidenced by the variety of arts, music, dances, literature, festivals, theatrical plays depicting all aspects of lives and



educational system followed by the people around the world. Different Business etiquettes and mannerism are observed during our daily lives and travel around the world.

With the world getting smaller, ambitious youth moving to big cities in search of greener pastures, the ability to work with people belonging to different cultures has become a key skill sets today. Even as people are increasingly recognizing the need to transcend cultural boundaries, how this can be achieved is rarely well-defined. There is a great need for employees to get a separate training in inter-cultural communication today."People have always had to deal with differences, whether in culture or behavior. In order to relate to each other, people need similarities to bond over". *3

The study of Civic Science is the center of human behavior in society on a micro level surrounded by relationships among interpersonal, inter and extra family, inter and extra community, inter- state and on international level. One of the most important facets is of Social Sensitivity and Social Bindings. It also consists of many social aspects of Hygiene, Health, mutual respect and benefits of being a member of society. Currently, there are many private organizations get involved with NGOs with their CSR activities to benefit the economically disadvantaged groups in our society in areas of providing good education, basic needs of food, shelter, clothing and employment opportunities.

The study of Economics gives a clear picture of society's financial health, development and progress in relation to other societies of the globe. It deals with supply and demand of products and services, peoples' personal financial and material planning, infrastructural planning for economic growth from rural farmer to manufacturer of machinery, consumer and industrial goods for the benefit of citizen.

The term "non-economic factors" is vague and can encompass a wide variety of factors. Social scientists have varying opinions on the identification and effectiveness of non-economic factors in the process of economic development. Talcott Parsons stresses the "relation of the individual to society" in the process of economic transformation.*4

The study of Politics offers the functioning of governments at all levels, their functions and benefits for the masses. However, the character and nature of political leaders must be checked out by citizen by prudent methods. The government rules and regulations are made for the benefit of citizen to ensure their safety and security, providing the necessary means for survival, education and employment opportunities for Schedule Classes and Scheduled Tribes, equal rights for all irrespective of class, age, gender and religion. The projects undertaken by governmental agencies must be in the best interest of the population having adequate checks and balances to monitor the progress and completion.

There are many areas of social sciences intertwined and overlapped with each other that any attempt to separate may be an arduous task.

Humanities and social sciences not only satisfy human thirst of knowledge, but also enable us to pursue careers that stand on a strong foundation and thus forming a ,National Character'.*5

RESEARCH METHODOLOGY

Since the nature of the study is descriptive in nature, the author used exploratory and interdisciplinary approach in studying the need of time to understand the global business world. However, the author used socio-cultural aspects of citizen along with social stratification, family structure, regionalism, political and governmental aspects in the form of various legislations, the malpractices, use of unethical and corruptive measures of governmental agencies and policy makers. Production and sales of inferior good and services by business firms at the cost of their reputation and branding policies in the long run.*6

Most of the examples are drawn from the author's personal work experience, available literature by eminent academic scholars, social scientists, business executives, and social mass media like print, TV news and audio-visual materials of the subject matter.

LIMITATIONS

The author used only major areas of social science foundation to limit the scope of the study. Nevertheless, additional data would have produced volumes in each part of social sciences.

RESULTS AND DISCUSSION

The author selected this basic Social Sciences foundation knowledge for all participants in the business, social, political and economic world to understand the entire spectrum of human behavior, interpersonal interaction and relationship and consequences of social anomalies.

The most important factor needed in today's business world is "to Work in Team". The Human Resource (HR) executives and managers should emphasis the importance of "Building Team spirit" and use of Industrial Psychology techniques of "Token economy" to improve the productivity, effectiveness and efficiency. This concept can be implemented by introducing and using Appreciation and Recognition methods to reward employees for their good work, good organization behavior, effective suggestions for product improvements, progressive thinking, good results because Team Work, best sales and marketing performances.

The subject matter may not be in a particular field of business and industry. Nevertheless, the author thought the information about social sciences will be an aid for all citizen to understand business world, may it be in Marketing, Human Resource, Finance, IT Sector, Production, Education and in general.

The lives of ordinary citizen are in jeopardy as we witness every day, the upheavals, anarchical and tense situations in the world by cultural and religious clashes among the nations. The United Nation Organization also fails to understand the basic differences in religious beliefs, cultural variation and faiths.

Conservation and upkeep of environment is of utmost importance along with all kind

of pollutions.

United State of America failed to understand the basic cultures of European and far Eastern country, Japan, during WWII , Vietnam in 1950s causing the world largest loss of soldiers, Middle Eastern region in1990s and end of 2000s. President and Defense Minister of USA realized and later accepted the fact that USA could not win the wars because they failed to understand the difference cultures of other countries.

Similarly, early 1970s when international trade was just flourishing, countries failed to understand the business and social etiquettes, ethics, cultures, languages, methods of accounting and tax structures of other countries. The consequences were detrimental to lose major business deals for ever. Similarly, the politicians of countries experienced misunderstanding the meaning of gestures and literary languages. These scenarios resulted in tensions among major countries of the world, many a times in non-cooperation in major international issues.

Presently, the advance technological innovations changed the entire world in all sectors of social, business, education and political fields. The information highway is fast and vast. It is up to an individual how much information to convert into knowledge for the use of interaction, relationship in day-to-day business, social, economical and political activities.

To enhance personal, professional growth, contribution in all aspects of life, an individual has to make a lot of accommodation, compromise, sacrifices and increase tolerance and perseverance to accomplish his goals. He cannot do it in isolation like "a man on a solitary island".

The learning process common to humans and animals starts from using basic senses, i.e., visual, olfactory, auditory, tactile and taste. The information gathered from external stimuli is stored in brain, reproduced and recollected as and when needed. The learning process goes on throughout the life of a person.

It is also required to develop and nourish good qualities like, appreciation, gratitude, discipline, determination, helping others, sympathy, empathy, etc. when you work with other human beings in all aspects of life.

The author, during his academic tenure and working in business world over four decades of service industry in the United States of America and India, observed that:

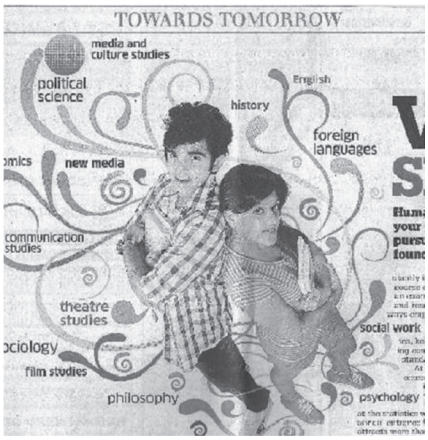
- The lack of skills needed to be a good citizen, a role model, an effective leader and an employee. Use of testing in aptitude, IQ, EQ and MQ.
- Skills needed - communication, technical, human and organizational skills.
- Training – perpetual in all areas by well qualified trainers from all fields.
- Extra-curricular activities to foster over-all personal and professional growth.
- Corporate Ethics and Culture – needed to establish corporate reputation. Sharing Corporate Mission and Vision with all employees at all levels.
- Evaluation and feedback measures – making sure corporate goals, objectives achieved through approved business policies.

- Social inequalities in areas of gender, casts, religion, social stratification, equal opportunity of employment, special reservation in all fields – education, central, state and local levels of governments for scheduled casts, schedule tribes and below-poverty line citizen.
- Majority of Business organizations unwilling to set aside annual budget for CSR (Corporate Social Responsibility) for the benefit of social and community betterment where they do business.

CURRENT DEVELOPMENTS IN STUDYING SOCIAL SCIENCES AT PROGRESSIVE EDUCATIONAL INSTITUTIONS OF HIGHER LEARNING

The Social Science disciplines are branches of knowledge which are taught and researched at the college or university level. Social Science disciplines are defined and recognized be the academic journal in which research is published, and the learned Social Science societies and academic departments or faculties to which their practitioners belong. Social Science fields of study usually have several sub-disciplines or branches, and the distinguishing lines between these are often both arbitrary and ambiguous.

The Centre for the Study of Religion and Society, recognized by the department of Sociology, Jadavpur University, has introduced a Diploma course in Society, Religion and Social Work. Apart from creating awareness through research of the current Communal Affairs in the world, the study will augment the eligibility of individuals aspiring a career in NGOs, in India and abroad. The centre is dedicated to the study of Indian Cultural Heritage and aims at promoting a better understanding of it through a comprehensive program of Education, Publication and Research.*7



There are offbeat choices in developing and learning Varies Skill-Sets as shown above and in Appendix A. While the traditional disciplines – psychology, English, Economics and Sociology continue to be popular specializations, the changing societal dynamics have opened up avenues in the comparatively lesser popular streams such as Anthropology, Geography, Philosophy, History, religious Studies and women's and Gender Studies.

With the awakening of new era in thinking about accepting challenges by youth, there is an evidence of many slow changes in all fields of citizen's lives. This also includes the upcoming ideas by leaders in all faculties like education, philosophy, politics, entertainment, sports, business and industry sectors.

Various ideas are diagnosed, explained by many eminent leaders, scholars to effect the necessary changes in the lives of citizen of the nations. The author thought to share the knowledge with the readers.

The Father of Social Entrepreneurship, Bill Drayton, recognized the power of an idea to change the world. He believes that when people come together to create positive social change, they become citizen in the fullest sense. Drayton thinks that Empathy is just like literacy and learnt language. If current generation of children and young people do not master Empathy –Cognitive empathy which is a foundation skill and team work, a very different type of leadership and change-making they are not going to be helpful to anybody in any sector.*8

In his bestselling 2008 work 'Outliers', Malcolm Gladwell, spoke about the 10,000-hour rule, contending that the key to success in any field comes from practicing a task for 10,000 hours. Outliers explains what Beatles and Bill Gates have in common, the extraordinary success of Asians at math, the hidden advantages of star athletes, why all top New York lawyers have the same resume and the reason you have never heard of the world's smartest man – all in terms of generation, family, culture, and class. The lives of Outliers – those people whose achievements fall outside normal experience – follow a peculiar and unexpected logic, and in making that logic plain, Gladwell presents a fascinating and provocative blueprint for making the most of human potential to transform the way we understand success. In 'Tipping Point', Malcolm Gladwell changed the way we understand the world.*9

In political arena, the eminent politician and a scholar, Arun Shourie, Former Union Minister of Disinvestment, believes that the problem lies not in the laws but in their faulty implementation. He strongly believes to enforce punishment under existing laws, plug loopholes in law instead of remaking it, if necessary. Lawmakers have become an impediment instead of enabler. He recommends the changes to help curb rampant corruptions, improve the political system, government becoming responsive to its citizens, delivering justice on time to deter crime.*10

Even a reputable name in business world like Alok Kejriwal, Co-Founder and CEO, Games2Win, suggests that if entrepreneurship is to thrive, failure must not be seen as taboo, but as a stepping stone to success. The author advises that one must constantly strive to do something different, not to feel shy about wanting to be rich and rules and regulations should allow business to close. Thus, new entrepreneurs will rise to challenge existing businesses which need a dose of competition. Private sector is the main job creator in India resulting more business means more employment. The change has the greatest potential to empower the youth and capture the demographic dividend.*11

Presently, we witness a great influence of western culture on Indian youth populations in all aspects of personal as well as professional lives. Thus, there is a dynamic impact on

social behavior of youth leading to nuclear family with few children, neglect of senior citizen, self-centered, immediate gratification attitude and no consideration for ethical and cultural values.

Dr. Stephen R. Covey –one of the world's leading management consultants and author of the bestselling book, 'The Seven Habits of Highly Effective People' writes that the Principal Centered Leadership is considered to be an instrumental foundation to the effectiveness of quality, leadership, service, team building, and organizational alignment and other strategic corporate initiatives. In his book titled 'Principle Centered Leadership', the author cites an example of Gandhi as an effective leader and manager and his seven 'deadly sins'. Mahatma Gandhi said that seven things will destroy us. All of them have to do with social and political conditions that antidote of each is an explicit external standard or something that is based on natural principles and laws, not on social values. These Seven Sins are: (1) Wealth Without Work, (2) Pleasure Without Conscience, (3) Knowledge Without Character, (4) Commerce (Business) without Morality (Ethics), (5) Science Without Humanity, (6) Religion Without Sacrifice and (7) Politics Without Principle.*12

Sandip Vaslekar, the well-known thinker, philosopher and social-political critique, recommends the ' Cooperative efforts between Government and society' should be encouraged for plans and projects for citizen in all facets of lives. 'Citizenship equivalence' should be supported for the welfare of society.*13

Spiritual Leader, The Aga Khan, feels ethics can be taught innovatively. Therefore, ethics should be part of school curriculum. When we look around, we see ethics crumpling in every sphere, from politics to police, social service to sports, medicine to marriage. Part of the strife that ensues is driven by base tendencies like violence and greed – but part is also driven by confusion about ethical verses unethical behavior. Such confusion clouds our judgment of several vital things, from the logic of laws to personal promises, why should not zip past a red traffic light, to why we should help someone in need. Such confusion can be addressed by teaching ethics in schools, impacting fresh, honest minds. Childhood is the ideal time for any education. Many parents make efforts to find the best math, piano or swimming teacher for their children. Alongside, it makes sense to want a good ethical education too. Without this, we won't have a society where an individual's gifts aren't compromised.*14

Finally, to build the 'National Character', all citizens must respect and abide by the rules and regulations laid down by all institutions in society. Then and then only, we can achieve real development and progress of the country in all walks of life.

While studying the history, we came across many pioneers, reformers, scholars, freedom fighters, philosophers and entrepreneurs who devoted their lives for the benefit of society and nation. (Appendix 2)

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Appendix A



TOWARDS TOMORROW

PUNE EDITION

SUBJECT WISE

media and culture studies
political science
English
history
foreign languages
new media
communication studies
theatre studies
film studies
philosophy
psychology
social work

VARIED SKILL-SETS

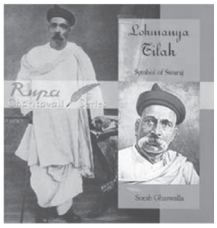
Humanities and social sciences not only satisfy your thirst for knowledge, but also enable you to pursue careers that stand on a strong foundation. Garima Upadhyay Rawat reports

>> OFFBEAT CHOICES

Times of India, Educational Times, Pune Edition, page. 3

Appendix B

Freedom Fighters

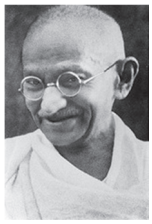


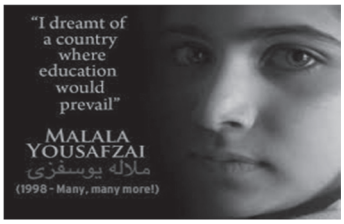




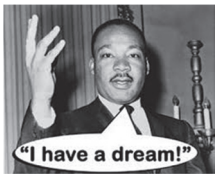


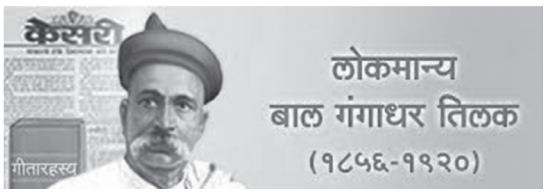










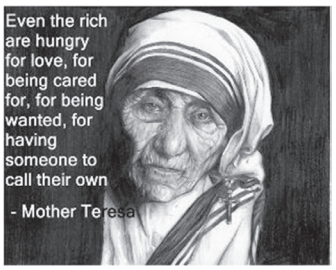


Dr. Martin Luther King, Jr. "I have a Dream Speech"

Social Reformers for Special Causes









Anna Hajare

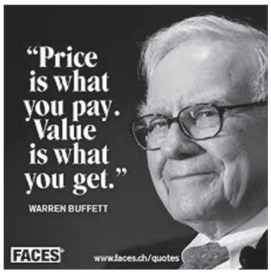


Megha Patkar – Environmentalist



Mother Teresa, Caring for Poor and Neglected

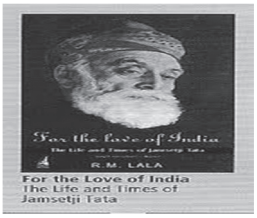
Business Entrepreneurs with Vision











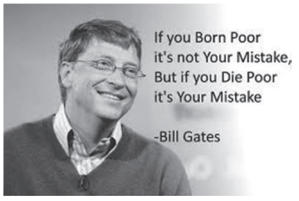




Jamshetji Tata and Ratan Tata







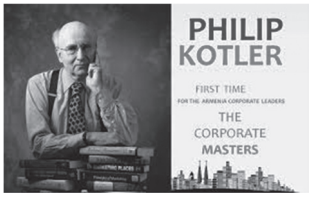


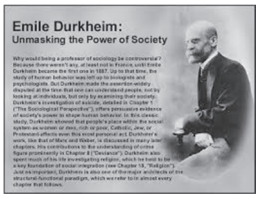
Henry Ford, Detroit, Michigan, USA

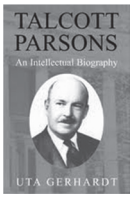
Bill Gates

Educational Scholars











Dr. Margaret Meads, World Renowned Cultural Anthropologist

Swot Analysis of Indian Dairy Industry

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ABSTRACT

Milk is one of the most important item of common vegetarian diet of Indian people. India is world's highest milk producer. The Indian dairy industry achieved substantial growth during the 8th five year plan. Increasing awareness with India entering the era of economic reforms, agriculture particularly the livestock sector is positioned to be a major growth area. The fact that dairying could play a more constructive role in promoting rural welfare and reducing poverty is increasingly being recognized. The small rural milk producers faced by the farmers includes tropical climate conditions, seasonal fluctuations in milk production pattern, low productivity of animals and lack of proper marketing support. Although, dairying is the most ancient occupation established in the rural setting, its development is not satisfactory due to a number of problems. This includes information, breeding, feeding, management, diseases and marketing. To address the industry's problems effectively, it will be helpful to have an assessment of the role of market failures and of government policies in contributing to its poor performance.

Despite of all these problems it faces the dependable source of livelihood for the vast majority of the rural poor. Liberalization of world trade in dairy products under the new trade regime of the WTO possess new challenges and has opened up new export opportunities for the dairy industry. The future of dairying will also rely on the continued adaptation of management techniques that suit markets, environments and social-economic conditions. Managing dairy plants and cattle-feed factories is not the business of government, it is better left to professional managers who are employees of the milk co-operative and hence are accountable to their member milk producers.

Keywords : *Problems and prospects, Dairy industry, milk, SWOT analysis.*

INRODUCTION

Dairy industry is of crucial importance to India. The country is the worlds largest milk producer accounting for more than 13% of worlds total milk production. It's the worlds largest consumer of dairy products, consuming almost 100% of its own milk production. Dairy products one major source of chief & nutritious food to millions of people in India & the only acceptable source of animal protein for large vegetarian segment of Indian population, particularly among the landless small & marginal farmers & women. In India, dairy is the second important subsidiary occupation in rural areas, next to the main occupation of agriculture. Livestock subsector alone contributed to 25% of the total value

of agricultural GDP. The development of dairy industry in India is well known all over the world as one of the most successful development program in the globe. Dairy farming is visualized by the farmers in India as a part of a integrated agriculture system where dairy & agriculture complement each other. Indian dairy sector has made remarkable progress over the last few decades. The co-operative movement, specially operation flood, has been an important driver of this progress and has played an important roll in facilitating the participation of smallholders in this expanding sector. Despite three decades of cooperative movement in India, However a large proportion of milk & milk products in India continues to be marketed through the ' In formal or unorganized sector '.Although share of organized market has steadily increased over the last three decades, the informal sector comprising middlemen, Private milk traders and direct sale from producer to consumer, still accounts for nearly 80% of marketed milk & milk products in the country. Trends indicate that, the informal sector will continue to play its dominant role in milk marketing in the foreseeable future.

PRESENT STATUS OF DAIRY INDUSTRY

The India dairy industry achieved sustained growth during the 8th five year plan, achieving an annual output of over 60 million tones of milk. This not only places our industry second in the world after the united states but represents sustained growth in real availability of milk and milk products for our burgeoning population. Most important, dairying has become an important secondary source of income for millions of rural families.

Improved genetic material achieved primarily through cross breeding of cattle & upgrading of the national buffalo herd has played a significant role in increasing the productivity. Gradual extension of improved husbandry practices increase in consumption of balanced concentrates made possible in part through innovations in the field of nutrition expanded area under fodder greater to access to veterinary care and advances in the fight against endemic and epidemic cattle diseases have also contributed to increased production & productivity.

About three quarters of milk produced is consumed at the household level of the milk supplied to the market about 9-11 percent is processed in over 275 dairy plants and 83 milk product factories operated by co-operative, private dairy processors and government milk schemes in the organized sector. Milk channeled through operation flood co-operatives is generally processed in dairy plants located in the rural areas and then transported in to cities and towns. Operation flood milk production account for about 10% of total milk production or 40% of the marketed output. The balance about 90% of total production is handled by the private traders & processors.

About 45% of milk production is consumed as fluid milk. About 35% is processed into butter or ghee about 7% is processed into Panner (cottage cheese) and other cheese about 4% is converted into milk powder and the balance is used for other products such as Dahi and sweet meats there has been an increasing ice cream production as foreign companies have invested in India.

SWOT Analysis of Dairy Industry

STRENGHTS

- Enhanced milk production with consequently increased availability of milk processing.
- Improved purchasing power of the consumer.
- Improved transportation facilities for movement of milk and milk products.
- Increasing availability of indigenously manufactured equipment.
- Large number of dairy plants in public and co-operative sector besides several others coming up in the private sector.
- Vast pool of highly trained and qualified manpower available to the industry.
- Country's vast natural resources offer immense potential for growth & development of dairying.

With strengths we have to be aware of our weaknesses also.

WEAKNESSES

- Tropical climate conditions.
- Seasonal fluctuations in milk production pattern.
- Species-wise variation (buffalo, cow, goat etc) in milk quality received by milk plants.
- Lack of marketing avenues for the dairy produce.
- Shortage of green and dry fodder.
- Low productivity of animals.
- Lack of suitable education/training for skill development for new viable & sustainable technology.
- Inadequate finance.
- Lack of proper marketing support.

THREATS

- Introduction of foreign products in Indian market.
- Increasing chemical contaminants as well as residual antibiotics is milk.
- Export of quality feed ingredients particularly cakes under the liberalization policy.
- Deficiency of molasses, a rich source of energy and binding agent in feed industry and constituent of urea molasses mineral lick.
- Excessive grazing pressure on marginal and small community lands resulting in complete degradation of land.



- Extinction of the indigenous breeds of cattle due to indiscriminate use of crossbreeding program to enhance milk production.
- The liberalization of the dairy industry is likely to be exploited by multi nationals. They will be interested in manufacturing milk products which yield high profits. It will create milk shortage in the country adversely affecting the consumers.

In spite all these problems and threats there is a clean cut and tremendous opportunities' also.

OPPORTUNITIES

- Great improved export potential for milk products of western as well as traditional types.
- Established and expanding market for traditional products.
- Increasing demand for fluid milk as well as value added products.
- By product utilization for import substitution.
- Growing demand for milk and milk products.
- Liberalized policies in dairy sector.
- Availability of large resources of unconventional feeds & folders.
- Availability of diverse germplasm with unique features like heat tolerance, disease resistance draftability and ability to survive and produce under stress conditions.
- Availability of animal production technologies for faster development & effective implementation.
- There should be an integrated structure of marketing for milk & milk products.
- Integrated structure for livestock marketing through regulated markets.

The study of this SWOT analysis shows that the 'strengths' and 'opportunities' far outweigh 'weaknesses' and 'threats'. Strengths and opportunities are fundamental and weaknesses and threats are transitory. Any investment idea can do well only when you have three essential ingredients: entrepreneurship (the ability to take risks), innovative approach (in product lines and marketing) and values (of quality/ethics).

CONCLUSION

This paper aims to discuss the problems & future prospects of the dairy industry. The discussion shows that there is a vast demand for milk & great employment opportunity in the country. Domestic production of milk constitutes only 13% of consumption. The need for developing the dairy industry especially in the rural areas has already been recognized. With the world Trade Organization (WTO) coming into effect from April 2001 and the imports & exports getting liberalized in the global economy the dairy industry which includes dairy products faces both an opportunity for growth as well as a threat for its growth. The dairy sector in India needs to enhance its competitive economic advantage in dairy products in terms of both quality and cost and its credibility in international markets.

Managing dairy plants and cattle feed factories is not the of government, it is better left to professional managers who are employees of the milk co-operative and hence are accountable to their member milk producers.

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Growth & Performance of Primary Agricultural Cooperative Credit Societies in India

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ABSTRACT

In this study we have analyzed the growth of PACS (among themselves) in agriculture credit in India from 2006/2007 to 2010/2011 with the help of CAGR and Graphically comparison method. The study reveals that the aggregate performance of the PACS in India during the period of study is increased. Loan issuing capacity, Recovery capacity enhanced little bit, Number of societies in Profits and Total Profit in India increased as against Number of PACS in Profits and Total Losses in India decreased during the period of study. Even the percentages overdue to loan demanded is also decreased during the period of study.

Keywords : *Co-operatives, Agriculture credit, NPAs.*

INTRODUCTION

Agriculture is the strength of the Indian economy. But as per latest estimates released by Central Statistics Office (CSO) the share of agricultural products/Agriculture and Allied Sectors in Gross Domestic Product (GDP) of the country was 51.9 per cent in 1950-51, which has now come down to 13.7 per cent in 2012-13 at 2004-05 prices.

Despite this, the production of food grains has increased from 230.8 million tonnes in 2007-08 to 255.4 million tonnes in 2013-14 (fourth advance estimates). Similarly, productivity of food grains has increased from 1,860 kg per hectare in 2007-08 to 2,125 kg a hectare in 2012-13 (fourth advance estimate). he Eleventh Five Year Plan (2007-12) witnessed an average annual growth of 3.6 per cent in the gross domestic product (GDP) from agriculture and allied sector against a target of 4.0 per cent .

Agriculture sector plays a vital role in Indian economy through providing living opportunity and distribute earnings. Agriculture is the most important sector of the Indian economy from the perspective of poverty mitigation, and employment generation. When any change in the agriculture sector has effect on the entire economy. At presently agriculture are facing much difficulties such as irrigation, marketing of agriculture products, advanced technique of farming, fertilizer, credit and other capital equipment etc. Availability credit to agriculture sector is the major factor all of them that affecting the agriculture development. The low productivity of land, heavy dependence on private

money lender and high level of indebtedness were seem as the main causes of rural poverty and distress (Vidyanathan: 2010).

There are two source of agriculture credit first is non-institutional i.e., Professional money lenders, friends, relatives etc. and second is institutional source i.e., Co-operative banks, Regional Rural Banks and Commercial Banks. The institutional source of agriculture credit aim is providing high quality loans with low cost. But at present the aim of institutional credit supply is not fulfills.

Timely availability of agricultural credit at reasonable rate, especially for small and marginal farmers is crucial for agricultural-sector growth. Government has taken several measures for improving the flow of agricultural credit:

(i) The flow of agricultural credit since 2003-04 has consistently exceeded the target. The target of agriculture credit flow for the year 2012-13 was fixed at ` 5,75,000 crore, against which achievement as of September 2012 was` 2,39,629 crore.

(ii) Farmers have been receiving crop loans up to a principal amount of ` 3 lakh at 7 per cent rate of interest since 2006-7. The effective rate of interest for farmers who promptly repay their crop loans during 2012-13 will be 4 per cent per annum.

(iii) The Kisan Credit Card (KCC) scheme has been effective for extending agriculture credit. A revised KCC scheme was introduced in March 2012 in which the KCC passbook has been replaced by an ATM-cum-debit card to all eligible and willing farmers in a time-bound manner. The number of operative KCCs issued by cooperative and regional rural banks as on 31 August 2012 was 4.07 crore. The number of cumulative KCCs issued by commercial banks as on 31 March 2012 was 5.47 crore.

(iv) Farmers were granted post-harvest loans against negotiable warehouse receipts at commercial rates. In order to discourage distress sale by farmers and to encourage them to store their produce in warehouses against warehouse receipts, the benefit of interest subvention has been extended to small and marginal farmers having KCCs for a further period of up to six months post-harvest on the same rate as crop loans.

(v) The government is implementing a revival package for Short-term Rural Cooperative Credit Structure involving a financial outlay of ` 13,596 crore. Twenty-five state governments have signed memorandums of understanding (MoU) with the GoI and the National Bank for Agriculture and Rural Development (NABARD). As of July 2012, ` 9002.11 crore had been released by NABARD as the GoI share for recapitalization of 53,202 primary agriculture cooperative societies (PACS) in seventeen states.

The Economic survey (GoI), 2010, showed that out of 27 public sector banks, only 14 public sector banks achieved the agriculture credit target of 18 per cent agriculture credit, in case of private sector banks, only 8 achieved the target of 18 percent for lending to agriculture in 2009, further, National Sample Survey Organization (2003) in his "situation assessment survey" found that, only 48.6 percent farmer households were indebted, of which only 57.7 percent were indebted to institutional agencies. In other words, only 28.04 percent of farmer households were indebted to institutional agencies. And further found that, after nearly 37 years of nationalization and over 15 years of credit targeting for

agriculture, in AP and Rajasthan the total debt of the farmer households from all institutional sources put together was less than that from the moneylenders. Further, in Punjab, Assam and Bihar, the total debt of the farmer households from institutional agencies was less than from non-institutional agencies. Thus, evolution of institutional credit to agriculture has assumed critical importance. In this study, I have examined the role of PACS in agriculture credit from 2005-2006 to 2010-11 in India.

RESEARCH METHODOLOGY

The nature of present study is diagnostic. The study is based on secondary data. The necessary data were collected from Report trend and progress of banking in India, RBI Annual report. The data collected from secondary source is as follows:

- Number of PACS In India
- Number Membership in PACS In India
- Paid Up Capital in PACS In India
- Total Reserves of PACS In India
- Total Working Capital of PACS In India
- Total Loan & Advances Issued by PACS In India
- Total Loan Outstanding of PACS In India
- Total Loan Demand of PACS In India
- Total Loan Collection of PACS In India
- Total Overdues of PACS In India
- Percentage of Overdues to Demand of PACS In India
- Total Number of PACS in Profits In India
- Total Number of PACS in Losses in India

The results have obtained from different statistical tools such as Comparison, CAGR, etc. the period of study is 2005-06 to 2010-11. For Comparison Tool, researcher use graphical representation to compare between the select data.

COMPOUND ANNUAL GROWTH RATE - CAGR

The year-over-year growth rate of an investment / asset / liability over a specified period of time. The compound annual growth rate is calculated by taking the 'n'th root of the total percentage growth rate, where 'n' is the number of years in the period being considered.

This can be written as follows:

$$CAGR = \left(\frac{\text{Ending Value}}{\text{Beginning Value}}\right)^{\left(\frac{1}{\#\text{ of years}}\right)} - 1$$

DEVELOPMENT OF CO-OPERATIVE BANKING

The first step was taken by the British Government in context of organized / institutional

loan for agriculture in India. To make the provision of organized loan under

1. Land improvement Loans Act of 1883 and
2. Agriculture Loan Act of 1884.

The second step was taken 1904 in context of institutional loans for agriculture as a Co-operative movement. The Co-operative movement owns its origin to England, where a great philosopher, Robert Owen (1771-1850), has given the idea of Self-Help through Mutual Help to mitigate the suffering of the exploited class of the society. The Co-operative movement was introduced in India in the early year of 20th century with the main object relieving the peasantry's burden of debt and for providing credit through a local agency on the principles of thrift, self-help and mutual aid. The Co-operative Societies Act, 1904, was introduced on the recommendation of the Law Committee appointed by the Government of India under the chairmanship of "Edward Law". Indian Co-operative Movement picked up momentum especially after the world war. By 1950 the Co-operative credit movement had emerged as a developed, sound satisfactory banking system in most of the Indian Union. The Co-operative Banks are organized and managed on the principal of co-operation, self-help, and mutual help. They function with the rule of "one member, one vote". Function on "no profit, no loss" basis. Co-operative banks, as a principle, do not pursue the goal of profit maximization. Co-operative bank performs all the main banking functions of deposit mobilization, supply of credit and provision of remittance facilities. Co-operative Banks provide limited banking products and are functionally specialists in agriculture related products.

Source of Capital and Working fund of Co-operative banking in India are given below: There are five sources of funding of Co-operative banks in India.

(a) Central and state government,

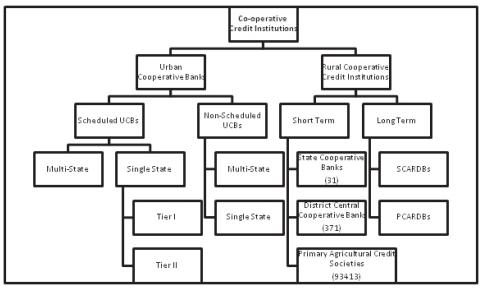
(b) The Reserve Bank of India and NABARD,

(c) Other Co-operative institutions,

(d) Ownership funds and,

(e) Deposits.

Structure of Co-operative Credit Institutions in India



SCARDBs: State Cooperative Agriculture and Rural Development Banks.

PCARDBs: Primary Cooperative Agriculture and Rural Development Banks.

Note: 1. Figures in parentheses indicate the number of institutions at the end March-2011.

PRIMARY CO-OPERATIVE AGRICULTURAL CREDIT SOCIETIES (PACS)

A Co-operative agricultural credit society can be started with 10 or more persons normally belonging to a village or a group of villages. The value of each share is generally nominal so as to enable even the poorest farmer to become a member. The members have unlimited liability, that is each member is fully responsible for the entire loss of the society, in the event of failure. Loans are given for short periods, normally for the harvest season, for carrying on agricultural operation, and the rate of interest is fixed. There were 92,432 primary agricultural credit societies in the country with a membership of 113596 . The primary agricultural credit society was expected to attract deposits from among the well –to-do members and non-members of the village and thus promote thrift and self-help. It should give loans and advances to needy members mainly out of these deposits.

CENTRAL CO-OPERATIVE BANKS (CCBS)

The central Co-operative banks located at the district headquarters or some prominent town of the district. The central Co-operative banks have three sources of funds. The sources of funds of central Co-operative banks are given below:

1) Their own share capital and reserves

2) Deposits from the public and

3) Loans from the state Co-operative banks

Their main function is to lend to primary credit society apart from that, central Co-operative banks have been undertaking normal commercial banking business also, such as attracting deposits from the general public and lending to the needy against proper securities. There were now 371 central Co-operative banks.

STATE CO-OPERATIVE BANKS (SCBS)

The state Co-operative Banks (31: 2012 in number), they finance, co-ordinate and control the working of the central Co-operative Banks in each state. They serve as the link between the Reserve bank and the general money market on the one side and the central Co-operative and primary societies on the other. They obtain their funds mainly from the general public by way of deposits, loans and advances from the Reserve Bank and they are own share capital and reserves.

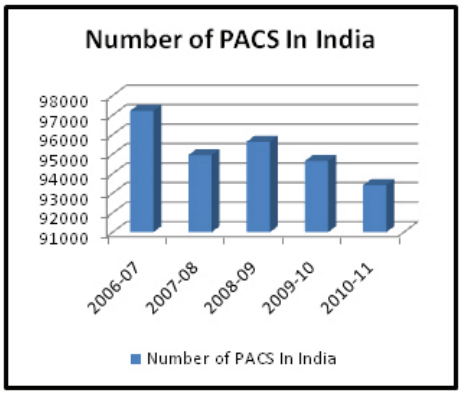
DATA ANALYSIS

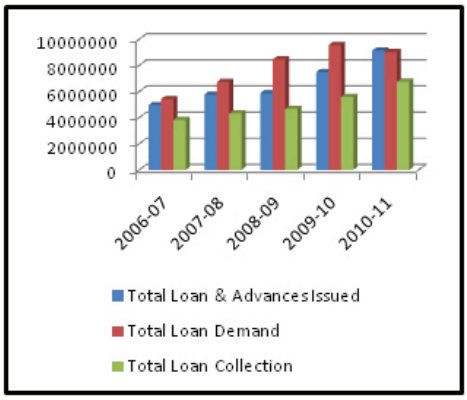
COMPOUND ANNUAL GROWTH RATE

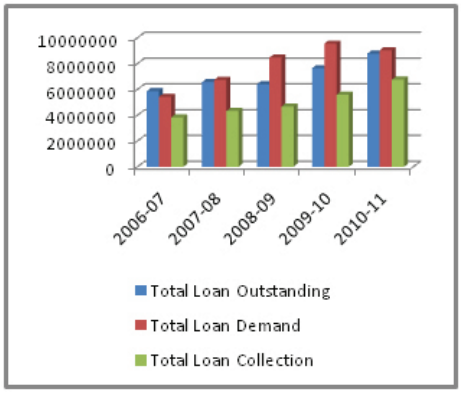
Sr.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	CAGR
1	Number of PACS In India	97224	94950	95633	94647	93413	-6.20

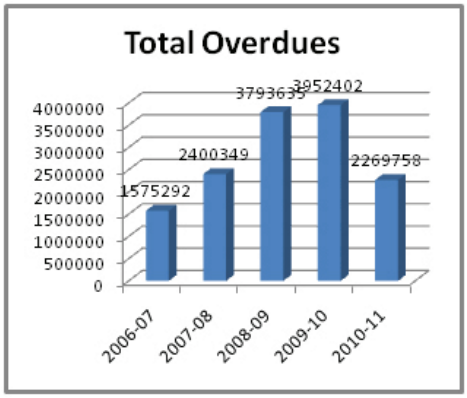
2	Number Membership in PACS In India	125792.32	131529.55	132349.9	126419	121224	-6.39
3	Paid Up Capital in PACS In India	613841	659665	700732	714842	755116	9.72
4	Total Reserves of PACS In India	490043	438718	488850	533022	690444	10.49
5	Total Working Capital of PACS In India	7995869	8810685	9458488	13519151	14422189	21.99
6	Total Loan & Advances Issued by PACS In India	4961276	5764248	5878675	7493754	9130382.3	20.09
7	Total Loan Outstanding of PACS In India	5862015	6566638	6404424	7647982.6	8776794.3	18.63
8	Total Loan Demand of PACS In India	5411224	6729296	8463399	9549660	9024081	19.49
9	Total Loan Collection of PACS In India	3835932	4328947	4669764	5597258	6754323	18.63
10	Total Overdues of PACS In India	1575292	2400349	3793635	3952402	2269758	13.73
11	Percentage of Overdues to Demand of PACS In India	29.11	35.67	44.82	41.39	25.15	-2.32
12	Total Number of PACS in Profits In India	33983	38307	37291	40936	44554	5.38
13	Amount of Profit of PACS	7489358	7507840	8426021	12266172	18412104	24.57
14	Total Number of PACS in Losses in India	48078	48520	45869	41679	38065	-7.31
15	Amount of Losses of PACS	24016990	20278973	19151884	23655723	20327881	-21.58

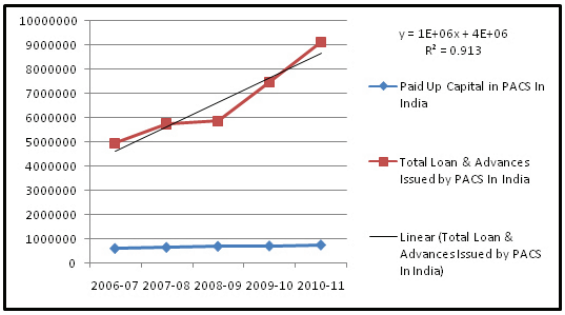
GRAPHICALLY REPRESENTATION OF SELECTED FACTORS











CONCLUSION

Table 1 shows the CAGR of various factors selected of PACS in India for a period of 5 years from 2006-07 to 2010-11.

It shows a near about 6% of negative growth in case of number of PACS and even in case of membership in PACS in India. But on other side the Paid Up Capital shows an positive growth more than 9%. It happens due to increase in Paid-Up capital of Individual members exceeds the capital decrease due to reduction of the membership in PACS. Such

paid-up capitals are so increased due a part of loan issued to members in 5% or 10% of loan amount on account of shares.

As Loan issued during the period of study is increased at an CAGR at 20.09%, the loan outstanding is also increased by 18.63%. Total Loan demand also increased as proportionate to loan issued. But the Total Loan collections are not increased proportionately. The amount of Overdue are definitely increased, but when we concentrate on the percentages of Overdue to loan demanded, it is decreased CAGR by 2.32%. It is good sign, but it is not quite enough for consideration regarding the performance of PACS.

As considering the profits and losses of PACS in India, under the period of study, number of PACS in profits are increased (CAGR +5.38%) and number of PACS in losses are decreased (CAGR -7.31%). And even the Total profits of PACS in India also increased (CAGR 24.57%) and Total Losses of PACS in India get decreased (CAGR -21.58%).

As considering the analysis by Graphically comparison and considering the CAGR of various factors selected. The overall performance and growth of PACS in India is increased during the period of study.

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Biometrics in Safe E-Transactions

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ABSTRACT

In the present day world, online shopping using mobile phone has widely come into use. Credit cards serve as the currency during e-business and e-Shopping. As technology has advanced in the negative side also hackers and spoofers steal misuse credit card numbers, even though the network has been made secure. So, in this paper, we have proposed a multi-biometric model (integrating voice, face reorganization, fingerprint) that can be embedded in a mobile phone, this making e-transactions more secure. The model is very cost effective as we have tried to use the hardware already present in the phone. We have also simulated a few graphs for voice recognition.

Keyword : *Proposed a multi-biometric model is safe in e-transaction.*

INTRODUCTION

Mobile phones have ceased to be exclusive status of the high class and, today has become an indispensable electronic gadget in the life of many. The main reason for their higher market penetrations in recent days is their incredible array of functions at an affordable cost. Apart from setting remainders and sending e-mails, they are also used in

- e-business
- SMS messaging
- Chatting

Thus, these phones with wide roaming facility prove to be a really versatile device.

BIOMETRICS

A biometric system is a recognition system, which makes a personal identification by determining the authenticity of a specific behavioural characteristic possessed by the user. This method of identification is preferred over traditional methods involving passwords and PIN numbers for various reasons: The person to be identified is required to be physically present at the point of identification. Identification based on biometric techniques eliminates the need to remember a password or carry an identity. Either classified as an identification system or a verification (authentication) system identification

involves in establishing a person's identify whereas in verification involves confirming or denying a person's claiming identity.

MULTIBIOMETRICS:

A multi-biometrics system is obtained by the integration of multiple individual biometrics models. A numbers of models integrating hand geometry, keystroke dynamics, face and iris recognition system have flooded the markets in recent years.

1 .Here we present a multimodal system that can be embedded in a mobile phone, which integrates fingerprint, voice and facial scanning. It shuts down the problem of high False Rejection Rate of facial scanners, eliminates the fooling of fingerprint scanners and overshadows the disadvantage of voice recognition models.

NEED FOR BIOMETRICS IN MOBILE PHONES:

Nowadays, shopping through the internet has become very popular and surely, a WAP enabled mobile phone provides the facilities to consumers to shop online. Credit cards continue to be an efficient tool for online money transactions. But, on the other hand, credit card number can be stolen on its way to its destination and can be misused by hackers. Thus, e-Business through a mobile phone becomes insecure. Also, a report in www.download.com stated that much anti-fraud Software, like those provided by ArticSoft and ISC, created a back door entry and were largely involved in data spoofing. In addition to this, many user and companies were prone to the attack of many viruses and Trojan horses. With so much of problems faced, the service provide turned their attention towards biometrics to prevent data spoofing and to provide secure e-Transactions.

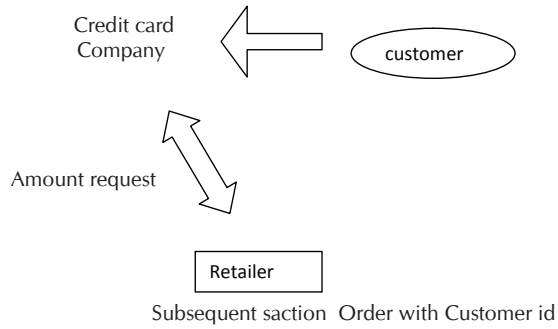
FUTURE MOBILE PHONE



FACE RECOGNITION

Facial recognition is considered to be one of the most tedious among all scans. Further, difficulty in acquisition of face and cost of equipments make it more complex. This it is sent to the credit card company to verify the face received matches with the face in their database. If it matches, the goods are sent else the order is rejected.

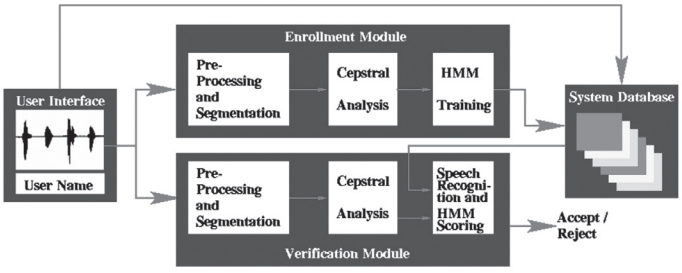
Customer id, Amount & Biometric Data



VOICE RECOGNITION

The speaker-specific characteristics of speech are due to difference in physiological and behavioral aspects of the speech production system in humans. The main physiological aspect of the human speech production system is the vocal tract shape. The vocal tract modifies the spectral content of an acoustic wave as it passes through it, thereby producing speech. Therefore, it is common in speaker verification systems to make use of features derived only from the vocal tract. The microphone in the mobile phone captures the speech. Then, using cepstral analysis, an utterance may be represented as a sequence of feature vectors. Utterances, spoken by the same person but at difference times, result in similar yet a different sequence of features vectors. So, the irrespective of the mood of the consumer, his transaction is accepted or rejected. The following algorithm may be used in voice verification.

Flowchart for Voice verification



Flowchart for Voice verification

FINGERPRINT ACQUISITION

Finger based scanning is one of the oldest methods used for verification. Fingerprints, unique and immutable for all are made of series of ridges and furrows on the surface of the finger. These ridges and furrows determine the uniqueness of the fingerprints. Apart from these, minute points (i.e. local ridge characteristics that occur at either a ridge bifurcation or a ridge ending also play role in fool-proofing this biometric technique.

To reduce the search time and the computational complexity, fingerprint classification is undertaken and thus fingerprints are classified as whorl, right loop, left loop, arch, and arch. Recently researchers and scientists achieved a great feat by improving the fingerprint classification to 94%.

In today's world, fingerprint matching techniques can be placed into two categories: minutiae-based and correlation based. In minutiae based technique, the minutiae points are found and their relative placement are mapped on the finger whereas in correlation based technique, the fingerprint acquired from the person is checked for certain points previously stored in the database. If both matches, the person is given authentication, else he is denied permission.

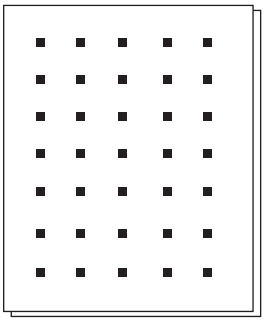


Fig. Transaction scanner embedded above display screen

The scanner here is a transparent layer above the screen. The scanner consists of arrays of capacitors of the size of 0.03. m. capacitors with such a small size can be manufactured with MEMS technology. When the consumer places his thumb on the scanner, the points at which his fingerprint touches the screen get discharged whereas others remain charged. Thus the fingerprint is scanned and is then sent for further process

Research Methodology

Safe and sequre and very easy to use and even without using any password or.... worldwide favoured biometrics as the ideal method to combat fraud and... Scanners to process electronic payments.

CONCLUSION

Thus, this mobile multi-biometrics can be embedded in mobile phone. Phone is cost effective since no special hardware in required and is highly secured. Thus, this mobile phone becomes a reality will provide more e-Business and E-Transactions

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Use of Social Media Network in Communication

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Abstract

Social media refer to online technologies and practices that are used to share opinions and information, promote discussion and build relationships. They use a variety of different formats including text, pictures, audio and video etc. Social media complements many parts of our lives. Facebook, Twitter, YouTube and many other social networking sites allow users to share and interact with online content and to connect with like-minded people. Also assessed was the student's view of the technological complexity of social networking (SN) media. This explains the overall concept of social media and gives the suggestions on use and possible types of scientific content.

Keywords : *Communication science, Social media networking, Use of face book and twitter, Easy of use etc.*

Introduction

The advance of the use of social networking systems is rapid. People are connected to each other on their blackberries, i-phones, notebooks and computers. People are texting, talking, e-mailing and in general, communicating through electronic rather than face-to-face methods at an accelerating pace.

At the same time, the use of social media for business purposes continues to grow, as do the educational programs that address this growth. Therefore, this research is directed toward addressing these areas of growth and the interconnection between student traits such as autonomy and their use of social networking media.

This research explores the relationship between the technology acceptance by the user and the use of social networking media. Social networking (SN) media are a web-based means for people to share information in an online community with approved followers. It has been used to increase business presence on the web, to allow for announcements to selected followers, both business and personal and to promote new ideas and products. This research is aimed at examining the user's usefulness and ease of use of the technology. The purpose of this research is to test hypotheses related to the use of SN media and to examine how each is correlated with the perceived usefulness and actual use of technology. The uses and frequency of SN media will be compared to the perceived ease of use of the users and their view of its usefulness, thus examining the following research question: does ease of use and usefulness of technology impact the intensity of use of social networking media?

What is social media?

The principle of social media is the ability to share content with others. In order to upload content, users usually register and create a profile. Depending on the platform and purpose, users are free to choose whether their whole profile or selected content will be publicly accessible or only visible to selected audiences. Social media refer to online technologies and practices that are used to share opinions and information, promote discussion, and build relationships. They use a variety of different formats, including text, pictures, audio and video.

We define social network sites as web-based services that allow individuals to:-

- Construct a public or semi-public profile within a bounded system.
- Articulate a list of other users with whom they share a connection and view.
- Traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.

Communicating using social network

Social media can help you stay in touch with people across the world, view their photos and see their activities. You can communicate in many ways using social media, you can send messages, post comments or chat in real time when other people are online at the same time as you.

You can also send "status updates", this a remarkable part of social networking which allows you to let all the people in your social network know what your current activities or thoughts are.

Reading status updates is an easy way to keep up to date with what the people in your social network have been up to. You can also add comments to status updates to let your friends know what you think about their activities. You can send messages using social media, these are just like emails but are built into the social media websites, so you can easily add links, photos or videos to your messages.

Facebook , Twitter, YouTube and many other social networking sites allow users to share and interact with online content and to connect with like-minded people. This sites is used for communication. They are as follows:

Facebook

So what is FaceBook?

Facebook, the social networking service launched in February 2004, is now publically traded under the symbol FB. Recent reports show that Facebook currently has over 955 million users globally and reported over 1.1 billion in revenue in the last fiscal quarter. To use its services, users register and create profiles, exchange messages, post statuses, upload photos, chat with friends and much more. If you haven't created a Facebook business page for your company it's time to do so.



Why Do Businesses Use it?

Great Exposure : With millions of users, Facebook offers unrivalled potential for exposure. When used strategically and consistently, Facebook can contribute to a significant increase in a merchant's online presence and visibility.

Improve Google Rank : Connect with people from past acquaintances, past companies, affiliations; join industry groups and those with members who share your passion and interests.

Improve Google Page Rank : With Facebook's "Pages" application, you can create a professional profile for products, services and business. These pages provide an option to include links to websites and "like" buttons. This helps drive Internet traffic and improve search engine exposure. .

Powerful Marketing Platform for Free : Facebook use is absolutely free of charge. It allows you to reach out to hundreds, even thousands of people with a host of user-friendly applications and tools you can use to market products and services.

Targeted Ad Space : For a reasonable fee, you can also create ads and target them to reach a specific gender, location and age group, as well as track advertising performance.

Provide Regular Updates : Facebook offers you a convenient way to update your network on new products, promotions and general information about your company to stay fresh and relevant in the minds of customers.

Facilitate Online Discussions to Gain Valuable Inputs : Use newsgroups and networks as a venue to discuss and respond to comments and inquiries. It can also be a great source of constructive feedback to help you enhance your products or services.

Stay Connected and Nurture Relationships : Provide useful information to your fans and engage your network on a regular basis.

Enhance Customer Service : Consumers these days prefer real-time response to queries and concerns. The Facebook page for your business offers a convenient and accessible option for your market to reach you.

More Tips on Promoting Your Facebook Page

Get Internal Support : Ask employees and fellow staff members to post comments and "likes" on your status updates in order to boost rankings. Status updates that have 5 or more comments and "likes" can show up in the Top News section. This will also help make your Facebook wall more alive and inspire fans to participate in conversations and be more active.

Professional Headline : This appears similar to the description you have indicated in your "Current Position" unless you change it.

Reward Fans : It is important to reward your fans with special or exclusive offers every now and then. You can reward loyalty by offering discounts or offers limited only to Facebook fans.

Inform Fans : Direct messages are very powerful, but make sure not to abuse them. Before you send messages to your fans, think twice. Your updates should be valuable and provide welcome news since your goal is to inform and engage but not to irritate.

Ask Your Fans for Help : Seek help from your fans in building your community using the "Suggest to Friends" and "Share" tools. ?

Build partnerships with other Facebook pages : Each page on Facebook feature a function called "Add to my Page's Favorites" button. Any "favorited" page will have their logo displayed in the "Favorite Pages" featured on your Facebook page.

Use Applications : There are some really useful apps on Facebook that you can readily use to promote your company or brand. You can conduct polls, quizzes and games where people can play against each other and outrank. There are even apps for giveaways and sweepstakes - something many consumers.

Facebook can be a powerful business tool for your merchant services business, if you haven't created a business page, create one or hire a qualified provider, so you can inform and engage your clients.

Twitter

Twitter, at its most basic is a series of short online announcements or 'tweets'. Want to know more? Then read on for our lowdown on this popular social network. When the inventors of Twitter first came up with the idea, they envisaged a series of announcements – punchy 140-character comments on what members were doing at the time. This element of it is still there, but there's a lot more to it now.

To join Twitter is simple. You go to the Twitter website, enter a user name and password and some other details, select a picture to illustrate your 'tweets' and start entering text into a box and hitting "send". That's the most basic form of it.

You might, on the other hand, see that someone else has said something interesting. In that case, you hit the "reply" button, and they will see what you've said, even if they're not deliberately following your account.

The first word they'll see is @theirname and then your text. They might reply to you. If they start following you, and you them, you can exchange private messages – which is useful if you don't have someone's email address.

As the number of people you follow grows, you might want a bit of free software to help you manage all the messages.

Twitter happens in real time, 24 hours a day. Expect to miss stuff if it's not sent direct to you. Be succinct – you only have 140 characters (including spaces in between text) to say anything.

- How UK airports use Twitter to better communicate with travellers

UK airports are a busy bunch on Twitter. Six of the ten most followed airports are located in England and Scotland with Heathrow leading the way with 142,092 followers.

Tweeting airports is not a new thing; most registered their accounts back in 2009.



Now, with tens of thousands of followers, Twitter has become key component of airport's communication infrastructure.

"It's as much a part of our communication network as the customer helpline, website and information desks," says John Greenway, Head of External Communications at Manchester Airport.

- Police use Twitter to relay news, communicate with journalists more quickly
- Police To Use Twitter, Texting To Communicate With Residents

Conclusion

With relates to the easy of use and usefulness technology way, more autonomous students seen to be the ones who social network media to be more difficult to use and ultimately value the social network platform less for its usefulness.

Using social media network the communication is very reliable, fast and efficient.

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2 *Social Network Websites.*

The Significance of Work-Life Balance from Employer and Employee Perspective

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Abstract

Work Life Balance has emerged as one most important concept in last two decades. With the increase in global competition changing organizational structure, economic uncertainty etc. creates substantial pressure on organization for managing the work. In these changing conditions, it is also important for the employees to respond to changing competitive conditions and organizations demand of high performance and work commitment.

Work Life Balance policies can assist employees achieving as balance between their work and personal commitments that are right for them. Success of business also depends on the employee engagement in which employees are willing to go the extra mile work. Work Life Balance is increasingly become important for employee engagement and employee retention. Day by day there in diversity in the work group i.e. different generation's female, Designing and implementing Work Life Balance policies and practices for maintaining this diverse group in economic uncertainty becomes strategically important. Work Life Balance practices are beneficial to employees in terms of job satisfaction, job security, stress reduction and improving health. It is also beneficial for employer in terms of reduced absenteeism, labor turnover, improving productivity and image, ensuring loyalty and retention etc.

In this research paper an attempt is made to find out impact of Work Life Balance practices on employee and organization through survey of large scale industries in Baramati regions.

Keywords: Work-Life Balance, work commitment, employee engagement, job satisfaction, employee retention, stress reduction, job security.



Objectives

The primary objective is to study the significance of Work Life Balance practices from employer and employee perspectives. Also to find out impact of Work Life Balance practices on employees and employers.

Definition:

- By Work Foundation: "Work Life Balance is about employees achieving a satisfactory equilibrium between work and non work activities."
- By Hudson: "Work Life Balance is defined as satisfactory level of involvement of fit between the multiple roles in person's life."
- By Armstrong: "Work Life Balance is concerned with providing scope for employees to balance what they do at work with responsibilities and interests they have outside work and so reconcile the competing claims of work and home by meeting their own needs as well as those of their employers."

Introduction:

The forces of Liberalization, Privatization and Globalization (LPG) are continuously mounting pressure on business organization to change their practices. Organizations are hard pressed for higher productivity. In this changing scenario, Work Life Balance practices will be beneficial for organizational growth and success. Work Life Balance refers to the effective management of multiple responsibilities at work, at home and other aspects of life. These practices are important from the point of view of organization and employees. With the use of new technology and information, it is expected that it will shorten the working hours and bring respite and leisure to the employees. But instead of bringing relief and leisure, the new technology lefts a very little time free from work. Now a days it is a expected that employees are expected to available for office work even while at home. Due to the global environment the work has become more complex and burdensome. These work pressure and having direct impact on employee's health and family.



(Source: http://www.newconsultanthq.com/work-life-balance)

Six components of Work-Life Balance:

1) Self Management: Every employee has to effectively manage spaces in his life. Proper amount of sleep, exercise and nutrition is important. Organizations also have to properly to manage their resources, time and employees which is vital in today's globalized world.
2) Time Management: Employees have to effectively follow time management practices for optimal use of day for matching day to day practices and challenges. Organizations should set appropriate goals with appropriate time management techniques. Time management is beneficial for organization for accomplishing specific tasks.
3) Stress Management: Day by day complexity is increasing stress on individuals is inevitable so individuals should use stress management techniques to avoid burden of work. Organization should try to keep away pressure filled situations. Multi tasking always creates stress, so organization should focus on one thing at a time.
4) Change Management: For successful and growing career, employee should adopt new methods. Change management is vital for employee for maintaining pace with world. Organizations should carry out periodic and concerted efforts for ensuring volume and rate of change at work place.
5) Technology Management: Employee should always be ready to accept the technological change. Employee should be always ready to learn new

technology. Organizations should prepare strategic plan to face this challenge. Organization should always rule technology, not vice-versa.

6) Leisure Management: Leisure management always acknowledges the importance of rest and relaxation. Employees should vary their activity for effective leisure management. Organization should carry out leisure management activity which should provide enjoyable moments to employee not lead to monotony.

Literature Review:

a) Bruke (1991 and 2010) examined the relationship between the perception of men regarding their understanding of organizational values of which favor Work Life Balance in their workplace and their work experiences. His study is based on perception of men. He also states that organizational values of managerial men are always supportive with personal life.

b) Lazar et al (2010) highlights the quality relationship between paid work responsibility and unpaid responsibility and shows how Work Life Balance initiates and practices affect the performance of the employees of an organization by extending these policies not only to the employees but also to their families. He also states that concept of Work Life Balance is also attached with employees engagement, absenteeism, turnover rates, low productivity.

c) Ishaya and Aynam (2008) states that increasing workloads have pressurized employees to demonstrate their commitment to work more. A larger part of their time, they have to remain at work place rather than at home.

d) Wesley and Muthuswamy (2005) states that work to family conflict was more prevalent than family to work conflict. Permeability of work into family was more than permeability of family into work.

e) Nathani and Jha (2009) has grouped factors influencing work and family life spheres into three viz. family and personal life related factors, work related factors and others. Family and personal life related factors include increasing participation of women in workforce, increasing participation of child bearing.

f) Crokoer et al (2002) states that Work Life Balance in the strength for the balancing of individuals life complexity and enthusiasm with surrounding and personal resources such as family, society, employer, profession, information, economics and personalities or values.

Research Methodology:

The Descriptive research includes fact finding enquiries and surveys of different kinds to provide data about the population being studied. So for this research, it would be more appropriate to call as Descriptive type of Research.

- **Span**: Baramati Industrial region of Pune District.
- **Universe** of Large Scale Organizations: 1) Piaggio Vehicles Private Limited. (PVPL) 2) Schreiber Dynamix Dairies Ltd. 3) Bharat Forge Limited (BFL). 4) ISMT Ltd. 5) Ballarpur Industries Limited (BILT) Papers. 6) Hi-Tech Engineering Corporation India Pvt. Ltd. 7) Imsofer Manufacturing India Pvt Ltd. 8) United Breweries Holdings Limited (UBHL). 9) Cotton King Pvt. Ltd. 10) Soma Textiles & Industries Ltd. 11) Cipla Pharma Ltd. 12) GlaxoSmithKline Pharmaceuticals Ltd. etc.
- **Sampling**: Stratified Simple Random Sampling.
- **Type**: Large Scale Organizations.
- **Survey Medium**: Questionnaires and interviews.
- **Stratum**: 1) Employers (Including General Managers, Asst. Managers, Head, Superintendent, Leaders etc)

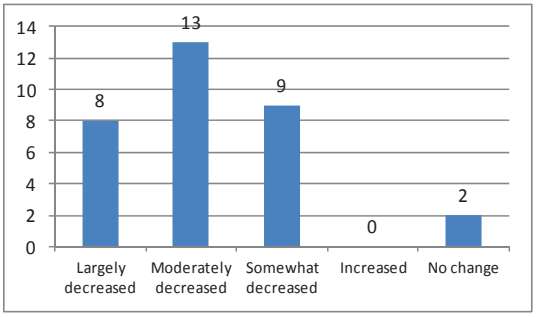
  2) Employees (Including Clerk, Technician, Line operators, low level employees etc.)
- **Sample Size**: *32 Employers and 61 employees from above universe have responded positively for the Survey.*

Data Captured and interpretation: (Period of Survey based on last 12 months.)

Part I: From Employer perspective

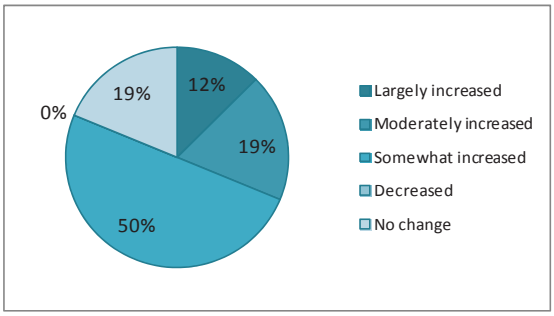
1) What is the impact of Work Life Balance practices on employee's absenteeism?

Sr. No.	Choice	Respondents	%
a)	Largely decreased	8	25
b)	Moderately decreased	13	41
c)	Somewhat decreased	9	28
d)	Increased	0	0
e)	No change	2	6
Total		32	100



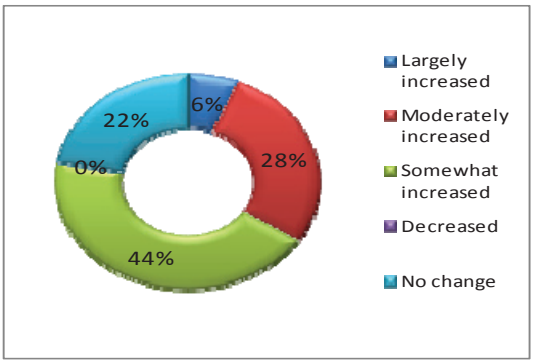
2) What is the impact of Work Life Balance practices on employee productivity?

Sr. No.	Choice	Respondents	%
a)	Largely increased	4	13
b)	Moderately increased	6	19
c)	Somewhat increased	16	50
d)	Decreased	0	0
e)	No change	6	19
Total		32	100



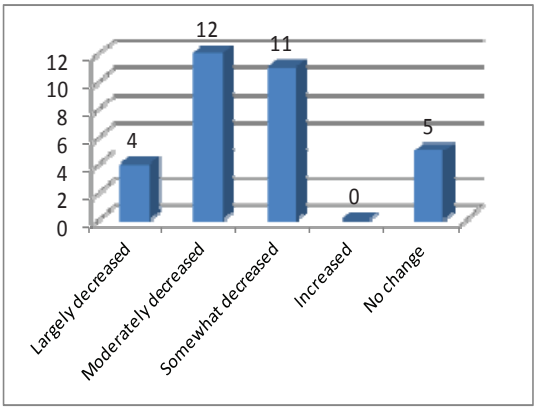
3) What is the impact of Work Life Balance practices on employee retention?

Sr. No.	Choice	Respondents	%
a)	Largely increased	2	6
b)	Moderately increased	9	28
c)	Somewhat increased	14	44
d)	Decreased	0	0
e)	No change	7	22
Total		32	100



4) What is the impact of Work Life Balance practices on employee turnover?

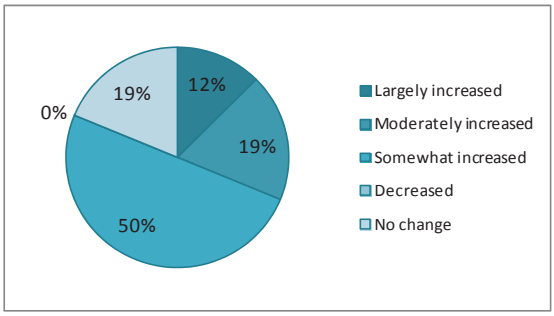
Sr. No.	Choice	Respondents	%
a)	Largely decreased	4	13
b)	Moderately decreased	12	38
c)	Somewhat decreased	11	34
d)	Increased	0	0
e)	No change	5	16
Total		32	100



5) What is the impact of Work Life Balance practices on employee loyalty?

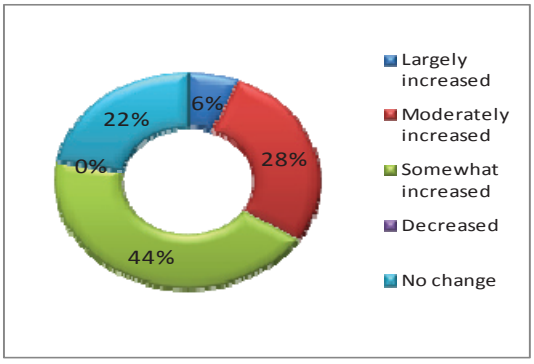
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Sr. No.	Choice	Respondents	%
a)	Largely increased	4	13
b)	Moderately increased	6	19
c)	Somewhat increased	16	50
d)	Decreased	0	0
e)	No change	6	19
Total		32	100



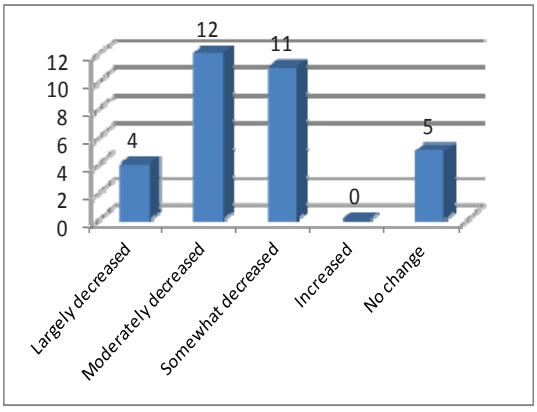
3) What is the impact of Work Life Balance practices on employee retention?

Sr. No.	Choice	Respondents	%
a)	Largely increased	2	6
b)	Moderately increased	9	28
c)	Somewhat increased	14	44
d)	Decreased	0	0
e)	No change	7	22
Total		32	100



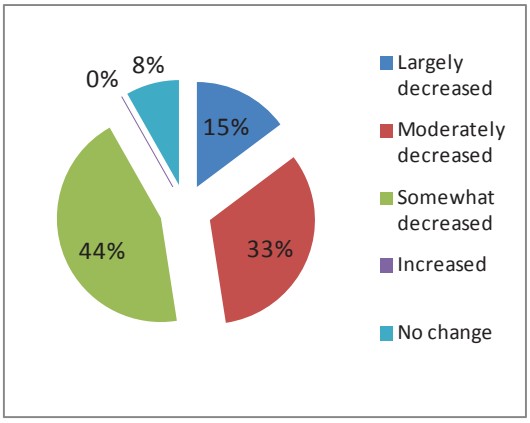
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Sr. No.	Choice	Respondents	%
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b)	Moderately decreased	12	38
c)	Somewhat decreased	11	34
d)	Increased	0	0
e)	No change	5	16
Total		32	100



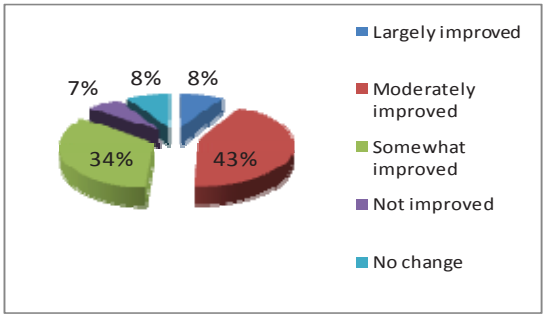
5) What is the impact of Work Life Balance practices on employee loyalty?

Sr. No.	Choice	Respondents	%
a)	Largely decreased	9	15
b)	Moderately decreased	20	33
c)	Somewhat decreased	27	44
d)	Increased	0	0
e)	No change	5	8
Total		61	100



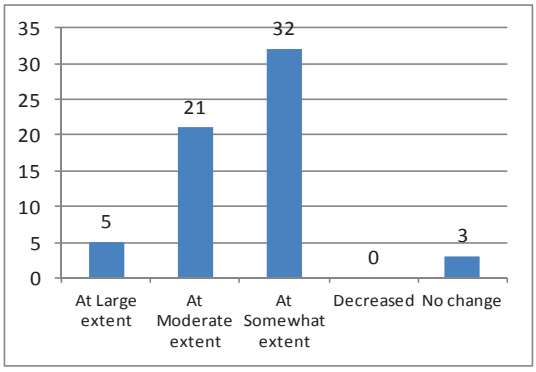
4) What is the impact of Work Life Balance practices on health?

Sr. No.	Choice	Respondents	%
a)	Largely improved	5	8
b)	Moderately improved	26	43
c)	Somewhat improved	21	34
d)	Not improved	4	7
e)	No change	5	8
Total		61	100



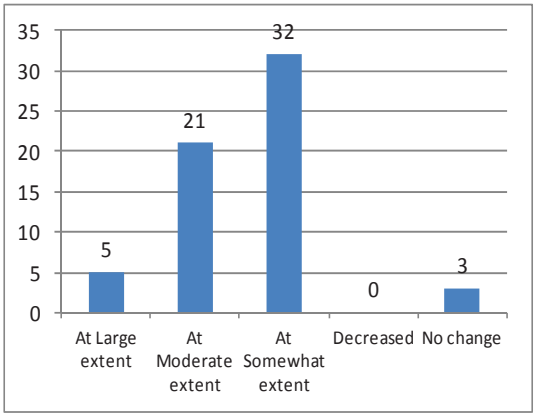
5) What is the impact of Work Life Balance practices on employee morale?

Sr. No.	Choice	Respondents	%
a)	Largely increased	4	7
b)	Moderately increased	32	52
c)	Somewhat increased	22	36
d)	Decreased	0	0
e)	No change	3	5
Total		61	100



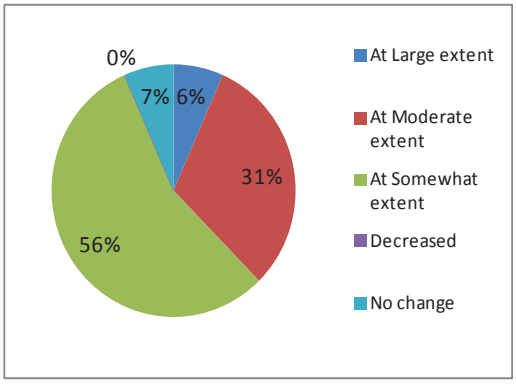
6) At what extent, do you fulfill your household responsibility?

Sr. No.	Choice	Respondents	%
a)	At Large extent	5	8
b)	At Moderate extent	21	34
c)	At Somewhat extent	32	52
d)	Decreased	0	0
e)	No change	3	5
Total		61	100



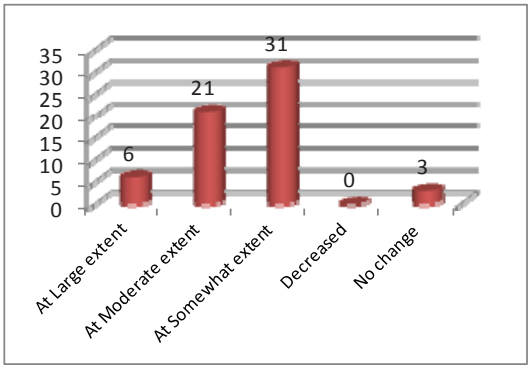
7) Whether do you get spouse support?

Sr. No.	Choice	Respondents	%
a)	At Large extent	4	7
b)	At Moderate extent	19	31
c)	At Somewhat extent	34	56
d)	Decreased	0	0
e)	No change	4	7
Total		61	100



8) At what extent, do you fulfill your parental demands?

Sr. No.	Choice	Respondents	%
a)	At Large extent	6	10
b)	At Moderate extent	21	34
c)	At Somewhat extent	31	51
d)	Decreased	0	0
e)	No change	3	5
Total		61	100



Findings and Suggestions:

Findings from Employer perspective:

- From the survey it has been seen that, 41% employer respondents believe that there is moderate decrease in employees absenteeism and 28% employer



respondents believes that there is somewhat decrease in employees absenteeism. 6% employer respondents believe that there is no change in employee's absenteeism.

- It has been seen that, 50% employer respondents believe that there is somewhat increase in employees productivity and 19% employer respondents believes that there is moderate increase in employees productivity. Also 19% employer respondents believe that there is no change in employee's productivity.
- From the survey it has been seen that, 44% employer respondents believe that there is somewhat increase in employees retention and 28% employer respondents believes that there is moderate increase in employees retention. 22% employer respondents believe that there is no change in employee's retention.
- It is found that, 38% employer respondents believe that there is moderate decrease in employees turnover and 34% employer respondents believes that there is somewhat decrease in employees turnover. 16% employer respondents believe that there is no change in employee's turnover.
- It has been seen that, 38% employer respondents believe that there is somewhat increase in employees loyalty and 34% employer respondents believes that there is moderate increase in employees loyalty. 6% employer respondents believe that there is no change in employee's loyalty.

Findings from Employee perspective:

- From the survey it has been seen that, 41% employee respondents believe that there is somewhat increase in job satisfaction and 34% employee respondents believes that there is moderate increase in job satisfaction. 2% employee respondents believe that there is no change in job satisfaction.
- It has been seen that, 44% employee respondents believe that there is somewhat increase in job security and 34% employee respondents believes that there is moderate increase in job security. 15% employee respondents believe that there is no change in job security.
- It is found that, 44% employee respondents believe that there is somewhat decrease in stress level and 33% employee respondents believes that there is moderate decrease in stress level. 8% employee respondents believe that there is no change in stress level.

- From the survey it has been seen that, 34% employee respondents believe that there is somewhat improvement on health and 43% employee respondents believe that there is moderate improvement on health. 8% employee respondents believe that there is no change on health.
- It has been seen that, 36% employee respondents believe that there is somewhat increase in employees morale and 52% employee respondents believes that there is moderate increase in employees morale. 5% employee respondents believe that there is no change in employee's morale.
- It is found that, 52% employee respondents believe that their household responsibility is fulfilled at somewhat extent and 34% employee respondents believes that their household responsibility is fulfilled at moderate extent. 5% employee respondents believe that there is no change in fulfilling household responsibility.
- From the survey it has been seen that, 56% employee respondents believe that they get spouse support at somewhat extent and 31% employee respondents believe that they get spouse support at moderate extent. 7% employee respondents believe that there is no change in getting spouse support.
- It is found that, 51% employee respondents believe that they fulfill their parental demands at somewhat extent and 34% employee respondents believe that they fulfill their parental demands at moderate extent. 5% employee respondents believe that there is no change in fulfilling parental demands.

Suggestions:

For Employers:

- Organizations should provide fair and good job rotation or job enrichment policies to employees.
- Organizations should make available the latest technology for their employees so that it will be beneficial for improving productivity.
- Proper method of performance appraisal should be implemented in organization. So that every employee should get fair chance for promotions, incentives, increments which will be beneficial for employee retention.

For Employees:

- Employee should build down their schedule with the family and friends and plan their activities in a way that they should get maximum job satisfaction.



- Employee should take a little relaxation during their work time. 10 to 15 minutes relaxation will beneficial for employee to perform more effectively.
- Employee should drop unnecessary activities, for example spending too much time with colleague for gossiping. For getting proper work life balance, employees should stop those activities which are not enhancing career and personal life.
- Employee should manage the stress at work as well as life by proper exercise like Yoga. Employee should manage time for exercise though they have jam-packed schedule. By exercise they feel energetic and enthusiastic throughout day.

Conclusion:

Work Life Balance practices have the potential to significantly improve employee's morale, reduce absenteeism and increase employee retention. Today's global competition has the pressure on organization to maintain the workforce with highest productivity level. This can be possible with the help of implementation of Work Life Balance practices. Organizations which encourage Work Life Balance policies and practices will go to win the benefits for themselves and for the employees.

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On Subclasses of Univalent functions with Fixed Second Negative Coefficients Defined by Convolution

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Asst. Professor, S. B. Patil Polytechnic, Indapur, Pune

ABSTRACT

In this study, we consider the class $Q_n(\alpha,\gamma,\mu,c)$ consisting of analytic functions with fixed second coefficients defined by convolution. The object is to show coefficient estimates, convex linear combinations, some distortion theorems and radii of starlikeness and convexity for $(f*g)(z)$ in the class $Q_n(\alpha,\gamma,\mu,c)$.

Key words: Univalent functions, analytic functions, coefficient inequalities, distortion and growth theorem, radii of starlikeness and convexity, convex linear combination.

INTRODUCTION AND DEFINATIONS

Let S denote the class of functions :

$$f(z)=z+\sum_{k=2}^{\infty}a_k z^k \quad (a_k \geq 0) \tag{1}$$

Which are analytic and univalent in $D=\{z\in C:|z|<1\}$. If $f\in S$ is given by (1) and $g\in S$ is given by,

$$g(z)=z+\sum_{k=2}^{\infty}b_k z^k \quad (b_k \geq 0) \tag{2}$$

Let T denote the subclass of S consisting of functions of the form:

$$f(z)=z-\sum_{k=2}^{\infty}a_k z^k \quad and \quad g(z)=z-\sum_{k=2}^{\infty}b_k z^k \tag{3}$$

Then the modified Hadamard product $f*g$ of f *and* g is defined by

$$(f*g)(z)=z-\sum_{k=2}^{\infty}a_k b_k z^k=(g*f)(z) \tag{4}$$

A function $(f*g)(z)$ of T is in $Q_n(\gamma)$ $(0\leq\gamma<1, n\in N\cup\{0\}, N=\{1,2,3,...\})$ if:

$$\mathrm{Re}\left(D^n\left(f*g\right)(z)\right)'>\gamma, z\in U \tag{5}$$

Where D^n denote usual n-th order derivative introduced by Ruscheweyh (1975). The class $Q_n(\gamma)$ was introduced and studied by Utalegaddi and Sarangi (1988). We note that, such type of classes consisting of functions of the form Eq. 1 was introduced and studied by Darus (2003).

Esa and Darus (2007 and 2012) were studied the class $Q_n(\alpha,\gamma,\mu,c)$ which consists of functions $f(z)\in T$ and satisfy the conditions:

$$\left|\frac{\left(D^n f(z)\right)'-1}{\alpha\left(D^n f(z)\right)'+(1+\alpha)}\right|<\mu,\ z\in U \tag{6}$$

For $0\le\alpha<1,\ 0\le\gamma<1, 0<\mu<1.$

The aim of this study is to estimate the coefficients, study the distortion property and the radii of starlikeness and convexsity for $(f*g)(z)$ in the class $Q_n(\alpha,\gamma,\mu,c)$, finally study the convex linear combinations for $(f*g)(z)$.

We need the following result throughout the work.

PRELIMINARY RESULT

Theorem 1: Let $(f*g)(z)$ be defined by Eq. 4. Then $(f*g)(z)\in Q_n(\alpha,\gamma,\mu,c)$ if and only if :

$$\sum_{k=2}^{\infty}k(1+\mu\alpha)\delta(n,k)a_k b_k\le\mu(\alpha+(1-\gamma)) \tag{7}$$

Where, $0\le\alpha<1,\ 0\le\gamma<1, 0<\mu\le1, n\in N_0\left(N_0=N/\{0\}\right)$ and:

$$\delta(n,k)=\binom{n+k-1}{n}$$

In view of Theorem 1, we can see that the function $f*g$ defined by Eq. 4 in the class $Q_n(\alpha,\gamma,\mu,c)$ satisfy:

$$a_k b_k \le \frac{\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)} \tag{8}$$

Let $Q_n(\alpha,\gamma,\mu,c)$ denote the class of functions $f*g$ in $Q_n(\alpha,\gamma,\mu,c)$ of the form:

$$(f*g)(z) = z - \frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)} z^2 - \sum_{k=3}^{\infty} a_k b_k z^k \ , (with\ 0 \le c < 1) \tag{9}$$

COEFFICIENT INEQUALITIES

Theorem 2: A function $f*g$ defined by Eq.4 is in the class $Q_n(\alpha,\gamma,\mu,c)$, if and only if:

$$\sum_{k=3}^{\infty} k(1+\mu\alpha)\delta(n,k) a_k b_k \le (1-c)\mu(\alpha+(1-\gamma)) \tag{10}$$

The result is sharp for function defined by Eq.9.

Proof: By putting:

$$a_k b_k \le \frac{c\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)} \ , 0 \le c < 1 \tag{11}$$

In Eq.7, we have the result. The result is sharp for function:

$$(f*g)(z) = z - \frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)} z^2 - \frac{(1-c)\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)} z^k, \ k \ge 3. \tag{12}$$

Corollary 1: Let the function defined by Eq.9 be in the class $Q_n(\alpha,\gamma,\mu,c)$ then:

$$a_k b_k \le \frac{(1-c)\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)} \ , \ k \ge 3 \tag{13}$$

DI STORTION AND GROWTH THEOREM

A distortion property for function $f*g$ in the class $Q_n(\alpha,\gamma,\mu,c)$ is given as follows:

Theorem 3: If the function $f*g$ defined by Eq.9 is in the class $Q_n(\alpha,\gamma,\mu,c)$ for $0 < |z| = r < 1$, then we have:

$$r-\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}r^2-\frac{(1-c)\mu\left(\alpha+(1-\gamma)\right)}{3(n+1)(n+2)(1+\mu\alpha)}r^3$$
$$\le|(f*g)(z)| \qquad (14)$$
$$\le r+\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}r^2+\frac{(1-c)\mu\left(\alpha+(1-\gamma)\right)}{3(n+1)(n+2)(1+\mu\alpha)}r^3$$

With equality for:

$$(f*g)(z)=z-\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}z^2-\frac{(1-c)\mu\left(\alpha+(1-\gamma)\right)}{3(n+1)(n+2)(1+\mu\alpha)}z^3 \quad (z\neq\pm r) \qquad (15)$$

Proof: Since, $f*g\in Q_n(\alpha;\gamma;\mu;c)$, Theorem (2) yields the inequality (11)

$$a_kb_k\le\frac{(1-c)\mu\left(\alpha+(1-\gamma)\right)}{k(1+\mu\alpha)\delta(n,k)}\ ,\ k\ge3$$

Thus for $0<|z|=r<1$ and making use of (11), we have:

$$|(f*g)(z)|\le|z|+\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}|z|^2+\sum_{k=3}^{\infty}|a_kb_k||z|^k$$
$$\le r+\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}r^2+r^3\sum_{k=3}^{\infty}|a_kb_k| \quad ,(|z|=r) \qquad (16)$$
$$\le r+\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}r^2+\frac{(1-c)\mu\left(\alpha+(1-\gamma)\right)}{3(n+1)(n+2)(1+\mu\alpha)}r^3$$

and

$$|(f*g)(z)|\ge|z|-\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}|z|^2-\sum_{k=3}^{\infty}|a_kb_k||z|^k$$
$$\ge r-\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}r^2-r^3\sum_{k=3}^{\infty}|a_kb_k| \quad ,(|z|=r) \qquad (17)$$
$$\ge r-\frac{c\mu\left(\alpha+(1-\gamma)\right)}{2(n+1)(1+\mu\alpha)}r^2-\frac{(1-c)\mu\left(\alpha+(1-\gamma)\right)}{3(n+1)(n+2)(1+\mu\alpha)}r^3$$

and the proof is complete.

RADII OF STARLIKENESS AND CONVEXITY

The radii of starlikeness and convexity for the class $Q_n(\alpha,\gamma,\mu,c)$ is given by the following theorem:

Theorem 4: If the function $f*g$ defined by Eq. 9 is in the class $Q_n(\alpha,\gamma,\mu,c)$, then $f*g$ is starlikeness of order $\beta\ (0\le\beta\le 1)$ in the disk $|z|<r_1\ (\alpha,\gamma,\mu,c,\beta)$ where, $r_1\ (\alpha,\gamma,\mu,c,\beta)$ is the largest value for which:

$$\frac{c\beta\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}r_0^{\,2}+\frac{(1-c)(1+\beta)\mu(\alpha+(1-\gamma))}{3(n+1)(n+2)(1+\mu\alpha)}r_0^{\,3}\le 1-\beta \qquad (18)$$

The result is sharp for functions $(f*g)_k$ given by Eq. 12.

Proof: It suffices to show that:

$$\left|1-\frac{z(f*g)'(z)}{(f*g)(z)}\right|\le 1-\beta \quad for\ \ |z|<r_1.$$

We have:

$$\left|1-\frac{z(f*g)'(z)}{(f*g)(z)}\right|=\frac{\frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}r^2+\sum_{k=3}^{\infty}(k-1)a_kb_kr^k}{z-\frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}r^2-\sum_{k=3}^{\infty}a_kb_kr^k}\le 1-\beta \qquad (19)$$

Hence, Eq.19 hold true if:

$$\frac{c(2-\beta)\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}z^2+\sum_{k=3}^{\infty}(k-\beta)a_kb_kz^k\le 1-\beta$$

and it follows that from Eq.10, we may take:

$$|a_kb_k|=\frac{(1-c)\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)}\lambda_k\ ,\ k\ge 3$$

where $\lambda_k\ge 0$ and

$$\sum_{k=3}^{\infty}\lambda_k \le 1$$

For each fixed r, we choose the positive integer $k_0 = k_0 r$ for which:

$$\frac{(k-\beta)}{k(1+\mu\alpha)\delta(n,k)}$$

is maximal.

Then it follows that:

$$\sum_{k=3}^{\infty}(k_0-\beta)a_k b_k r_0^{\,k} \le \frac{(1-c)(k_0-\beta)\mu(\alpha+(1-\gamma))}{k_0(1+\mu\alpha)\delta(n,k_0)} r^{k_0}$$

Hance, $f*g$ is starlike of order β in $|z|<r_1(\alpha,\gamma,\mu,c,\beta)$ provided that:

$$\frac{c\beta\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}r^2+\frac{(1-c)(1+\beta)\mu(\alpha+(1-\gamma))}{3(n+1)(n+2)(1+\mu\alpha)}r^3 \le 1-\beta$$

We find the value $r_0 = r_0(\alpha,\gamma,\mu,c,k,\beta)$ and the corresponding integer $k_0 r_0$ so that:

$$\frac{c\beta\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}r_0^{\,2}+\frac{(1-c)(1+\beta)\mu(\alpha+(1-\gamma))}{3(n+1)(n+2)(1+\mu\alpha)}r_0^{\,3} \le 1-\beta$$

Then this value r_0 is the radius of starlikeness of order r_0 for the function $f*g$ belonging to the class $Q_n(\alpha,\gamma,\mu,c)$.

Theorem 5: If the function $f*g$ defined by Eq. 9 is in the class $Q_n(\alpha,\gamma,\mu,c)$, then $f*g$ is convexity of order $\beta\ (0\le\beta\le 1)$ in the disk $|z|<r_2(\alpha,\gamma,\mu,c,\beta)$ where $r_2(\alpha,\gamma,\mu,c,k,\beta)$ is the largest value for which:

$$\frac{c\beta\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}r^2+\frac{(1-c)(1+\beta)\mu(\alpha+(1-\gamma))}{3(n+1)(n+2)(1+\mu\alpha)}r^3 \le 1-\beta \qquad (20)$$

The result is sharp for functions $(f*g)_k$ given by Eq. 12.

Proof: By using the same technique in the proof of Theorem 4, we can show that:

$$\left|\frac{z(f*g)''(z)}{(f*g)'(z)}\right| \leq 1-\beta$$

for $|z| \leq r_2$ with the aid of Theorem 2. Thus, we have the assertion of Theorem 5.

CONVEX LINEAR COMBINATION

The next involves a linear combinations of function of the type (15).

Theorem 6: If

$$(f*g)_2(z) = z - \frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}z^2 \qquad (21)$$

and

$$(f*g)_k(z) = z - \frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}z^2 - \frac{(1-c)\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)}z^k \quad (k \geq 3) \qquad (22)$$

Then $f*g \in Q_n(\alpha,\gamma,\mu,c)$ if and only if it can be expressed in the form:

$$(f*g)(z) = \sum_{k=3}^{\infty} \lambda_k (f*g)_k(z) \qquad (23)$$

where, γ_k and

$$\sum_{k=3}^{\infty} \lambda_k \leq 1$$

Proof: From (21-23), we have:

$$(f*g)(z) = \sum_{k=2}^{\infty} \lambda_k (f*g)_k(z)$$

so that

$$(f*g)(z) = z - \frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}z^2 - \frac{(1-c)\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)}\lambda_k z^k \qquad (24)$$

Since,

$$(f*g)(z) = \sum_{k=3}^{\infty} \frac{k(1+\mu\alpha)\delta(n,k)(1-c)\mu(\alpha+(1-\gamma))}{(1-c)\mu(\alpha+(1-\gamma))k(1+\mu\alpha)\delta(n,k)}\lambda_k$$

$$= \sum_{k=3}^{\infty}\lambda_k = 1-\lambda_2 \le 1$$

it follows from Theorem 2 that the function $f*g \in Q_n(\alpha,\gamma,\mu,c)$.

Conversely, suppose that the function $f*g \in Q_n(\alpha,\gamma,\mu,c)$ and since

$$a_k b_k \le \frac{(1-c)\mu(\alpha+(1-\gamma))}{k(1+\mu\alpha)\delta(n,k)}, \quad k \ge 3$$

setting

$$\lambda_k = \frac{k(1+\mu\alpha)\delta(n,k)}{(1-c)\mu(\alpha+(1-\gamma))}a_k b_k, \quad k \ge 3$$

and

$$\lambda_2 = 1-\sum_{k=3}^{\infty}\lambda_k$$

It follows that:

$$(f*g)(z) = \sum_{k=3}^{\infty}\lambda_k (f*g)_k(z)$$

and the proof is complete.

Theorem 7: The class $Q_n(\alpha,\gamma,\mu,c)$ is closed under linear combinations.

Proof: Supoose that the function $f*g$ be defined by (12) and let the function $\phi*\psi$ be defined:

$$(\phi*\psi)(z) = z - \frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}z^2 - \sum_{k=3}^{\infty}|c_k d_k|z^k \qquad (c_k d_k \ge 0) \qquad (25)$$

Assuming that $f*g$ and $\phi*\psi$ are in the class $Q_n(\alpha,\gamma,\mu,c)$, it is sufficient to prove that the function H defined by:

$$H(z) = z - \lambda(f*g)(z) + (1-\lambda)(\phi*\psi)(z) \qquad (0 \le \lambda \le 1) \qquad (26)$$

is also in the class $Q_n(\alpha,\gamma,\mu,c)$.

Since:

$$H(z)=z-\frac{c\mu(\alpha+(1-\gamma))}{2(n+1)(1+\mu\alpha)}z^2-\sum_{k=3}^{\infty}\left|\lambda a_k b_k+(1-\lambda)c_k d_k\right|z^k$$

We observe that:

$$\sum_{k=3}^{\infty}k(1+\mu\alpha)\delta(n,k)\left|\lambda a_k b_k+(1-\lambda)c_k d_k\right|\le(1-c)\mu(\alpha+(1-\gamma))$$

With the aid of theorem 2.

Thus, $H\in Q_n(\alpha,\gamma,\mu,c)$ and the proof is complete.

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Impact of Unethical Advertisement on Society

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Abstract

There is no doubt that advertising attracts all of us in number of ways, but there are also number of controversies associated with advertising Generally, these controversies are concerned about the impact of advertising on economy, society and ethics Advertising is primarily a means by which sellers communicate to prospective buyers. Advertisements are not just the sellers they reflect the society. Indian society is people-oriented and not self-oriented For the sake of our family and others, we Indians can postpone our own gratification. Ethics in advertising Should not mislead the consumer What it promises must be there in the performance of products Ad should not be indecent and obscene As advertising is also a social process, it must honor the norms of social behavior, and should not offend our moral sense ASCI (Advertising Standards Council of India) regulates the advertising in India ASCI guidelines to ensure the truthfulness and honesty of representations and claims made by advertisements and to safeguard against misleading advertising. To ensure that advertisements are not offensive to generally accepted standards of public decency. To safeguard against indiscriminate use of advertising for promotion of products which are regarded as hazardous to society or to individuals to a degree or of a type which is unacceptable to society in large. To ensure that advertisements observe fairness in competition so that consumers need to be informed on choices in the market place and the canons of generally accepted competitive behavior in business are both served. Ethical issues in advertising are a highly visible business activity and any lapse in ethical standards can often be risky for the company. Some of the common examples of ethical issues in advertising are given below: Vulgarity/Obscenity used to gain consumers' attention Misleading information and deception Puffery Stereotypes Racial issues Controversial products (e.g. alcohol, gambling, tobacco etc.)

Keywords : *Controversies, Gratification, Indecent, Obscene, Vulgarity/Obscenity, ASCI.*

Objectives of the Study

1. To Study the impact of unethical advertisement on the society.
2. To study the ethics in advertisement.
3. To understand the controversy in advertisement.
4. To Know the ASCI and Codes of conduct of ASCI.

Introduction of Advertisement

Advertising play an essential and important role. Though advertising does not mean

selling of products and services but it helps in increasing sales. Advertising creates awareness in people. When general public becomes conscious to the products, services and goods under the brands, they persuade people towards these brands and make them buy better brands. Advertising can be used to create brand awareness in general public and to make business more popular within the circle of potential buyers. In short, advertising does not only give a proper awareness of brands but a nice introduction of companies as well. Attractive advertising increases the demands of public which directly boost sales of the brand. Advertising is the best way to communicate to the customers. Advertising helps informs the customers about the brands available in the market and the variety of products useful to them. Advertising is for everybody including kids, young and old. It is done using various media types, with different techniques and methods most suited. When a product is manufactured, its existence needs to be made known to the general public; otherwise the product will not sell. Advertising draws the attention of potential consumers to a product. Advertising is a way persuading potential customers to buy the product. Advertising informs potential customers of the products functions and features. Good advertising creates a demand for a product. Good advertising may even create a brand identity for a product or series of products. Advertising seeks to create an image surrounding a product, so that customers feel that they need it. Advertising can promote a new product and increase sales of existing products.

ETHICS IN ADVERTISEMENT:

Ethics is a choice between good and bad, between right and wrong. It is governed by a set of principles of morality at a given time and given place. Ethics is a related to group behavior in ultimate analysis, setting thus norms for an individual to follow in consistence with groups' norms. Advertising has also ethical values. Advertising communication is a mix of art and facts to ethical principles. In order to be consumer oriented, and advertisement will have to be truthful and ethical. It should not mislead the consumers. Advertisements also should not be indecent and obscene. Gambling is also against ethical code. Endorsement of products by celebrities who are opinion leaders is also sometimes criticized. And advertisement is a social process, it must honor time tested norms of social behavior and should not cross our moral since.

Objectives of Advertising

1. Trial
2. Continuity
3. Brand switch
4. Switching back

Let's take a look on these various types of objectives.

1. Trial : The companies which are in their introduction stage generally work for this

objective. The trial objective is the one which involves convincing the customers to buy the new product introduced in the market. Here, the advertisers use flashy and attractive ads to make customers take a look on the products and purchase for trials.

2. Continuity : This objective is concerned about keeping the existing customers to stick on to the product. The advertisers here generally keep on bringing something new in the product and the advertisement so that the existing customers keep buying their products.

3. Brand switch : This objective is basically for those companies who want to attract the customers of the competitors. Here, the advertisers try to convince the customers to switch from the existing brand they are using to their product.

4. Switching back : This objective is for the companies who want their previous customers back, who have switched to their competitors. The advertisers use different ways to attract the customers back like discount sale, new advertise, some reworking done on packaging, etc.Basically, advertising is a very artistic way of communicating with the customers. The main characteristics one should have to get on their objectives are great communication skills and very good convincing power.

Social Criticism and Responsibility

1. Advertisement should not be Fraudulent.
2. Advertisement should not be Untruthful.
3. It makes people buy the things not needed.
4. Comparative advertisement changes the opinion of customer.

Importance of Advertising

Advertising plays a very important role in today's age of competition. Advertising is one thing which has become a necessity for everybody in today's day to day life, be it the producer, the traders, or the customer. Advertising is an important part. Let's have a look on how and where is advertising important:

1. Advertising is important for the customers

Just imagine television or a newspaper or a radio channel without an advertisement! No, no one can any day imagine this. Advertising plays a very important role in customer's life. Customers are the people who buy the product only after they are made aware of the products available in the market. If the product is not advertised, no customer will come to know what products are available and will not buy the product even if the product was for their benefit. One more thing is that advertising helps people find the best products for themselves, their kids, and their family. When they come to know about the range of products, they are able to compare the products and buy so that they get what they desire after spending their valuable money. Thus, advertising is important for the customers.



2. Advertising is important for the seller and companies producing the products

Yes, advertising plays very important role for the producers and the sellers of the products, because:

1. Advertising helps increasing sales
2. Advertising helps producers or the companies to know their competitors and plan accordingly to meet up the level of competition.
3. If any company wants to introduce or launch a new product in the market, advertising will make a ground for the product. Advertising helps making people aware of the new product so that the consumers come and try the product.
4. Advertising helps creating goodwill for the company and gains customer loyalty after reaching a mature age.
5. The demand for the product keeps on coming with the help of advertising and demand and supply become a never ending process.

3. Advertising is important for the society

Advertising helps educating people. There are some social issues also which advertising deals with like child labor, liquor consumption, girl child killing, smoking, family planning education, etc. thus, advertising plays a very important role in society.

Effects of Advertisement : Advertising is everywhere, from television to billboards, newspapers and the Internet. Items are sold through effective advertising, which helps businesses and also stimulates the economy. Print advertising has been giving way to the electronic age, while Internet and TV advertising have taken the industry by storm due to their cost-effectiveness, distribution capabilities and convenience.

Information : Advertisement supplies consumers with information about products and services. This information is broadcast for the open market, and discusses specials, sales, and new lines of products and services. A consumer also learns about the comparisons between features, benefits and options of different products and services through advertisement.

Brand identity : Brand identity is one of the biggest functions and effects of advertisement. By selling products and services through advertisements, businesses differentiate themselves from one another. The right advertising campaign defines a company's unique brand, which helps consumers build emotional relationships with that brand. This increases the likelihood that consumers will buy from that company.

Promotion action : Advertising's purpose is to attract buyers through a call-to-action statement, which encourages the customer to visit a store or website, or to contact the advertiser for more information. Advertising is essentially an action catalyst that brings customers and products or services together.

Improving customer base : Advertising's purpose is to attract buyers through a call-to-action statement, which encourages the customer to visit a store or website, or to contact the advertiser for more information. Advertising is essentially an action catalyst that brings

customers and products or services together.

Production creation : Advertising, according to "The Social and Cultural Effects of Advertising" by Jeremiah O'Sullivan R., stimulates the development of better products, and allows consumers to have a wider variety of products, competitive pricing, and competition entering the marketplace.

Purchase persuasion : Powerful and captivating advertisements persuade consumers to purchase a new product, try out services, and fulfill voids they feel are present in their lives. In fact, persuasion is one of the main functions of advertising, which is why many firms strive to create powerful impacts that reach customers on emotional and physical levels.

Education : Advertising serves as a form of consumer education. Not all advertisements sell a product or service; sometimes they sell a concept. Government agencies use advertisement as a way to educate and compel consumers to act a specific way. "The Social and Cultural Effects of Advertising" notes that advertising is geared toward the ideas of art, religion, sexual attraction and myth. Advertising also educates consumers on what products and services out are there, how much they should pay, and what they can expect with certain purchases.

ASCI- Advertising Standard Council of India : Advertising Standards Council of India is a self regulatory voluntary organization of the advertising industry. The Role and Functioning of the ASCI & its CCC in dealing with Complaints received from Consumers and Industry, against Advertisements which are considered as False, Misleading, Indecent, Illegal, leading to Unsafe practices, or Unfair to competition, and consequently in contravention of the ASCI Code for Self-Regulation in Advertising. In order to enforce an ethical code we in India now have the Advertising Standard Council of India it is a nonprofit origination set up by 43 founder members who are

Involved with advertising in one way or the other it is established in 1985 its board of governor has members with equitable representation to advertisers, agency, media. It puts forward a regulating code.

Objectives of ASCI

1. To ensure the truthfulness an honesty of representations and claims made by advertisements and to safeguard against misleading advertising.
2. To ensure that advertisements are not offensive to generally accepted standards of public decency.
3. To safeguard against indiscriminate use of advertising for promotion of products which are regarded as hazardous to society or to individuals to a degree or a type which is unacceptable to society.

Codes of conduct of ASCI

This code was presented to parliament in mid- 1987. It incorporates the indecent

representation of women act and the consumer act, both of which were passed by parliament in 1986. It suggests 33 do s and don't s for advertiser. Here are some of them. Advertisement should conform to laws and should not offend against morality, decency and the religious susceptibilities of people. The success of advertising depends on public confidence and no piratic should be permitted which tend to impair this.

In the following code of conduct advertisement should not be permitted

1) Ads which deride any caste, color, and nationality or are against the directive principles or the constitution.
2) Ads which tend to incite people to crime or cause order or adversely affect friendly relations with foreign states.
3) Ads which exploit national emblem, a part of the constitution, or the person/ personality of national leaders or state dignitaries.
4) No advertisement shall be presented as news.
5) Ads which have any relation to religion, political or industrial dispute.
6) Ads which promote chits funds, money lender, jewellery, fortune tellers, foreign goods, and private saving schemes.
7) Guaranteed goods will have to be made available to director general of Doordarshan for inspection is necessary.
8) No disparaging or derogatory remarks of other product or comparison with them should be made.
9) Ads which portray women as passive or submissive.
10) Ads which are likely to startle viewers- such as gunfire, sirens, bombardments, screams, and raucous laughter.

CONCLUSION

Ethics are very necessary while framing any advertisement. All the codes of conduct of ASCI should take into consideration. Advertisements should not mislead to society. It is the prime responsibility of business/company to maintain the ethics in their advertisement. It largely affects on the customer's mind.

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GPS Based Vehicle Information System

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Abstract

This paper embed the various GPS services into a system so that many problem related to transportation system can be resolved in real time by providing data and information into our own pre-set format and provide individual vehicle data such as location and velocity by using GPS, estimated time of arrival, the speed count, number of passengers and seat availability and these details can be sent to passengers by SMS using GSM technology. Till now a date, no such kind of a system is exists which provides all kind of a result we want for any types of vehicles. This research project is aimed to design with an embedded system which will use for tracking and positioning of vehicles with GPS. The initial data will be captured by GPS device, after that captured data will be considered as an input file for conversion tool for conversion purpose. With the use of conversion tool the next processing will be done. This work also uses sensors to detect the speed of vehicle, passengers present in the bus. The Microcontroller is programmed to control and display the information according to the received signal from the GPS and sensors placed satellite and the position of a satellite implies that the GPS receiver is on the surface of a sphere centered at the position of a satellite. Thus the indicated position of the GPS receiver is calculated.

Keywords : *GPS, GSM, GPRS, Sensor*

Introduction

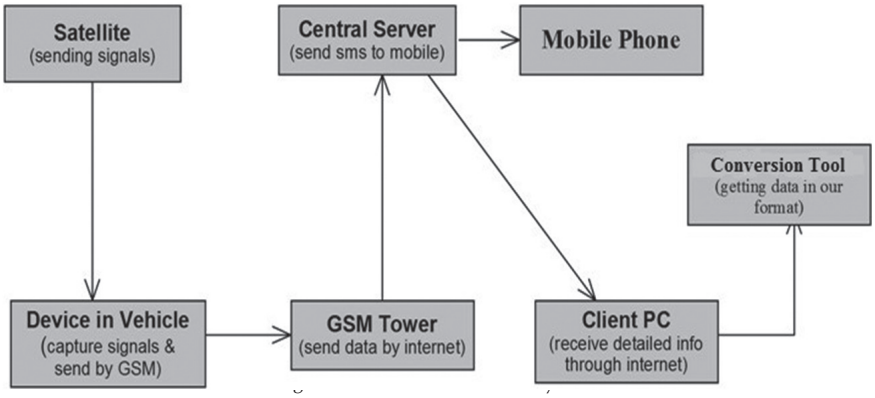
Nowadays vehicle (BUS) is very important mode of transport to move from one place to other place. During the time of travel passengers face many problems such as seat availability, arriving time of bus and travelling time. The important objectives of this paper are:

1. Vehicle's real time parameter such as speed, current bus location, number of passengers in bus, seat availability is gathered and used for benefit.
2. Improve the quality of transportation system.
3. Developing Automatic Vehicle Location system using GPS for positioning information and GSM/GPRS or information transmission.
4. Tracking the driver's activity whether he/she is following the pre-define route and speed.
5. To send information about the location of vehicles (buses), seat availability in

buses to the passenger by SMS.

6. Getting the data into our pre-set format.

This paper consists of GSM modem, level converter, microcontroller, Speed Sensor, passenger counter, display, power supply, GSM modem and online conversion tool. The online conversion tool helps us in getting the data and information into our required format. This paper embed the various GPS services into a system which is used for tracking and positioning of vehicle by using the global positioning system (GPS) and using sensors to detect the speed of vehicle, passengers present in the bus. The Microcontroller is programmed to control and display the information according to the received signal from the GPS and sensors placed in the bus. GSM modem is used to transmit and receive information. Mobile is used to get the information about bus. When the people are sending SMS to bus unit, the GSM modem in bus unit receives the SMS and signal is given to level converter and level converted signal is given to microcontroller, which is used to process the signal. GSM modem is used to send the information to the mobile. The overview of the system is shown in fig 1.0.



Backbone of the System

Position calculation Through GPS

To provide an introductory description of how a GPS receiver works, measurement errors will be ignored in this section. Using messages received from a minimum of four visible satellites, a GPS receiver is able to determine the satellite positions and time sent. The x, y, and z components of position and the time sent are designated as where the subscript i is the satellite number and has the value 1, 2, 3, or 4. Knowing the indicated time the message was received, the GPS receiver can compute the indicated transit time of the message. Assuming the message travelled at the speed of light, the distance travelled, can be computed. Knowing the distance from GPS receiver to a satellite and the position of a satellite implies that the GPS receiver is on the surface of a sphere centered at the position of a satellite. Thus the indicated position of the GPS receiver is calculated.

Global System for Mobile Communications

Global System for Mobile Communications is one of the widely used mobile standards. As the name specifies, it enables the mobile users to interact all over the world at any time. GSM was actually designed to be platform independent. Because GSM provides a common standard, cellular subscribers can use their telephones over the entire GSM area which includes all the countries around the world where the GSM system is used. In addition, the GSM provides user services such as high-speed data communication, facsimile and a Short Message Service (SMS). The GSM technical specifications are also designed to work with other standards as it guarantees standard interfaces.

According to this paper the information about the location of the vehicle which is trapped is received by the GPS receiver then it is send to the user by using GSM technology

Counting Passenger Using Sensor

To count the No. of passenger in bus, we setup a pair of sensors on the doors of vehicle (bus) i.e. on the front and back door which is connected to GPS device installed in vehicle. In this case we consider that the front door of bus will be used for passenger entry and rear door of bus will be used for passenger exit, if any passenger enters into the bus from front door then the set counter increases by 1 and at the same time the value of other counter which is fixed on to the rear door of the bus is get updated and if any passenger get out from the rear door of the bus then the set counter reduced by 1. Therefore, the sensors automatically are able to count the number of incoming and outgoing passenger in real time and data is sent to the database.

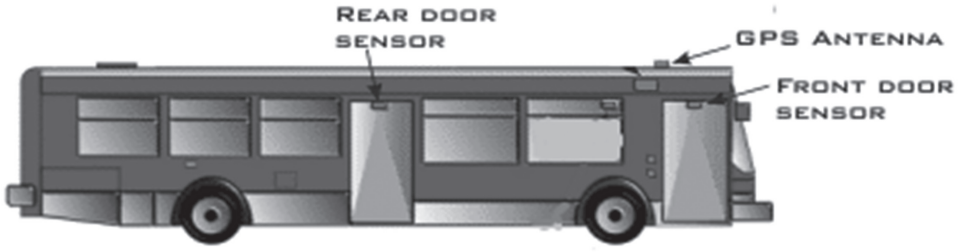


Figure 2.0: Sensor System on Bus

Proposed Work

The system being proposed makes use of the GSM and GPS technologies that allows the system to track vehicle and provides the most up-to-date information. The system tasks advantage of wireless technology in providing powerful management transportation engine. Overall system is partitioned into two major design units.

1. Vehicle unit
2. Tracking Server

This system is based on a stand-alone single-board embedded system that is equipped with GPS and GSM modems that is installed in the vehicle.

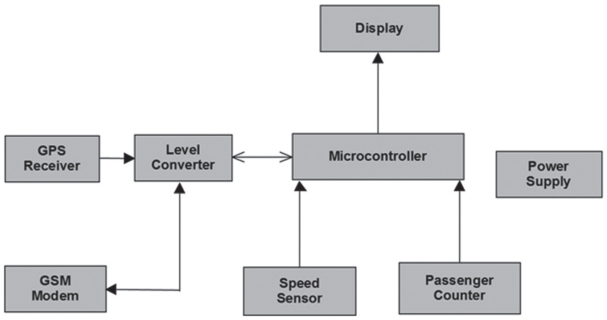


Figure 3.0: Block Diagram of Vehicle Unit

Vehicle Unit

This is major part of the system and it will be installed into the vehicle. It is responsible for capturing the Following information for the vehicle

1. Current location of vehicle.
2. Speed of the vehicle.
3. No of passenger in vehicle(bus)

Vehicle unit is also responsible for transmitting this information to Tracking Server located anywhere in the world.

Data Transceiver

When all required information is extracted and processed, it needs to be transmitted to a Remote Tracking Server which will be able to display this information to the end user. For real time tracking of vehicle, reliable data transmission to remote server is very important. Wireless network is required to transmit

Vehicle information to remote server. Existing GSM network is selected to transmit vehicle information to remote server because of broad coverage of GSM network. It is also cost effective rather than to deploy own network for transmission of vehicle information. For data transmission over GSM network GSM modem is required. GSM modem can send and receive data SMS text messages and GPRS data over GSM network. Location data is transferred to microcontroller through serial interface. After processing of the data provided by GPS receiver, microcontroller transmits this information to remote location using GSM/GPRS modem. Microcontroller controls the operation of GSM/GPRS modem through serial interface using AT commands.

Software flow

Microcontroller is acting as Central Processing Unit for Vehicle unit. All operations of the Vehicle Units are to be controlled by the microcontroller. Microcontroller needs

instructions to operate the whole System. These instructions are provided to microcontroller by writing the software into microcontroller's flash memory. It reads the software instruction by instruction and performs the action as required by instruction.

Tracking Server

Tracking server maintains all information received from all Vehicle units installed in different vehicles into a central database. This database is accessible from internet to authorized users through a web interface. Authorized users can track their vehicle and view all previous information stored in database. Tracking server has a GSM/GPRS modem attached to it that receives SMS from Vehicle units and sends those messages to the server through serial port. Tracking server saves this information into database.

Managing Database and Interface Design

Tracking Server maintains all information in a database. To display this information to users front end software is required that can display all information to the user. The system is being installed the Vehicle unit in his vehicle and also the administrator of the system who is managing Vehicle Tracking System. There may be a number of vehicles installed with Vehicle units therefore server must be able to manage and distinguish information sent by all Vehicle units. For this purpose information must be available to server about all vehicles that are installed with Vehicle units. Whenever Vehicle unit is installed, information about that vehicle is stored in the database. Web interface must also support this functionality. Since web interface will be accessible over the internet therefore access must be restricted to authorized users only. Therefore information about all users of the system must be stored in database.

Conversion Tool (for converting the Initial GPS data into our required format)

The GPS device give the output in the simple text or in GPX format, that contains time, position, and velocity data and other required data in the fixed width fields (not delimited) defined in the following table:

FIELD DESCRIPTION:	*WIDTH:*	*NOTES:*
Sentence start	*1*	*always '@'*
Year	*2*	*Last 2 digits of UTC year*
Month	*2*	*UTC month,"01"..."12"*
Day	*2*	*UTC day of month, "01"..."31"*
Hour	*2*	*UTC hour, "00"..."23"*
Minute	*2*	*UTC minute, "00"..."59"*
Second	*2*	*UTC second, "00"..."59"*
Latitude hemisphere	*1*	*'N' or 'S'*
Latitude position	*7*	*WGS84 ddmmmmm, with an implied, decimal after the 4th digit*
Longitude hemisphere	*1*	*'E' or 'W'*
Longitude position	*7*	*WGS84 dddmmmmm with an implied, decimal after the 5th digit*
Altitude sign	*1*	*'+' or '-'*
Altitude	*5*	*Height above or below mean sea level in meters*

Sentence end.

The initial data captured by the GPS device is shown in the figure 4.0.

```
@040703112755S2933200E03017304g017+01149E0000N0000U0033
@040703112756S2933200E03017304g017+01149E0000N0000U0033
@040703112757S2933200E03017304g017+01149E0000N0000U0033
@040703112758S2933200E03017304g018+01149E0000N0000U0030
@040703112759S2933200E03017304g018+01149E0000N0000U0027
@040703112800S2933200E03017304g019+01149E0000N0000U0026
@040703112801S2933200E03017304g019+01149E0000N0000U0026
@040703112802S2933200E03017304g019+01149E0000N0000U0026
@040703112803S2933200E03017304g019+01149E0000N0000U0026
@040703112804S2933200E03017304g020+01149E0000N0000U0025
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@040703112809S2933201E03017304g021+01149E0000N0000U0021
@040703112810S2933201E03017304g021+01149E0000N0000U0021
```

Figure 4.0: GPS data captured by the data logger.

The data we are getting at initial phase is very complex and difficult to understand, so by using Conversion Tool i.e. GPSvisualizer the initial data is arranged according to pre-set format by which one can get data in whatever format he/she wants.

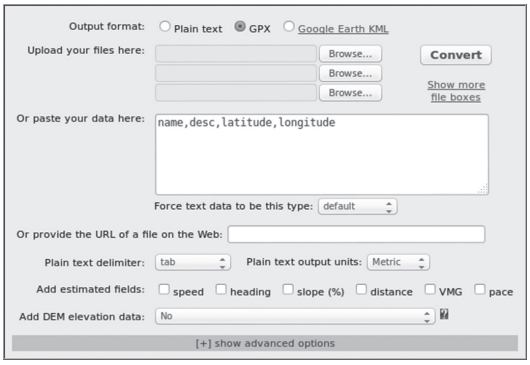


Figure 4.1: Conversion tool

The above figure 4.1 shows the Conversion tool i.e. GPSvisualizer. After getting the initial data we can either simply upload the GPS data which is in GPX format or we can simply copy paste the text file according to set field and then by clicking over the convert button The resulting file can then be saved to our computer.

Conclusion

Using and implementation of this embed GPS system is very easy. By using this system the vehicle tracking will be completed. The number of passengers inside the bus is found keeping infrared sensors in the footsteps. The seats available in bus will be found by number of passengers inside the bus and the information about the location, speed count, seat availability is informed to the passengers using SMS.The advantages of the system is that all the people will get the information easily, especially those passenger who are waiting for the bus at the bus stop, we can easily track the vehicle location as well as activity of driver. Implementation of this system will help to reduce the corruption also.

This system is quite hard to implement on all the buses especially in India as the condition of buses in India is not so good and there is also huge rush to catch up the buses at peak hour, but it is not impossible also. At start we can implement it on the buses which provide good facility and which are in good condition for example: low floor buses of Delhi, Shivneri buses and many more. After that we can try to implement it on all the buses and help to provide this system to all.

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Policy Paralysis in India: Role of RBI

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ABSTRACT

Today monetary policy is in India is in a deep crisis. The Reserve Bank of India (RBI) has operated monetary policy in an environment in which other macro-economic policies are not in match with our key policy objectives. This departure from fundamental principles has weakened our monetary policy.

Our political economy imperatives lead to policy inconsistencies, It seems that we have undermined the importance of monetary policy which leads to a policy paralysis between monetary policy and fiscal policy. This problem of monetary policy in India is compounded by the fact that monetary economics is looked at as an extraneous thought process not relevant to India. It will not be an exaggeration to say that only a very few of economists have an abiding interest in monetary economics.

Lack of appreciation on monetary economics is every where, not only in academic circles but also in government, and, sometimes, even in the RBI circles. We see that a "monetarist" is someone who has an unswerving commitment to the use of monetary policy to combat inflation.

INTRODUCTION

We could see that the RBI has, from time to time, effectively using strong monetary policy measures to combact inflation. But the academic 'community, industry and government have been critical of the RBI measures when it has resorted to monetary tightening, under the impression such policies would adversely affect our economic growth.

Thanks to Indian economic thought which still hold up with the Keynesian economic thoughts which were suited for the industrial countries in the 1930s. The Keynesian economics stressed the importance of government to undertake pump-priming as there was an excess of saving over investment which leads large unemployment.

The global financial crisis of 2008, led Indian economists and policy-makers to believe that pump-priming was the only solution as it was embraced by other countries .So we also resorted to the same action which resulted unprecedented monetary- fiscal expansion followed by a sharp acceleration of inflation. This has paid to the aspirations of our double-digit growth. It is unfortunate to mention that this scenario continues till date. This situation is totally in contrast with the development economics prescribed by Indian economists which are suited to developing countries like India.

The validity of the Keynesian multiplier theory depends on crucial assumptions, mainly the existence of involuntary unemployment, upward sloping supply curve, excess capacity in industry and elastic supply of working capital. But this is not the case of the developing countries like India. Indian economists even warned that a blind application of the Keynesian formula resulted considerable damage on our economy which only helped to strengthen the forces of inflation. According to Dr VKRV. Rao the Keynesian policy of deficit financing and disregard for thrift does not apply to underdeveloped countries for which the policy formulated by the classical economists is relevant: work harder and save more. It is high time the planners and administrators of India has to go through the work of Dr. VKRV Rao.

A mild inflation is always acceptable in a growing economy. But an inflation without growth is disastrous. An uncontrollable inflation leads a country from bad to worst . A country like India where there is no inclusive growth the highest affected people would be those who are living in below poverty line and also middle class. Today pays a heavy price for ignoring the work of our own economists.

THEORETICAL BACKGROUND

Ups and downs in the economy : In India, we ignore the repercussions of business cycles. We believed that India was a planned economy, and we are immune to business cycles. India has totally ignored the over-investment theory of the business cycle set out in F. A. Hayek's Prices and Production (1931). Under the Hayekian approach, there is excess of investment over saving, and this has to be equilibrated by forced saving via created money. At this situation inflation takes its own momentum where central bank inevitably presses the panic button. The upper turning point is the most important point of the business cycle according to Hayekian approach. Without least hesitation one could say that Hayekian approach was very much relevant to developing country like India.

This reveals that monetary tightening should be undertaken during the upswing of the business cycle, well before the upper turning point is reached. Invariably, monetary tightening is undertaken after the upper turning point, when the downturn has started, and this accentuates the downturn. Economists argues that economic history of developed countries has proved that early monetary tightening is better as it would be a mild one.

It is the usual practice we invite outstanding experts to tide over the economic troubles which could have been nip in the bud by our own economists. No advice is better than wrong advice . It is disheartening to tell that some of the advice what we got was not relevant for a developing country like India . This has resulted pouring oil to the burning fire . It is high time we have to think about economists who are experts in dealing with business cycles as world as a whole is in the clutches of business cycles. The economic policies followed by other developing countries may not be relevant to India as we are having a mixed culture with various religions, different castes and creeds, various languages, non- inclusive economic growth ,and above all an agriculture oriented population.

Recent experience : The RBI increased its repo rate by 1.75 per cent between May

and October 2011 to 8.5 per cent. A criticism was leveled against RBI that all that the monetary tightening did was to slowdown growth without controlling inflation. It is further argued that the reduction of the repo rate in April 2012 to 8 per cent and, thereafter, keeping it unchanged has hurt growth. As a whole people started looking RBI with suspicion. Government, industry and economists urged monetary policy ought to be quickly relaxed.

By going back it would appear that the increase in the repo rate by 1.75 per cent between May and October 2011 was insufficient in the context of the high inflation rate (the repo rate remained negative in real terms). As a matter of fact this period of monetary tightening, the cash reserve ratio (CRR), by far the most powerful instrument of monetary policy, remained unchanged at 6 per cent. When monetary easing was necessitated the repo rate was reduced only once in April 2012 by 0.50 percentage points to 8 per cent, and the critics argue that further reductions should have been effected. However since January 2012, the CRR was reduced from 6 per cent to 4.25 per cent to facilitate monetary easing. Experts and bureaucrats evaluate that the recent inflation is structural, and also attributable to external factors. Today inflation is generalized, as a monetary phenomenon.

It is generally believed that the RBI did not tighten fast enough and strong enough during 2011 and that in the absence of an abatement of retail inflation (10.6 per cent, year-on-year, in December 2012), the relaxation of monetary policy in 2012 was premature and excessive. However no one talked about all these developments even today.

Policy paralysis : Today the RBI's is bearing the burden of inconsistencies in other macro - economic policies, and the focus the RBI's critics should be on these policies. The balance of payments current account deficit (CAD) in 2012-13 could well end up at 4.5 per cent of GDP which, if not corrected expeditiously, could result in a large exodus of foreign capital. Our forex reserves are now less than the external debt. To make things from bad to worst our short-term debt, on a residual maturity basis, has reached 43 per cent of total external debt. This situation is quite alarming.

The forex reserves what we have now could cover only seven months of imports. This shows a red signal to the economy. Despite this our false prestige are calling for an appreciation of the Indian rupee which is against fundamentals. History tells that no country can correct a large CAD by appreciating its currency. In the 1930s, there was an international policy of competitive depreciations. The need of the hour is an early correction of the overvalued exchange rate which is having over-riding priority if a crisis is to be avoided.

We can correct the CAD position by promoting small , medium and large scale industries. It will not happen all on a sudden. Right from educational institutions we have to develop entrepreneurship talents among young generation. Leaving white collar jobs people should attract to entrepreneurship. That is the need of the hour.

The government is reportedly making serious efforts to control the gross fiscal deficit. The result remains to be seen whether the medium-term fiscal correction takes place or not. Recently the government expects its large borrowing programme to be put through at sub-8 per cent interest rates for long-term paper. We have to pay a price as an overarching



influence on monetary policy as interest rates are kept soft to facilitate the borrowing program which may further weaken our monetary policy.

CONCLUSION

Formulation and execution monetary policy have all along been a difficult task. Today this task is made even more difficult as the government has been airing its views in the public before the monetary policy announcement. This puts monetary policy in a dilemma.

Monetary policy is in the hands of RBI. This makes RBI to be accountable to the nation. It is seen that on many occasions RBI was controlled by respective governments who were in the helm of affairs. This situation has to be changed by giving functional autonomy to the RBI. RBI should be able to function independently. Today what we need is a harmonious blending of fiscal policy and monetary policy. Monetary policies initiated by RBI should not be diluted at any cost. The fundamentals of monetary policy could be satisfied only when it is not affected by easing of fiscal policies putting an eye on vote bank.

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Successful Revenue Generation Through Movie Promotions : Film Maker's Perspective

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ABSTACT

In recent times, it has been seen that Indian film makers are going overboard with their film promotions, and to everyone's surprise, the films that didn't even live up to the audiences' expectations have made decent money simply based on promotional efforts. This paper tries to study the various factors that influence the film viewership and an attempt has been made to analyze how important film promotions are for the success of a film. This paper also discusses some of the innovative steps adopted by Indian film makers for their movie promotions. However, it has to be noted that, nothing can substitute the quality of the film itself.

INTRODUCTION

Indian film industry often referred to as Bollywood, is rapidly growing in popularity across the globe. Indian films have in the recent past made enough noise at the International level and grabbed the attention of the international film fraternity. Indian film popularity and its wide and diversified customer base has prompted International film producing giants to invest in Indian movies. With Indian films going great guns, lot of players are jumping into this field and undoubtedly there is cut throat competition all around. Those involved in a film are constantly under pressure to deliver a hit and make money that has been invested. Hence, the film makers who generally in the 1990s and 2000s focused on the quality and content of the movies to attract the audience to theatres are now using unique promotional techniques to generate awareness of the movie release and attract people to the cinemas. While focusing on the many factors that attract the Indian audiences to the cinemas, this paper discusses the recent innovative steps taken in the Indian context for successful film promotions.

OBJECTIVES

The basic and core objectives of study are;

1. To understand the concept Film Promotion.
2. To study the benefits of Film promotion to society.

3. To analyze the impact of Promotion, on film viewers.
4. To discuss the trend of revenue generation by Film promotion.
5. To study the perspectives of promotion to film producers.

LITERATURE REVIEW

This section discusses about the literatures surveyed. Eliashberg & Shugan (1997), stated that films are intangible things that are consumed for pleasure. Hence studying the consumer behavior plays a pivotal role in developing strategies that can attract the audiences to theatres. Mohammadian and Habibi (2012) came out with a framework that deals with 4Ps concept that talks about attracting viewers to the cinemas. This framework is very important from modelling and simulation point of view discussed in this paper. Herlina (2012), talked about the various factors that influenced the audience's decisions to watch a particular movie. People today have many entertainment options and taking a decision to watch a movie is influenced by many parameters. Promotional drive of the movies is one among such parameters. It has to be noted that, promotional activities help in generating awareness about a particular movie and may be successful in generating initial viewership. But after a few days of release, for a movie to sustain, the content and quality of the movie are critical factors.

RESEARCH METHOLOGY

Film promotion may look like a simple routine activity when one sees from a narrow perspective. But when seen from a broader perspective, one can see many tiny factors that can have a rippling effect on the awareness generated by the film promotions. The methodology used in this research is System Dynamics methodology. System dynamics deals with modelling and simulation and then looking at a problem from a wider angle so that the researcher understands how the system works and then the concentration is focused upon the problem under consideration. Originated in 1950s, System dynamics is a methodology that can be applied to any domain (Sterman, 2000). Researchers have used System dynamics in fields ranging from engineering, technology, management, energy conservation, and sustainable development issues etc.

DISCUSSION

System dynamics basically starts from the problem articulation and then a cause and effect diagram is developed, followed by a stock and flow diagram wherein the various parameters under consideration are equated and finally simulations are carried out to see how the system would behave under different inputs (Sterman, 2002). This paper deals with a cause and effect diagram that shows the importance of film promotions, and the various innovative film promotion techniques have been discussed here.

Figure 1, shows a cause and effect diagram that has been adopted from Kamath et al. (2013). The causal loop highlights the various parameters that help in generating

cine viewership in theatres. Since piracy is a threat to the film industry, to make money that they invested, film makers have to see to it that people come to the theatres and watch a movie. As shown in figure 1, advertising and publicity has a key role to generate awareness amongst people about an upcoming movie release and this awareness attracts the audiences to the theatre.

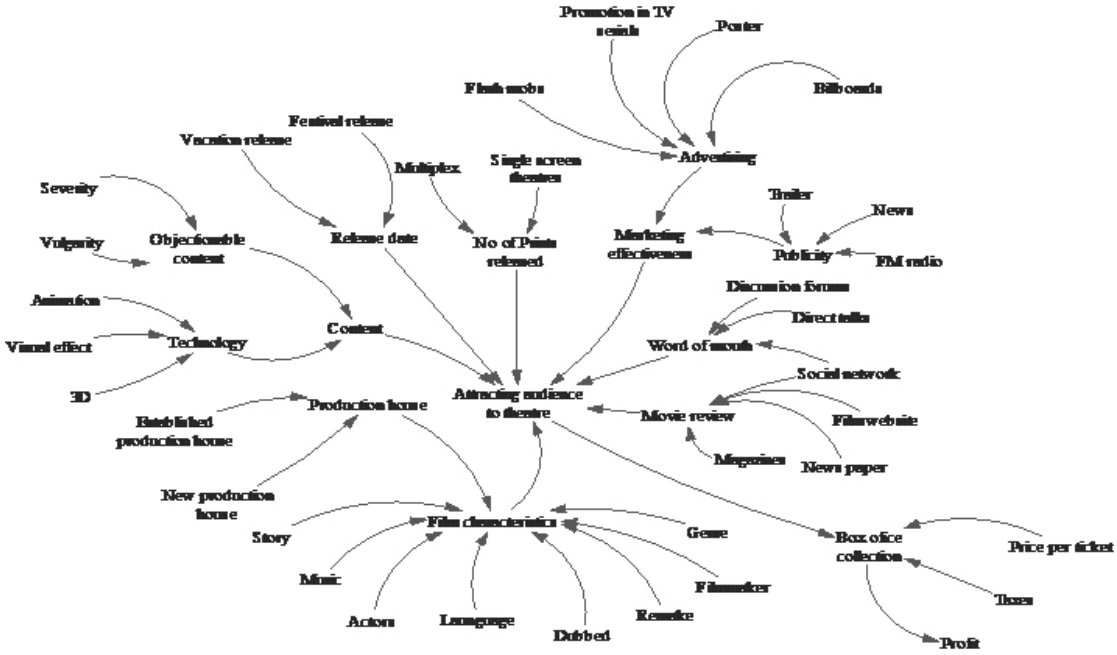


Figure 1: Factors that attract audiences to theatres. Adopted from: Kamath et al. (2013)

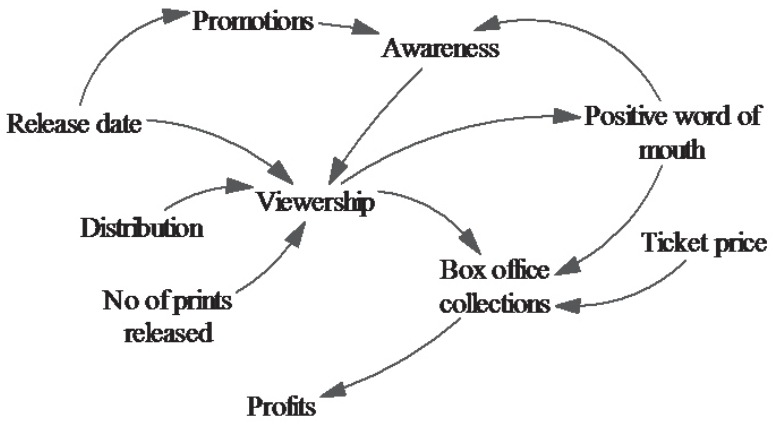


Figure 2: Factors influencing the film viewership and the profits

Figure 2 highlights the relationship between the profits and the viewership. Viewership is based on the awareness generated about the movie. This can be through the trailers,

posters, and other promotional activities. Word-of-mouth also generates significant awareness about the movies. The release date too plays a major role in attracting the audiences. Recently film makers have started releasing the movies on days other than Fridays. Films in the recent past have released on festival days and public holidays and as expected, made a huge amount of money on the day of release itself. The main reason here was the promotional activities generated so much interest in the audiences that, the audiences thronged to the theatres. With a large number of prints being released and with multiplexes growing in number, it becomes easier for the audiences to choose a show of their convenience and thus huge viewership is generated.

Now-a-days films are released in various languages and this helps the film makers to reach the audiences who would otherwise not be watching the movie. Filmmakers have started coming up with posters in many other languages other than Hindi or English which attracts the masses to the movie. Movies being released worldwide also adds to the kitty of the filmmaker as there is a substantial percentage of Indians living across the globe who want to be up and running with the latest movies back home.

Cyber games are a revenue generation machines in themselves. Filmmakers have started coming out with games based on their movies. These games rapidly gain popularity in the virtual world and also create awareness of the film being released. Mobile applications based on the movies to be release also gain instant publicity and generate a huge instant hype. Tie-up with products is not a new thing in Bollywood context. But in the last few months, this concept has been widely used by the filmmakers for their benefits. While the film is about to release, the leading actor or actress can be seen repeatedly promoting a product in association with their movies. TV promotions are the most important ones during the movie release time. The leading actors or the directors either come in groups or individually to promote their films in those TV serials that have the highest TRP ratings. The actors can be seen in a number of channels in number of programs busy talking about their movie.

Merchandising: The filmmakers come out with clothing or items that have their movie name written on it and try to capture as much attention as possible. Promotional songs are widely used techniques to generate publicity. Including an international singer or dancer or any famous and popular artist in the promotional song attracts a lot of attention and works to the benefit of the film makers. Giving a number of interviews, and making frequent public visits have now become common. In addition, sometimes the film makers create deliberate controversies related with the movie to gain public and media attention that usually acts in favor of the movie.

CONLUSION

This paper highlighted the importance of film promotions in the current era. When more than one film releases on the same day, the audiences have plenty of choice to choose the movie they want to watch. Under such circumstances, the movies that generate a huge hype based on the promotional activities succeeds in the race. Since a lot of money is invested in movies, it becomes necessary for the film makers to publicize their movie

on every platform possible and attract large viewership in theatres, so that they can rake in the money they invested.

This paper discussed a few innovative promotional methods used by the film makers in the recent times. In future, the film makers can make arrangements where a group of people can book a show at a particular time of their convenience. This can be a huge boost to the film viewership numbers. Even though this suggestion may look challenging now, it is definitely not impossible. After a week of the film's release, to attract the repeat audiences, a small discount on ticket prices may be awarded, which can act in favor of the movies.

The cause and effect diagram developed in this paper can be converted in to a stock and flow diagram and real data can be infused into the model and a simulation can be carried out to study the most significant factor that influence the movie viewership and hence the profits.

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The Depreciating Rupee – The Recent Trends & Implications

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ABSTRACT

The external value of the Indian Rupee has been depreciating steadily in recent years, with their harmful effects. The increasing current account deficit (CAD) in the balance of payments of the country is considered to be the main factor causing such depreciation in the external value of the Rupee. This paper is an attempt at examining the trends in the CAD of the country and the depreciation of the Rupee during the period from 2000-01 to 2011-12 and their implications and at suggesting certain remedial measures to stabilize the external value of the Rupee. The analysis shows that though CAD causes depreciation in the external value of the Rupee, it is not the major factor. Deliberate and effective monetary and fiscal measures have to be adopted to stabilize the external value of the Rupee and to avoid the harmful effects of currency depreciation on the economy.

The external value of the Indian currency unit, the Rupee, has been subject, recently, to wide, almost unprecedented, fluctuations with far reaching implications. These fluctuations have culminated in a marked depreciation1 of the external value of the Rupee, depicted by a fall in the rate of exchange of the Rupee in terms of the U.S.Dollar, the generally used international currency unit. The falling external value of the Rupee is not, however, a recent phenomenon. The Rupee has been depreciating continuously right from 1951, the beginning of planned economic growth of the Indian economy.2 This paper is an attempt at analysing the trends in the depreciation of the Rupee and at bringing out their implications. The analysis that this paper attempts to make is, however, limited to the falling trend in the external value of the Rupee since the year 2000-01 with a view to restrict its size.

Key words : *current account deficit (CAD), effective monetary and fiscal measures.*

INTRODUCTION

The Nature of Money – Its Domestic and External Purchasing Power: Money, in a money economy, acts as the medium of exchange, besides its function as a store of value and standard of deferred payments, through whose medium goods and services are exchanged among people. An essential requirement of good money, as a medium of exchange, is that its value or purchasing power should remain stable, for if its purchasing power changes between the time when a person sells his service or goods to others, in the

market, and the time he purchases the good or services he needs from others he will either stand to lose, if its value falls, or gain if its value rises. In either case, such changes in the value of money will cause distrust among the people in the institution of money since, in an exchange economy a person's gain is another person's loss, giving rise to interpersonal inequity, injustice and confusion in society.

While the domestic or internal value or purchasing power of a currency is relevant for transactions within the country, its external value assumes relevance when international transactions in goods and services take place. While the changes in the internal purchasing power of a currency is gauged by changes in the general level of prices, inflation or deflation, inflation indicating falling value of money and deflation indicating rising value of money, within the country, changes in the external value of a nation's currency is denoted by the rate of exchange between the currency of the country and the currency of the country with which it has economic transactions.

Defining the Rate of Exchange: The rate of exchange between the domestic currency and a foreign currency is the number of units of the foreign currency which a unit of the domestic currency can get in exchange in the foreign exchange market, the market in which foreign currencies are sold and purchased. The rate of exchange is defined as the price of the foreign currency in terms of the domestic currency. To be specific, the rate of exchange between the Rupee and the U.S.Dollar is the Rupee price of the U.S.Dollar in the exchange market..If the price of a Dollar in the exchange market on any day is Rs 62/- it means that the rate of exchange between the Rupee and the U.S.Dollar is $1 = Rs.62/-.

The Exchange Rate Mechanism: The rate of exchange between two currencies is determined differently under different systems of currency. The rate of exchange between two currencies based on the metallic standards, a system that was in vogue prior to 1940, under which money consisted of actual metallic coins, the rate of exchange between two currencies was determined by the value of the metallic contents of a unit of the two currencies. If a dollar coin is made up of one gram of pure gold and a pound coin is made up of five gram of pure gold, then the rate of exchange between the dollar and the pound sterling is Pound one is equal to five dollars.

The metallic standards of currency gave place to a system of managed paper currency system by the nineteen-forties, a system under which the value of the currency is managed by the concerned central bank through appropriate changes in monetary policy. Hence the system is called the managed currency system.

The Purchasing Power Parity Theory of the Rate of Exchange: Gustav Cassel developed the purchasing power parity theory of the rate of exchange between two currencies in a managed currency system. According to the theory, the rate of exchange between two currencies is determined by the relative domestic purchasing powers of the two currencies. If a dollar purchases a certain quantity of goods in the United States and if the purchase of the same quantity of goods in India requires Rs.50/- at the prevailing price level in India, then, according to the purchasing power parity theory the rate of exchange between the Dollar and the Rupee is Dollar one = Rs. 50/-.



The Market Rate of Exchange and the Equilibrium Rate of Exchange: The rate of exchange between two currencies determined by the Purchasing Power Parity Theory is the equilibrium rate of exchange. In contrast with this equilibrium rate of exchange, the actual rate of exchange or market rate of exchange that prevails in the exchange market is determined by the relative supply and demand conditions for the currency in the exchange market. If, for instance, the demand for Dollar in the Indian foreign exchange market increases without a corresponding increase in its supply, then the price of the dollar in terms of the Rupee in the exchange market will rise, say to Rs.52/- a dollar, thereby indicating a fall in the exchange value of the Rupee in terms of the Dollar. The Rupee depreciates in the process. If, on the other hand, the supply of Dollar in the exchange market increases without a corresponding increase in the demand for it, then the Rupee price of the Dollar will fall in the exchange market, say to Rs. 48/- per Dollar indicating, thereby, an appreciation in the external value of the Rupee. Such rise or fall in the external value of the Rupee cannot go too far, for, an initial change in the price of the Dollar will soon set in motion appropriate changes in the supply and demand conditions in the exchange market that shift the exchange rate back to its equilibrium rate. Changes in the rate of exchange between two currencies are self-correcting.

Factors Causing Supply and Demand for Foreign-exchange, Foreign Currency, in the Exchange-market: As has been pointed out earlier, the external value of a nation's currency has relevance to the international economic transactions of a country. When a country imports goods and services, it has to make payments to foreign countries giving rise to demand for foreign exchange. On the other hand, when the country exports goods and services to foreign countries, it receives payments from other countries, thereby giving rise to the supply of foreign exchange in the exchange market. If changes in these forces of supply and demand for foreign-exchange balance each other, the rate of exchange of the currency will remain the same. If, on the other hand, these forces do not balance each other, then the rate of exchange will change, causing either an appreciation or a depreciation of the exchange value of the currency. The appreciation or depreciation in the external value of a nation's currency, thus, hinges on the relationship between the exports and imports of a country, causing supply of foreign exchange and demand for foreign exchange in the exchange market.

The above explanation of the foreign-exchange mechanism places the falling external value of the Rupee in recent years in the right perspective.

The Current Account Deficit (CAD) and the Depreciation in the External Value of the Rupee: The balance of trade of the country has been chronically unfavorable, with the value of imports of the country being larger than exports, causing a chronic deficit in the current account of the nation's balance of payments, popularly termed CAD, causing an excess of the demand for foreign exchange over its supply. This has been causing a steady depreciation in the external value of the Rupee. Since the U.S.Dollar is the generally used currency unit in terms of which the exchange values of other currencies, including the Rupee, is expressed, the depreciation in the external value of the Rupee is measured in terms of the price of the Dollar in the Indian foreign exchange market.

The CAD will not lead to depreciation in the value of the Rupee if the country has an offsetting favourable balance in the capital account of the balance of payment, indicating an inflow of foreign exchange in amounts that would meet the excess of demand for foreign exchange. The Rupee will continue to depreciate externally in the absence of such inflow of foreign exchange, as has been the situation in India in recent years.

METHODOLOGY

Paper presenter has undergone an extensive study and review of literature and did an in-depth observation. Basically it is a conceptual paper, the secondary data such as review of literatures, books, journals etc. was referred to make the study more meaningful and comprehensive. It is a descriptive study done

OBJECTIVES

The basic and core objectives of study are;

1. To understand the concept of Rupee devaluation.
2. To study the benefits of Rupee valuation.
3. To analyze the impact of Rupee valuation on industries.

DISCUSSION AND RESULTS

The Data: The data presented in Table-I show the price of the Dollar in terms of the Rupee since the year 2000-01.

Table No. I

Current Account Deficit (CAD) in Balance of Payments and the Price of the U.S.Dollar in terms of the Rupee, 2000-01 to 2011-12

Year	CAD in Balance of Payments in Rs. Crore	% age increase over previous Year in CAD	Rupee Price of U.S. Dollar	%age increase over previous Year in Rupee Price of U.S.D
2000-01	-11598	....	45.68	....
2001-02	16426	241.63	47.69	4.4
2002-03	30660	86.66	48.40	1.49
2003-04	63983	108.69	45.95	-5.06
2004-05	-12174	190.03	44.93	-2.22
2005-06	-43737	259.27	44.27	-1.47
2006-07	-44383	1.48	42.30	-4.45
2007-08	-63479	43.03	40.26	-4.82
2008-09	-127600	101.01	45.99	14.23

2009-10	-179700	40.83	47.42	3.11
2010-11	-219700	22.26	45.58	-3.88
2011-12	-376000	71.14	47.92	5.13

Source: For CAD: Government of India- Economic Survey, 2007-08, PP.A72-73; Economic Survey, 2011-12, PP.A72-73; Economic Survey, 2012-13, PP. A76-77. For Rupee Price of U.S.Dollar: Economic Survey, 2011-12, P.A78, and Economic Survey, 2012-13, P. A80

Note: CAD = Current Account Deficit in Balance of payments.

The data show the depreciation in the external value of the Rupee and the CAD of the country since the year 2000-01. It is enlightening to note that during the period chosen for analysis, the CAD of the country increased from Rs. 11,598 crore in 2000-01 to Rs. 3,76,000 crore in 2011-12., and the Rupee price of Dollar rose from Rs.45.68 in 2000-01 to Rs. 47.92 in 2011-12, thereby indicating a depreciation in the external value of the Rupee. This trend in the CAD of the country and in the external value of the Rupee lends support to the hypothesis that the depreciation in the external value of the Rupee is caused largely by the deficit in the current account of the balance of payments of the country.

It is, however, found that though the CAD of the country and the depreciation of the Rupee are positively related during the period chosen for analysis, 2000-01 to 2011-12, the relationship is found to be weak as shown by the fact that value of Karl Pearson's coefficient of correlation between the two variables, CAD and Rupee price of Dollar, is only 0.19, though positive, supporting, thereby, the positive relationship between them.

a) The Correctives: Exports and imports form only a part of the sources of supply and demand for foreign exchange. The imbalances caused by these factors in the exchange market can be offset by counteracting movement in the international capital transactions which act as the balancing factors in the exchange market. A current account deficit can be offset by an inflow of foreign exchange in the form of inflow of foreign capital or by increasing remittances by the citizens of the country working abroad. If such inflow of foreign exchange offsets the volume of CAD, then CAD will not cause currency depreciation. If, on the other hand, the inflow of foreign exchange on capital account do not offset the CAD, the external; value of the currency will continue to depreciate, as is happening in India in recent years.

b) Complicating Factors: It should be remembered that the actual or market rate of exchange in the exchange market on any day is determined by the interaction between the forces of supply of foreign exchange and the demand for foreign exchange in the foreign exchange market of the country. When there is a deficit in the current account of the balance of payments of the country, the demand for foreign exchange tends to be in excess of the supply of foreign exchange, resulting in a rise in the Rupee price of foreign exchange which indicates a depreciation of the external value of the Rupee. A surplus in the current account of the balance of payments will increase the supply of foreign exchange, causing a fall in the Rupee price of foreign exchange, indicating an appreciation of the external value of the Rupee. The market mechanism points out that such movements correct themselves automatically in the market; when the price of a certain commodity goes up, demand tends to fall causing a fall in its price caused

by the earlier rise in demand for the commodity.

Such automatic and built-in corrective measures do not operate in the exchange market due to the operation of certain complicating factors that vitiate the efficacy of market forces in correcting market disequilibrium. One such vitiating factor is the operation of speculative forces in the foreign exchange market during a period of large fluctuations in exchange rates that open up opportunities for making speculative gains in foreign exchange transactions.

c) Implications: The sharp depreciation in the external value of the Rupee, observed in the country in recent years, makes the imports of the country, particularly essential petroleum products and capital goods that raise the cost of production within the country and result in higher prices and inflation with all its harmful effects. Domestic inflation, caused initially by a depreciating Rupee, discourages exports and aggravates the CAD in the balance of payments of the country, causing further depreciation of the currency in a vicious movement. Effective measures have, therefore, to be initiated at stabilizing the external value of the Rupee. It is positively desirable if thjese measures raise the external value of the Rupee to its Pre-liberalization level.3

d) The Remedial Measures: It is essential that the slide in the external value of the Rupee is controlled and its value is stabilised, not only to avoid the harmful effects of fluctuations on the domestic economy through their effects on the costs of imports, but also because of their adverse impact on the international economic indicators, since the stability of the exchange value of a nation's currency is an immediate and important indicator of its internal economic strength. The following measures can be suggested to stabilize the external value of the Rupee:

i) Measures should be adopted to increase the volume of exports of the country so as to increase export earnings and reduce the CAD in the balance of payments of the country. It is essential that the CAD is converted into a current account surplus, which is not unattainable if the data contained in Table- I above are any indicator. The data show a current account surplus in the balance of payments of the country during the period from 2001-02 to 23003-04. A current account in the balance of payments of the country will increase the supply of foreign exchange leading to an increase in the external value of the Rupee.

ii) Imports of the country have to be reduced through measures at import substitution through domestic production of imported goods, and through the restriction and control of the imports of selected nonessential items like gold4 the imports of which has been increasing in recent years thereby raising the CAD of the country.

iii) Measures have to be adopted to contain the prices of domestic electronic products and other consumption goods, besides improving their quality, so that the relative low prices of such items reducers the craze among the consumers for imported consumer goods.

iv) The inflow of foreign funds on a long term basis, as distinguished from the inflow of 'hot money' should be encouraged so as to increase the supply of foreign exchange



by taking measures to encourage the inflow of such funds.

v) Measures have to be adopted to control speculative transactions in foreign exchange which cause fluctuations in the rate of exchange and in the external value of the Rupee. It may be noted that such speculative transactions in the foreign exchange market occur only when the exchange rate of the Rupee fluctuates widely giving rise to opportunities for making speculative profit, causing, in their turn, further fluctuations in the rate of exchange of the Rupee. The best and effective way of avoiding speculative transactions in the foreign exchange market is to stabilise the exchange value of the Rupee so as to remove the scope for making speculative gains by dealing in the foreign exchange market.

vi) Open market operations in the foreign exchange market by the Reserve Bank, by supplementing the market supply of foreign exchange when the demand for foreign exchange increases and absorbing the excess supply of foreign exchange when it is excessive, to supplement its foreign exchange reserves, a method which the Reserve Bank adopts at times, should be resorted to to contain short term fluctuations in the exchange rate of the Rupee.

vii) Domestic inflation should be effectively controlled and the price level stabilised since in a managed paper currency that prevails at present, unlike the metallic standards of currency that prevailed in the past, the rate of exchange between two currencies depends on their relative domestic purchasing powers, the purchasing power parity theory of the rate of exchange, referred to earlier. This is because money represents purchasing power over goods and services and when the Rupee is exchanged for Dollar it is done with a view to purchasing American goods and services, and hence the comparative purchasing powers of the currencies are important in determining the rate of exchange between them. Effective control on inflation and stabilising the domestic price level will stabilise the external value of the Rupee, besides its favourable domestic effects.

viii) Finally, selective controls on foreign exchange transactions in the country have to be initiated, if it is realised that free convertibility of currency, in the name of economic reforms, has done more harm to the economy than good, since no economic policy is sacrosanct that should not be given up at any cost. Economic policy needs to be modified in the light of experience and changing needs of the economy.

CONCLUSION

The foregoing analysis of the trends and implications of the recent depreciation in the external value of the Rupee shows that the depreciation in the external value of the Rupee is caused by various factors. The depreciation of the Rupee can be checked and its harmful effects can be controlled if concerted action is initiated on the lines suggested above. Since domestic inflation has the effect of depreciating the external value of a nation's currency, it is essential to stabilize domestic price level through effective measures at controlling inflation in the country through the adoption of effective monetary and fiscal measures.

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1) *The words 'depreciation' and 'appreciation' in the external value of a currency are often used to explain the changes in the external value of the currency due to changes in the market forces of supply and demand in the foreign exchange market, as distinguished from 'devaluation' and 'overvaluation' which are deliberate measures at lowering and raising the external value of the currency as a policy measure at adjusting the external purchasing power of the currency. Since the recent falling trend in the external value of the Rupee is the consequence of changing market conditions and not of deliberate official measures, the word 'depreciation' is used in this paper to describe the falling trend in the external value of the Rupee.*

2) *Planned economic development of the Indian economy was initiated with launch of the First Five Year Plan of the country on the first of April, 1951, and hence it is customary among trends in the economic growth and development of the country. Even the official publication of time series data pertaining economists and policy makers in India to consider the year 1951 as the base year to analyse to the national product and domestic product of the country in the annual economic survey reports released annually by the Government of India begin with the year 1950-51 as the base.*

3) *The price of the US Dollar in 1991-92 was Rs.24.474 and that of the Pound Sterling was Rs.42.515. See: Government of India- Economic Survey, 2012-13, Table- 6.4, P. A80.*

4) *Increasing demand for gold in the country in the last three four years causing large scale imports of gold is often blamed for the increasing CAD of the country. It The should be remembered that the cause of increasing CAD is an increase in the imports of the country without a corresponding increase in the exports of the country. Import of gold is just an item of the imports of the country and need not be treated separately. Import of gold is picked up for blame because it is a nonessential item of import. The increasing demand for gold, it may be noted, is due to its store of value function and its suitability as the best form of holding savings during a period of high inflation. If inflation is avoided, and institutional savings are made attractive the increasing demand for gold will disappear by itself.*



Importance of Privacy Policies While Mining Data - A Review

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ABSTRACT

In this paper we first look at data mining applications in safety measures and their suggestions for privacy. After that we then inspect the idea of privacy and give a synopsis of the developments particularly those on privacy preserving data mining. We then present an outline for research on confidentiality and data mining.

Key Word : *Data Mining For privacy Prevention & Its Suggestions.*

Introduction

Data mining is the procedure of posing questions and taking out patterns, often in the past mysterious from huge capacities of data applying pattern matching or other way of thinking techniques. Data mining has several applications in protection together with for national protection as well as for cyber protection. The pressure to national protection includes aggressive buildings, demolishing dangerous infrastructures such as power grids and telecommunication structures. Data mining techniques are being examined to realize who the doubtful people are and who is competent of functioning revolutionary activities. Cyber security is concerned with defending the computer and network systems against fraud due to worms and viruses. Data mining is also being useful to give solutions for invasion finding and auditing. While data mining has several applications in protection, there are also serious privacy fears. Because of data mining, even inexperienced users can connect data and make responsive associations. Therefore we must to implement the privacy of persons while working on practical data mining. In this paper we will talk about the developments and instructions on privacy and data mining. In particular, we will give a general idea of data mining, the different types of threats and then talk about the penalty to privacy.

OBJECTIVES OF STUDY

Objective of this research is to examine data mining applications in security and their implications for privacy. Examine the idea of privacy and then know about the developments particularly those on privacy preserving data mining

DATA MINING FOR SAFETY APPLICATIONS

Data mining is fitting a key technology for identifying doubtful activities. In this section, data mining will be discussed with respect to use in both ways for non real-time and for real-time applications. In order to complete data mining for counter terrorism applications, one wants to gather data from several sources. For example, the subsequent information on revolutionary attacks is wanted at the very least: who, what, where, when, and how; personal and business data of the possible terrorists: place of birth, religion, education, ethnic origin, work history, finances, criminal record, relatives, friends and associates, and travel history; unstructured data: newspaper articles, video clips, dialogues, e-mails, and phone calls. The data has to be included, warehoused and mined. One wants to develop sketches of terrorists, and activities/threats. The data has to be mined to take out patterns of possible terrorists and forecast future activities and goals. Fundamentally one wants to find the more suitably doubtful needles among probably millions of needles. Data integrity is essential and also the methods have to scale. For several applications such as urgent situation response, one needs to complete real-time data mining. Data will be incoming from sensors and other strategy in the form of nonstop data streams together with breaking news, videocassette releases, and satellite images. Some serious data may also exist in caches. One wants to quickly sift through the data and remove redundant data for shortly use and analysis (non-real-time data mining). Data mining techniques require to meet timing restriction and may have to stick the quality of service (QoS) tradeoffs among suitability, accuracy and precision. The consequences have to be accessible and visualized in real-time. Additionally, alerts and triggers will also have to be employed. Efficiently applying data mining for safety applications and to develop suitable tools, we need to first find out what our present capabilities are. For instance, do the profitable tools balance? Do they effort only on particular data and limited cases? Do they carry what they assure? We require a balanced objective study with display. At the same time, we also require to work on the large picture. For instance what do we desire the data mining tools to carry out? What are our end consequences for the predictable future? What are the standards for achievement? How do we assess the data mining algorithms? What test beds do we construct? We require both a near-term as well as longer-term resolutions. For the future, we require to influence present efforts and fill the gaps in a objective aimed way and complete technology transfer. For the longer-term, we require a research and development diagrams. In summary, data mining is very helpful to resolve security troubles. Tools could be utilized to inspect audit data and flag irregular behavior. There are many latest works on applying data mining for cyber safety applications, Tools are being examined to find out irregular patterns for national security together with those based on categorization and link analysis. Law enforcement is also using these kinds of tools for fraud exposure and crime solving.

PRIVACY SUGGESTIONS

We require finding out what is meant by privacy before we look at the privacy suggestions of data mining and recommend efficient solutions. In fact different societies



have different ideas of privacy. In the case of the medical society, privacy is about a patient finding out what details the doctor should discharge about him/her. Normally employers, marketers and insurance corporations may try to find information about persons. It is up to the individuals to find out the details to be given about him. In the monetary society, a bank customer finds out what financial details the bank should give about him/her. Additionally, retail corporations should not be providing the sales details about the persons unless the individuals have approved the release. In the case of the government society, privacy may get a whole new significance. Permitting access to individual travel and spending data as well as his/her web surfing activities should also be provided upon receiving permission from the individuals. Now that we have explained what we signify by privacy, we will now check up the privacy suggestion of data mining. Data mining provides us facts that are not clear to human analysts of the data. For instance, can general tendency across individuals be calculated without enlightening details about individuals? On the other hand, can we take out highly private relations from public data? In the former case we require to protect the person data values while enlightening the associations or aggregation while we need to defend the associations and correlations between the data.

GROWTH IN PRIVACY-

Different types of privacy problems have been considered by researchers.

We will point out the various problems and the solutions projected.

1. Problem: Privacy contraventions that consequence due to data mining: In this case the way out is Privacy protecting data mining. That is, we perform data mining and give out the results without enlightening the data values used to perform data mining.
2. Problem: Privacy contraventions that result due to the Inference problem. Note that Inference is the procedure of realizing sensitive data details from the lawful answers received to user inquiries. The way out to this problem is Privacy Constraint Processing.
3. Problem: Privacy contravention due to un-encrypted data: the way out to this problem is to make use of Encryption at different levels.
4. Problem: Privacy contravention due to poor system design. Here the way out is to build up methodology for designing privacy-enhanced systems. Below we will observe the ways out projected for both privacy constraint/policy processing and for privacy preserving data mining.
5. Simple Constraint: an aspect of a document is private. Content footed constraint: If document holds information about X, then it is private.
6. Association-based Constraint: Two or more documents used together are private; individually each document is public.
7. Free constraint: After X is freed Y becomes private. The way out projected is to augment a database system with a privacy checker for constraint processing. During the inquiry process, the constraints are checked up and only the public information is freed unless certainly the user is approved to obtain the private information. Our

approach also contains processing constraints during the database update and design operations.

Some early work on managing the privacy problem that consequence from data mining was performed by Clifton at the MITRRE Corporation. The suggestion here is to avoid useful outcomes from mining. One could initiate cover stories to provide false outcomes. Another approach is to only build a sample of data existing so that a challenger is not capable to come up with helpful rules and analytical functions. However these approaches did not impression as it beatenthe idea of data mining. The objective is to perform effective data mining but at the same time guard individual data values and sensitive relations. Aggrawal was the first to invent the word privacy preserving data mining. His early work was to initiate random values into the data or to bother the data so that the real data could be confined. The challenge is to initiate random values or agitate the values without touching the data mining results. Another new approach is the Secure Multi-party Computation (SMC) by Kantarcioglu and Clifton. Here, each party knows its individual contribution but not the others' contributions. Additionally the final data mining outcomes are also well-known to all. Various encryption techniques utilized to make sure that the entity values are protected. SMC was demonstrating several promises and can be used also for privacy preserving scattered data mining. It is provably safe under some suppositions and the learned models are correct; It is assumed that procedures are followed which is a semi truthful model. Malicious model is also investigated in some current work by Kantarcioglu and Kardes. Many SMC footed privacy preserving data mining algorithms contribute to familiar sub-protocols (e.g. dot product, summary, etc.). SMC does have any disadvantage as it's not competent enough for very large datasets. (E.g. petabyte sized datasets). Semi-honest model may not be reasonable and the malicious model is yet slower. There are some novel guidelines where novel models are being discovered that can swap better between efficiency and security. Game theoretic and motivation issues are also being discovered. Finally merging anonimization with cryptographic techniques is also a route. Before performing an evaluation of the data mining algorithms, one wants to find out the objectives. In some cases the objective is to twist data while still preserving some assets for data mining. Another objective is to attain a high data mining accuracy with greatest privacy protection. Our current work imagines that Privacy is a personal preference, so should be individually adjustable. That is, we want to make privacy protecting data mining approaches to replicate authenticity. We examined perturbation based approaches with real-world data sets and provided applicability learning to the existing approaches. We found that the rebuilding of the original sharing may not work well with real-world data sets. We attempted to amend perturbation techniques and adjust the data mining tools. We also developed a new privacy preserving decision tree algorithm. Another growth is the platform for privacy preferences (P3P) by the World Wide Web association (W3C). P3P is an up-and-coming standard that facilitates web sites to convey their privacy practices in a typical format. The format of the strategies can be robotically recovered and appreciated by user agents. When a user comes in a web site, the privacy policies of the web site are communicated to the user; if the privacy policies are dissimilar from user favorites, the user is notified; User can then make a decision how to continue. Several major corporations



are working onP3P standards.

DIRECTIONS FOR PRIVACY-

Thuraisingham verified in 1990 that the inference problem in common was unsolvable; therefore the suggestion was to discover the solvability features of the problem. We were able to explain comparable results for the privacy problem. Therefore we need to inspect the involvement classes as well as the storage and time complication. We also need to discover the base of privacy preserving data mining algorithms and connected privacy ways out. There are various such algorithms. How do they evaluate with each other? We need a test bed with practical constraints to test the algorithms. Is it meaningful to observe privacy preserving data mining for each data mining algorithm and for all application? It is also time to enlarge real world circumstances where these algorithms can be used. Is it possible to build up realistic commercial products or should each association get used to products to suit their needs? Investigative privacy may create intelligence for healthcare and monetary applications. Does privacy work for Defense and Intelligence purposes? Is it even important to have privacy for inspection and geospatial applications? Once the image of my home is on Google Earth, then how much isolation can I have? I may wish for my position to be private, but does it make sense if a camera can detain a picture of me? If there are sensors all over the position, is it important to have privacy preserving surveillance? This proposes that we require application detailed privacy. Next what is the connection between confidentiality, privacy and faith? If I as a user of Association A send data about me to Association B, then imagine I read the privacy policies imposed by Association B. If I agree to the privacy policies of Association B, then I will drive data about me to Association B. If I do not concur with the policies of association B, then I can bargain with association B. Even if the website affirms that it will not distribute private information with others, do I faith the website? Note: while secrecy is enforced by the association, privacy is strong-minded by the user. Therefore for confidentiality, the association will conclude whether a user can have the data. If so, then the association can additional decide whether the user can be trusted. Another way is how can we make sure the confidentiality of the data mining procedures and outcome? What sort of access control policies do we implement? How can we faith the data mining procedures and results as well as authenticate and validate the results? How can we join together confidentiality, privacy and trust with high opinion to data mining? We need to check up the research challenges and form a research schema. One question that Rakesh Agrawal inquired at the 2003 SIGKDD panel on Privacy"Is privacy and data mining friends or rivals?" We think that they are neither associates nor rivals. We need progresses in both data mining and privacy. We require planning flexible systems. For some applications one may have to hub entirely on pure data mining while for some others there may be a need for privacy-preserving data mining. We need flexible data mining techniques that can settle in to the changing environments. We consider that technologists, legal specialists, social scientists, policy makers and privacy advocates MUST work together.

CONCLUSION

There is no collective definition for privacy, each organization must clear-cut what it indicates by privacy and develop suitable privacy policies. Technology only is not adequate for privacy; we require Technologists, Policy expert, Legal experts and Social scientists to effort on Privacy. Some well acknowledged people have believed "Forget about privacy" Therefore, should we follow research on Privacy? We trust that there are attractive research problems; therefore we need to carry on with this research. Additionally, some privacy is better than nil. One more school of consideration is tried to avoid privacy destructions and if destructions take place then put on trial. We need to put into effect suitable policies and check up the legal aspects. We need to undertake privacy from all directions.

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Emerging Trends in Talent Acquisition and Retention in The Organisations

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ABSTRACT

In today's global economy, companies must continually invest in human capital. In the role of business Partner, HR leaders work closely with senior management to attract, hire, develop and retain talent. Thus, in view of workforce trends such as shifting demographics, global supply chains, the aging workforce and increasing global mobility, forward-looking organizations must rethink their approach to talent management to best harness talent. By doing so, they will be positively positioned to succeed in a highly competitive marketplace. In addition, organizational culture, employee engagement and leadership development have a significant impact on talent retention. Taking these factors into consideration, an integrated approach to talent management offers a pathway toward sustaining outstanding business results. This paper aims to contribute to the development of a broader, more balanced approach to talent management that will help in studying and implementing talent management across different contexts. The paper starts with an overview of the advances made in previous reviews and studies with respect to three central themes: the definition of talent, intended outcomes of talent management, and talent management practices.

Key Words : *Talent Management, global economy, human capital, employee engagement.*

OBJECTIVES

- To know about the need of Talent Management in the organizations.
- To know about the challenges in front of the talent acquisition and retention in the organizations.
- To understand about the emerging trends in the talent acquisition and retention in the organizations.

RESEARCH METHODOLOGY

The researcher has used Descriptive type of research methodology for this study.

The researcher has used the secondary data for the current study.

1. Introduction : "It is nearly unanimous that HR can add more value to corporations. The best way to do this is by being a business partner—by directly improving the

performance of the business. This can be accomplished by effective talent management, helping with change management, influencing strategy and a host of other value-added activities that impact effectiveness. In a competitive marketplace, talent management is a primary driver for organizational success. Broadly defined, talent management is the implementation of integrated strategies or systems designed to increase workplace productivity by developing improved processes for attracting, developing, retaining and utilizing people with the required skills and aptitude to meet current and future business needs. A recent study shows that 85% of HR executives state that the "single greatest challenge in workforce management is creating or maintaining their companies' ability to compete for talent. Effective talent management provides one of the most critical points of strategic leverage today. Influenced by external factors such as the economy, global expansion and mergers and acquisitions, critical success factors for effective talent management include alignment with strategic goals, active CEO participation and HR management. Going beyond succession planning for top leadership positions, companies that value talent have a deep appreciation for the contribution of individuals at all levels, now and for the future. In essence, talent is the vehicle to move the organization where it wants to be.

2. Drivers of Talent Management : To gain competitive advantage, the demand for human capital drives talent management. Talent management strategies focus on five primary areas: attracting, selecting, engaging, developing and retaining employees. Talent management strategies also provide the context for diversity and inclusion. Proctor and Gamble, for example, feels that getting the right mix of people is a major part of talent management and hires many of its leaders as university recruits. Talent management is also driven by the anticipated skills shortage in the coming years. While not all organizations, industries and professions will experience a lack of skills, organizations are already competing for talent. For example, customer service, health care, computer support and technology repair are areas where there is an anticipated acute talent shortage. In addition, as noted in SHRM's 2005 Future of the U.S. Labor Pool Survey Report, the anticipated loss of talent in the next decade will vary by organization size, sector and industry. For example, large organizations— as compared with small and medium companies— are more concerned about loss of talent from the retirement of the baby boom generation, and public and government organizations are more concerned about the loss of potential talent than private companies. Corporate branding, a key organizational strategy, is another business strategy that drives talent management. Increasingly, firms are linking their brand to employees and corporate behavior. At JP Morgan Chase, for example, the concept of leadership for all employees is part of its corporate branding: "One Firm, One Team, Be a Leader."

3. Ownership of Talent Management : While responsibility for talent management is shared throughout the organization—from the CEO to the line manager—the role of HR is to identify and deploy optimal strategies to engage employees by driving satisfaction, loyalty and retention. Commitment to talent management requires HR to be a strategic business partner That is, all levels of management must be on board with the importance of talent management strategies. When the board is involved, the value of talent management



is apparent and has high visibility. At the same time, for talent management initiatives to be effective, organizations need formal processes, with many people involved and with strong links between leadership and talent to translate into specific organizational value-based behaviors. For example, an employee's decision to stay or leave is related to career possibilities in the company as well as how he or she can become better prepared to move to other opportunities. To keep a valued employee, the easy answer is not merely compensation. Employee loyalty tends to be more directed to his or her professional skills rather than to the organization. Thus, to best attract, engage, develop and retain talent, those who have responsibility for talent management must understand what is important to employees.

4. The Role of HR : In the role of business partner, HR works closely with the board, the CEO and senior management to ensure that they are committed to talent management work. As talent management facilitator, HR also pays close attention to how the organization's culture supports talent. HR needs to develop an integrated and proactive strategic approach to talent management—the big picture—as well as managing critical information, such as tracking turnover and knowing what factors contribute to retention. To integrate talent management into all areas of the company, HR also plays a role of change management agent. To drive this change, HR addresses four diverse talent management activities: recruitment, performance management, leadership development and organizational strategy. In this role, HR manages four major risks to the business: 1) vacancy risk (to safeguard key business capabilities, focus on scarce skills and fit to position); 2) readiness risk (to accelerate leadership development, provide full business exposure to rising stars); 3) transition risk (to avoid loss of key talent, select successors with leadership ability and hire for organization capability); and 4) portfolio risk (to maximize strategic talent leverage, focus on senior management's commitment to development and performance standards).

5. Employee Engagement and Its Relationship to Talent Management : Employee engagement has a substantial impact on employee productivity and talent retention. The foundation for an engaged workforce is established by the quality, depth and authenticity of communication by HR and senior management to employees, as well as the quality of supervision. Practices that support talent management also support employee engagement (e.g., work-life balance programs—flex time, telecommuting, compressed workweeks, reward programs, performance management systems). Rewards and recognition also help both to retain talent and to improve performance. To be most effective, however, organizations must regularly communicate to employees about reward programs. Discussing reward programs as early as during the interview process demonstrates that the organization values its employees. Beyond compensation and benefits, employee engagement is best fostered through a meaningful and emotionally enriching work experience. The opportunity and challenge for HR, working with senior management, is to increase the strength of employee engagement. Focus on engagement demands strong leadership, a sense of shared destiny, autonomy, accountability and opportunities for development and advancement. To better engage workers, companies must work harder to inspire people and provide a sense of passion, pride and mission. Ultimately, it is

organizational culture that determines employee engagement and retention of talent.

6. Finding The Right People : In the war for talent, organizational success depends on effective recruitment and retention. To accomplish this goal, HR can provide value by focusing on five key areas: ensuring organizational stability, emphasizing employer brand and reputation, developing integrated talent strategies, supporting multilevel accountability, getting involved in talent management initiatives and offering opportunities for career and personal development. According to SHRM's 2006 Talent Management Survey Report, the top areas in need of improvement regarding talent management practices and strategies are 1) building a deeper reservoir of successors at every level; 2) creating a culture that makes employees want to stay with the organization; 3) identifying gaps in current employee and candidate competency levels; and 4) creating policies that encourage career growth and development opportunities. For example, women who have either not yet begun their careers or are reentering the labor market from childbearing years represent a sizeable talent pool. With a workplace environment supportive of women's career development, Whirlpool Corporation, a top U.S. home appliance maker, targets women in recruiting and promotion. Some organizations focus on workers with disabilities, an excellent source of talent. For example, at IBM, 42% of the organization's disabled workers possess key skills such as marketing, IT architecture and software engineering. By carefully assessing the organization's current and future talent needs, HR can develop recruiting and retention strategies that align with the company business goals, thus promoting organizational growth and sustainability.

7. Succession Planning Management : Under the talent management umbrella, succession planning and leadership development are important organizational business strategies to develop and retain talent. As noted in the 2005 Human Capital Index Report, succession planning is also one of the key strategies to reduce turnover costs. S.C. Johnson & Son, the consumer products company, is a good example of a company that uses its performance appraisal program to identify rising stars for management and technical positions. High performers are evaluated through 360-degree feedback to evaluate promotion readiness. The company has processes to identify ready replacements for crucial jobs. Due to the organization's carefully-honed talent development strategies, nine out of 10 positions are filled internally. As HR leaders work to support their organizations, leadership development and succession planning are areas that provide substantial business value.

8. Measuring Business Impact : Many firms are beginning to include talent management in their dashboards or scorecards. For example, HSBC, a banking and financial services institution, uses the Balanced Scorecard, with talent management listed under learning and growth. Scorecards provide a clear "line of sight" to organizational strategic goals by linking talent management to objectives and performance appraisals. Companies also create their own measurements to fit their organizational cultures. Pfizer, for example, developed three primary talent management objectives— strength of leadership team and pipeline, robustness of talent management processes, and development of talent mindset and values—with corresponding drivers and metrics. One metric used to evaluate the



robustness of talent management processes is the percentage of key position holders with individual development plans. Avon, a global cosmetics company, is an example of a company that transformed its talent management system by shifting how it looks at talent and consequently how it utilizes technology. This transformation was necessary to be able to answer four key questions: 1) is there the necessary bench strength to staff the organization's growth and transformation initiatives; 2) is world-class talent in key roles; 3) how can the talent "hit rate" be increased; and 4) when and where does the company make or buy talent? To be able to identify where talent in the organization is located, a database now houses employee profiles, which can be routinely updated. As a result, the organization can make more data-driven decisions regarding talent. Databases with all relevant data in one location can result in significant time savings for staffing, such as the ability to quickly identify talent for open positions. Organizations are recommended, however, to carefully evaluate which talent management technology program best fits their current and future needs. Strategic talent management software may help, manage workforce skills and capabilities (hourly, salaried and contingent), demographics, career planning, employee retention initiatives, workforce and succession planning, and performance and learning management.

9. Challenges of Global Talent Management : Global competition for skilled workers is keen; worldwide, many employers are experiencing a talent shortage. A survey of nearly 33,000 employers in 23 countries reveals that 40% are struggling to locate qualified candidates .Increased globalization has resulted in socio-economic and cultural challenges. Further, talent now takes many forms, from migrants crossing borders (temporarily or seeking new homes), students gaining degrees and expatriates on assignment to tourists and business travelers Thus, the need for talent creates movement between countries. The United States relies on foreign talent, particularly in certain fields. U.S. universities, for example, are not graduating enough U.S. students in science and engineering, and by 2015, 25% of the nation's scientists and engineers will reach retirement age. Reflecting this shift, in 2000, 22% of all U.S. science and engineering positions were held by foreign-born professionals, up from 14% in 1990. In contrast, countries such as China and India have a wealth of talent in science, engineering and technology. Each year, China produces 350,000 graduate engineers and India 120,000, compared with 63,000 in the United States. Clearly, the ability to attract and retain talent is increasingly important to long-term growth. Managing global talent has challenges and significant implications for sustainability and growth. A recent study of global companies, for example, states that companies are concerned about the development of future leaders capable of navigating the global business environment. Key findings show that the most important determinant of global talent management (GTM) success is the degree of involvement by the CEO, the board of directors and the GTM leader in talent management activities.

OPERATION PRINCIPLES APPLIED TO TALENT MANAGEMENT

A supply chain perspective on talent management relies on four principles, two that address the risks in estimating demand and two that address the uncertainty of supply.

Principle 1 : Make and Buy to Manage Risk : A deep bench of talent is expensive, so companies should undershoot their estimates of what will be needed and plan to hire from outside to make up for any shortfall. Some positions may be easier to fill from outside than others, so firms should be thoughtful about where they put precious resources in development: Talent management is an investment, not an entitlement

Principle 2 : Adapt to the Uncertainty in Talent Demand : Uncertainty in demand is a given, and smart companies find ways to adapt to it. One approach is to break up development programs into shorter units: Rather than put management trainees through a three-year functional program, for instance, bring employees from all the functions together in an 18-month course that teaches general management skills, and then send them back to their functions to specialize. Another option is to create an organization-wide talent pool that can be allocated among business units as the need arises.

Principle 3 : Improve the Return on Investment in Developing Employees : One way to improve the payoff is to get employees to share in the costs of development. That might mean asking them to take on additional stretch assignments on a volunteer basis. Another approach is to maintain relationships with former employees in the hope that they may return someday, bringing back your investment in their skills.

Principle 4 : Preserve the Investment by Balancing Employee-Employer Interests : Arguably, the main reason good employees leave an organization is that they find better opportunities elsewhere. This makes talent development a perishable commodity. The key to preserving your investment in development efforts as long as possible is to balance the interests of employees and employer by having them share in advancement decision

CONCLUSION :

The talent problems of employers, employees, and the broader society are intertwined. Employers want the skills they need when they need them, delivered in a manner they can afford. Employees want prospects for advancement and control over their careers. The societies in which they operate and the economy as a whole need higher levels of skills—particularly deeper competencies in management—which are best developed inside companies But before an old paradigm can be overthrown there must be an alternative, one that describes new challenges better than the old one can. Talent on demand gives employers a way to manage their talent needs and recoup investments in development, a way to balance the interests of employees and employers, and a way to increase the level of skills in society.

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Mobile Phone Cloning

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ABSTRACT

Some of the features of mobile communication make it an attractive target for criminals. It is a relativelynew invention, so not all people are familiar with its possibilities, in good or in bad. Cloning is harmful to mobile phone.Mobile cloning is copying the identity of one mobile telephone to another mobile telephone. It is also known as cell phone piracy and has been taking place throughout the world .Usually this is done for the purpose of making fraud telephone calls. The bills for the calls go to the proper subscriber. The cloner is also able to make effectively unknowns calls, which attracts another group of interested users. In Cloning, the programmed information is taking which is stored in a proper mobile phone and illegally programming the identical information into another mobile phone. The result is that the "cloned" phone can make and receive calls and the charges for those calls are billed to the proper subscriber. There is no technique to identify which phone is the proper phone and the "cloned" phone. Recently this crime has come to India.

This paper describe about mobile phone cloning with implementation in GSM and CDMA technology phones . CDMA and GSM technology gives way of preventing cloning and future threat of this fraud being studied.

INTRODUCTION

Remember Dolly the young sheep, cloned from a six-year-old ewe in 1997, by a group of researchers at the Roslin Institute in Scotland. For the first time, we are faced with a more harmful version of cloning and this time it is your cell phone that is the target.

A cell phone user if you have been receiving very high bills for calls that were never placed, chances are that your cell phone could be cloned. Unfortunately, there is no way the subscriber can detect cloning.

Cloning occurs most frequently in areas of high cell phone usage – airports, shopping malls, concert halls, sports stadiums, and high traffic areas in metropolitan cities.

How cell phone works?

Cell phones send radio frequency transmissions through the air on two distinct channels, one for voice communications and the other for control signals. When a cellular

phone makes a call, it normally transmits its Electronic Security Number (ESN), Mobile Identification Number (MIN), its Station Class Mark (SCM) and the number called in a short burst of data. This burst is the short buzz you hear after you press the SEND button and before the tower catches the data. These four things are the components the cellular provider uses to ensure that the phone is programmed to be billed and that it also has the identity of both the customer and the phone. MIN and ESN is collectively known as the 'Pair' which is used for the cell phone identification.

When the cell site receives the pair signal, it determines if the requester is a proper registered user by comparing the requester's pair to a cellular subscriber list. Once the cellular telephone's pair has been recognized, the cell site emits a control signal to permit the subscriber to place calls at will. This process, known as unknown Registration, is carried out each time the telephone is turned on or picked up by a new cell site.

WHAT IS CELL PHONE CLONING?

Cell phone cloning is copying the identity of one mobile telephone to another mobile telephone.

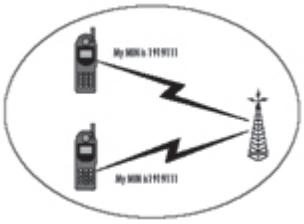


Fig. Cellular Phone cloning

Loop holes in Cell phone Networks

ESN/MIN data is NOT encrypted on the way to the MSC (Mobile Switching Centre) for further authentication. Thus, scanning the airwaves for this data if you wish to clone a phone. By changing ESN and MIN, the cellular carrier will accept the call and bill it to either a wrong account or provide service based on the fact that it is NOT a disconnected receiver. It will also look at the other two components, in order to insure that it is actually a cellular phone and to forward billing information to that carrier.

The Station Class Mark can also be changed if you wish to prevent the cellular carrier from determining the type of phone that is placing the call. By providing the cellular tower with a false SCM, the cellular carrier, the FCC, or whoever happens to chase down cellular fraud is often looking for a particular phone which in reality is not the phone they are looking for.

The Number Assignment Module (NAM) also has the SIDH (System Identification for Home System) number programmed into it. The transmittal of the SIDH number tells the carrier where to forward the billing information to in case the user is "roaming". The SIDH table tells the major cities and their identifying numbers. Changing an SIDH is



programming job that takes only minutes, but be aware that the ESN is still sent to the cellular phone company. After they realize that the ESN is connected to either a fake number or a phone that is not in the network, they will block service. They only way around this is to reprogram the ESN.

HOW TO IDENTIFY OUR PHONE IS CLONED?

There's nothing that can help a subscriber detect cloning. There are several techniques that can be adopted by service providers . However, huge mobile bills could act as a problem for subscribers.

GSM - Global System for Mobile Communications. A digital cellular phone technology based on TDMA GSM phones use a Subscriber Identity Module (SIM) card that contains user account information. Any GSM phone becomes immediately programmed after plugging in the SIM card, thus allowing GSM phones to be easily rented or borrowed. Operators who provide GSM service are Airtel, Hutch etc.

CDMA - Code Division Multiple Access. A method for transmitting simultaneous signals over a shared portion of the spectrum. There is no Subscriber Identity Module (SIM) card unlike in GSM.Operators who provides CDMA service in India are Reliance and Tata Indicom.

Identifying the ESN in your Cellular Phone

Depending on what model phone you have, the ESN will be located on a PROM. The PROM is programmed at the factory, and installed usually with the security fuse blown to prevent tampering. The code on the PROM might possibly be obtained by unsoldering it from the cellular phone, putting it in a PROM reader, and then obtaining a memory map of the chip.

The PROM is going to have from sixteen to twenty-eight leads coming from it. It is a bipolar PROM. The majority of phones will accept the National Semiconductor 32x8 PROM, which will hold the ESN and cannot be reprogrammed. If the ESN is known on the phone, it is possible to trace the memory map by installing the PROM into a reader, and obtaining the fuse map from the PROM by triggering the "READ MASTER" switch of the PROM programmer. In addition, most PROM programming systems include verify and compare switch to allow you to compare the programming of one PROM with another. As said earlier, the ESN is uniformly black with sixteen to twenty-eight leads making from its rectangular body, or square shaped body. If it is the dual-in-line package chip (usually found in transportable and installed phones) it is rectangular. If it is the plastic leaded chip carrier (PLCC), it will be square and have a much smaller appearance. Functionally, they are the same chip, but the PLCC is used with hand held cellular phones because of the need for reduced size circuitry.

ESN Replacement.

De-solder the ESN chip. Solder in a zero insertion force (ZIF) replacement, so that replacement chip can be changed easily.

After the ZIF socket has been successfully soldered in, reinsert the ESN and attempt to make a phone call (Be sure the NAM is programmed correctly). If it doesn't, check the leads on the ZIF to insure that you have soldered them correctly.

After that, insert your ESN into your PROM reader and make sure it provides some sort of reading. You should use the search mode to look for the manufacturer's serial number to identify the address on the PROM where to reprogram the ESN.

ARE OUR CELL PHONES SECURED?

Too many users treat their mobile phones as gadgets rather than as business property covered by corporate security policy. Did you realize there's a profitable black market in stolen and "cloned" Sim cards? This is possible because Sims are not network specific and, though tamper-proof, their security is to crack. In fact, a Sim can be cloned many times and the resulting cards used in numerous phones, each feeding illegally off the same bill.

How is a phone cloned?

The "cloning" occurs when the account number of a victim telephone user is stolen and reprogrammed into another cellular telephone. Each cellular phone has a unique pair of identifying numbers : the electronic serial number (ESN) and the mobile identification number (MIN).

The ESN/MIN pair can be cloned in a number of ways without the knowledge of the carrier or subscriber through the use of electronic scanning devices. After the ESN/MIN pair is captured, the cloner reprograms or alters the microchip of any wireless phone to create a clone of the wireless phone from which the ESN/MIN pair was stolen. The entire programming process takes 10-15 minutes per phone. Any call made with cloned phone are billed to and traced to a proper phone account. Innocent citizens end up with unexplained monthly phone bills.

CAN CALLS ON CLONED PHONE BE TRACKED?

Yes. A SIM can be cloned again and again and they can be used at different places. Messages and calls can track sent by cloned phones. However, if the accused manages to also clone the IMEI number of the handset, for which software is available, there is no way the cell can be traced.

HOW TO PREVENT CELL CLONING?

Uniquely identifies a mobile unit within a wireless carrier's network. The MIN often can be dialed from other wireless or wire line networks. The number differs from the electronic serial number (ESN), which is the unit number assigned by a phone manufacturer. MINs and ESNs can be checked electronically to help prevent fraud. Mobiles should never be trusted for communicating/storing confidential information. Always set a Pin that's required before the phone can be used.

Check that all mobile devices are covered by a corporate security policy. Ensure one person is responsible for keeping tabs on who has what equipment and that they update the central register. How do service providers handle reports of cloned phones?

proper subscribers who have their phones cloned will receive bills with charges for



calls they didn't make. Sometimes these charges amount to several thousands of dollars in addition to the proper charges.

Typically, the service provider will assume the cost of those additional fraud calls. However, to keep the cloned phone from continuing to receive service, the service provider will terminate the proper phone subscription. The subscriber is then required to activate a new subscription with a different phone number requiring reprogramming of the phone, along with the additional headaches that go along with phone number changes.

ARE THESE METHODS EFFECTIVE?

Yes, for the most part. However, Authentication is the most robust and reliable method for preventing cloning fraud and it is the only industry "standard" method for eliminating cloning. The fact that it is standardized means that all mobile telecommunications networks using IS-41 can support Authentication. There is no need to add suitable equipment, software, or communications protocols to the networks to prevent cloning fraud.

Future Threats.

Resolving subscriber fraud can be a long and difficult process for the victim. It may take time to discover that subscriber fraud has occurred and an even longer time to prove that you did not incur the debts. As described in this article there are many ways to abuse telecommunication system, and to prevent abuse from occurring it is absolutely necessary to check out the weakness of existing telecom systems. If it is planned to invest in new telecom equipment, a security plan should be made and the system tested before being implemented. It is therefore mandatory to keep in mind that a technique which is described as safe today can be the most unsecured technique in the future.

CONCLUSION-

Existing cellular systems have a number of potential weaknesses that were considered. A technique which is described as safe today can be the most unsecured technique in the future.Presently the cellular phone industry relies on common law (fraud and theft) and in-house counter measures to address cellular phone fraud. It is essential that intended mobile crime to make law be comprehensive enough to incorporate cellular phone fraud, in particular "cloning fraud" as a specific crime.

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Management of Library & Information Centres

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ABSTRACT

Management is the term, which is familiar to almost everyone as a process or an activity that brings together several resources like persons, materials, techniques and technologies to accomplish a task or tasks. These tasks may pertain to performing a variety of functions of an organization like university, college or a library. Library management is the process of organized activity consisting of operations and the librarian as a leader must resort to the art of working through motivating others and directing them towards objectives. The librarian as a manager of the library, therefore, must be able to achieve some good results by planning, organizing, staffing, controlling. He should be able to induce or persuade his staff to put their maximum efforts willingly, he must have the ability to inspire and motivate his staff to get the best out to them, he should also have a quality of decision making, effective decision is very important in the routine matters. A librarian who is well versed with the theory of management may be able to do his duties effectively and efficiently.

Keywords : *Library Management, Library Functions, TQM in Libraries, HRM in Library, Library Manager.*

NEED OF MANAGEMENT IN LIBRARIES

Today, the library and their information systems are the complex organizations committed to serve the users demands. Libraries have growth with times in the social, cultural, scientific and technological environments in which they have been developing and operating. Modern libraries are not merely store house of information and knowledge, but are also live and active institutions involved in a vital service to the society. Today information and knowledge are considered as important as energy and biotechnology and hence have to be taken care of and managed well. Therefore in the libraries, the theories and principles of scientific management are being increasingly applied to manage them.

MERITS OF MANAGEMENT IN LIBRARIES :

1. It helps the librarian in putting facts : The main goal of the libraries are to provide optimum better library service to the people of the society in response to the money paid by them the form of library tax or cess. Libraries are the growing organisms, hence the growth is seen in every part of the libraries. Therefore the libraries need additional amount of grants every year for providing these extra services. Everybody wants to know why



additional grant is requiring? They wish to know the real facts for the said demands. The librarian as a manager of the library could have the base for answering these questions, it management is applied scientifically. In this way we can say that scientific management helps the librarians in putting real facts and their reasons before the public.

2. ***It helps in increasing the working efficiencies of the staff :*** Most of the routine hobs of the libraries are of repeated and mechanized nature, i.e. the possibility of their occurring repeatedly. Hence the routine hobs should be analyzed qualitatively for improving them. The daily routine of the libraries are acquisition order, circulation, shelving of books etc. Therefore the scientific management is applied in these daily routines of the libraries, they may be improved by efficiencies.

3. ***It is the tool for personnel and financial management of the library :*** Job analysis is the main principle of scientific management. It also functions as a key for division of work between the library staff. The librarian, who is to manage the library, can determine the quantity of the worker, done by every library works, if he is managing the library on scientific basis. He gets success in measurement of the work done by each worker of the library by his ability and intelligence used in applying scientific management.

IMPORTANCE OF SCIENTIFIC MANAGEMENT IN LIBRARIES :

The implementation of management techniques in libraries have become necessary to active the exact timely and personalized information service. Management techniques in libraries began to attract attention in the mid 1950s when the libraries come to be recognized as community resources. With the management techniques the libraries with their limited resources try to maximize their public service. The theory of library management has developed over the years in different countries.

1. ***Top management :*** In a university library VC and university librariean are included in the top managements as they are the administrators and executives of the library and they are decision makers and policy makers of the library activities also.
2. ***Middle management :*** In the middle management the deputy librarian and assistant librarians are included. Deputy librarians are the heads of departments, through these persons the top management yields his authority and gets the jobs done.
3. ***Lower management :*** In libraries, the third level consists of professional assistants, classifier, cataloguers, office staff etc. The works of the personnels of lower level management are under the control of middle management.

The scientific principles of management can be profitably applied to the following library jobs which are amenable to proper analysis.

1. Frequently performed jobs such as duplicate checking, typing book orders, classifying, book numbering, reproducing cards, filling cards, book charging and discharging and book shelving.
2. Repetitive jobs involving recurrence of same steps each time a jobs performed, such as book charging and discharging.

3. Jobs requiring frequent movement of people or equipment such as physical arrangement between acquisition and technical sections, public catalogue, major bibliographical tools, references, lending and circulation sections.
4. Jobs with bottlenecks such as delay caused in labeling or confusion in describing call numbers written in ink on the spines of book.
5. Jobs involving large amounts of money such as provision of reference service in a large library. Job-costing or cost-accounting is very useful in such case.

FUNCTIONS OF MANAGEMENT

Management is a process or an activity that brings together varied functions of the organization. Hence it is said that Management is what Management does, which points out the functional approach to any type of management and emphasizes the importance of distinctive managerial functions. All managers should perform all managerial functions of planning, organizing, directing and controlling. To these four basic managerial functions we may add staffing, directing, reporting and budgeting also. The Acronym POSTCORB stands for these functions.

1. ***Planning :*** In an organization planning is the first function performed by a manager, which begins with the setting of objectives of the organization. This is done through planning. The planning of an organization involves developing objectives, strategies, policies, procedures, programs etc.
2. ***Organizing :*** After planning, the second task is to determine and identify the activities needed to realize the plan separate them into blocks or departments, put them in change of specific groups of personnels. This is the task of organization. The need for it is indicated by the principle of division of labour.
3. ***Staffing :*** In the organizing process, staffing is an important managerial function. It deals with hob and person matching in organization. Staffing covers the principle topics of job analysis, recruitment, selection and induction; appraisal and counseling, manpower inventory and development and training program.
4. **Directing :** Directing is the part of management process which activates the staff to work efficiently and effectively to attain the objectives of the organization. We cannot achieve tangible results in the organization until we implement the proposed course of action. For this directing is needed which literally means the moving into action. Directing is telling staff members what to do and seeing that they do it to the best of their ability.
5. ***Coordinating :*** Coordination in an organization is balancing and keeping together all the staff by ensuring a suitable allocation of task to the various staff members and seeing that the tasks are performed with one harmony among the all members.
6. ***Reporting :*** Reporting is the way to keep the authorities and the concerned public informed about the performance, achievements and shortfalls of the organization. Usually reporting is done by preparing the reports of the organization for one year.



7. ***Budgeting :*** The most common function of managerial organization is budgeting, where it is to make the plan of the financial matters. Budget is fundamental to all the organisations, which generally receives the attention and support of top management. At the time of preparing the budget it should be kept in mind that the budget should be prepared flexible so that it can be adopted to change circumstances of future and can be revised when the plan is modified.

VARIOUS STEPS OF PLANNING IN LIBRARIES

1. ***Forecasting :*** Forecasting is the basis of planning. Since planning is concerned with the objectives to be attained in the future and provision of means for their attainment, it is imperative that various dimensions of the future are explored and estimated. Intelligent and informed estimating or predicting the future internal and external environment of the enterprise is called forecasting. The importance of forecasting for planning was emphasized by Fayol also. Fayol referred to plan as synthesis of various kinds of long and short term forecasts.
2. ***Determination of objectives :*** The second step is the determination of corporate objectives on the basis of various kinds of forecasts. These objectives generally relate to survival, growth, efficiency, services to the users and personnel development. The objectives are divided and sub-divided into successively smaller components until each department or section of the library has a definite set of goals for the short as well as long period. These objectives aim at their achievement.
3. ***Means for the attainment of Planned Objectives :*** The means for the attainment of planned objectives consist of strategies, policies, procedures, schedules, methods, standards, budgets, programmes and projects. They constitute the instruments and content of planning.
4. ***Determination of requirement of Resources :*** Once the plans have been formulated, the next step in the planning process is the determination of various kinds of resources that would be required for their implementation.

   These resources are of four types :

   - Financial resources
   - Equipment and facilities
   - Materials. Supplies and services and
   - Manpower

THE ORGANIZATIONAL STRUCTURE OF THE LIBRARY

The most common and usable form is the functional structure. Practically all libraries use this form which divides a library into functional sections such as acquisition, processing, circulation, reference, reprography etc. This structure has a number of advantages in libraries. It groups specialists with similar backgrounds and interests. It also ensures that top management levels will be aware of the contributions and the needs of various sub-units of the library. In addition, the following merits have also been enumerated from

functional organization in the libraries.

1. It helps in achieving the benefits of specialization of work. Every functional in charge is an expert in this area and he can help the subordinates in better performance.
2. A functional manager, in case of the libraries, is required to have expertise in one function only. This makes easy to develop executives.
3. It reduces the burden on the top management i.e. of the librarian. There is joint supervision in the library, and every functional in charge looks after is functional area.

TRAINING OF THE STAFF

The main aim of personnel management of any organization is to get the best quality maximum output from the staff by their performance and the total efficiency of the library depends directly on how well its staff are trained. Hence trained staff is very much essential to fulfill the objectives of personnel management. Among the many requirements which promote best performance of staff, training facilities is also essential which contribute to high performance of the staff.

Merits of Training of the Library Staff :

1. A systematic training program helps to reduce the learning time to reach the acceptable level of performance.
2. A well trained person usually shows a greater increase and a higher quality of work output than a untrained person. The training increases the skill of the staff members in the performance of particular job of the library.
3. Through the training the best available methods of performing the work can be standardized and made available to all the staff members of the libraries. Standardization will make high level of performance rule rather the exception.

FINANCIAL MANAGEMENT

Libraries have also a set of goals to achieve just like other organizations. For achieving their goals libraries have to do so many arrangements regarding staff, reading materials, services and other matters. Finances are very much necessary for doing such arrangements. In other words, we can say that financial management is the study of principles and practices involved in financial operations in a library. Financial management deals with the problems of acquisition, distribution and utilization of funds, balancing of revenue and expenditure.

BUDGETING

The most central aspect of financial management of the library is the budget, which is a statement of income and expenditure of the library. The budget provides guidance in spending the appropriated funds through a period of time. It is also an instrument of control, communication, coordination, evaluation and motivation.



Methods of Library Budgeting :

- Line-by-line Budget
- Program Budget
- Performance Budget
- Planning Programming Budgeting System (PPBS)
- Zero Based Budget

LIBRARY BUILDING

Library is a place where interaction between the user and his required document takes place. To carry out this activity, the library must be planned well and the building of the same must design should be inviting and attractive. For all of this, the building of the library should be planned before its construction very carefully.

The Library building is the outcome of a close relationship of the librarian with the architect. An ideal library is a happy combination of both function and design. The librarian not only draws up the preliminary plan based on the considerations such as users, location, resources, and team work etc. but he should also be in touch with the architect at every stage of the plan. For building up a library, the following points also must be considered.

- Selection of suitable site of Building
- Size of the Library Building
- Architecture of the Library
- Proper Lighting Arrangement

MARKEING OF INFORMATION PRODUCTS & SERVICES

Today, information is the power and libraries and information centers are the reservoir of this information. Libraries are non-profit service industries and information is their key product. The possible products and services offered by a library or information centers may be as mentioned below.

1. Physical information products/services i.e. books journals, bibliographies etc.
2. Electronic information products/services, i.e. diskettes, CD-ROMS etc.
3. Online information products/services, i.e. LAN,OPAC,INTERNET, E-mail, etc.

By applying marketing concept, the library and information centers try to disseminate their product and services to satisfy users' needs through predetermined well defined coordinated plan and activities. Thus marketing of information product and services helps in increasing users satisfaction.

TOTAL QUALITY MANAGEMENT

The aim of any profit making organization or a company is to earn profit, and for that it is important for the company to do more and more business. This can be achieved by having better quality in the business. Total Quality Management is a step towards,

this desired goal. The concept of TQM has come out through the meaning of quality. The concept of quality has given the concept of total quality management in the field of management or organization. Total Quality Management (TQM) is a concept which make quality the responsibility of all people within an organization. All the persons involved are expected to contribute to the overall improvement of quality. TQM is the preferred method to increase the user satisfaction. It reduces the defects of the organization and increases the productivity.

Characteristics of Total Quality Management :

1. To become user driven rather than self-focused.
2. To concentrate on process rather than to be preoccupied with results.
3. Use of workers heads in addition to their hands
4. External and internal alignment
5. Total involvement, continuous improvement and leadership commitment
6. Requires fundamental changes in workers management, treating them as an ever-appreciating asset.

CONCLUSION

Library organization must obviously precede library administration. Decision upon the methods and lines along which the library is to be run, and getting these methods into working order is the basis of library organization. Plans for, and erection of, the library building, executive decisions with regard to selection, appointment and duties of the staff, the planning and putting into practice of a definite system upon which the work of the library is to be carried on – these are successive stages in Library and Information Centers.

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Role of Hadoop to Manage Big Data

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ABSTRACT

This paper discusses the problems that organizations are facing in handling the massive amounts of data being generated, and the solutions available in the Open Source world to tackle those issues. The paper also talks about the solution that impetus offers to solve these Big Data problems.

Apache Hadoop was born out of a need to process a tremendous incoming of Big Data. The web was generating more and more information on a daily basis, and it was becoming very difficult to manage over one billion pages of text.

This paper is focused on discussing the challenges facing large scale data processing and the approaches and solutions to manage structure and apply analysis on this huge amount of data to draw valuable insights and business intelligence.

Hadoop is built to process large amounts of data from terabytes to petabytes and beyond. With this huge data, it's unlikely that it would fit on a single computer's hard drive, much less in memory. The beauty of Hadoop is that it is designed to efficiently process huge amounts of data by connecting many commodity computers together to work in parallel. Using the MapReduce model, Hadoop can take a query over a dataset, divide it, and run it in parallel over multiple nodes. Distributing the computation solves the problem of having data that's too large to fit onto a single machine.

Key word : *Map Reduce, HDFS (Hadoop Data File System)*

INTRODUCTION

Big Data analysis means identifying hidden patterns and business information from large amounts of data, to make the business more efficient. This data comes from- web server logs, social network activity, sensors used to gather climate information, stock market data, e-mails, transaction records, web click streams, etc. The four V's of Big Data - Volume, Velocity, Variety, and Variability .When most people hear the term Big Data, they assume it to be a huge transactional data set. However, volume is only the first dimension of Big Data, and is potentially the least important among all four dimensions. The four V's of Big Data (Volume, Velocity, Variety, and Variability) constitute a comprehensive definition, and they bust the myth that Big Data is only about data volume.



Volume : The terabytes to petabytes of existing data.

Velocity : The rate of change in the data and how fast it must be processed to gain business value.

Variety : Big Data means much more than traditional RDBMS data. It includes unstructured text, sound and movie files, images, documents, geo-location data, web logs, etc.

Variability : Semantics or the variability in language. Cost of 1 petabyte of data with 1000 node :

1 PB = 10^15 = 1 Million gigabyte = 1 thousands terabyte

9 hour for each node to process 500 GB

1000*9*0.34$ = 3o60$ for single run

1PB = 1000000/500 = 2000*9 = 18000h/24 = 750day

The cost for 1000 cloud node = each processing 1pb

2000*3060$ = 6,120,000.

eg.New York stock Exchange 1 TB of data every day.

WHAT IS APACHE HADOOP?

Appache Hadoop was born out of a need to process an avalanche of Big Data. The web was generating more and more information on a daily basis, and it was becoming very difficult to index over one billion pages of content. In order to cope, Google invented a new style of data processing known as MapReduce. Doug Cutting and Mike Cafarella , inspired created Hadoop to apply these concepts to an open-source software framework to support distribution for the Nutch search engine project. Given the original case, Hadoop was designed with a simple write-once storage infrastructure. Hadoop has moved far beyond its beginnings in web indexing and is now used in many industries for a huge variety of tasks that all share the common theme of lots of variety, volume and velocity of data – both structured and unstructured.

Using the MapReduce model, Hadoop can take a query over a dataset, divide it, and run it in parallel over multiple nodes. Distributing the computation solves the problem of having data that's too large to fit onto a single machine.

WHY USE APACHE HADOOP?

It's cost effective. Apache Hadoop controls costs by storing data more affordably per terabyte than other platforms. Instead of thousands to tens of thousands per terabyte Hadoop delivers compute and storage for hundreds of dollars per terabyte.

It's fault-tolerant. Fault tolerance is one of the most important advantages of using Hadoop. Even if individual nodes experience high rates of failure when running jobs on a large cluster, data is replicated across a cluster so that it can be recovered easily in the face of disk, node or rack failures.

It's flexible. The flexible way that data is stored in Apache Hadoop is one of its biggest assets – enabling businesses to generate value from data that was previously considered too expensive to be stored and processed in traditional databases. With Hadoop, you can use all types of data, both structured and unstructured, to extract more meaningful business insights from more of your data.

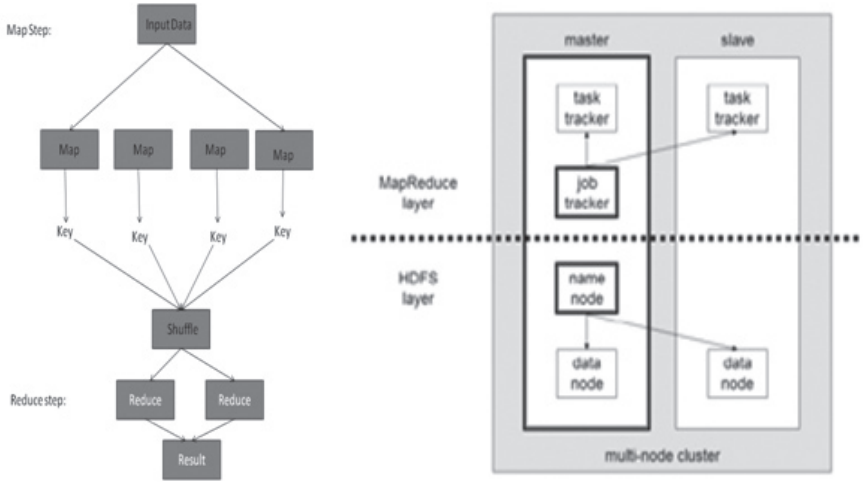
It's scalable. Hadoop is a highly scalable storage platform, because it can store and distribute very large data sets across clusters of hundreds of inexpensive servers operating in parallel. The problem with traditional relational database management systems (RDBMS) is that they can't scale to process massive volumes of data.

SOLUTIONS TO LARGE DATA CHALLENGES :

Although, there are various solutions available for storing large amounts of data, Hadoop is one of the best options available. Hadoop is a flexible infrastructure for large scale computation and data processing on a network of commodity hardware. It is a common infrastructure pattern extracted from building distributed systems. Hadoop takes a large piece of data, breaks it up into smaller pieces and distributes it into various nodes of the cluster. These nodes then execute the pieces in parallel and independently, feeding back into each other. They follow the programming paradigm of MapReduce MapReduce programs have been created for everything from text tokenization, indexing, search to data mining and machine learning algorithms.

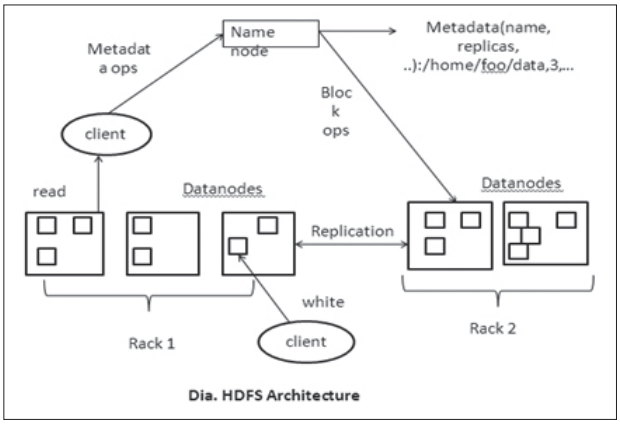
The best part about Hadoop is that it is an Open Source project initiated by Apache . Today, Yahoo is one of the largest contributors to the evolution of Hadoop and also responsible for getting Hadoop to its current state

1. MapReduce :



MapReduce is a programming model for processing large data sets with a parallel, distributed algorithm on a node. The model is inspired by the map and reduces functions commonly used in functional programming although their purpose in the MapReduce framework is not the same as their original forms. Apache Hadoop includes a Distributed File System (HDFS), which breaks up input data and stores data on the compute nodes. This makes it possible for data to be processed in parallel using all of the machines in the cluster. The Apache Hadoop Distributed File System is written in Java and runs on different operating systems. Hadoop was designed from the beginning to accommodate multiple file system implementations and there are a number available. HDFS file system are probably the most widely used, but many others are available, including the MapReduce file system.

2. HDFS(Hadoop Data File System) :



Dia. HDFS Architecture

HDFS has Master/slave architecture. An HDFS cluster consists of a single Namenode, a master server that manages the file system namespace and regulates access to files by clients. In addition, there are a number of Datanodes, usually one per node in the cluster, which manage storage attached to the nodes that they run on. HDFS exposes a file system namespace and allows user data to be stored in files. Internally, a file is split into one or more blocks and these blocks are stored in a set of Datanodes. The Namenode executes file system namespace operations like opening, closing, and renaming files and directories. It also determines the mapping of blocks to Datanodes. The Datanodes are responsible for serving read and write requests from the file system's clients. The Datanodes also perform block creation, deletion, and replication upon instruction from the Namenode. Some of the goals of HDFS are Very Large Distributed File System.

METHODOLOGY :

It is the framework of tool. Objective of this tool is to support running on application of big data. Hadoop is a open source set of tool & it is distributed under apache licence. Big data is creating challenges like velocity,volume,varity. In traditional approach an



interprices will get powerfull computer & data is stored in powerfull computer,but only so much data is store & it is not scalability. In traditional approach does have certain limitation when it come into big data. Hadoop take very different approach than the traditional approach it break the data in to small pieces & that why it's able to dial with data. Breaking the data into small pieces is good idea. How are the you going to perform The computation its break the computation is well down in to smaller pieces & each send each pieces computation to each pieces of data. So data is Brocken down equal pieces and so that computations these Childs computation could finish in equal amount of time and ones of the all computation are be finish then result combine together & sent combine result to the application. One important characteristic it work on distributed model .In Hadoop number of low computer are used it called commodity hardware. Hadoop is a Linux based set of tool. So we have Linux on the all the low cost numerous computer.

TASK TRACKER AND DATA NODE :

All computers will have two component Task tracker and data node. job of task tracker component is to process the small pieces of task that has been given to this particular node & this job of is data node is to manage the pieces of data here has been given to this particular node & all this computer is call slaves. Why they call slaves? Because we have a master. The master will have two traditional component that running one the computer, will have task tracker & data node. But additional to this two computer job tracker & name node. So we have learn that hadoop has two main component map reduce & file system(HDFS). job tracker & task tracker are part of the high level component map reduce so they are fall under the umbrella of map reduce and similarly the name node and data node under the umbrella of Hadoop File system called HDFS. The application running on the hadoop will contact the master node one of the attribute of hadoop is that it is batch processing set of tool. So application will be informed and result will given to application keeping mind to the certain project. So the role of job tracker component running on the master nodes is do break higher bigger task into smaller pieces and will sent result back to the job tracker then it will combine the result & the final result sent back to the application, & the name node running on the master computer master node is responsible to keep an the index of which data is residing on which datanode , so when application contact name node, it tells the application go to these particular computer to get the data. So it has all the index. So the name node tell the application where the data is residing & where the goes directly to that node & will get the data directly from the node. The application is note dependent on the name node. MapReduce is a programming model for processing large data sets with a parallel, distributed algorithm on a cluster(node). A MapReduce program comprises a Map() procedure that performs filtering and sorting (such as sorting students by first name into queues, one queue for each name) and a Reduce() procedure that performs a summary operation (such as counting the number of students in each queue, yielding name frequencies). The "MapReduce System" (also called "infrastructure", MapReduce is a framework for processing parallelizable problems across huge datasets using a large number of computers (nodes), collectively referred to as a cluster (if all nodes are on the same local network and use similar hardware) or a grid (if

the nodes are shared across geographically and administratively distributed systems, and use more heterogenous hardware). Computational processing can occur on data stored either in a filesystem (unstructured) or in a database (structured). MapReduce can take advantage of locality of data, processing data on or near the storage assets to decrease transmission of data.

"Map" step : The master node takes the input, divides it into smaller sub-problems, and distributes them to worker nodes. A worker node may do this again in turn, leading to a multi-level tree structure. The worker node processes the smaller problem, and passes the answer back to its master node.

"Reduce" step : The master node then collects the answers to all the sub-problems and combines them in some way to form the output – the answer to the problem it was originally trying to solve.

MapReduce use to sort a petabyte of data in only a few hours

Companies uses the Hadoop Approach :

- Facebook
- IBM
- Amazon
- Yahoo
- eBay
- American Airlines
- The new York times
- IBM

CONCLUSION

Finally, in conclusion it can be said that Big Data is an opportunity, not a problem. This is because the challenges it creates are far smaller than the benefits it generates.

Furthermore, many data integration and analyzing technologies are available in market today, which your organization can use to generate those big opportunities from massive amounts of data.

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Cloud Computing-Business Cloud Computing

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ABSTRACT

The cloud computing is technology of internet and remote servers to maintain database and our applications and information. In the cloud computing user and businessman can access all his information by using internet but without the internet connection.This technology allows efficient by centralizing database.It gives flexibal structure and on demand service. There are many examples of cloud computing which are gmail,google,Hotmail,yahoo,etc. If any user want to send an email or want to use email service at that time he need internet connection but you uses cloud(internet) then all cloud service provider like yahoo,google,etc. they gives service fastly then user can enjoy the service.If user want to service of any computer software/hardware like facebook then why should user buy a software/hardware?Threrfor he can use cloud computing.

Cloud computing is must be essential to the current scenario in business.Cloud computing used widely because of its applications are without installations and access centralizeddata by using internet exclusive of its own server at anywhere and anytimeCloud computing is divided into three segments: "application" "storage"and "connectivity." Each segment serves a different purpose and offers different products for businesses and individuals around the world. In June 2011, a studyconducted by Version One found that 91% of senior IT professionals actually don't knowwhat cloud computing is and two-thirds of senior finance professionals are clear by theconcept, highlighting the young nature of the technology. In Sept 2011, an AberdeenGroup study found that disciplined companies achieved on average an 68% increase intheir IT expense because cloud computing and only a 10% reduction in data centerpower costs.

Key Words : *Cloud computing,Business cloud computing,central remote server.*

OBJECTIVES

To study the cloud computing to current scenarios.

To study the business cloud computing.

INTRODUCTION

Cloud computing is the name because the information is cloud and does not require

any specific place and connection to gain access to it.It is independent of place.Companies may find that cloudcomputing allows them to reduce the cost of information management, since they are not required to owntheir servers and can use capacity leased from third parties. Additionally, the cloud-like structure allowscompanies to improve software more quickly.

Cloud computing involves delivering hosted services on the internet.The name inspired by the cloud symbol which is used to represent the internet diagrams. A cloud servicehas three distinct characteristics that differentiate it from traditional hosting. It is sold on demand, typicallyby the minute or the hour; it is elastic – a user can have as much or as little of a service as they want at anygiven time; and the service is fully managed by the provider. In cloud computing the internet is used by fastly.

There are 2 types of clouds: private or public.in the public cloud service is provided to any one. In the private cloud service is provide in cenrralized and provided to some peoples. When a service provider uses public cloud resources to create their private cloud, theresult is called a virtual private cloud. Private or public, the goal of cloud computing is to provide easy,scalable access to computing resources and IT services.

Infrastructure-as-a-Service like Amazon Web Services provides virtual server instance API tostart, stop, and access and configure their virtual servers and storage. In the enterprise, this computingallows a company to pay for only as much capacity as is needed, and bring more online as soon as required.Because this pay-for-what-you-use model resembles the way electricity, fuel and water are consumed; it'ssometimes referred to as utility computing.

Platform-as-a-service in the cloud is defined as a set of software and product development toolshosted on the provider's infrastructure. Developers create applications on the provider's platform over theInternet. PaaS providers may use APIs, website portals or gateway software installed on the customer'scomputer. Force.com and Google Apps are examples of PaaS. Developers need to know that currently,there are not standards for interoperability or data portability in the cloud.

In the software-as-a-service cloud model, the vendor supplies the hardware infrastructure, thesoftware product and interacts with the user through a front-end portal. SaaS is a very broad market.Services can be anything from Web-based email to inventory control and database processing. Because theservice provider hosts both the application and the data, the end user is free to use the service fromanywhere.

ARCHITECTURE

In the cloud computing it involves multiple cloudes to communicate with each other on a loose coupling mechanism.it involves delivery of cloude.

Cloud computing architecture consists of two components "Front end" and "Back end" . Front endcomprises the client's device and back end comprises the cloud itself. The central server adminstreated cloud complting and used to fillful the users demand.

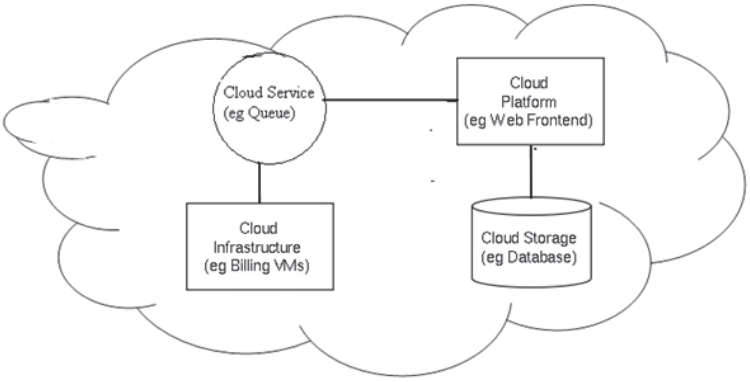


Fig 1: Cloud Computing Sample Architecture

CHARACTERISTICS

Cloud computing have following key characteristics:Application programming interface (API) accessibility to software that enables machines to interact withcloud software in the same way the user interface facilitates interaction between humans and computers.Cost is to be reduced and in a public cloud delivery model capital expenditure is converted to operational expenditure.

Independent of the location user can be acces the data.This technology allows shared servers and devices then increasing the speed of access. Therefore applications can be easily migrated from one physical server to another.Data is shared therefore no of users can uses the data at a time so cost is minimizes of centralized data.Trustworthiness: is enhanced if multiple unnecessary sites are used, which makes well-designed cloudcomputing suitable for business stability and catastrophe recovery.In the cloud computing data is centralized therefore security of data is more.

APPLICATIONS

- Clients would be able to access any kind of information from anywhere at any time. They couldaccess the cloud computing system using any computer linked to the Internet. Data wouldn't be cramped toa hard drive on one user's computer or even a corporation's internal network.
- It could bring hardware costs down. Cloud computing systems would reduce the need foradvanced hardware on the client side. You wouldn't need to buy the fastest computer with the large memory,because the cloud system would take care of those needs for you. Instead, you could buy an economicalcomputer terminal. The terminal could include a monitor, input devices like a keyboard and mouse and justenough processing power to run the middleware necessary to connect to the cloud system. You wouldn'tneed a large hard drive because you'd store all your information on a remote computer.
- Cloud computing systems give these organizations company-wide access to

computer applications. The companies don't have to buy a set of software or software licenses for every employee.Instead, the company could pay a metered fee to a cloud computing company.

- Servers and digital storage devices take up space. Some companies rent physical space to storeservers and databases because they don't have it available on site. Cloud computing gives the option ofstoring data on someone else's hardware, removing the need for physical space on the front end.

CLOUD COMPUTING BENEFITS IN BUSINESS

Cloud computing is the more popular technology so todays world much small and big compamies uses the cloud computing. Cloud computing can be compared to electricity and power grid. The consumer can easily gain access to electricity or power by simply turning on an appliance; although the consumer does not involve in the manufacturing or know the location where electricity is produced accessing it is very simple.

Cloud computing designed for the scalability and make sure that user can meet his all requirements.Since these services are outsourced immigration to cloud computing is fairly easy, everything will be done and be provided by the vendor. Conventional computing usually, involves it takes months and months of preparation and installation of servers, however since cloud computing is outsourced these phases are no longer required hence cutting down the number of days and hours for installation alone.

Everyone of us may have heard of cloud computing at least once, the only problem is not everyone is aware of what it is all about and how it can change our computing styles and resolve some of the complex computing issues we may have encountered. Several cloud computing companies are making noise around the world and have revolutionized business processes for the better. What makes these cloud computing companies so popular? It's the computing models they offer and what these models and how these models can resolve complex computing issues. Computers are complicated machines and applications are full of restrictions, and takes space to run and install in computers. Imagine all the applications and programs you can run without that ultra powerful, expensive and power hungry server seating there in that air-conditioned room staring at you

CONCLUSION

Cloud computing helps to store data on remote servers and applications are used virtually, hencethere is no need to have own servers. Small and Medium enterprises move towards cloud computing toreduce the cost of information management. It delivers hosted services on internet so that companies usethat services without installation and free of cost.

The user loses control over the software application and becomes dependent on the provider to maintain,update and manage it.

We have presented our vision of cloud computing architectures, where mobile devices becomecore computing nodes because of their rapidly growing capabilities.



We have discussed some examples ofthe mobile Clouds approach. Although these ideas are preliminary, we believe that mobile Clouds will playa vital role in the future mobile computing landscape. Cloud Computing will definitely leverage the mobilehandsets to the level of Super Duper Smart with no foggy future ahead.

FINDINGS

Thereis much companies that are nit familiar with cloud computing threrfore they are thinking about privacy, security,transferability and other terms and conditions.

SUGGESTIONS

To increase the use of cloud computing.

Be familiar with cloud computing.

Go with best organizations which provide privacy, security and guarantee.

Choose standardized companies.

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Green Computing and Related Technologies

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ABSTRACT

Green computing is the study and practice of efficient and eco-friendly computing. The principle behind energy efficient coding is to save power by getting software to make less use of the hardware, rather than continuing to run the same code on hardware that uses less power. The field of green computing is defined as the knowledge and practice of designing, manufacturing, using and disposing of computers, servers, and associated subsystems - which include printers, monitors, and networking, storage devices and communications systems - efficiently and effectively with minimal or no impact on the environment. This computing is similar to green chemistry that is minimum utilization of hazardous materials and, maximizing energy efficiency during the product's lifetime, and also promote the recyclability or biodegradability of defunct products and factory waste.

This paper, discuss the concept of green computing and why Green computing, Environmental impacts and various technologies. Subsequently, this paper helps to identify key issues relevant to green computing and evaluate different approaches to these problems.

INTRODUCTION

Our world is making an effort to make everything greener. Green computing, the study and practice of efficient and eco-friendly computing resources, is now under the attention of not only environmental organizations, but also businesses from other industries. Green computing is basically attached to the flow, which represents an environmentally responsible way to reduce power and environmental waste. This computing actually relates to understanding and managing the environmental impacts of IT systems which basically includes materials and resources required for equipment, energy and also materials used in OS, potential health effects on humans from using equipment, and responsibility for the waste products that are created from IT systems. Green computing is mainly focused on super computers and cluster system. The increased number of advanced computing devices adds to utilization of large amount of power around the globe. The large volume of heat thus dissipated add to the global warming in addition to e-waste getting accumulated everywhere.

In recent years, companies in the computer industry have come to realize that going green is in their best interest, both in terms of public relations and reduced costs.

Organizations use the Green Computing Lifecycle when designing and implementing green computing technologies.

The stages in the Life Cycle include Strategy, Design, Implementation, Operations and Continual Improvements.

GREEN COMPUTING – WHY?

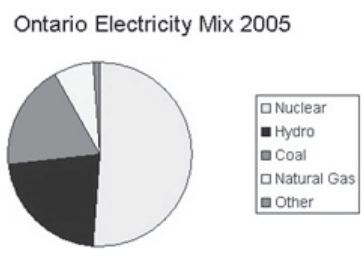
- Computers are made of poisonous materials like lead, chromium, cadium and mercury.
- Growing public environmental awareness.
- Increasing impacts on environmental and human health.
- Corporate social responsibility.
- Computers can also be harmful to your health because toxic chemicals evaporate in a computer room, are absorbed by your body through your lungs.
- The radiation that is emitted from computer monitors can pose a serious health risk especially to those with long hours of exposure.

ENVIRONMENTAL IMPACTS

(April 2013) Roughly 40 million metric tons of electronic waste (e-waste) are produced globally each year. About 9 million tons of this waste—discarded televisions, computers, cellphones, and other electronics—are produced by the European Union, according to the United Nations Environment Programme (UNEP).The UNEP estimates that between 2007 and 2020, domestic television e-waste will double, computer e-waste will increase five times, and cell phones 18 times.

E-waste is an important global environmental and health issue. Promising policy responses have arisen from the European Union, which is defining the source as responsible for e-waste.

- Electricity consumption for desktops and peripherals.
- 120W CRT + CPU; more for older Machines.



- Fossil fuel power – Greenhouse gas emissions, mercury atmospheric pollution, SOX and NOX lead to acid rain and smog formation.
- Nuclear power – difficulties with long term management of radioactive wastes.

1. E-Waste :



E-waste Impacts in China

Electronic waste, e-waste, e-scrap, or Electronic-disposal, waste electrical and electronic equipment (WEEE) describes discarded electrical or electronic devices. There is a lack of consensus as to whether the term should apply to resale, reuse, and refurbishing industries, or only to a product that cannot be used for its intended purpose. Informal processing of electronic waste in developing countries may cause serious health and pollution problems, though these countries are also most likely to reuse and repair electronics.

"Electronic waste" may be defined as discarded computers, office electronic equipment, entertainment device electronics, mobile phones, television sets and refrigerators. This definition includes use electronic which are destined for reuse, resale, salvage, recycling, or disposal.

2. Tips For Going Green :

1. Computer Management : Here are some easy ways to save energy and money when computing.

- Turn off your computer and peripherals when you aren't using them.
- When you're not using your monitor, put it to sleep or turn it off instead of using a screensaver.

2. Reduce paper waste :

- printing as little as possible;
- reviewing document drafts and emails onscreen instead of printing them out.
- using email instead of paper memos and fax documents when possible.

3. Recycle :

Removal of used or unwanted electronic equipment in a convenient and environmentally responsible manner. Computers have toxin metals and pollutants that can emit harmful emissions into the environment. Discardation of computers can be avoided with the help of Recycling them instead through manufacturer programs as there are number of which includes HP's Planet Partners recycling service or recycling facilities available Or donate computers to a non-profit agency.

Recycle your old computers, monitors, batteries, and ink and toner cartridges.



4. Disposal–Electronic Waste :

- Short product life expectancy (2-4 years).
- Same toxins in manufacturing process can cause environmental contamination.
- Human health risks.
- Lead, barium, chromium, CNS disruptors etc. (Baul, 2002)
- Human rights problems – "Exporting harm".

5. Reuse and responsibly recycle computer equipment :

At home :

- Sell it.
- Donate it : Computers for Schools.
- Recycle it : Sweep it to Sarcan.

At work (for U of S employees) :

- Transfer older, but working, computers to other U of S departments
- Send truly obsolete gear to Logistics Management - Surplus Equipment Disposal filling out the Declaration and Disposal of Surplus Assets Form .
- Review Secure Data disposal information from Campus Safety.

TECHNOLOGIES GREEN COMPUTING :

The company has been focusing on power efficiency throughout the design and manufacturing process of its products. Its environmentally friendly products are manufactured using a range of clean-computing strategies, and the company is striving to educate markets on the benefits of green computing for the sake of the environment, as well as productivity and overall user experience.

A. Carbon-free computing : One of the VIA Technologies ideas is to reduce the "carbon footprint" of users — the amount of greenhouse gases produced, measured in units of carbon dioxide (CO2). Greenhouse gases naturally blanket the Earth and are responsible for its more or less stable temperature. An increase in the concentration of the main greenhouse gases -carbon dioxide, methane, nitrous oxide, and fluorocarbons — is believed to be responsible for Earth's increasing temperature, which could lead to severe floods and droughts, rising sea levels, and other environmental effects, affecting both life and the world's economy.

B. Solar Computing : Amid the international race toward alternative-energy sources, VIA is setting its eyes on the sun, and the company's Solar Computing initiative is a significant part of its green-computing projects. For that purpose, VIA partnered with Motech Industries, one of the largest producers of solar cells worldwide. Solar cells fit VIA's power-efficient silicon, platform, and system technologies and enable the company to develop fully solar-powered devices that are nonpolluting, silent, and highly reliable. Solar cells require very little maintenance throughout their lifetime, and once initial installation costs are covered, they provide energy at virtually no cost. Worldwide production of solar cells has increased rapidly over the last few years; and as more governments begin to recognize

the benefits of solar power, and the development of photovoltaic technologies goes on, costs are expected to continue to decline. As part of VIA's pc-1initiative, the company established to the first-ever solar-powered cyber community center in the South Pacific, powered entirely by solar technology.

C. Lead-Free and RoHS computing : In February 2003, the European Union adopted the Restriction of Hazardous Substances Directive (RoHS). The legislation restricts the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment. The directive is closely linked with the Waste Electrical and Electronic Equipment Directive (WEEE), which sets collection, recycling, and recovery targets for electrical goods and is part of a legislative initiative that aims to reduce the huge amounts of toxic e-waste. Driven by these directives, VIA implemented a set of internal regulations in order to develop products that are compliant with these accepted policies, including the use of nonhazardous materials in its production of chipsets, processors, and companion chips. In 2001, they focused on lead-free manufacturing, introducing the Enhanced Ball Grid Array (EBGA) package for power efficient VIA processors and the Heat Sink Ball Grid Array (HSBGA) package for their chipsets. In traditional manufacturing processes, lead is used to attach the silicon core to the inside of the package and to facilitate integration onto the motherboard through tiny solder balls on the underside of the package. VIA's lead-free manufacturing technologies do not require a lead bead, and the solder balls now consist of a tin, silver, and copper composite.

D. Energy-efficient computing : A central goal of VIA's green-computing initiative is the development of energy-efficient platforms for low-power, small-form-factor (SFF) computing devices. In 2005, the company introduced the VIA C7-M and VIA C7 processors that have a maximum power consumption of 20W at 2.0GHz and an average power consumption of 1W. These energy-efficient processors produce over four times less carbon during their operation and can be efficiently embedded in solar-powered devices.

VIA isn't the only company to address environmental concerns: Intel, the world's largest semiconductor maker, revealed eco-friendly products at a recent conference in London. The company uses virtualization software, a technique that enables Intel to combine several physical systems into a virtual machine that runs on a single, powerful base system, thus significantly reducing power consumption. Earlier this year, Intel joined Google, Microsoft, and other companies in the launch of the Climate Savers Computing Initiative that commits businesses to meet the Environmental Protection Agency's Energy Star guidelines for energy-efficient devices.

E. vision through the pc-1 initiative : VIA isn't focusing only on the technological aspects of its eco-friendly devices, it's also taking a look at their applications. The VIA pc-1 initiative seeks to enable the next 1 billion people to get connected, by providing wider access to computing and communications technologies. The company is concentrating on empowering new, emerging markets, looking at models that reach beyond individual ownership of a PC, such as local pay-for-use facilities. Products built for such a use are characterized by ultra-efficient energy consumption and the ability to withstand heat and dust in harsh environments. In VIA's own words: "Pc-1 brings together business ingenuity

with corporate responsibility and altruism. Helping to build skills and literacy throughout the world and incorporating and preserving cultural content are goals now within our grasp. Information is the oxygen to nurturing social mobility, economic equality and development, and global democracy. Providing not just the tools and the know-how, but the support and the maintenance, is all part of what makes pc-1 the next generation of information technology, the next generation of global development". Among the company's projects under the pc-1 program are the tuXlab computer center in South Africa and an ICT Training Center in Vietnam.

These technologies are beneficial as it :

- Reduce energy consumption of computing resources during peak operation.
- Save energy during idle operation.
- Use eco-friendly sources of energy.
- Reduce harmful effects of computing resources.
- Reduce computing wastes.

CONCLUSION

The field of "green technology" is a broad range of subjects — from new energy-generation techniques to the study of advanced materials to be used in our daily life. As individuals and organizations around the world look to reduce their impact on the environment, a growing concern is the reduction of one's Carbon Footprint which is a measure of the impact human activities have on the environment in terms of the amount of green house gases produced, measured in units of carbon dioxide (CO2). Creating fully recyclable products, reducing pollution, proposing alternative technologies in various fields, and creating a center of economic activity around technologies that benefit the environment. Use mobile phones for your computing needs whenever and wherever possible.

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Information and Communication Technology (ICT) in Education

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ABSTRACT

The correlation between ICT-supported education system and economic development of a developing country has been documented by several studies. Today's Information and Communications Technology can significantly and positively impact the educational and economic landscape of the India.

INTRODUCTION

1. What is ICT?

Information and Communication Technologies are defined as all devices, tools, content, resources and services, digital and those that can be converted into or delivered through digital forms, which can be deployed for realising the goals of teaching learning, enhancing access to and reach of resources, building of capacities, as well as management of the educational system.

ICT is thought of as a reliable vehicle for education, a platform for communication, and a powerful tool for economic growth.

These will not only include hardware devices connected to computers, and software applications, but also interactive digital content, internet and other satellite communication devices, radio and television services, learning management systems, and management information systems. These will also include processes for digitisation, deployment and management of content, development and deployment of platforms and processes for capacity development.

2. Need OF ICT

Educational systems around the world are under increasing pressure to use the latest Information and Communication technologies (ICTs) to teach the students the knowledge and skills they need in the 21st century. The new Information and Communication technologies have radical implications for conventional teaching and learning. It predicts the transformation of the teaching-learning process and the way teachers and students gain access to knowledge and information.

3. Strength of ICT's

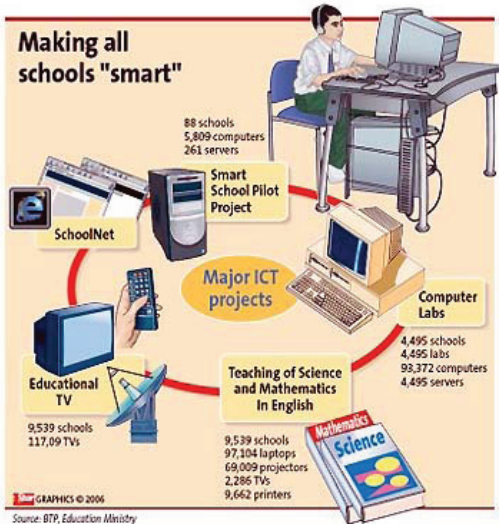
Some of the strengths of the ICTs include :

Individualization of learning : This means that people learn as individuals and not as a homogenous group. ICTs allow each individual to relate to the medium and its content.

Interactivity : Interactivity is the way in which a person can relate to the content, go forward and backward in the content, start at any point depending upon prior knowledge instead of always in a sequential way.

Low per unit cost : Per person, ICTs reduce the cost of education from very high to very low.

Distance and climate insensitive : It does not matter where you are, or how the weather is, you can still access and learn from ICTs.



4. Scope of ICT in Education

ICT as a subject (i.e. computer studies)

ICT as a tool to innovate teaching-learning practice (i.e. digital content, multimedia, teaching-learning methods, learning environment)

ICT as an administrative tool (i.e. education management information systems (EMIS)

ICT as an expanding learning opportunity (i.e. distance learning, e-Learning)

ICT as a facilitator of higher-order thinking skills (i.e. learner-centered, self-directed learning, tailored learning)

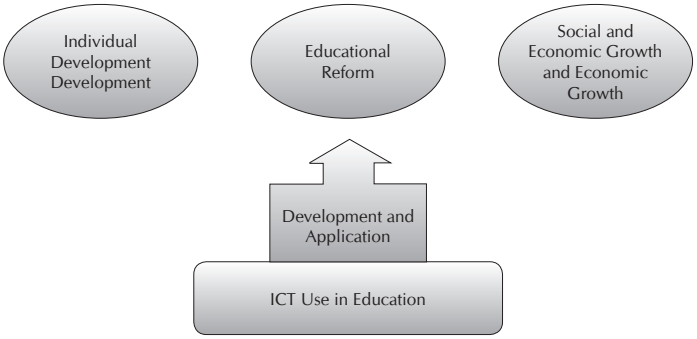
5. Role of ICT in Education?

ICT is increasingly becoming a more and more powerful tool for education and economic development.

"ICT can be a catalyst by providing tools which teachers use to improve teaching and by giving learners access to electronic media that make concepts clearer and more accessible".

ICT is used for capacity development and citizen empowerment.

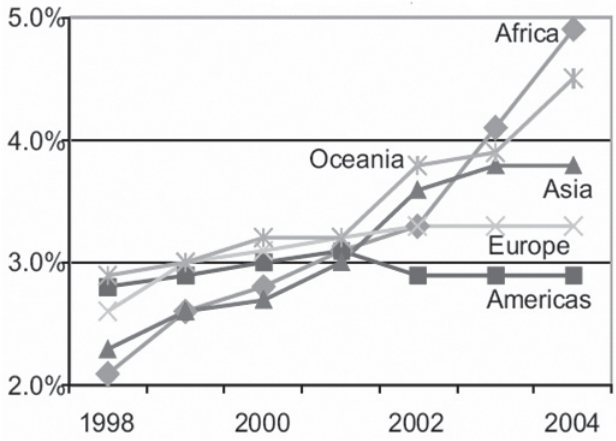
Figure : Goal of ICT in Education



(Source: Song, 2009)

6. Impact of ICT on Economic Growth

Figure : Telecommunication service revenues as a percentage of GDP, 1998 -2004.



7. Conclusion

It appears that ICT use in education and economic growth are closely correlated. In today's interconnected world, information and communication technology in education is increasingly playing important roles in boosting the economies of many developing countries. ICT has become a key driver in education, economy, politics, and culture.

Virtually all countries are investing in ICT in education today. ICT is widely viewed as a means of effecting change in education and in national economy.

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A Study on Work Life Balance of Employees With Special Reference to Polybond India Pvt. Ltd., Pune

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ABSTRACT

Work-life balance is a broad concept including proper prioritizing between "work" (career and ambition) on the one hand and "life" (Health, pleasure, leisure, family and spiritual development) on the other. A work life balance means the balance between work and personal life. There are many situations, life experiences, and "things" that can have a positive or a negative impact on level of work and life balance. There are a number of work-related improvements to everyone can make to ensure a work life balance.

The study is focused on understanding the technique used for Work life Balance at Polybond India Private Limited, Pune and its step-by-step Procedure. The study also includes collection of feedback of employees on present Work life. Researcher's focus is on deriving recommendations to the, Work life Balance if any, based on analysis and interpretation of the collected data to eliminate the problems faced by management.

The objectives set for present study are as follows :

- To find out the balance of the work life cycle of employees.
- To know about the mentality of an employee towards the work.
- To understand the importance of work life balance and its effectiveness and efficiency for performance of employees in organization.
- To find the impact of stress on employees work life.

Keywords : *Work-life balance, Stress at work, Work life cycle*

INTRODUCTION

An organisation need to attract and retain valued employees in a highly competitive labour market is a strong motivating factor for increasing organisational awareness and action with regards to human resource policies and practices that address work life balance. Work life balance is an important area of human resource management that is receiving increasing attention from government, researchers, and management and employee representatives.

Work life spillover theory states that a person's attitudes, emotions, skills and behaviours produced in one domain flow into the other. Spillover can have positive or negative effects, and can occur in both directions- Work-To-Personal Life and Personal Life- To- Work.

Work life balance, from an employee perspective, is the maintenance of a balance between responsibilities at work and at home. Employee view the benefits or working conditions that they provide to help employees balance the family and work domains as work life benefits. Work life balance strategies in an organizational setting include policies covering flexible work arrangements, child and dependent care, and family and parental leave.

In contrast, work/life conflict is defined as a form of inner role conflict in which the role pressures from the work and other life domains, such as family, are mutually incompatible in some respect, whereby participation in one role is made more difficult by the virtue of participation in the other. Climbing the organizational ladder often requires employees to work long hours.

Research has in fact shown that employees who believe they do not have time for the personal life feel drained and distracted while they are at work. In addition, the spillover of negative aspect of work into an employee's personal life can lead to job exhaustion, disruption of relationships with family and friends, loss of enjoyment, and increased stress.

NEED OF STUDY

To understand the need of work life balance, one first needs to understand about work life imbalance, as with the understanding of the origin, causes and effects of this imbalance, the balancing act becomes easier. The corporate world of today is exceedingly demanding. The work culture varies from organization to organization.

In the PIPL, balanced nature of work will enable increase in productivity and efficiency of employees. Employees will become more creative and will derive more satisfaction from work. Better teamwork and communication will offer a conducive working environment. This leads to enjoyment at work and increase passion for it. Work life balance on an individual level can bring phenomenal changes in his life and can also heavily impact a society. A balanced work life is of advantage to an employee's health. Stress levels decline drastically to healthy levels. Individuals derive more value from their work and from life that leads to greater satisfaction and is also seen as a mode of self-actualization.

RESEARCH PROBLEM

Researcher conducted the study under the title as "The Study of Work Life Balance" at Polybond India Private Limited.

Polybond has increasingly recognized that an inadequate work-life balance can have detrimental impacts on staff performance, satisfaction and retention. When employers target good work-life balance, they can see that reducing stress and frustration resulting from poor work-life balance can be beneficial to both parties.

COMPANY INTRODUCTION

- India's first rubber company certified to ISO9000, ISO14001, TS16949 standards.



- Manufacturing world-class rubber parts since 1978, with two modern plants located in the Pune region.
- Joint Venture since 2006 with Vorwerk Autotec GmbH, Germany
- Rathi Group, Pune
  - Textiles (1947)
  - Chemicals (1954)
  - Engineering(1965)
  - Rubber(1978)
- Group Companies
  - Rathi Transpower
  - Rathi Turboflex
  - Rathi Engineering Services
  - Rathi Polybond, Australia
  - Lovejoy Finance

THE PROMOTERS & CUSTOMERS OF COMPANY

• Cummins	• Volvo-Eicher	• MAN Force
• Force Motors	• Mahindra & Mahindra	• Mitsubishi Caterpillar
• Tata Motors	• Volvo/Renault/Mack	• Atlas Copco
• Bharat Electronics	• Ferromatic	• L&T- Demag
• Kaeser Kompressoren	• Audi *	• BHW *
• Daimler AG *	• General Motors* (*Through Vorwerk Autotec, Germany.)	

- **Its customers are from :**

• Sweden	• Holland	• United Kingdom
• Germany, U.S.A, Canada	• Dubai, South Africa	• Australia

STRESS AND WORK LIFE BALANCE

Steven I. Sauter, chief of the Applied Psychology and Ergonomics Branch of the National Institute for occupational Safety and Health in Cincinnati, Ohio, States that recent studies show that "The workplace has become the single greatest source of stress". Michael Feuerstein Professor of clinical psychology at the Uniformed Services University of the Health Sciences at Bethesda Naval Hospital states, "We're seeing a greater increase in work-related neuroskeletal disorders from a combination of stress and ergonomic stressors".

RESPONSIBILITY OF THE EMPLOYER

Companies have begun to realize how important the work-life balance is to the productivity and creativity of their employees. Research by Kenexa Research institute in

2007 shows that those employees who were more favorable toward their organization's efforts to support work-life balance also indicated a much lower intent to leave the organization, greater pride in their organization, a willingness to recommend it as a place to work and higher overall job satisfaction.

Employers can offer a range of different programs and initiatives, such as flexible working arrangements in the form of part time, casual and telecommuting work. More proactive employers can provide compulsory leave, strict maximum hours and foster an environment that encourages employees not to continue working after hours.

It is generally only high skilled workers that can enjoy such benefits as written in their contracts, although many professional fields would not go so far as to discourage workaholic behavior. Unskilled workers will almost always have to rely on bare minimum legal requirements. The legal requirements are low in many countries, in particular, the United States. In contrast, the European Union has gone quite far in assuring a legal work-life balance framework, for example pertaining to parental leave and the non-discrimination of part-time workers.

According to Stewart Friedman – professor of Management and founding director of the Wharton School's Leadership Program and of its Work/Life Integration Project---a "one size fits all" mentality in human resource management often perpetuates frustration among employees. " (It's not an) uncommon problem in many HR areas where, for the sake of equality, there's a standard policy that is implemented in a way that's universally applicable – (even though) everyone's life is different and everyone needs different things in terms of how to integrate the different pieces. It's not to be customized".

Friedman's research indicates that the solution lies in approaching the components of work, home, community, and self as a comprehensive system. Instead of taking a zero-sum approach, Friedman's Total Leadership program teaches professionals how to successfully pursue "four-way wins" – improved performance across all parts of life.

A diagram depicting what happens when the delicate ratio of work/life gets out-of-whack



COLLECTION OF DATA :

The sources of data are divided into two types, i.e. Primary data & Secondary data.

1. Primary Data Sources : The Primary Data are those which are collected a fresh and for the first time. Primary data is also called basic data or original data. Sources used by researcher for it are :



a. Questionnaire, b. Discussion

2. Secondary Data Sources : The secondary data means data that are already available in various reports, diaries, letters, books, periodicals, etc. The secondary data are those, which have been used previously for any research and now used for second time. In short, the data presented in research reports when used again for further research, the data are to be said as 'Secondary Data'. Sources used by researcher for it are:

a. Books, b. Journals, c. Annual reports, d. Reports published in organizations.

SAMPLE DESIGN

A sample of employees is taken out of a total population of 850 employees, based on Random sampling. The sample is selected in such a way that it includes the employees of all ages, different designations from different educational streams with distinct experience from various departments.

Hence the sample is a representative of the population and an unbiased mix of all factors

SAMPLE SIZE

Out of the total universe of employees a total of 100 employees belonging to different units of PIPL namely:

- Human resources (10), • Production (52), • Maintenance (35)
- Moulding (340), • Quality (14), • Marketing (17)
- Mixing (376), • Testing (6) etc.

Was interviewed and given the questionnaire to fill.

RESEARCH INSTRUMENT

The research instrument used for the survey is a structured undisguised questionnaire. The questionnaire has been framed in structures and undisguised form, with a total number of 18 questions. It has both open ended and closed ended questions. The information collected through personal interview is also being used. Pre-testing was conducted to find if there were any discrepancies in the questionnaire designed necessary changes were made after designing the questionnaire for which data was collected.

Diagrams used :

- Bar Charts
- Pie Chart

FINDINGS

The research is conducted in Polybond India Private Limited, Pune. The researcher found the following findings, which are on the basis of Data Analysis and Interpretation:

1. Most of the employees are able to balance their work life
2. 85% employees feels that there will be good work life balance when the organization will be more effective and successful.
3. 42% employees are satisfied with the working conditions of company
4. Employees concentration on work will effect by residing thinking on their family future.
5. 17% employees miss out quality time with family/ friends due to pressure of work.
6. 82% employees works for 6 days in a week.
7. 24% employees spend more than 2 hours to reach at home from work.
8. 55% employees suffer stress due to interpersonal relations.
9. Employees suffer physical as well as mental stress in their job.
10. Employees spend more of the time with their children's after going back home.
11. For 41% employees conflict of work impact on their personal life.
12. Various welfare facilities like health care, safety equipments, social security, healthy environment are provided by company.
13. Employees suffer physical inconvenience like headache, high blood pressure, hypertension, nervousness due to stress.
14. Employees use strategies like exercise, meditation, listening to music, spending time with children's to manage stress.
15. Various companywide programs are adopted to manage stress.
16. 36% employees feel that their job is challenging.

SUGGESTIONS

The researcher has done the research on the relation between work life balance and stress at PIPL. The following pit holes which can be used for the improvement for the company:

1. Company must arrange training based on stress management every month through which employees can reduce their physical and mental stress due to work. Here trainer can be from the organization itself or outside trainer can be arranged.
2. Management would concern for workload sharing and proper planning of timing of each employee and his/her individual work which can increase the efficiency and effectiveness of company. For it if needed more employees can be hired to reduce excess workload.
3. 3. The success of the company depends upon the performance of the employee so they should consider the balance diet which is prescribe by law that is 180 calories for each lunch/dinner so they can physically and mentally be fit for job.
4. 4. Most of employees spend near about 1 to 2 hours to reach at work therefore in the company bus motivational cds can be played that can reduce the stress and be useful for motivation

CONCLUSIONS

Company may enhance the work life balance which can have detrimental impacts on staff performance, satisfaction and retention. The higher levels of work-to-family conflict reported by managers or professionals often are a function of their longer work hours. Today's worker have many competing responsibilities such as work, children's, housework, volunteering, spouse, and elderly parent care and this places stress on individuals, families and the communities in which they reside . the improvements in people management practices, especially work time and work location flexibility, and the development of supportive managers, contribute to increased work life balance. Work life balance programs have been demonstrated to have an impact on employees in terms of recruitment, retention/turnover, commitment and satisfaction, absenteeism, productivity, and accident rates.

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Analyzing Employee Satisfaction Towards Welfare Measures- GTN Spinning Mills Baramati

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ABSTRACT

The paper entitled Analyzing Employee Satisfaction towards Welfare Measures-GTN Spinning Mills Baramati in concerned with various welfare measures prevailing in the GTN Spinning Mills Baramati and also identifying employee satisfaction with it. Welfare provisions of Factories Act 1948 are important as far as the nature of the work in the textile mills where labours are working in harmful and stressful environment. Therefore, it needs to concentrate more in the area of employee welfare. In this study we measured that, welfare measures provided in the company and awareness of workers about such practices. We also measured that, satisfaction of workers towards each welfare measures by way of using weighted average and rank test method.

Keywords : *Welfare Measures, Spinning Mills.*

INTRODUCTION

Welfare is comfortable living and working conditions". Employee welfare means the efforts to make life worth living for workman. Anything done for the comfort and improvement of the workers over and above the wages paid. The factories act 1948 made provision of welfare measures includes various facilities, services and amenities provided to workers for improving their health, efficiency, economic betterment and social status. The very logic behind providing welfare schemes is to create efficient, healthy, loyal and satisfied labor force for the organization. The purpose of providing such facilities is to make their work life better and also to raise their standard of living.

LITERATURE REVIEW

"Cooperative Unionism and Employee Welfare" by Michael R. White (University of Westminster - Policy Studies Institute) Industrial Relations Journal, Vol. 36, No. 5, pp. 348-366, September 2005. Using British national survey data, this article assesses the impact of unions on management practices to reduce labour costs, implement high-performance work systems, and make employee welfare provisions. Relative to non-union workplaces, those with unions are found to have practices which are consistent with 'mutual gains' outcomes.

"Provision Of Welfare Under Factories Act & Its Impact On Employee Satisfaction" by Parul P Bhati (Research scholar Karpagam University), Dr. Ashokkumar M (Professor & Head,

Department of Management, Karpagam University) Journal of Business Management & Social Sciences Research (JBM&SSR) ISSN No: 2319-5614 Volume 2, No.2, February 2013. This paper studies the impact of Welfare under Factories Act 1948 On Employee Satisfaction. For this researchers have taken the overviews of Engineering Industry. Researcher has measured the impact of welfare provisions on employee satisfaction by way of the correlation technique and also measured that whether any difference in terms of employee satisfaction towards welfare provision exists by way of using one way Annova test.

"A Study On Performance of Labour Welfare Measures of Indian Industries: An Overview" by Dr. A. Jebamalairaja (Associate Professor, Dept of Economics, Urumu Dhanalakshmi College, Trichy, Tamilnadu, India) R. Pichumani (Associate Professor, Dept of Economics , A.A.Govt. Arts College, Musiri, Trichy, Tamilnadu, India) IJMRR April 2012/ Volume 2/Issue 4/Article No-9/546-551 ISSN: 2249-7196. In this article find out the labour-welfare measures adopted by various industries in India, analyzed the statutory and Non-statutory measures of Industrial labour, effectiveness of these measures in morale building and in enhancing the productivity of the Organization, assess the social security measures at Industrial labours. Researcher has observed that the labour-welfare measures in the industrial sectors are not yet developed and implemented. They are the crucial for any industrial orgnisation to enhance its productivity in the global world, No labour, No production is the slogan of Industrial sectors.

SCOPE OF THE STUDY

The scope this research is to study various welfare measures which mentioned in factories act 1948 provided by GTN Spinning Mills, Baramati and their relation with employee satisfaction. The geographical scope of the study is confined to GTN Spinning Mills, Baramati.

OBJECTIVES OF THE STUDY

The following are the objectives of the study :

1. To study various welfare measures prevailing in the GTN Spinning Mills.
2. To analyze the relation of welfare measures & employee satisfaction.

RESEARCH DESIGN

The nature of the study is descriptive research. Working blue collar employees of GTN Spinning Mills, Baramati is sample unit for this research. There are 116 on roll blue collar workers in the mill out of that 25% sample size is selected i.e. 29 respondents. Hence simple random sample method is adopted. To collect primary data from the respondents, researcher has used structured questionnaire which will be filled by the respondents. Secondary data is collected from company records HR manual, Reference Books, website etc.

DATA ANALYSIS AND INTERPRETATION

Table No.1 : Personal profile of the respondents using percentage analysis

Group	Classification	No. of Respondents	Percentage
Gender	Male	20	68.96552
	Female	09	31.03448

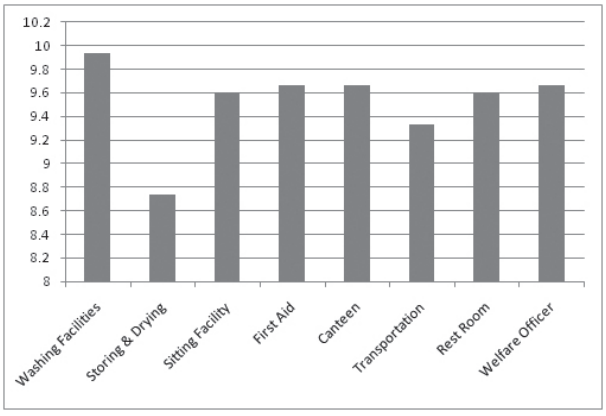
Educational Qualification	5th Std. To 10th Std.	25	86.2069
	ITI	04	13.7931
	UG	00	0
	PG	00	0
Years of Service	1-5 Years	22	75.86207
	6-10 Years	07	24.13793
	11-20 Years	00	0
	Above 20 Years	00	0
Marital Status	Married	14	48.27586
	Unmarried	15	51.72414

From the above table it shows that, Majority of the respondents are male, Majority of the Majority of the respondents are between 5th to 10th standard level of Educational qualification, near about 50% of the respondents are married, Majority of the respondents experience are in between 1 to 5 years.

Table: 2- Shows workers satisfaction towards welfare measures

Sr.No.	Welfare Measure	Weighted Average	Rank
1.	Washing Facilities	9.93333333	1
2.	Storing & Drying	8.73333333	5
3.	Sitting Facility	9.60000000	3
4.	First Aid	9.66666667	2
5.	Canteen	9.66666667	2
6.	Transportation	9.33333333	4
7.	Rest Room	9.60000000	3
8.	Welfare Officer	9.66666667	2

(Source : Primary Data)



FINDINGS

1. From the above table it shows that, all statutory welfare measures prevailing in the company. Even though the majority of workers education is below matriculation but, still they aware about welfare practices.
2. Weighted average method is applied to analyze satisfaction of workers towards welfare measures. According to the calculated values it is found that majority of workers are highly satisfied with welfare measures.
3. According to rank test method it is found that, majority of workers i.e. above (Weighted Average) 9.5 are highly satisfied with Washing Facilities, Sitting Facility, First Aid, Canteen, Rest Room, Welfare Officer.
4. It is observed from the weighted average analysis that, Storing and drying & transportation are the measures for which employee satisfaction is less (The rank for Storing and drying is 5 and for transportation are it is 4)

CONCLUSION

Provision of welfare measures has been made in Factories act 1948. It has made to maintain healthy and comfortable workplace environment in the company. These practices are used to improve the motivation and job satisfaction among the employees and ultimately the productivity also increases. To implement such practices in the organization management needs to put first step forward because, such things influences organization's goodwill in the market and in society also.

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Sustainable Development : A Case Study With Special Reference to Vasundhara Vahini, Community Radio (90.4 Mhz), Baramati

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ABSTRACT

The day came and Baramati got its own Community Radio "Vasundhara Vahini" 90.4 MHz on 1-April-2004. With Vision of improving knowledge of farmers with the help of Radio Media Hon. Sharadchandra'ji Pawar wished to have common platform to farmers for sharing their ideas to others. Under the direction of Dr. Amol Goje, Director VIIT the station started its working. Community Radio also focused on children education and improvement of women activities.

At the time of inception Vasundhara received funding from World Bank and Trust for procurement of technical equipment's. Current funding needs are fulfilled on local advertisements which are listened up to 30 km radius around the station.But this funding is not enough to run Vasundhara Vahini, so there is need to improve sources of funding by different means. This will assure long term sustenance for the Radio in era of internet and information technology which has deepened its roots among people in the society.

When it comes to Receipt and Payment accounts of the Radio with current earnings there is very low possibility of sustenance of radio in long term and development as well. After analyzing situation Dr. Amol Goje calls meeting to discuss problem of funds facing by Vasundhara Vahini with Mr. Sanjay Jagtap, Project Co-Ordinator and Mr. Yuvraj Jadhav, Station In-charge.

Key Words : *Sustainable Development, Community Radio, Funding.*

INTRODUCTION OF COMMUNITY RADIO

Community radio is defined as having three aspects: nonprofit making, community ownership and control, community participation. It should be made clear that community radio is not about doing something for community but about the community doing for itself. Community radio gained momentum as an alternative to publish and commercial radio in the late 70s.in the west; community radio fulfils the needs of self-expression for groups who have negligible access to the mass media. In countries with autocratic or totalitarian governments, community radio become a means for passive or active resistance. Radio reaches people who cannot read or write. Even in the very poorcommunities, radio has a far-reaching penetration.



Tabingdefines a community radio station as 'one that is operated in the community, forcommunity, about the community and by the community'.

Thus community radio may be owned and managed by one group or by combined groups. It could also be controlled and run by people such as women,children,farmers,fisher folk,ethnic groups, senior citizens. Community radio works s a cultural broadcast mechanism that adapts perfectly to reflect the interests and needs of the community it serves and offers people of the marginalized sectors an opportunity to express themselves socially, politically and culturally.

COMMUNITY RADIO STATIONS

- Serve a recognizable community.
- Promote access to media facilities and to training,production and distribution facilities as aprimary step towards full democratization of the communication system.
- Facilitate full interaction between the producers and receivers of massages.
- Are managed and own by the community members. Community or their representatives have a voice in the financing of radio programmes.

WORLDWIDE COMMUNITY RADIO

The right of communicate & to have affordable access to the means of communication is increasingly being acknowledged throughout the world as a fundamental human right. The pioneering experiences from which today's community radio has evolved began some 50 years ago in America. Poverty & social in justice were stimulus for those 1st experiences, one beginning in Bolivia in 1947 & known as the Miners radios & another in Colombia In the same year, known as Radio Sutatenza/AccionCulture popular.These experiences in Bolivia & Colombia set a trend, even if today's concept of community radio has evolved considerably. Thus, their principal focus was to unite the community of Miners to battle for better & fairer working conditions they were generally considered to be trade union radios, even if the Miners provided much of the finance for the purchase of equipment &running costs.

According to Dagron (2001), radio is the most pervasive & economical electronic medium in the world with the potential to serve as an 'ideal medium for change' F or over 50 years now, radio has been the 'most appealing tool' for participatory communication & development & community radio stations have 'multiplied by the thousands' all over the world.

FOOTPRINTS FROM DIFFERENT COUNTRIES

Nepal : FM Broadcasting in Nepal may be seen as consisting of commercial and community Radio stations. Out of the 22 independent radio stations that were issued licenses and operational deal 2002 in Nepal, five could be categorized as non-profit

community station. The community broadcasters focus on locally relevant information and discussions and on national/local culture.

Latin America : Latin America today has one of the most diverse and dynamic radio station in the world with hundreds of stations even in the smaller countries the radio activists and independent stations are lobbying aggressively for the need to legislate for socially-owned media as essential for social communication especially for small community.

Australia : In Australia, Community broadcasting has been allowed for nearly two decade on the condition that stations licensed under that category must be: (A) Non-Profit enterprises that reflect community purposes and interests. (B) Operated with the participation of community members.

The objective of the Australian policy includes promoting the diversity of broadcasting services, developing and reflecting Australian identity, character and cultural diversity and providing programming material that is locally significant.

Philippines : The first genially community based radio to be set up in Asia was in Philippines. As the part of Tamboli Community Radio Project of UNESCO in the 90s. The Danesh International Development Agency (DANIDA) space provided the International and UNESCO setup management and training team to co-operate with communities to organize independent community radio stations in less developed rural areas in the Philippines.

Sri-Lanka : Radio came to Sri-Lanka as early as December 1925 when the Cyclone Broadcasting Service (CBS) was established the CBS was subsequently brought under the broadcasting act no. 37 of 1966 and in now known as the Sri-Lanka Broadcasting Corporation (SLBC). A Farm Broadcasting Unit was established within SLBC in 1967 and a daily rural service was aired from 1969. The programs of SLBC's services of rural communities are broadcast in all three languages – Sinhala, Tamil and English- of the national and local services but focus more on teaching rather than sharing experiences.

A BRIEF HISTORY OF COMMUNITY RADIO

- 1947 Colombia, where the first community radio in the developing world was started.
- 1949 Bolivia's miners' community radio, created a powerful alternative voice from day one 1949 USA's first listener-sponsored community radio went on air.
- 1964 Rural radio began to be developed in Africa with the support of FAO.
- 1971 Australia's first community radio took off.
- 1970s European community, alternative, free, clandestine and often pirate radios emerged in the thousands.
- 1981 Mahaveli community radio, Sri Lanka, was launched with support from UNESCO.
- 1982 Homa Bay community radio was opened in Kenya with important UNESCO support and funding.



- 1981-3 Scandinavian Government initiated periods of community radio experiments which broke the monopolies.
- 1990s African community radios mushroomed, following the gradual democratization of countries.
- 1990s Asian community radios took off with Philippines early 1990s, followed by mushrooming movements in Nepal (1997 Radio Sagarmatha began) and in Indonesia (after Suharto's fall in 1998).
- 2006-7 India's hard work to open access for on air community radios finally succeeded.
- 2008 Bangladesh community radios went to air— after strong advocacy and struggle.

COMMUNITY RADIO INITIATIVES IN INDIA

The Deccan Development Society (DDS), and NGO working with poor, rural, Dalit women in the zaheerabad area of Medak district in Andhra Pradesh, for nearly two decades, set up a community radio station with assistance from UNESCO in 1998.A couple of young Dalit women from the area mange the station, produce programmmes and take the audiotapes for narrowcasting in the village sangams (autonomous groups of women).

Another landmark initiative was jointly set up by VOICES and MYRADA- called 'Namma Dhwani' (Our Voices), where programmes were produced by communities in and around the village of 'Budikote' (about 100 kilometers from Bangalore), and were distributed over the nearest All India Radio station and subsequently over the local cable network. In the west, 'Kutch Mahila Vikas Sanghatan', a civil society group in Gujarat worked with the women in Kutch District to produce programmes on local developmental and cultural issues, and started broadcasting on the nearest All India Radio Station.

In the northern part, Alternative for India Development made programmes with community members in Garhwa block of 'Jharkhand', and broadcast programmes over the Daltonganj All India Radio Station. Community Groups in Chamba, and Rudraprayag, both in Uttarakhand started producing participatory programmes and broadcast over the World Space Satellite Radio network.

By early 2003, the government of India released the first set of community radio guidelines, but unfortunately, restricted eligibility to educational institutions only. Marginalized and voiceless communities continued to remain outside the ambit of the then released community radio policy guidelines. Anna FM was India's first campus "community" radio station. Launched on 1 February 2004, it is run by the Education and Multimedia Research Centre (EMRC); Anna university community radio pioneered by Dr. R Sreedhar.

On 16 November 2006, the government of India implemented new Community Radio Guidelines, which permit NGOs educational institutions and agricultural institutions to own and operate community radio stations. By 30 November 2008, there were 38 operational community radio stations in the country. Of these, two are run by NGOs and the rest by educational institutions.

CHALLENGES TO COMMUNITY RADIO IN INDIA

Community Radio plays a central role in community development. To play this role they need to provide quality programs to ensure continued audience, and support from the community. It has been a great success in developed nations but has lacked in developing countries because of illiteracy and lack of awareness among people. Community radio faces the challenges in effective and quality Program production in terms of content, production quality and community involvement:

- A high turnover of staff that causes a lack of journalistic and technical skills and thus a consistent demand for training. Training on offer in most countries does not address the specific needs of Community Radio.
- Community Radio derives its strength and popularity from community participation. In practice participation is harder than it seems, because it is labor intensive, requires the right attitude, skills and mobile equipment.
- Without proper management skills, as well as some knowledge of financial management and income generation, it is very hard for Community Radio to survive without donor funding, which will always, eventually, dry up.
- Community Radio is by definition relatively small and often situated in locations where basic services, like a constant supply of electricity, are lacking. Due to these conditions equipment suffers and needs to be vigorously maintained and/ or regularly replaced.
- In many countries there is still a lack of a clear regulatory framework in which Community Radio operates.

Among the various challenges faced by the community radio, the participation from the people is the major one and no community radio can survive without participation of people as it demands 70% participation of the community people.

VASUNDHARA VAHINI (90.4 MHZ)

"Vasundhara vahini" 90.4 MHz is dedicated and devoted community radio station that caters to farmers in 35-km radius in and around Baramati. This radio station has started on 4th March, 2005 in Vidya Prathisthan's Institute of Information Technology (VIIT).

"Vasundhara Community Radio is a form of local radio which defines itself as an autonomous entity and relies on the community for its survival without any commercial aims or objects." Vasundhara Community Radio is a medium that gives voice to the voiceless that serves as the mouthpiece of the marginalized and is at the heart of communication and democratic processes within societies. Community radio is a program conceived, devised, developed and managed by the Community.

Vasundhara Community Radio is based on the agro-based radio, which is located in Baramati and rural area of Daund, Phaltan, Indapur and Baramati Tahsil with frequency of 90.4 MHz. Vasundhara has many programs achieving a lot of success in daily four hours broadcasting.Vasundhara vahini do the work to improve the knowledge of farmers with the help of radio media trying for sustainable development in broadcasting area.

Vasundhara Vahini concentrates on children education and create new content for new generation. Vasundhara Vahini is empowering the women by the other activities and various experts talk on the health of them. Vasundhara Vahini's vision is to develop rural community by the experts with medium of radio as mass media, sustaining local art to inspire local culture creates dais for folk artist, common man and farmers to perform of sharing ideas.

Hon. Sharadchandraji Pawar (Agriculture Minister of GOI) have already done a lot of contribution in Agricultural sector. He always wishes that there should be a common platform to farmers for sharing their ideas to others for completion of this wish in Baramati Vidya Pratisthan institutes VIIT Department starting this radio station under the direction of Dr. Amol Goje.

There is one common thought is that "Farmer listens of farmer" Vasundhara vahini was started to provide common platform to all the farmers to discuss their agriculture issue on radio station it began in the campus of Vidya Pratisthan. Vasundhara Vahini focus on children education and the improvement of women activities.

Station launch	1st April 2004.
Hours of broadcast	8 hours. (broadcasting timing morning 6 am to 10 am and evening 4pm to 8 pm)
Languages of broadcast	Marathi.
Program Bank	Sheti Pathshala, Shasan – Darbar, Sant- Vaani, Chala Engraji Shikuya, Amrutvaani, Ayush ghadavnari manase.

Vasundhara Vahini contact to school & colleges and gives them some subject. Station organize different discussion on various social issues and invite authorities. Field officers reach to person who have make some different than other and invite him in the studio if it's not possible then field officers reach in the field for outdoor recording. People who get involved in creating content, Vasundhara Vahini give them participation certificate.

Audience like to listen local folk songs because they have local touch. They are thankful to Vasundhara Vahini about expert talk based on various social and Farm based issues. They get awareness about schemes of government with the help of radio. Station is run with participation of community. Vasundhara Vahiniorganize different sections of discussion on different social issues. So many experts and common people joined with Vasundhara Vahini. Its field officers were reached in the farmers of the farm and communicate with them of different crops and with the help agriculture officer Vasundhara Vahini provide solution through their radio. Vasundhara invites folk artist to record their performance in their station they jointly work with NGOs and various government sectors. They have started second inning program for pensioners.

FUNDING AT THE TIME OF INCEPTION

Funding from trust and World Bank for procurement of technical items.

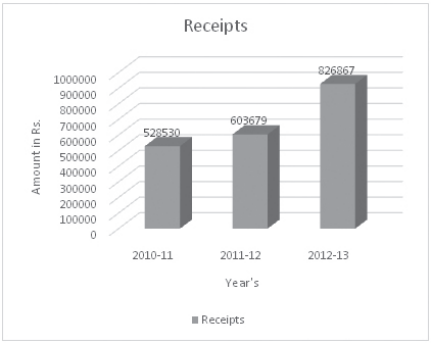
MODE OF PRESENT FUNDING

Vasundhara Vahini is sustaining on local advertisements. There is one marketing representative for collecting the advertisement. Station is earning from different types of ground activities. Working with different type of government sectors and NGOs Vasundhara has started one club for listeners (Women) named 'Vasundhara Mahila Manch' with help of this group Vasundhara play many activities. Vasundhara has taken membership from them. With the help of group Vasundhara plans different type of training programs.

Current Financial Position of Vasundhara (90.4 MHz)

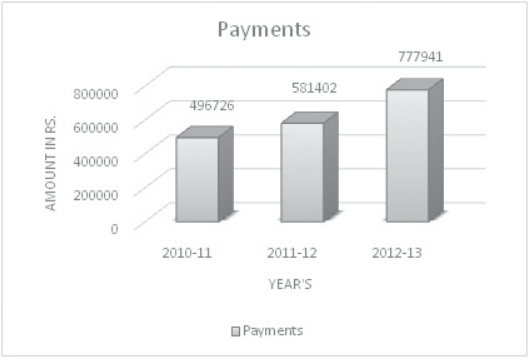
Receipts of Vasundhara for Financial Year 2010-11, 2011-12 and 2012-13 :

Year	Receipts
2010-11	528530
2011-12	603679
2012-13	826861

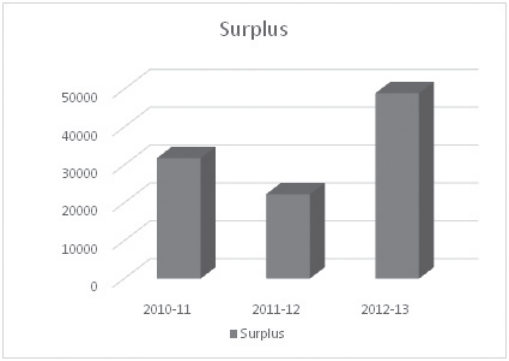


Payments of Vasundhara for Financial Year 2010-11, 2011-12 and 2012-13:

Year	Payments
2010-11	496726
2011-12	581402
2012-13	777941



Year	Surplus/ (Deficit)
2010-11	31804
2011-12	22277
2012-13	48920



WAY AHEAD FOR VASUNDHARA VAHINI 90.4 MHZ

To establish one common platform for folk artist.

To sustain local culture.

To empower women as broadcaster.

To maintain recording of all old rare forms of folk songs.

To establish consultancy to solve any problem of community with help of experts.

To work as mediator in government and community for solving problems of community.

To carry out these activities Vasundhara Vahini needs funds in sufficient amount.

When it comes to Receipt and Payment accounts of the Radio with current earnings there is very low possibility of sustenance of radio in long term and development as well. After analyzing situation Dr. Amol Goje calls meeting to discuss problem of funds facing by Vasundhara Vahini with Mr. Sanjay Jagtap, Project Co-Ordinator and Mr. Yuvraj Jadhav, Station In-charge.

Analyze the situation and offer your suggestions to the problem of funding.

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A Social Media Networking : Dynamic Medium of Interaction. A Study Based on Students of Baramati Region

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ABSTRACT

The advent of social media is transforming the way in which people connect with each other and the manner in which information is shared and distributed. It is different from traditional media such as print, radio and television in two significant ways – first, the amount of content that can be generated by the users themselves far exceeds the content generated by news/opinion makers and second, its "viral" ability for potential exponential spread of information by word of mouth and interlinking of the various social media platforms, thereby considerably reducing the control over spread of any such information.

These characteristics denote the paradigm shift from Web 1.0 technologies that enabled simple information sharing and basic two-way transactions to Web 2.0 – where literally everyone is/can be a user as well as generator of content. Social media is redefining the way people communicate with one another.

In order to encourage and enable government agencies to make use of this dynamic medium of interaction, a Framework and Guidelines for use of Social Media by government agencies in India has been formulated. These guidelines will enable the various agencies to create and implement their own strategy for the use of social media. The document will help them to make an informed choice about the objective, platforms, resources, etc. to meet the requirement of interaction with their varied stakeholders.

Keywords: *Social Media, Social Media networking, social issues, communication, college students, social media websites.*

OBJECTIVES

The primary objective of this research work is to study the role of social media networking in the students of Baramati region. Also to study the types of various social medium used for the communication by the students of the Baramati region.

I. Introduction :

What is Social Media?

Social Media in recent times has become synonymous with Social Networking sites



such as Face Book or Micro Blogging sites such as Twitter. However, very broadly social media can be defined as any web or mobile based platform that enables an individual or agency to communicate interactively and enables exchange of user generated content.

Social Media Characteristics: Critical characteristics of social media are-

- **Connectedness :** This attribute showcases the media's ability to connect and reconnect like-minded people or people interested in same topics and domains. Through this media, 24*7 connectedness is possible through a variety of media and access devices including PCs, Laptops, mobile phones etc. Individuals re-tweeting & following other people's comments and status and updating their own account at all hours are examples of this attribute.
- **Collaboration :** The connections achieved on this media, enable people to collaborate and create knowledge. Such collaborations can be either open or closed. Wikipedia is an example of open collaboration which enabled creation of an open web based encyclopedia through contribution from hundreds of thousands of people. GovLoop is an example of closed collaboration wherein experts groups contribute on specific policy matters.
- **Community :** Connectedness and collaboration helps create and sustain communities. These communities can create awareness about various issues and can be used for seeking inputs into policy making, building goodwill or even seeking feedback into delivery of public services. Pictorially, the characteristics have been depicted below to show the inter-linkages between all characteristics and their mutual dependency.

Need for Social Media Guidelines-

Given its characteristics to potentially give "voice to all", immediate outreach and 24*7 engagement, Social Media offers a unique opportunity to governments to engage with their stakeholders especially citizens in real time to make policy making citizen centric. Many governments across the world as well many government agencies in India are using various social media platforms to reach out to citizens, businesses and experts to seek inputs into policy making, get feedback on service delivery, create community based programmes etc. However, many apprehensions remain including, but not limited to issues related to authorization to speak on behalf of department/agency, technologies and platform to be

- Used for communication, scope of engagement, creating synergies between different channels of communication, compliance with existing legislations etc. It was therefore felt that Guidelines for use of Social Media were required which would enable project owners/implementers to effectively use these platforms.

II. Review of Literature :

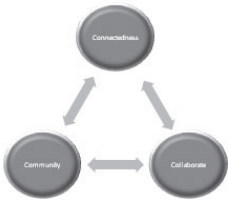
Challenges in Using Social Media-

- **Why to use social media :** Departments sometimes find it difficult to define the need or objective to use social media. Is it for providing information, seeking feedback, generic interaction, etc. Due to this lack of clarity, departments often either choose not to use social media or attempt to be present on all platforms at once.

- **Which Platforms to use:** Given the plethora of platforms and even types of social media, it is very difficult to choose the type and no. of platform on which to engage and how to create inter-linkages between these platforms.
- **Who will engage:** Most departments have limited capacity to engage with traditional media itself and since social media demands a deeper and constant interaction, availability of such resources is even more limited. A closely associated question is that of authority i.e. who is authorized to respond on behalf of the department, whether such a response will be made in personal or official capacity and from personal or official account etc.
- **How to engage:** Use of social media is an ongoing process and requires long term commitment. Many have questions around rules of engagement – how to create and manage an account, what should be response time, what are the legal implications etc.

In order to help departments and government agencies to meet these challenges, Guidelines for use of Social Media have been drafted. In the following section, various elements of the Framework and the Guidelines to use the different elements of Framework have been detailed Commitment. Many have questions around rules of engagement – how to create and manage an account, what should be response time, what are the legal implications etc.

In order to help departments and government agencies to meet these challenges, Guidelines for use of Social Media have been drafted. In the following section, various elements of the Framework and the Guidelines to use the different elements of Framework have been detailed.



Need for Using Social Media: With the ever increasing diffusion of ICTs in all walks of lives, connectedness is increasingly becoming a given part of our lives. This connectedness brings with it many opportunities and also presents many challenges. From the perspective of governments, the following represent some of the reasons for using social media:

- **Enhanced Outreach**: As the recent world events have demonstrated, social media have emerged as a powerful platform for forming an opinion as well as generating mass support. In India, Face Book alone has over 40 million users each. Even a micro blogging site Twitter has about 16 million users. These sites offer an opportunity to reach out this audience at a key stroke. Many of these facilitate access through mobile devices and with nearly 900 million mobile users in India, it offers an unprecedented outreach.
- **Real Time engagement:** Social Media releases the shackles of time and place for engagement. They can connect policy makers to stakeholders in real time. In recent Libyan crisis, Ministry of External Affairs used social media platforms such as Twitter to assist in locating and evacuating Indian Citizens from Libya.
- **Individual Interaction:** In tradition forms of media, interaction with individual user is either not possible or is very limited. Social Media platform offers the ability to connect



with each and every individual. Such an interaction also enables the marginalized to participate in discussions and present their point of view, thereby improving the political position of marginalized or vulnerable groups. It is specifically useful when seeking feedback on services rendered.

- **Managing Perceptions**: One of the big challenges for government is to avoid propagation of unverified facts and frivolous misleading rumors with respect to government policies. Leveraging these platforms can help to counter such perceptions and present the facts to enable informed opinion making.

Types of Social Media

Kaplan and Haenlein in 2010 classified social media into six different types: collaborative projects, blogs and micro blogs, content communities, social networking sites, virtual game worlds, and virtual social worlds. A brief description of some of the most common types of social media is given below:

Social Networking: Social Networking is an online service that enables its users to create virtual networks with likeminded people akin to social networks in real life. It often offers the facilities such as chat, instant messaging, photo sharing, updates, etc. Currently, social networking sites are the most prominent version of social media. Face Book with 800 million users is one of the most well known social networking site.

Blogs: Blogs are descriptive content pages created and maintained by individual users and may contain text, photos and links to other web sites. The main interactive feature of Blogs is the ability of readers to leave comments and the comment trail can be followed.

MicroBlogs: MicroBlogs are similar to Blogs with a typical restriction of 140 characters or less, which allows users to write and share content. Twitter is the most well known micro blogging site.

Vlogs and Video Sharing sites: VideoBlogs or Vlogs are blogging sites that mainly use video as the main form of content supported by text. YouTube is the largest video sharing site.

Wikis A Wiki is a collaborative website that allows multiple users to create and update pages on particular or interlinked subjects. While single page is referred to as "wiki page" the entire related content on that topic is called a "Wiki". Wikipedia is the pioneering site of this type of platform.

Some of the other popular social media sites include

- SlideShare – Similar to YouTube, here only presentations in PDF, PPT, KeyNote or Open Office format can be uploaded
- Orkut and LinkedIn – These are two other popular social networking sites. While the former is an open site, the latter is primarily a business networking site
- Picasa and Flickr – These are photo sharing sites

III. Research Methodology:

It would be more appropriate to call this work as Descriptive type of Research. The descriptive research includes fact finding enquiries and surveys of different kinds to provide

data about the population being studied.

Span	Baramati region of Pune District.
Sampling	Simple Random Sampling.
Type	Students who use Social Media networking sites like facebook, my Space, whatsapp, orkut etc..
Size	Approximately, 200 Students from Baramati.
Research Instrument	Questionnaires and Interviews.
Sample Size	But only 147 students responded positively for the Survey.

Serial no	Samples	Number
1	Respondents(male)	95
2	Respondents(Female)	52
Total		147

Serial No.	Age wise Samples	Number
1	Age 18-19 yrs	24
2	Age 20-21- yrs	45
3	Age 22-23 yrs	31
4	Age 23-24 yrs	48
		147

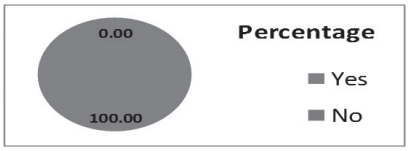
Primary Data Collection: Through Questionnaire filled up from Students from Baramati region of Pune District. They are Active online users like social networking sites.

Secondary Data Collection: Here, Newspapers, Magazines, Periodicals, Government of India Reports, Ministry of Information Technology Reports for Publications, Web sites of Central government, State Governments etc. studied to get the necessary details.

IV. Data Captured and Interpretation:

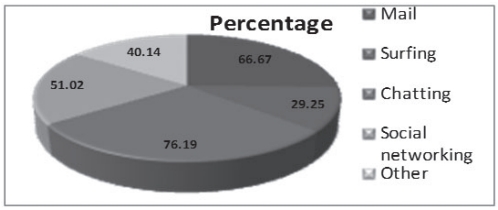
1. Do you use social networking sites?

	Out of 147	*Percentage*
Yes	*147*	*100%*
No	*0*	*0*
	147	*100%*



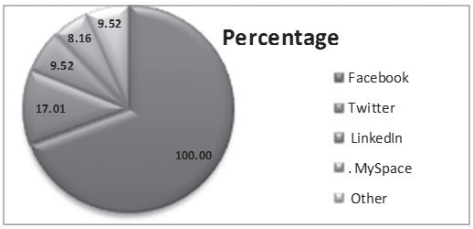
2. Which is the purpose of Internet usage?

	Out of 147	*Percentage*
Mail	*98*	*66.67*
Surfing	*43*	*29.25*
Chatting	*112*	*76.19*
Social Networking	*75*	*51.02*
Other	*59*	*40.14*



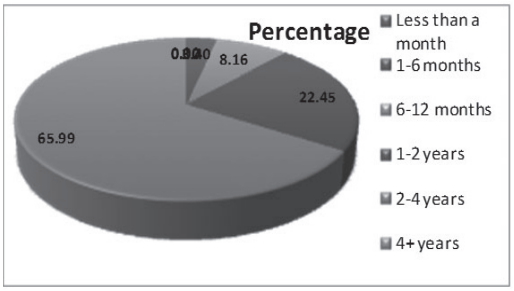
3. What type of Social Media do you use or follow on a regular basis? Check all that apply.

	Out of 147	***Percentage***
Facebook	*147*	*100*
Twitter	*25*	*17.01*
LinkedIn	*14*	*9.52*
MySpace	*12*	*8.16*
Other	*14*	*9.52*



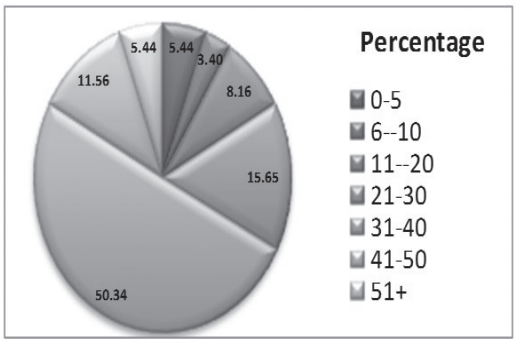
4. Roughly how long have you been using social networking sites?

	Out of 147	***Percentage***
Less than month	*0*	*0*
1-6 Months	*5*	*3.40*
6-12 Months	*12*	*8.16*
1-2 Years	*33*	*22.45*
2-4 Years	*97*	*65.99*
4 + Yrs	*0*	*0*
	147	*100*



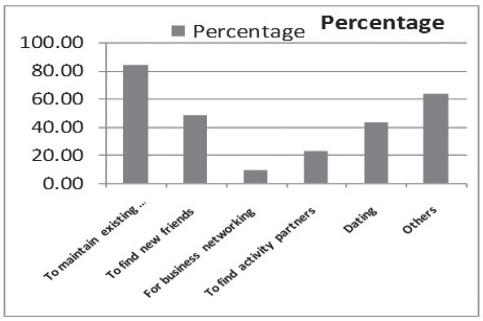
5. Roughly how many hours a week do you spend on social networking sites?

	Out of 147	***Percentage***
0-5	*8*	*5.44*
6-10	*5*	*3.40*
11-20	*12*	*8.16*
21-30	*23*	*15.65*
31-40	*74*	*50.34*
41-50	*17*	*11.56*
51+	*8*	*5.44*
	147	*100*



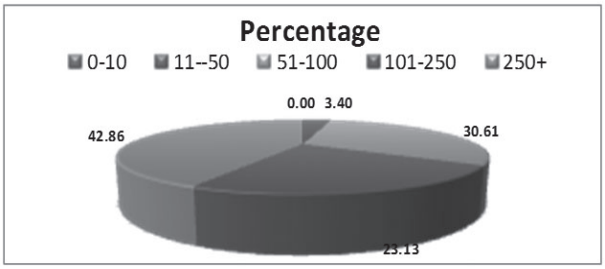
6. For which Purpose of membership in social networking sites

	Out of 147	*Percentage*
To maintain existing friends / contacts	*124*	*84.35*
To find new friends	*72*	*48.98*
For Business networking	*14*	*9.52*
To find activity partner	*34*	*23.13*
Dating	*64*	*43.54*
Others	*94*	*63.95*



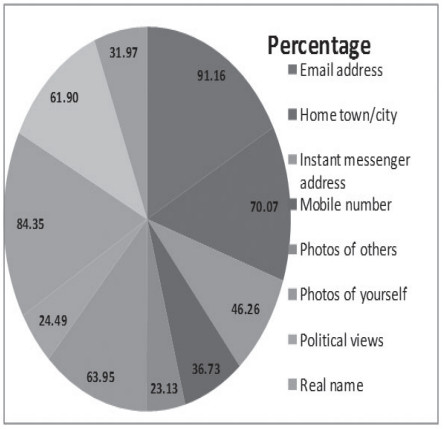
7. Roughly how many friends in total do you have in all of your social networking sites?

	Out of 147	*Percentage*
0-10	*0*	*0*
11-50	*5*	*3.40*
51-100	*45*	*30.61*
101-250	*34*	*23.13*
250+	*63*	*42.86*
	147	*100*



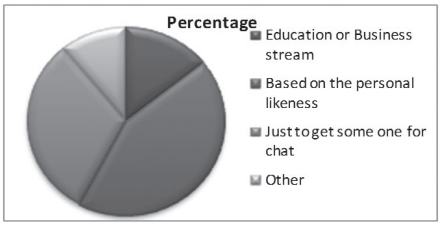
8. Please indicate what information you include on your social networking sites. You may select more than one option.

	Out of 147	*Percentage*
Email Address	*134*	*91.16*
Home Town / City	*103*	*70.07*
Instant Messenger Address	*68*	*46.26*
Mobile Number	*54*	*36.73*
Photos of others	*34*	*23.13*
Photos of yourself	*94*	*63.95*
Political Views	*36*	*24.49*
Real Name	*124*	*84.35*
Relationship Status	*91*	*61.90*
Other, Plz Specify	*47*	*31.97*



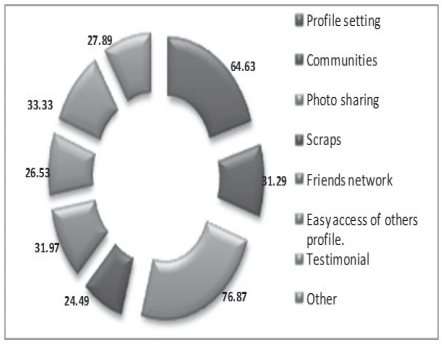
9. On what criteria do you make friends in social networking sites?

	Out of 147	Percentage
Education or Business	21	14.29
Based on the Personal	64	43.54
Just to get Some one for	46	31.29
Other	16	10.88
	147	100



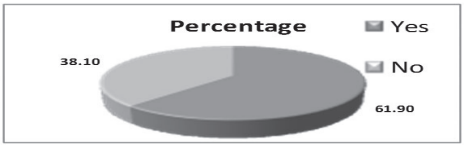
10. Activities in social networking sites

	Out of 147	Percentage
Profile Setting	95	64.63
Communities	46	31.29
Photo Sharing	113	76.87
Scraps	36	24.49
Friends Network	47	31.97
Easy Access of other Profile	39	26.53
Testimonial	49	33.33
Other	41	27.89



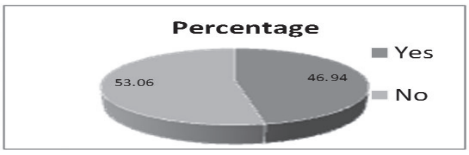
11. Do you attempt to establish your identity/personality in social networking sites?

	Out of 147	Percentage
Yes	91	61.90
No	56	38.10
	147	100



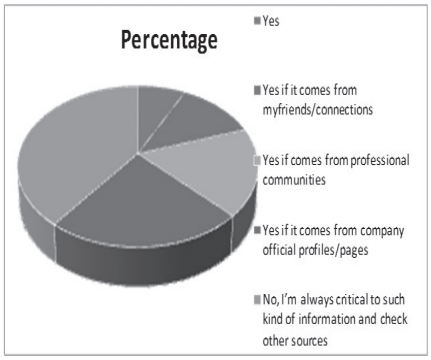
12. Relationship with online friends (strangers in real life)

	Out of 147	Percentage
Yes	69	46.94
No	78	53.06
	147	100



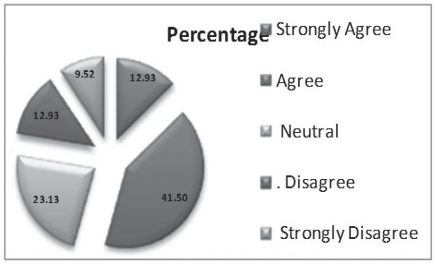
13. Do you trust information you obtain via social networking websites?

	Out of 147	***Percentage***
Yes	*11*	*7.48*
Yes, if it comes from my friends / Connection	*18*	*12.24*
Professional Communities	*26*	*17.69*
Company / Official Profile	*34*	*23.13*
No, I am always critical to such kind of information and check.	*58*	*39.46*
	147	*100*



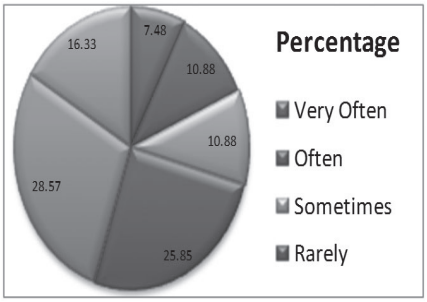
14. Do you feel that you are addicted to Social Media?

	Out of 147	***Percentage***
Strongly Agree	*19*	*12.93*
Agree	*61*	*41.50*
Neutral	*34*	*23.13*
Disagree	*19*	*12.93*
Strongly Disagree	*14*	*9.52*
	147	*100*



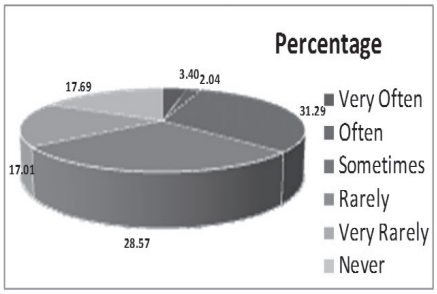
15. How often do other people comment on your social media usage?

	Out of 147	***Percentage***
Very Often	*11*	*7.48*
Often	*16*	*10.88*
Sometimes	*16*	*10.88*
Rarely	*38*	*25.85*
Very Rarely	*42*	*28.57*
Never	*24*	*16.33*
	147	*100*



16. How often do you typically feel stressed out, disconnected, or paranoid when you cannot access social media sites?

	Out of 147	***Percentage***
Very Often	*5*	*3.40*
Often	*3*	*2.04*
Sometimes	*46*	*31.29*
Rarely	*42*	*28.57*
Very Rarely	*25*	*17.01*
Never	*26*	*17.69*
	147	*100*



Findings:

- 100 % Respondents use social networking sites.
- 76% Use internet chatting.66 % use for the mail service.51 % use social networking
- 100 % respondents use social media facebook.
- 66 % respondents use social network sites since form last 1-2 years.
- 50 % respondents spend s 31-40 hrs per week on social networking sites.
- 84 % respondents says that they use social networking sites to maintain existing friend n contacts while 63 % use for other purpose.
- 42 % Respondents have more than 250 friends in all social networking sites.
- 91 % respondents include email address on the social networking sites, 84 % includes their real name.
- 44 % respondents say that they make friends on social networking sites best on personal likeness.
- 76 % respondents says that the mostly perform photo sharing activity on a social networking sites while 64 % does profile setting.
- 61 % attempts to establish your identity/personality in social networking sites.
- 53 % respondents are Relationship with online friends. (strangers in real life)
- 39 % respondents say that they don't trust information you obtain via social networking websites.
- 41 % respondents are agreeing that they are addicted to social network.
- 28 % says that people very rarely commented on their social media usage.
- 31 % says that sometimes they feel stressed out, disconnected, or paranoid when they cannot access social media sites.

Conclusion:

The survey of how the use of social networking sites (SNS) by students is related to who use overall social networks. We did find that more student use chatting on social network sites. Facebook and twitter influence the buying habits of students who frequently check their accounts.

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- *The effects of Facebook on students' academic performances by Anas Farah*
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- *Social Network Sites: Definition, History, and Scholarship danah m. boyd dmb@ ischool.berkeley.edu,School of Information University of California-Berkeley Nicole B. Ellison nellison@msu.edu Department of Telecommunication, Information Studies, and Media ,Michigan State University*

  Web addresses:

  www.wikipidia.com

  www.J-get.com

  www.ebscohost.com

  www.sciencedirectory .com



Challenges for Talent Retention

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ABSTRACT

The business world has become one with the advent of the term globalization. This has created a pool of talent which is ready to be grabbed by various organizations. The demand for talent in this country has increased due to Competitive Environment, Necessity of Continuous Growth, Survival of the Fittest, Changes in the Economic Policy by Government, Better Market Growth as well as Market Share. To achieve success organizations are striving to get good talented people from the country. They are visiting various institutes trying to get good talented people and in this process they are also looking at the future requirements. To attract good talent the organizations are using following things Good Pay Packages, Providing better working conditions, Better Incentive Schemes, Good Promotional Policy. The research paper will discuss the challenges to retain these talents in the organization so that it can move from better to best. The basic challenges are - Regular amendment in Compensation Package, Providing better Employee Welfare facilities, Providing ESOPs (Employee Stock Option Plans), Promotional Policy in relation to the overall Industrial scenario.

Key words : *Talent, Talent retention, Talent challenges, Talent management.*

INTRODUCTION

As somebody has said, "Talent is like a pool in which organizations have to jump to get the best fish." In order to get good talent it takes a Herculean task on the part of the organization and organizational policies. Retaining a person is more difficult than recruiting and in this context I am presenting this paper, in which I will be putting forth certain HR tools that will help organization to retain people and reduce attrition rate. The organizations experience shortage of employees due to employee mobility in the organization structure itself. The mobility can be due to Job Rotation, Transfers, Promotion and some leave the organization to join some other organization with better package. Believe it or not, despite the years of downsizing, layoffs, re-engineering and reorganization we will soon face a major labour crunch! By 2012, we will experience a 33% shortfall of degreed candidates - approximately six million graduates short to fill new jobs and replace retirees (Society for Human Resource Management HR News, October 2002)

So, if you've been lucky enough to find goods people.heck, even people who could be good given just a little encouragement, it's in your best interest to hold onto them!

We can no longer afford an attitude that "there's more where they came from" when Sally or Bob give their notice. Retaining in education sector is also important because good teachers are in short and we don't employ a decent system for retaining them we will not have students. The students are attracted towards a particular institute with reference

to the faculty profile. It is very important that to attract good students you should have good teachers and vis-à-vis.

The Society for Human Resource Management cites the following three organizational behaviors that lead to employee turnover. Failure to make talent supply a long term priority Progressive organizations know that engaging in reactionary hiring binges with subsequent mass layoffs not only demoralizes top producing talent, but also earns them a reputation in the "community" as unpredictable and unreliable. Establish a Project Team to consistently scour the industry for quality people and make room for them as they become available. You may not get a second chance once the labor shortage hits.

Failure to make turnover costs clear

I'd stake my reputation that 99% of frontline supervisors and managers have absolutely no idea what it costs the organization each time a person gives notice and walks out the door! Turnover costs extend well beyond just placing an ad in the newspaper. There are certainly the "hard costs" of advertising, interviewing, background checks etc. but there are also "soft costs". These can include key clients who follow the employee over to the competition, morale and productivity dips when a popular employee leaves, the time it takes to get the replacement up and running. Turnover costs can easily range anywhere from 1.5 times the person's salary for an entry level position to 6 or 7 times for a highly skilled manager.

Failure to recognize that employee's first loyalty is themselves.

We've done a really good job over the years teaching employees that loyalty does not exist. We've flown the "its just business" flag quite high during lean times when cutting positions was the most expedient way to shave expenses. So given that assumption, why do organizations still expect that employees will sacrifice their health and family welfare to give their souls to their jobs! We rely too much on compensation as a retention tool.

Talent Retention

In the industrialized countries, it is being noticed that people are no longer working for the basic needs of living alone. Money is no more considered as the lone driving force behind people's work. Yet, people continue to work hard. What drives them to work that hard? Is it their love for work? Or is it their passion for the job? These questions says that organizations have to create an atmosphere which simply engender "a mind to work" among the employees. The Internet has wrought incredible changes in the very outlook of business and the speed at which it is being carried out. It indeed created a new band of knowledge worker. These are the employees who are putting their knowledge to work rather than their muscle power. Today, knowledge is recognized as a high grade input of the business. As against the traditional workers of manufacturing segment whose functioning is merely considered to be additive, knowledge workers are to be sourced from the strength that they bring in to a given job in alignment with its requirement. Hence, they are being paid incredible sums vis-à-vis traditional workers. It is of course a different matter that knowledge workers are reported to be a disgruntled lot and perhaps that is one reason for their hopping from one job to another.

An essential component of employee helps to remain loyal to employers Chance to use skills on the job/ Trust in senior leadership/ Competitiveness of rewards /Job security/

Quality of company's products and services /Absence of work-related stress /Honesty and integrity of company's business conduct / All other factors. We can determine that the major reason why employee turnover is more is due to lack of Job security. Recently, a trend can be seen in pharmaceutical companies, where people are leaving due to lot of sales pressure and they are joining a profession where the income is also good and less pressure. The major boost can be seen in teaching profession where everyone wants to become a teacher by default because there is less accountability and pressure.

The above picture depicts how employees are leaving the organization. This can be stopped and the challenges that every organization is facing can be accepted & faced.

Major Challenges for Talent Retention:

Presently the companies are using four methods to address the varied needs of the employees. The four methods are as given below - Varied Needs of the Employees

1. Segmentation –

Grouping employees based on shared characteristics such as performance, geography, learning style, role or any other germane factor, and developing policies tailored to each category.

Advantages - Control lies with a central group; executives can see exactly how talent is being managed.

Disadvantages - Company must manage multiple programs and practices; some employees may not fit easily into any category.

2. Modular Choices

Allowing employees to choose from a standard set of options on benefits, work arrangements and more.

Advantages - Company maintains control; viewed as fair, since everyone is offered the same options.

Disadvantages - Managing multiple options may require an increase in HR resources; employees may feel choices are too limited.

3. Flexible Policies -

Providing greater discretion on HR policies, such as more. latitude for managers on pay and for employees on work schedule.

Advantages - Based on a single, simple set of general guidelines; provides for better fit with employee than segmentation or modular choices.

Disadvantages - Policies may be inappropriately interpreted or applied; lack of rigid standards means policies may lack transparency.

4. Individualized Manage ment Practices - Management methods that factor in and build on employee's individuality, such as apprenticeship plan instead of traditional training.

Advantages - Cultivating the work force becomes a line responsibility; best fit with employee.

Disadvantages - less company control and transparency than with other practices; requires greater evaluation effort than standardized approaches.

Something about Attrition

When one discusses the construct of attrition from the perspective of employees leaving an organization, one should make an attempt to ascertain why the employees are leaving; and at what level of the organization they are vacating. It is a paramount consideration for the HRM & HRD practitioners to work closely together to think about the specific particulars associated with why people are vacating their positions. Many organizations employ HR practitioner to conduct exit reviews of individuals who have elected to leave the organization - however, this practice may not reveal reliable information about one's decision to leave an organization.

Some HR managers have seen employees leave an organization and provide little if any reliable information regarding their decision to leave an organization. This scenario could have very profound implications upon the future state of the organization. One HR manager who was interviewed for this endeavor suggested that some individuals simply provide general information about their decision to leave the organization such as a promotion to a new position within another organization; or perhaps relocation. The other end of the continuum reveals information about the work environments that range from supervisors and co-workers being hostile to a feeling that the organization simply does not care about their employees. In this scenario, the exiting employee literally names co-workers and supervisors in an attempt to retaliate against them. This type of information is not very often a reliable means of ascertaining the reasons for vacating a position. This HR manager who was mentioned previously stated that accurate and reliable information regarding the real reasons a person would leave the organization are rarely discovered by HR. Some inferences were often made during the exit interview process but in many examples the person who was leaving organization feared retaliation from either a reference perspective; or perhaps some Compensation issues. In essence, this HR manager affirmed that exit interviews often do not provide the type of information that would allow one to make adjustments or improvements to the environments within the organization.

Why are they leaving?

The reasons people leave an organization are so varied that any attempt to find one comprehensive explanation for this phenomenon would be futile. What is encouraged here is an honest assessment of attrition trends. Can they be explained by environmental factors? Are the organizations attrition numbers consistent with other organizations comprised of similar labor force? Is the attrition the result of organizational behaviors or strategies? These are the kinds of questions that must be asked, since all attrition is not a sign of problems and some attrition is always inevitable. For example, if the economic factors of a region create a situation where unemployment rates are uncharacteristically low, attrition rates in an organization comprised of a labor force hired predominantly for less skilled positions may experience a spike in attrition as employees look for better opportunities in this labor competitive market. While this may be an ongoing challenge for this organization, it is the product of market trends and the inherent characteristics of the organization, and not necessarily an indicator of an unhealthy organizational climate or culture.



Strategies to face Challenges

Segmentation - The employees having shared characteristics should be brought at one place and the knowledge that they have should be managed. Proper management of knowledge will lead to appreciation to the employees showing better performance. The segmentation will comprise of employees having best, good and average knowledge

Modular choices - The organization must provide options on benefits to the employees in order to retain them. A benefit impresses upon the employee and increases the level of loyalty towards organization. Competition or government regulations will invoke some flexible strategies to cope up. The government regulations will make organizations pay more to the employees enhancing the financial burden.

Flexible policies - The managers who are working in the organization must be delegated authority to decide on how benefit the employees if one of them is putting more effort in comparison to others. If you study the entire structure of various organizations in India you will find that the powers on monetary benefits wrest with the management and individual managers are not given any power on decision making. The management should have flexible policies and the powers must be delegated in order to retain good talent.

Individualized management practices - Management should take initiative to train employees. A systematic training and development procedure will enhance the employee's competency resulting into higher productivity and better perks. Latest management practices adopted in various organizations if properly communicated to employees in management cadre will help them to manage people and enhance their moral.

Conclusion

Talent retention has and will be a topic for debate in the coming century. The way talent is progressing and the demand for these talents are increasing; the retention will be major challenges that every organization is going to face. In the above context, I would like to conclude by elaborating certain points - A good compensation package is the need of the hour for talent retention. Updating knowledge through systematic training and development program. Very progressive and future oriented promotional policies. Human resource planning should be very systematic and a continuous effort is needed.

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Review of Mining High Utility Item Set from Transactional Database

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ABSTRACT

Mining high utility item sets from a transactional database refers to the identify the item sets with high utility like profit. Although a number of Algorithm's have been proposed but there is problem like it generate large number of candidate Item sets for High Utility Item sets. Large number of Item sets degrades the performance of mining in terms of execution time and space requirement. This situation may worse when database contains large number of Transactions.

In proposed system Efficient Algorithm for Mining High Utility Item set from Transactional Database i.e. UP-Growth Algorithm. For that algorithm information of high utility item set is maintained in tree based data structure named Utility Pattern Tree. With the help of UP-Tree candidate item set can be generated with only two scans of database. Proposed algorithm, not only reduce number of candidate item set but also work efficiently when database contains lots of long transactions.

Keywords : *Candidate item set, high utility item set, utility mining, data mining.*

INTRODUCTION

1.1 Overview

The purpose of proposed systems is towards finding high utility item set. Here, the meaning of item set utility is interestingness, importance, or printability of an item to users. Utility of items in a transaction database consists of two aspects:

1) The importance of distinct items, which is called external utility, and

2) The importance of items in transactions, which is called internal utility.

Utility of an item set is defined as the product of its external utility and its internal utility. A item set is called a high utility item set if its utility is no less than a user-specified minimum utility threshold; otherwise, it is called a low-utility item set. The goal of frequent item set mining is to find items that co-occur in a transaction database above a user given frequency threshold, without considering the quantity or weight such as profit of the items. However, quantity and weight are significant for addressing real world decision problems that require maximizing the utility in an organization. The high utility item set mining problem is to find all item set that have utility larger than a user specified value of minimum utility.



1.2 Problem Definition

Data mining is the process of retrieving item set from database. Proposed system use transactional database and mine high utility item set. High utility item set is nothing but the item set which have highest profit. In existing System, HUP Algorithm is used to mining High Utility Item set from database but there are some disadvantages like, it generates huge set of PHUIs. This system use UP-Growth Algorithm. Main advantages of this Algorithm are, It scan database only two times and It generates less set of PHUIs.

2 LITERATURE SURVEY

2.1 Existing System

2.1.1 Fast Algorithms for Mining Association Rules

- Author:

R. Agrawal and R. Srikant

- Description:

Apriori is a great improvement in the history of association rule mining, Apriori algorithm was first proposed by Agrawal in 1994. Apriori is more efficient during the candidate generation process for two reasons, Apriori employs a different candidate's generation method and a new pruning technique. There are two processes to find out all the large item set from the database in Apriori algorithm. First the candidate item set are generated, and then the database is scanned to check the actual support count of the corresponding item set. During the first scanning of the database the support count of each item is calculated and the large 1 -item set are generated by pruning those item set whose supports are below the predefined threshold. In each pass only those candidate item set that include the same specified number of items are generated and checked.

- Advantages:

1] Uses large item set property

2] Easily parallelized

3] Easy to implement

4] It doesn't need to generate conditional pattern bases and sub- conditional pattern tree recursively

- Disadvantages:

1] It requires multiple database scans

2] Assumes transaction database is memory resident.

3] generating candidate item set

2.1.2 Efficient Frequent Pattern Mining over Data Streams

- Author:

S.K. Tanbeer, C.F. Ahmed, B.-S. Jeong, and Y.-K. Lee.

- Description:

Frequent pattern mining focuses on discovering frequently occurring patterns from different types of datasets, including unstructured ones, such as transaction and text datasets, semi-structured ones, such as XML datasets, and structured ones, such as graph datasets. The pattern can be item set, sequences, sub trees, or sub graph etc. depending on the mining tasks and targeting datasets. Frequent patterns can not only efficiently summarize the underlying datasets, providing key sights into the data, but also serve as the basic tool for many other data mining tasks, including association rule mining, classification, clustering, and change detection among others.

- Advantages:

1] It finds frequent item set without generating any candidate item set

2] Scans database just twice.

3] Does not generate candidate item set.

- Disadvantages:

1] It treats all items with the same importance/weight/price.

2] In one transaction, each item appears in a binary (0/1) form, i.e., either present or absent.

3] Consumes more memory and performs badly with long pattern data sets.

From this algorithm we get one Advantage in our proposed system i.e. scans database only two times.

2.1.3 Efficient Tree Structures for High Utility Pattern Mining in Incremental Databases

- Author:

C.F. Ahmed, S.K. Tanbeer, B.-S. Jeong and Y.-K. Lee

- Description:

It provide an efficient research method for high utility pattern mining for handling incremental databases, while considering many insertions, deletions, and medications with the currently available memory size. Three variations of our tree structure have been proposed.

1] Incremental HUP Lexicographic Tree (IHUPL-Tree), is arranged according to an items lexicographic order. It can capture the incremental data without any restructuring operation.

2] IHUP Transaction Frequency Tree (IHUPTF-Tree), which obtains a compact size by arranging items according to their transaction frequency.

3] IHUP-Transaction-Weighted Utilization Tree (IHUPTWU-Tree) is designed based on the TWU value of items in descending order.

All of the tree structures have the build once mine many properties and are highly suit-able for interactive mining. All three tree structures require maximum two database scans.

- Advantages:

1] Ability to consider the non binary frequency values of items in transactions and different profit values for every item.

2] Incremental and interactive data mining provide the ability to use previous data structures and mining results in order to reduce unnecessary calculations when a database is updated, or when the minimum threshold is changed.

3] Build once mine many.

- Disadvantages:

1] It generates huge set of PHUIs.

2] Their mining performance is degraded consequently.

This situation may become worse when database contain many long transactions or low thresholds are set from this algorithm we get following Advantages in our proposed system i.e.

1] Ability to consider the non binary frequency values of items in transactions and different profit values for every item.

2] Reduce unnecessary calculations when a database is updated, or when the minimum threshold is changed.

3] Build once mine many.

3 Proposed System

If you consider Existing methods, in that Algorithm multiple number of HTWUIs are generated. For removing this drawback of existing system, new Algorithm is proposed i.e. UP-Growth Algorithm. Main aim of this system is reducing item sets overestimated utilities.

- **Algorithm Used:**
  1. UP-Growth Algorithm
- **System Architecture:**

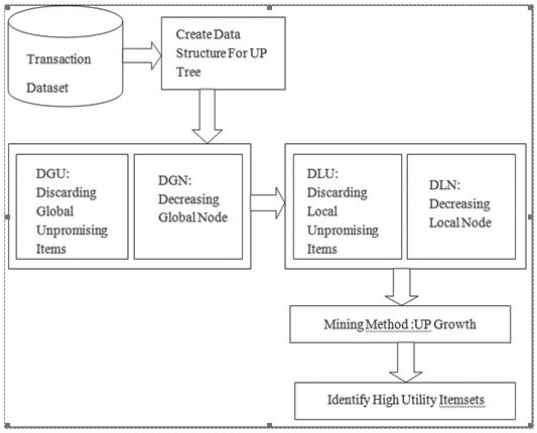


Figure 3.1 System Architecture

Contains the following blocks :

1. Create Data Structure For UP Tree: In this block one UP Tree by using the data structure which consist of node name, node count, node utility, node parent, node link and set of child node.

2. DGU: Discarding Global Unpromising Items: After constructing UP tree the items which transaction weighted utility is less than the minimum utility threshold called unpromising items are discarded from item set.

3. DGN: Decreasing Global Node: After discarding the unpromising items the node utilities are decreased.

4. DLU: Discarding Local Unpromising Items: The items which transaction weighted utility is less than the minimum utility threshold called unpromising items are discarded from item set and construct conditional pattern base.

5. DLN: Decreasing Local Node: In DLN construct the local UP tree.

6. Mining Method: UP Growth: This block generates the fewer candidates from given transactional dataset.

7. Identify High Utility Item set: identify high utility item set and their utilities form the set of given candidates.

- Advantages:

1] Number of generated candidates can be highly reduced.

2] High utility item sets can be identified more efficiently.

3.1 Design and Implementation Constraints

- Design Constraints:

1) For Login User provide username and password.

2) For creating Data structure user should select transaction dataset and profit table.

3) For creating Global UP Tree system should use DGU and DGN methods.

4) For creating Local UP Tree system should use DLU and DLN methods.

- Implementation Constraints:

The proposed system is a Desktop application which requires systematic flow of operations.

1) If user is not logged in the application should not display the access control form.

2) The previous dataset of a user must be accessible for High Utility Item set Mining. So this data is required to be accessed before submitting the command.

3) After successfully submitting the command, application must have to reply with the required item set.

- Assumptions and Dependencies

Basic password authentication and role based security mechanisms will be used to

protect system from unauthorized access. Redundant Database is setup as the role of backup Database Server when primary database is failure. The correct functioning of system will partly be dependent on the correctness of the dataset stored and managed as part of the system. Also, the application will be hosted as one of many applications; the event of the server failing due to an error with one of these applications might result in Dataset becoming temporarily unavailable.

3.2 System Features

Authentication

- Description and Priority

The system offers access resources only by validating the user with the unique user-name and password.

- Stimulus/response sequences

The response/stimulus for the different classes of users is:

1) Users: - Login.

2) Administrator: Adding new accounts.

Mine transactional Dataset

- Description and Priority

The application gets the input transaction dataset, processes the techniques and determines the High Utility Item set

- Stimulus/response sequences

The response/stimulus for the different classes of users is:

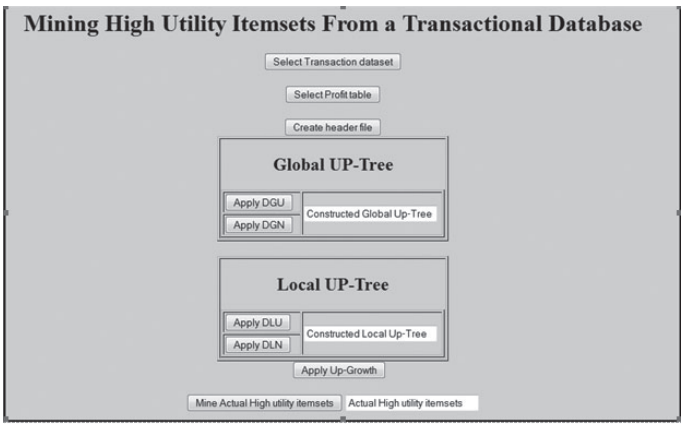
1) User: - Query transaction

2) Application: Determine the High Utility Item set.

External Interface Requirements

- User Interface

The main screen of the system will have the different Button's and Textbox's and a link to previous transaction database.



- Hardware Interface

1) Operating System: windows XP/ Win7
2) Processor: Pentium IV or advanced
3) RAM: 256 MB (min)
4) HDD: 20 GB (min)

- Software Interface

1) Programming Language: Java
2) Framework: Net beans 6.8 or more
3) Development Kit: JDK 1.6 or more

4. SYSTEM DESIGN

System Architecture

Following Fig 4.1 shows the how actually system is working:

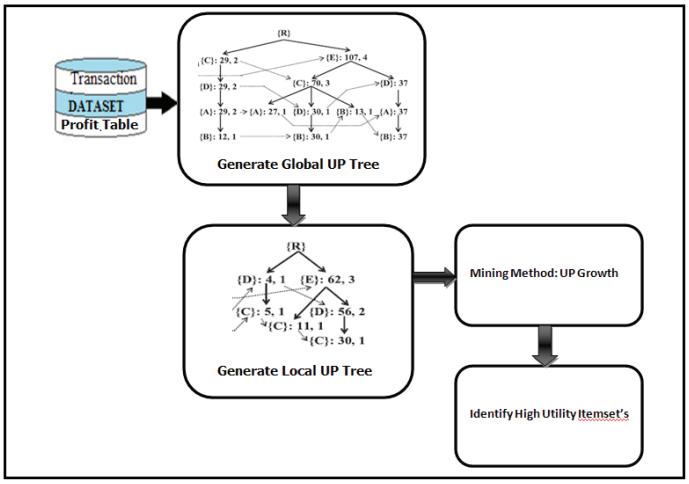


Figure 4.1: System Architecture

Firstly, store transaction dataset and profit table into database.
Generate Global UP-Tree by using DGU and DGN.
Generate Local UP Tree by using DLU and DLN.
Use UP Growth Algorithm for mining HUIs.
Identify the HUIs

4.2 Mathematical Model

4.2.1 DGN: Decreasing Global Node Utilities during Constructing a Global UP-Tree Algorithm:

Variable used in Algorithm



Util-un-prom-item = utility of unpromising item

RTU = Recognized Transaction Utility

Inputs:

Transactional Dataset D = {T1; T2;...; Tn} contains a set of transactions, and each transaction Td (1 < = d < = n) has a unique identifier d, called TID.

Each item i_p in transaction T_d is associated with a quantity q (i_p , t_d) that is, the purchased quantity of i_p in T_d.

min-util = user defined threshold.

Process:

1) Transaction-weighted utility of an item set X, TWU = $\sum$TU (Td)

2) RTU (T_d): = TU (T_d) - Util-un-prom-item

..... Where TWU (i_p) min-util

3) Insert-recognized-transaction (N, i_x)

If N → left = Ni_x or N → right = $N\, i_x$ ..... Where = $N_{xi.item} = i_x$

$N_{ix.item}$ = $N_{ix.item}$ = +1

Else

$N_{ix.child} = Ni_x$

$N_{ix.item} = i_x$

$N_{ix.count} = 1$

$N_{ix.parent} = N$

$N_{ix.nu} = 0$

4) $N_{ix.nu} = N_{ix.nu}$ + RTU (t'_j) - $\sum$u (i_p , t'_j)

5) If x! = n

Insert-recognized-transaction ($N_{ix.nu}$, i_{x+1})

Output:

Global UP-Tree

4.2.2 DLN: Decreasing Local Node Utilities during Constructing a Local UP-Tree Algorithm

Input:

Global UP- Tree

Process:

1) Insert-recognized-path (N, $_{ix}$) If N → left = N_{ix} or N →right = N_{ix}

..... Where Nix .item = 1

$N_{ix.count} = N_{ix.count} + P_{j.count}$

Else

$N_{ix.child} = N_{ix}$

$N_{ix.item} = i_x$

$N_{ix.count} = P_{j.count}$

$N_{ix.parent}$ = N

$N_{ix.nu} = 0$

2) $N_{ix.nu} = N_{ix.nu} + N_{ix.nu}$ + pu(p,{i_m}CPB) - ∑ min(ij) x (p.count)

3) If (p j (Ni_x, x + 1 < m))

Insert-recognized-path (Ni_x , i_x + 1)

Output:

Local UP Tree

4.2.3 UP-Growth: Mining a UP-Tree by Applying DLU and DLN and DLN Algorithm

Inputs:

A UP-Tree Tx A Header table H x , Item set X and min-util.

Process:

1. For ik in Hx
2. Trace each node related to ik via h.link and accumulate ik.nu to nu total (i k)
3. If nu total (ik) > min-util, do
4. PHUI Y = X ik
5. pu(ik) = estimated utility of Y
6. Construct Y-CPB
7. H y Y-CPB
8. DLU(paths)
9. Insert-recognized-path(N, ix) into T Y with DLN
10. If T Y ! = NULL then
11. UP-Growth(T Y ,H Y ,Y);

Output:

All PHUIs in T x

System Analysis of Algorithmic Design

1] Insert Reorganized Transaction:

After calculating reorganized transaction and utility, these reorganized transaction is inserted into UP Tree by using this algorithm. when reorganized transaction is inserted into Global UP Tree Insert-Reorganized-Transaction(N,ix) is called. Where N is node and ix is an item in reorganized transaction table. First, node for each item is found or created under root node and also items support is updated. So, this statement needs O(1) time to execute.



Second, DGN is applied for discarding the utilities of descendent nodes under node for item. So, this statement needs O(1) time to execute.

Lastly, this procedure is recursively call until all nodes inserted into Tree. So, this statement needs O(n) time to execute.

Total Time Complexity: O(n),Where n is number of nodes in UP Tree.

2] Insert Recognized path:

After creating Global UP Tree maintain the minimum item utility table to keep minimum item utilities for all global promising items in the database. Then path is reorganized by the descending order of path utility of the items in the conditional pattern base.

First, node for each item is found or created under root node and its support count is also updated. So, this statement needs O(1) time to execute.

Second, DLN is applied by decreasing estimated utilities of descendent nodes under each node. So, this statement needs O(1) time to execute.

Lastly, this procedure is recursively call until there exist a node in path. So, this statement needs O(n) time to execute.

Total Time Complexity: O(n), Where n is number of items in reorganized transaction table.

3] UP Growth Algorithm:

For each item in header table do following steps:

Trace each node related to specific item via link and calculate sum of node utility, start from leaf node. So, this statement needs O(n) time to execute.

If sum is less than minimum threshold then remove that node from tree. So, this statement needs O(1) time to execute.

If sum is greater than minimum threshold then calculate highest utility node, select that node and generate path from this node. So, this statement needs O(1) time to execute.

Insert this reorganized path into tree by using DLN. So, this statement needs O(1) time to execute.

if node from local tree is not completed then recursively call this method. So, this statement needs O(n) time to execute.

Total Time Complexity: O(n2),

Where n is number of items in reorganized Header table.

Conclusion

Proposed system has a tree-based algorithm, called UP-Growth, for efficiently mining High utility item set from databases. We take Data Structure UP-Tree for maintaining the information of high utility item set and four effective strategies, DGU, DGN, DLU and DLN, to reduce search space and the number of candidates for utility mining. PHUIs can

be efficiently generated from UP-Tree with only two database scans. UP-Growth Algorithm is faster than existing algorithms when database contains lots of long transactions.

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A study on Goods and Services Tax in Indian perspective

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ABSTRACT

The Goods and Services Tax (GST) also known as the National VAT (Value Added Tax) has been introduced in more than 150 countries. Most of the countries have a unified GST system. Brazil and Canada follow a dual system where GST is levied by both the Union and the State governments. France was the first country to introduce GST system in 1954. The standard GST rate in most countries ranges between 15-20%. Most of the sectors are taxed except for few exemptions. The United States of America does not have a national level VAT.

Indian government proposed to introduce GST in the country form the upcoming financial years. GST will bring about a change on the tax firmament by redistributing the burden of taxation equitably between manufacturing and services. It will lower the tax rate by broadening the tax base and minimising exemptions. It will reduce distortions by completely switching to the destination principle. It will foster a common market across the country and reduce compliance costs. It will facilitate investment decisions being made on purely economic concerns, independent of tax considerations. It will promote exports. GST will also promote employment. Most importantly, it will encourage growth.

Key Words: *GST, VAT, etc.*

INTRODUCTION

The GST (Goods and Services Tax) is a value added tax on the supply of goods and services in Australia, including items that are imported. In most cases, GST does not apply to exports of goods or services, or other items consumed outside Australia. It was introduced by the Howard Government on 1st July 2000, replacing the previous Central wholesale sales tax system and designed to phase out a number of various State and Territory Government taxes, duties and levies such as banking taxes and stamp duty. The basic premise of the new tax was to broaden the tax base, which was heavily biased toward the provision of services.

Indian Government plans to introduce dual GST structure in India. Under dual GST, a Central Goods and Services Tax (CGST) and a State Goods and Services Tax (SGST) will be levied on the taxable value of a transaction. This dual structure will ensure a higher involvement from the states, and consequently their buy-in into the GST system, thus

facilitating smoother implementation. Both the tax components will be charged on the manufacturing cost. The government is deliberating on fixing the value of combined GST rate at the moment, which is expected to be between 14-16 per cent. After the combined GST rate is decided, the centre and the states will finalise the CGST and SGST rates. All kinds of goods and services, barring some exceptions, would be under the GST purview.

Objectives

The paper has an intention to initiate broad discussions regarding the need for more reforms in the tax structure in India which shall provide more resources to the government. Following objectives are studied in the paper:

✓ To study the share of indirect taxes in total revenue be enhanced at the central & State level.

✓ To study measures to remove complexities in the tax structure.

✓ To study the measures best suitable GST models for India.

Research Methodology

The research design and the steps adopted in research methodology kept in focus of objectives set for the study. In course of preparation of the paper, exploratory study has been undertaken. In the scope of exploratory research strategy, detailed search of the literature has been carried out. Since the GST is not introduced in India, the researcher unable to avail primary data. This may be limitation for the paper. Literature review has been performed in order to get secondary data. Also secondary data collected from various sources like books, journals, reports of various committees constituted to look into tax reforms; multiple sources like area based sources like government reports, budget documents, economic surveys and time-series based sources like statistical reports published by government have also been consulted.

Discussion

India is a central republic, and the GST will thus be implemented concurrently by the central and state governments as the Central GST and the State GST respectively. Exports will be zero-rated and imports will be levied the same taxes as domestic goods and services adhering to the destination principle.115th Constitutional Amendment Bill, 2011 ("Bill") was put before the Parliament by the Finance Minister on 22 March 2011. In its current state, the Constitution of India does not provide concurrent powers of taxation to the Union and the States. The Bill proposes to amend the Constitution to empower the Union and States to frame laws for levying goods and service tax ("GST") on transactions involving the supply of goods and services. Keeping this overall objective in view, an announcement was made by Shri Palaniappan Chidambaram, the Union Finance Minister, during the central budget of 2007–2008 that it would be introduced from April 1, 2010 and that the Empowered Committee of State Finance Ministers, on his request, would work with the Central Government to prepare a road map for introduction of GST in India.

This is indeed a staggering sum and suggests the need for energetic action to usher the GST system at an early date. GST rates of some countries are given below. Country Rate of

GST Australia 10%, Canada 5%, Germany 19%, Japan 5%, Singapore 7%, Sweden 25% and UK 17.5% (20% w.e.f. 4 Jan 2011).

Commencement of GST

GST will bring about a change on the tax firmament by redistributing the burden of taxation equitably between manufacturing and services. It will lower the tax rate by broadening the tax base and minimising exemptions. It will reduce distortions by completely switching to the destination principle. It will foster a common market across the country and reduce compliance costs. It will facilitate investment decisions being made on purely economic concerns, independent of tax considerations. It will promote exports. GST will also promote employment. Most importantly, it will spur growth. The following represents the movement of goods after GST.

1. Taxes which cannot be set off will reduce
2. All India tax will be based on value added
3. No value added implies no tax to be paid to the government
4. Creation of a tax neutral supply chain.
5. You follow any route; the tax given to the government will remain the same.
6. Entry tax, Octroi etc. Will be there, but as is evident, these are also being slowly removed. This will make the supply chain perfectly neutral to taxes

Impact of GST on various sectors

The subsuming of major Central and State taxes in GST, complete and comprehensive setoff of input goods and services and phasing out of Central Sales Tax (CST) would reduce the cost of locally manufactured goods and services. This will increase the competitiveness of Indian goods and services in the international market and give boost to Indian exports. The impact of Goods and Services Tax on certain sectors are discussed hereunder.

Food Industry

The application of GST to food items will have a significant impact on those living under subsistence levels. It would have a major impact on the poor. But at the same time, a complete exemption for food items would drastically shrink the tax base. Food includes a variety of items, including grains and cereals, meat, fish, and poultry, milk and dairy products, fruits and vegetables, candy and confectionary, snacks, prepared meals for home consumption, restaurant meals, and beverages. In India while food as such is exempt from the

CENVAT, many of the food items including food grains and cereals attract the state VAT at the rate of 4%. Exemption under the state VAT is restricted to unprocessed food, e.g., fresh fruits and vegetables, meat and eggs, and coarse grains. Beverages are generally taxable, with the exception of milk. Even if food is within the scope of GST, such sales would largely remain exempt due to small business registration threshold. Given the exemption of food from CENVAT and 4% VAT on food items, the GST under a single rate would lead to a doubling of tax burden on food. Hence certain measures need to be taken in this regard.

Housing and Construction industry

In some countries in Europe, supply of land and real property are excluded from the scope of tax whereas in Australia, New Zealand, Canada and South Africa, housing and construction services are treated like any other commodity. When a real estate developer builds and sells a home, it is subject to VAT on the full selling price, which would include the cost of land, building materials, and construction services. Commercial buildings and factory sales are also taxable in the same way, as are rental charges for leasing of industrial and commercial buildings.

FMCG sector

Despite the economic slowdown, India's Fast Moving Consumer Goods (FMCG) sector has grown consistently during the past three to four years, reaching a size of $25 billion (Rs 120,000 crore) at retail sales in 2008. Implementation of the proposed Goods and Services Tax (GST) and opening of Foreign Direct Investment (FDI) are expected to fuel growth further and raise the industry's size to$47 billion (Rs 225,000 crore) by 2013 and $95 billion (Rs 456,000 crore) by 2018, according to a new FICCI-Technopak report. The FMCG sector is also one of the major contributors to the exchequer with $6.5 billion (Rs 31,000 crore) paid through direct and indirect taxes. Implementation of GST will have several benefits for the FMCG sector including uniform, simplified and single point taxation and thereby reduced prices.

Rail sector

There have been suggestions for including the rail sector under the GST umbrella to bring about significant tax gains and widen the tax net so as to keep the overall GST rate low. The inclusion of the rail sector in the tax system which will do away with most of the indirect taxes should be done if the government wants to provide a level playing field to road and air transportation sector. This will have the added benefit of ensuring that all inter-state transportation of goods can be tracked through the proposed information technology (IT) network.

Financial services

In most of the countries Goods and Services Tax is not charged on financial services. For example in New Zealand, almost all goods and services are covered under the GST except that of financial services. The reason behind this is that the charge for services provided by financial intermediaries like banks and insurance companies is generally not precise, i.e. the fee is taken as a margin that is hidden in interest, dividends, annuity payments or such other financial flows from the transactions. If the fee was not a hidden one, then it would be easy to charge the service to tax.

Impact on small enterprises

The impact of GST on small enterprises is of great concern. There will be three categories of small enterprises in the GST system. Those below the threshold need not register for the GST. Those between the threshold and composition turnovers will have the option to pay a turnover based tax or opt to join the GST system. Given the possibilities of input tax credit, not all small enterprise may seek the turnover tax option. The third



category of small enterprises above the turnover threshold will need to be within the GST framework. Possible downward changes in the threshold in some States consequent to the introduction of GST may result in obligations being created for some dealers. In such cases suitable provisions could be made to provide direct assistance to the affected small enterprises if considered desirable.

Complexity in Tax regime

In spite of the improvements made in the tax design and administration over the past few years, the systems at both central and state levels remain complex. Their administration leaves a lot to be desired. They are subject to disputes and court challenges, and the process for resolution of disputes is slow and expensive. At the same time, the systems suffer from substantial compliance gaps, except in the highly organized sectors of the economy. There are several factors contributing to this unsatisfactory state of affairs. The most significant cause of complexity is, of course, policy related and is due to the existence of exemptions and multiple rates, and the irrational structure of the levies.

The key problem with the service tax is the basic approach of levying it on specified services, each of which generates an extensive debate as to what is included in the base. Ideally, the tax base should be defined to include all services, with a limited list of exclusions (the so called "negative list").The Government has been reluctant to adopt this approach for the fear that it could bring into the tax net many services that are politically sensitive.

The complexities under the State VAT relate primarily to classification of goods to different tax rate schedules. Theoretically, one might expect that the lower tax rates would be applied to basic necessities that are consumed largely by the poor. This is not the case under the State VAT. The lowest rate of 1% applies to precious metals and jewellery, and related products—hardly likely to be ranked highly from the distributional perspective. The middle rate of 4% applies to selected basic necessities and also a range of industrial inputs and IT products. In fact, basic necessities fall into three categories –exempted from tax, taxable at 4%, and taxable at the standard rate of 12.5%. The classification would appear to be arbitrary, with no well accepted theoretical underpinning. Whatever the political merits of this approach, it is not conducive to lower compliance costs. Most retailers find it difficult to determine the tax rate applicable to a given item without referring to the legislative schedules. Consumers are even less aware of the tax applicable to various items. This gives rise to leakages and rent seeking.

Another source of complexity under the State VAT is determining whether a particular transaction constitutes a sale of goods. This problem is most acute in the case of software products and intangibles such as the right to distribute/exhibit movies or time slots for broadcasting advertisements. Compounding the structural or design deficiencies of each of the taxes is the poor or archaic infrastructure for their administration. Taxpayer services, which are a lynchpin of a successful self-assessment system, are virtually nonexistent or grossly inadequate under both central and state administrations. Many of the administrative processes are still manual, not benefiting from the efficiencies of automation. All this not only increase the costs of compliance, but also undermines revenue collection.

Findings

This Research suggests that GST Model for the country that could be adopted in short term and identifies issues that arise in designing and implementation of comprehensive GST in India.

There are three Options in this context:

A) Option I: GST at Union Level Only

This Model envisages principal indirect taxes on goods and services to be levied by Union Government only. No such taxes to be levied by State Governments leading to only one GST throughout the country.

- Ideal structure from business perspective – greater stability and facilitation of decision making – also, businesses will have to deal with only one tax authority and comply with only one tax- there will be significant reduction of compliance costs
- Excellent from consumer perspective as the consumer will know exactly how much is the indirect tax burden in the goods and service consumed by it
- Cascading effect can be removed to a large extent as there will not be taxes at two levels leading to improved competitiveness
- Feel good factor for anyone doing business with the country Cons
- Near impossibility of achieving the structure – will require modification of Constitution
- States may not agree to give up power of taxation and depend on the Union for resources
- Entire infrastructure developed for taxation at both levels will have to undergo huge change

B) Option II : GST at State Level Only

This Model envisages levy of GST by State Governments only meaning only State specific GST across the country and no GST by Union Government.

- Reduction of cascading effect of taxes as there will not be tax at two levels.
- Amendment (s) will be required in Constitution which may be supported by industrial and large states and opposed by smaller states which do not have significant source of revenues
- Businesses will have to comply with tax laws of each State – not worse off than current situation but not better off as well except that they will not have to deal with Central Level taxation which is the current position. At the same time, decision making will be impacted and may affect business stability
- Governments, both local and Union will not find it workable as it will require complete change in its finances and allocation of resources.
- There may be unhealthy competition among states using local tax structure as a tool to attract investments within the states, which may be at the cost of other states. This could lead to retaliatory measures by other states.



- Entire infrastructure for taxation will have to undergo change as States will need additional resources whereas Union's infrastructure will be freed up.

C) Option III : GST at both levels

This model envisages GST at two levels operating parallel – one, at Union Level and another at State Level.

- Achievable in the short term
- No significant change required in the current structure of indirect taxation although, some amendments may be required to the Constitution
- Partial removal of cascading effect of taxes
- No change required in infrastructure of tax departments at the Union and State levels Cons

GST Model for INDIA

The Research Paper suggests that Option III - GST at two levels – Union and State operating parallels be adopted to begin with this reform process. Although, it is not ideal Model, we recommend the same to – kick start the move to GST as:

- It is the most workable model especially taking into consideration the changes required in the Constitution and achievability in the short term.
- This Model builds on the current structure of taxation of goods and services and does not envisage drastic changes in the broad mechanism for levy and collection of taxes.
- It results in allocation of taxes between Union and States and between states based on fair and transparent criteria of consumption within a state.

Implementation of this suggested Model will require following steps:

- Constitutional Amendments : Consolidate separate entries in the Constitution empowering Union and State Governments to impose taxes on manufacture and sale of goods and services into one entry which empowers both Union and State Governments to impose tax on sale and supply of goods and services. Optionly, modify Constitution only to the extent required immediately specifically, to extend CENVAT to consumer level and to authorize states to collect and retain tax on services.
- Amend CST law to introduce VAT on import of goods and introduce import VAT– tax on imports is within the jurisdiction of Union Government and Union Government could appropriate it to the State Governments. This collection would need to be allocated to the states where the goods move on importation since that is the state where the sale will take place and which will give credit for import VAT against output VAT.
- Consolidate taxes on services imposed under different enactments by State Governments e.g., duty on entertainment, and electricity, luxury tax.

Conclusion:

The abovementioned analysis shows that there has been a significant progress in tax

reforms in recent years and that has helped to enhance the tax-GDP ratio close to the levels that prevailed prior to reducing customs. This, however, is only the beginning and considerable distance in reforming the tax system is yet to be covered. The tax system reform including reform in administration is a continuous exercise. The reforms will have to continue not only at the centre, but also at state and local levels as well. One important objective of sub national reform is to ensure common market I the federation. It is also necessary that consumption taxes should be calibrated in a coordinated manner in the spirit of co-operative centralism. Domestic and external trade taxes should also be calibrated to ensure the desired degree of protection to industry and the desired burden of consumption taxes to the community. Broadening the base of both central and state taxes and keeping the tax structures simple are important international lessons to be adopted in calibrating further reforms.

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A Study on Valuation of Rupee & Its Impact on The Indian Economy

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ABSTRACT

In this paper earnest steps have been taken by the paper presenter in context to the today's valuation of rupee. An extensive literature study and review is made to find out the probable reasons for this depreciation of the rupee and the outlook for the same. It also reflects on the policy options to help prevent the depreciation of the Rupee.

The Indian rupee is under great stress as overseas investors are paring their exposure to Asia's third-largest economy amid international uncertainty and mounting worries over the domestic economy. For the last couple of months, the sliding rupee has created consternation among many business sectors. The exchange rate of Indian Rupee against the US Dollar has gone over the roof. In 2009-10 the exchange rate was hovering around the 43-45 rupees per US Dollar. Over the past three years, the rupee has consistently depreciated against the dollar with the 3rd quarter of 2013 being one of the worst in terms of Rupee Value Depreciation. The rupee has lost more than 14 percent of its value this year, making it one of the worst performing currencies in Asia. Of course those who are directly affected by the lower value of the rupee are concerned – such as importers, those wishing to travel abroad or spend on foreign education, and so on. But the rupee's decline affects everyone in the economy, because it feeds directly and indirectly into general inflation, which is a continuing problem even as output growth decelerates, and therefore hits common people hard.

Keywords : *Rupee Depreciation, Exchange Rate, Economic Impact.*

INTRODUCTION

Depreciation refers to a fall in the value of the domestic currency which is caused by the demand for foreign currency exceeding its supply in the market. In such a situation one has to pay more than before to get units of foreign currency. This fall takes place in the market and on its own. Market determined exchange rate serves the purpose of aligning the domestic economy with the world economy was the price route. As consequences the domestic price gets linked up with those of the world price. With the liberalizations and globalization of the economy in recent years, imports are bound to increase. The lessening of restrictions on imports and lowering of tariff on imports which the economic reform implies, an increase in imports has in fact taken place.

India got freedom from British rule on Aug 15, 1947. At that time the Indian rupee was linked to the British pound and its value was at par with the American dollar. There was no foreign borrowing on India's balance sheet. To finance welfare and development activities, especially with the introduction of the Five-Year Plan in 1951, the government started external borrowings. This resulted in the devaluation of the rupee. The performance of rupee against USD (globally accepted currency) is depicted herein;

Table 1

Exchange rate (INR per USD)

Year	Exchange rate (INR per USD)	Year	Exchange rate (INR per USD)
1947	1	2007	39.42
1948 - 1966	4.79	2010	46.21
1966	7.5	2011 (April)	44.17
1975	8.39	2011 (Sept)	48.395
1980	7.86	2011 (Nov)	55.395
1985	12.38	2012 (June)	57.15
1990	17.01	2013 (May 15)	54.73
1995	32.427	2013 (July 31)	60.81
2000	43.5	2013 (Aug 28)	68.12
2005	43.47	2013 (Sep 28)	61.98

Source: Wikipedia.org

India being a developing economy with high inflation, depreciation of the currency is quite natural. Depreciation of rupee is good, so long as it is not volatile. A random depreciation that we have seen in the last few months is bad and it has hurt the economy. Right from the beginning of year 2013, the value of rupee has been depreciating. In this weakened environment, the rupee has depreciated by more than 14 percent in the past few months. Secondly, the extent of volatility in the global economy hasn't helped. Besides the Euro zone crisis, the downgrade of the US economy has led to flight of capital in order to boost the US home economy.

High growth coupled with a market driven exchange rate bears well for the economy. However, when growth falters and macroeconomic parameters start appearing vulnerable, one of the first casualties is the exchange rate. Currently, there is no clarity on whether we have seen the worst of the storm or it is just the beginning. The problems are manifold. Persistent high inflation and fiscal deficit, increasing subsidies, faltering exports and slowing industrial production point towards an economy, which is moderating in growth. Monetary policy has so far been ineffective in reversing the inflation trajectory. Fiscal stimulus appears non-existent, especially when the government has added to the subsidy bill by giving a go ahead to the food security bill.



The appreciation in the US dollar has led to the decrease in the value of Indian rupee. The value of US dollar has been rising ever since the US Federal Reserve has announced quantitative easing. This has hit not only the emerging markets and assets of India but also of other countries like Thailand, Brazil and Indonesia. Just as in other countries, the foreign institutional investors (FIIs) have also started withdrawing their investments in the Indian bond market. With growing concern for increasing risks in the global environment, massive redemptions through the global exchange traded funds (ETFs) are taking place. This has further initiated the selling by the FIIs in the equity market of India leading to depreciation in the Indian rupee. The depreciation as it is initiated by global factors that are beyond the control of RBI.

OBJECTIVES

The major objectives of the study are as follows;

1. To study the cause that triggered the fall of rupee.
2. To examine the effect of rupee depreciation on the Indian economy.
3. To analyze the control measures taken by the RBI / Govt.

THEORETICAL BACKGROUND

What is rupee appreciation & depreciation?

Exchange rate is the price of foreign currency (USD, Yen, Euro, Pound etc) in terms of domestic currency (rupee) i.e. amount of domestic currency needed to buy one unit of foreign currency, meaning thereby it is international price mechanism for our trade. Rupee prices keep fluctuating all the time. Sometimes we need more rupees to buy one unit of foreign currency and sometimes we need fewer rupees to buy one unit of foreign currency. This change in rupee price is known as rupee appreciation or depreciation respectively. Currency price is always stated in relation to another currency. So when one currency appreciates the other currency depreciates.

What causes currency to appreciate or depreciate?

Like any commodity whose price is determined by its demand and supply, currency price is also determined by demand and supply of that currency in the international market (which universal law of economics). When supply of a country's currency increases, value of currency falls as more currency is required to purchase another currency causing currency to depreciate. Reverse holds true when demand for a currency increases. Demand for a country's currency comes from its export of goods and services and foreign investment in the country. Supply for a country's currency comes from its imports of goods and services and its investments in other countries.

The major factors which cause currency to appreciate or depreciate are;

a) Current account deficit /surplus,

b) Capital account flows,

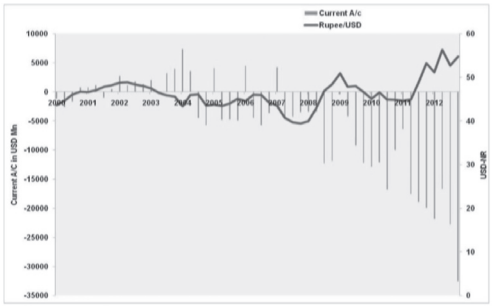
c) Interest rate and

d) Inflation.

Current account deficit is when imports are higher than exports. When a country imports more, it needs to pay in foreign currency, causing the country's currency to depreciate as demand of its currency decreases. Reverse holds true in case of current account surplus. The following chart No.3 below shows India's current account quarterly data and rupee movement from 2000 till December 2012.

Figure 1.

Current Account (in USD) and Rupee Movement



Source: http://gamechangers.idfcmf.com/wp-content/uploads/2013/Rupee-Appreciation-and-Depreciation.pdf

In the above figure, we can see that rupee has depreciated with increase in current account deficit. During 2002-2004, when India saw current account surplus, rupee has appreciated from 48.8 to 43.58. From 2011 with increasing deficit, rupee has depreciated from 49 to 54.7 (as on December 2012).

Measures taken by RBI/Govt

The government and the RBI have issued a series of measures in recent days designed to reduce the current account deficit and bolster the rupee, including increases in the import duty on gold, the end of duty exemptions for flat screen televisions brought in by airline passengers and restrictions on outward direct investment by Indian companies and individuals.

1. **RAISING POLICY RATES:** The rationale was to prevent sudden capital outflows and prevent melt down of currency. RBI has already tightened policy rates significantly since March 2010 to tame inflationary expectations. Higher interest rates along with domestic and global factors have pushed growth levels much lower than expectations. In December 2011 monetary policy review, RBI mentioned that future monetary policy actions are likely to reverse the cycle responding to the risks to growth. India's interest rates are already higher than most countries anyways but this has not led to higher capital inflows. On the other hand, lower policy rates in future could lead to



further capital outflows.

2. **USING FOREX RESERVES:** RBI can sell forex reserves and buy Indian Rupees leading to demand for rupee. RBI Deputy Governor Dr. Subir Gokarn in a recent speech (An assessment of recent macroeconomic developments, December 2011) said using forex reserves poses problems on both sides. "Not using reserves to prevent currency depreciation poses the risk that the exchange rate will spiral out of control, reinforced by self-fulfilling expectations. On the other hand, using them up in large quantities to prevent depreciation may result in a deterioration of confidence in the economy's ability to meet even its short-term external obligations. Since both outcomes are undesirable, the appropriate policy response is to find a balance that avoids either."
3. **EASING CAPITAL CONTROLS**: Dr Gokarn in the same speech said capital controls could be eased to allow more capital inflows. He added that "resisting currency depreciation is best done by increasing the supply of foreign currency by expanding market participation." This in essence, has been RBI's response to depreciating Rupee. Following measures have been taken lately:
    - Increased the FII limit on investment in government and corporate debt instruments.
    - First, it raised the ceilings on interest rates payable on non-resident deposits. This was later deregulated allowing banks to determine their own deposit rates.
    - The all-in-cost ceiling for External Commercial Borrowings was enhanced to allow more ECB borrowings.

METHODOLOGY

This is a descriptive study carried out on secondary data on the depreciation / appreciation of rupee. All secondary data is collected from the reliable source such as World Wide Web, Newspaper articles and published matter on similar topic. A keen interest of the paper presenter has made the paper very interesting and more relevant to the present financial scenario.

DISSCUSION & FINDINGS

The value of rupee follows the simple and universal rule of economics demand and supply. If the demand for the dollar in India is more than its supply, dollar appreciates and rupee depreciates. Similarly, when the supply of dollars in India increases its demand, the value of dollar decreases in terms of rupees.

The study reveals that, the obvious reasons why the current depreciation is not to be welcomed is the effect on domestic living standards. There are several ways in which the falling rupee immediately has an inflationary impact; one of the most important inputs likes the price of energy / fuel. Since the misguided decontrol of oil prices, it is not only the globally traded price of fuel but also the exchange rate that determines domestic oil prices. Both durable and non-durable goods are likely to become more expensive. And, of course, food inflation-the most worrying aspect of recent price movements-is likely to go up as a well. The following are major findings;

a) The wholesome of the country's economic scenario by and large depends on FIIs (Foreign Institutional Investors). Of late most of the foreign institutional investors are not showing interest in India, on top of it they are withdrawing their investments. The obvious and sole reason is the recovery in stock markets of developed economies like US and Japan. The capital outflow by the FII in the FY 13-14 is shown below;

Table 2

Capital Inflow / Outflow by the FII in the FY 13-14

	Figures in $ million		
	FII net inflow/ (outflow) in debt	FII net inflow/ (outflow) in equities	Net inflow/ (outflow) during the month
April	992.20	1,000.27	1,992.47
May	1,132.89	4,042.64	5,175.53
June	(5,683.48)	(1,852.15)	(7,535.63)
July	(2,010.52)	(1,015.05)	(3,025.57)
August	(1,554.43)	(902.51)	(2,456.94)
September so far	(63.99)	986.41	922.42
Total	(7,187.33)	2,259.61	(4,927.72)

Source: http://www.telegraphindia.com/1130914/jsp/business/story_17348464.jsp

In the above table No. 4, the figures in the bracket indicates outflow and figures in the without bracket indicates inflow. Right from April 2013 till September 2013, the total excessive outflow is USD 4,927.72 million; hence it has acted as catalyst in rupee valuation (devaluation).

b) The Inflation also plays a vital role in valuation of rupee. The high inflation has resulted into Indian goods becoming expensive in the global markets, thus making it less competitive, especially when compared to goods from China. Hence rupee does not have any support by way of higher exports. The following table indicates India's inflation rate;

Table 3

India's Inflation Rate (YoY from 2000 – 2012)

In recent years India's inflation rate has been higher than world average							
							(Year-on-year in per cent)
	2000-07	2008	2009	2010	2011	2012	2008-12
	Average	Annual					Average
Global Inflation							
World	3.9	6.0	2.4	3.7	4.9	4.0	4.2
EDEs	6.7	9.3	5.1	6.1	7.2	6.1	6.8
Inflation in India							
WPI	5.2	8.1	3.8	9.6	8.9	7.6	7.6
WPI-Food	3.8	8.9	14.6	11.1	7.2	9.1	10.2
WPI-NFMP	4.3	5.7	0.2	6.1	7.3	5.2	4.9
CPI-IW	4.6	9.1	12.2	10.5	8.4	9.9	10.0
Indian inflation data pertains to financial year, WPI: Wholesale Price Index, CPI-IW: Consumer Price Index for Industrial Workers.				*DEs: Emerging and Developing Economies, NFMP: Non-food manufactured products,*			

Source: http://rbi.org.in/scripts/Publications.aspx

In the above table No. 5, the inflation rate in India is higher when compared to the world average. In the year 2000-07 the global inflation rate was 3.9 whereas Indian inflation was at 5.2. A study indicates that the world's average inflation rate for 5 yrs (2008-12) was 4.2 whereas Indian inflation was around 7.6. The Indian inflation rate is 0.8 times

higher than the world's average, and this is the major cause to pull the rupee value.

c) On the investment front - steady decline in GDP growth, constant and continuing contractions in industrial output, spiraling inflation, growing instance of financial corruption, policy confusions etc. do not help in portraying India as a favored investment destination. It is here that the government has a very crucial role to play. In reality the only role the government has played till date is to try and correct certain policy nuances (FDI regulations etc.) but has done precious little to address the concerns of the domestic economy.

d) The cascading and promulgating the adverse effect of devaluation of rupee on the Indian economy in different spectrum such as, costlier imports, worsening the current account deficit, slow capital inflow, diminishing Forex reserves and cracking stock market.

e) During the study it was noticed that gold and petroleum products are the major import commodity which drains our currency. At the initial government must control the sale of gold in the form of bars and coins barring the sales of ornament since gold ornaments are symbol of status and progress in rural India. The NGOs and Informal trusts need to observe 'Green Day' every month by not using their vehicles. And modalities need to be framed on concept like carpooling, usage of public transport only, and tuning up vehicles to improve their fuel efficiency etc.

CONCLUSION

Growing Indian economy has led to widening of current account deficit as imports of both oil and non-oil have risen. In the study it is noted that, despite of dramatic windfall increase in software exports, current account deficits have remained elevated. Apart from rising CAD, financing CAD has also been seen as a concern as most of these capital inflows are short-term in nature. The exports have risen but so have prices of crude oil leading to further widening of current account deficit. Efforts have been made to invite FDI but much more needs to be done especially after the holdback of retail FDI and recent criticisms of policy paralysis. Without a more stable source of capital inflows, Rupee is expected to remain highly volatile shifting gears from an appreciating currency outlook to depreciating reality in quick time.

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Technological Innovations and Innovative Practices Used by The Banking Sector

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ABSTRACT

Organisations need to be innovative to survive, with ability to constantly create a new product, service, process or a system, so as to be competitive and efficient. Banks are no exception to this principle. Banks now operate in a highly competitive environment in globally integrated markets with the all pervasive influence of technology. Bank markets have changed from local to global. Customers have been transformed from acceptance level to delight level. The society, at present, is demanding more and more with regard to the rights of its consumers. The new game requires new strategies with an accent on innovation for organisational transformation and to achieve world class competitiveness through improved efficiency and reduced operational cost. In this paper, the discussion would be mainly on the new financial innovations in banking industry in India as of now, which is mainly related to technology. Along with it we have also concentrated on the innovative practices followed by the banks. Also we would like to find out reasons as to why do we require these innovations & innovative practices to be followed by the banks.

"Innovation is the process of turning ideas into manufacturable and marketable form."

— Watts Humprey

INTRODUCTION

Globalisation of Indian economy has resulted in modernisation and innovations in banks in India. Globalisation has brought about structural changes in the world economy. This includes services, particularly banking and financial services. Although service sector contributes significantly to the national output, the impact of globalisation on services is yet to capture the attention of researchers and policy makers in many countries.

Innovation is defined as the use of new knowledge to offer a new product or service that customers want .The new knowledge here refers to technological or market knowledge. Globally, usage of technology is very extensive in the financial sector of which banking sector is an integral part. Indian financial sector has made rapid strides in late 1980's and early1990's picking up momentum with the advent of the 21st century. Liberalisation of the Indian economy has provided scope to the banking sector to reorient its focus by

shifting from developmental role obligated mostly by socio-political considerations into professional financial agencies keen on preserving their bottom lines. The direction in which the Indian banking is moving presently indicates that the prevailing competition will lead to consolidation & convergence. Small players will either have to forge a merger to become big players or else they will be either extinguished or swallowed by larger players in the years to come. The pressure will equally be more on the existing large players to retain their lead over others. This emerging scenario warrants innovative approach by banks to keep themselves sailing in the sea of competition.

METHODOLOGY

Unstructured interviews with qualitative approach were carried by interviewing Managers of private and public sector banks. The primary data was collected through telephonic interviews as well as personal interviews with the managers of the various banks. This helped us to identify the financial innovations & the innovative practices in the different ownership systems and the reasons for the same. The secondary data is what helped us in concretizing & accelerating the work on primary data.

Interviews were conducted with the managers of the following banks to get the primary data required for the study. The study was done extensively in Mangalore only.

- HDFC Bank
- ICICI Bank
- YES Bank
- Indusind Bank
- ING-Vysya Bank
- AXIS Bank
- RBS
- Bank of Maharashtra
- Indian Overseas Bank
- Bank of India
- State Bank of India

Findings

After going through the detailed study on these banks we can arrive at the following initiatives that the banking sectors have come up to cope with the changes and the challenges in the environment

The Major Initiatives are

- Investing in the state of the art technology as the back bone to ensure reliable service output.
- Leveraging the branch network and sales structure to mobilize low cost current and savings deposits

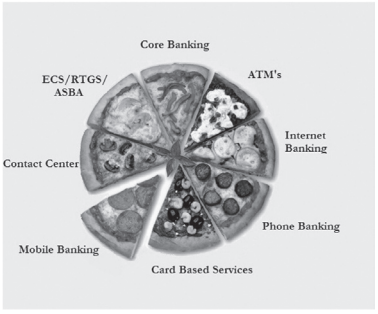
- Making aggressive forays in the retail advances segment of home and personal loans.
- Implementing organization wide initiatives involving people, process and technology to reduce the fixed costs and the cost per transaction.
- Focusing on fee based income to compensate for squeezed spread, (e.g. CMS, trade services)
- Innovating Products to capture customer 'mind share' to begin with and later the wallet share.
- Improving the asset quality as per Basel II norms.

LATEST FINANCIAL INNOVATION IN BANKING SECTOR:

- **Introduction of Biometrics in ATMS :** It provides for better security system, by linking credentials verification to recognition of the face, fingerprints, eyes or voice. Some large banks of the country have taken their first steps towards large scale introduction of biometric ATMs, especially for rural banking. The high costs involved largely accounting for the delay in adoption.
- **Electronic Clearing Service :** The Electronic Clearing Service (ECS) introduced by the RBI in 1995, is akin to the Automated Clearing House system that is operational in certain other countries like the US. ECS has two variants- ECS debit clearing and ECS credit clearing service. ECS credit clearing operates on the principle of 'single debit multiple credits' and is used for transactions like payment of salary, dividend, pension, interest etc. ECS debit clearing service operates on the principle of 'single credit multiple debits' and is used by utility service providers for collection of electricity bills, telephone bills and other charges and also by banks for collections of principal and interest repayments
- **Electronic Funds Transfer Systems :** The launch of the electronic funds transfer mechanisms began with the Electronic Funds Transfer (EFT) System. The EFT System was operationalised in 1995 covering 15 centres where the Reserve Bank managed the clearing houses.A new variant of the EFT called the National EFT (NEFT) was decided to implemented (November 2005) so as to broad base the facilities of EFT. This was a nationwide retail electronic funds transfer mechanism between the networked branches of banks.
- **RTGS-Real Time Gross Settlement :** This is a system where the processing of funds transfer instructions takes place at the time they are received (real time). Also the settlement of funds transfer instructions occurs individually on an instruction by instruction basis (gross settlement). RTGS is the fastest possible interbank money transfer facility available through secure banking channels in India. The introduction of RTGS in 2004 was instrumental in the development of infrastructure for Systemically Important Payment Systems (SIPS).
- **NEFT- National Electronic Fund Transfer :** This system of fund transfer operates on a Deferred Net Settlement basis. Fund transfer transactions are settled in batches as opposed to the continuous, individual settlement in RTGS. Presently,

NEFT operates in hourly batches from 9 am to 7 pm on week days and 9 am to 1 pm on Saturdays.

- **Cheque Truncation System (CTS) :** Truncation is the process of stopping the movement of the physical cheque which is to be truncated at some point en-route to the drawee branch and an electronic image of the cheque would be sent to the drawee branch along with the relevant information like the MICR fields, date of presentation, presenting banks etc. Thus, the CTS reduce the probability of frauds, reconciliation problems, logistics problems and the cost of collection.
- **ASBA :** To make the existing public issue process more efficient, SEBI has introduced a supplementary process of applying in public issues, viz. the "Applications Supported by Blocked Amount (ASBA)". An ASBA investor shall submit a physical ASBA to the Bank. The Bank shall then block the application money in the bank account specified in the ASBA, on the basis of an authorization to this effect given by the account holder in the ASBA. The application money shall remain blocked in the bank account till finalization of the basis of allotment in the issue or till withdrawal / failure of the issue or till withdrawal / rejection of the application, as the case may be. The application data shall thereafter be uploaded by the Bank in the electronic bidding system through a web enabled interface provided by the Stock Exchanges. Once the basis of allotment is finalized, the Registrar to the issue shall send an appropriate request to the CB of Bank for unblocking the relevant bank accounts and for transferring the requisite amount to the issuer's account designated for this purpose. In case of withdrawal / failure of the issue, the amount shall be unblocked by the Bank on receipt of information from the pre-issue merchant bankers through the concerned Registrar to the Issue.



INNOVATIVE PRACTICES IN BANKING SECTOR:

- **Strengthening the Brand Value :** this is done by HDFC bank where in they have strengthened the image of the bank so much so that most of the people are aware of the bank and are do love to associate themselves with the bank.
- **Relationship Management:** this was first introduced by the private sector banks and later copied on by other banks. Here, there is an exclusive person who caters to the needs of his clients or customers.
- **Wealth Management Services :** this is yet another indigenous way designed by

the private sector banks for giving service to its customers. Here the customers are advised as to where to invest and how to increase your money by giving the right advice.

- **Cash Back facility :** This is done by Indusind Bank ,where the customers of the bank can get cash back into their savings account on the Debit card usage done during a month. This is popularly known as 'INDUS MONEY'
- **Copy of your issued cheques :** this practice is followed in Indusind Bank, wherein every quarter when the bank statement goes to the customers it is accompanied with the copies of the cheques issued by the customers for the quarter. This facility is called 'CHECK-IN-CHEQUE'
- **Open an account with your favourite number :** This is practiced and done in some of the private sector banks. Since core banking has evolved remembering the account numbers have been a difficult task as usually they are more than eight digits. So here the accounts are opened with the customers' favourite numbers such as mobile numbers or date of birth etc.
- **Interest on Savings account :** Since RBI has removed the ceiling or cap on the maximum interest payable to savings account the private banks have introduced increased rates for its customers Ex: Yes Bank gives 7% ; Kotak Mahindra gives 6% to its customers as against 4% by the nationalised banks .
- **Portfolio Management/ Services :** This is a practice of managing the different investments of your customers profitably coupled with good sound advise.
- **DD drawing arrangement :** The major advantage of private sector bank is that they have DD drawing arrangements with the corresponding banks. That is, if they do not have a branch where the customer wants to take a DD they will have a tie up with another bank which has a branch there & will issue a DD called correspondent bank DD at that place. Ex: HDFC bank has a tie up with corporation & Axis Bank
- **Free Insurance scheme :** Some private sector banks have a practice of providing free insurance on the life of the account holder if they maintain a particular amount of money in their account. Some banks also cover free insurance on baggage or on shopping based on their debit card usage.

The Major Reasons for Banks to go for financial innovations and innovative practices are

- Diffused Customer Loyalty
- To attract more customers
- To retain customers
- To enhance the reputation of the Bank
- To gain an upper hand over the rival Banks
- To make it a preferred bank
- To make it more customer friendly Bank
- To increase the customer base



- To increase the asset base of the company
- To offer better quality of products and services
- To provide better customer satisfaction
- To increase the book size of the Bank

Conclusion

This paper explored into the financial innovations and innovative practices followed by the Banking sector. We saw practices such as increased rate of interest on savings account to wealth management services, which helps the banks to enhance the customer base as well as attract more customers. We also saw the reasons as to why the banks go for these practices. The main reasons highlighted in this study are ranging from retaining customers to increasing the book size of the bank.

Hence we conclude this study by saying that all the innovative practices followed by the banks have helped them to cope with the changes and the challenges in the environment.

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Review on Brain Tumour Detection

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Abstract

Brain tumors are created by abnormal and uncontrolled cell division in brain itself. If the growth becomes more than 50%, then the patient is not able to recover. So the detection of brain tumor needs to be fast and accurate. Efficient algorithms for detecting the brain tumor are provided. The first step starts with the acquisition of MRI scan of brain and then digital imaging techniques are applied for getting the exact location and size of tumor. MRI images consist of gray and white matter and the region containing tumor has more intensity. So, first noise filters are used for noise removal and then enhancement techniques are applied to the given MRI scan of brain. After that the basic morphological operations are applied for extracting the region suffering from tumor. And then verification of region detected is done by using watershed segmentation. Hence the efforts are taken to present the comparative study of various types of techniques to detect Brain tumour such as below.

Keywords : *Morphological Operators, watershed segmentation, edge detection.*

INTRODUCTION

Brain Tumour Detection and its Different Techniques:

So the detection of brain needs to be fast and accurate. There are in general three basic techniques for Brain Tumour Detection which are Edge Detection, By using segmentation, using Neural Network[1].

Edge Detection Based Identification

Images are obtained by MRI scan of brain and the output of MRI provides gray level images. For applying different techniques, the digital images obtained from MRI are stored in matrix form in MATLAB. The objective of the algorithm is to detect the exact the location and size of this high intensity region. MRI images can involve some noise also. So the next step is to remove this noise and get enhance image for better detection The following flowchart shows the various steps involved in this algorithm. Also watershed function can be applied for verifying the output.

Images are obtained by MRI scan of brain and the output of MRI provides gray level images. So the next step is to remove this noise and get enhance image for better detection. There are various kinds of filters available in image processing for removing

noise and each filter is having different characteristic. Mean filters like arithmetic mean filter, geometric mean filter, harmonic mean filter, contra harmonic mean filter etc. are linear filters. The geometric filters do not blur the image as much as arithmetic filters. Arithmetic and geometric filters are suited well for random noise like Gaussian. The contra harmonic filter is well suited for impulse noise. The median, max and min filters are non linear, order statistic filters. Usage of median filter again and again on processed image provides much better result. After noise removal, the next step is to enhance the MRI image. Enhancement will result in more prominent edges and sharpened image is obtained, noise will be reduced thus reducing the blurring effect from the image. Sharpening filters are based on spatial differentiation.

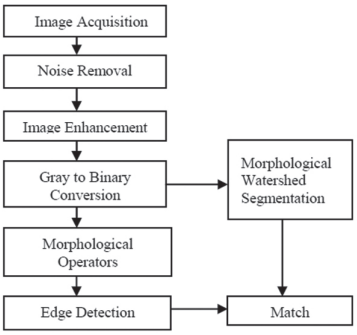


Fig.2.1

Laplacian filter is a sharpening filter. After applying Laplacian filter to the image, a new image is obtained highlighting edges and other discontinuities. After getting the enhanced image, the process of detection of exact location and size of tumor begins. For achieving this aim, first of all, the gray image has to be converted to binary image. binary A binary image is a logical array of 0's (black) and 1' s (white). For conversion of gray scale image to image, toolbox function im2bw is used. It scales the entire range of the input values to the range [0 1]. Thresholding concept has been used in this algorithm. The threshold concept works by choosing a threshold value, T, automatically and then extract (or separate) object from background. The threshold function of binary image g(x, y) is defined as:

$$G(x,y) = \begin{matrix} a & , \text{if } F(x,y) > T \\ b & , \text{if } f(x,y) < T \end{matrix}$$

After this process, the next step is to apply different morphological operator for finding exact size. There are two fundamental morphological operations:

(a) dilation, (b) erosion.

These are defined in terms of union and intersection of an image with translated shape called a structuring element. Erosion "shrinks" or "thins" object in binary image. As in dilation, the manner and extent of shrinking is controlled by structuring element. The last step is the detection of the edges of tumor. One may also skip this step because tumor gets detected after applying morphological operators. But by detection of edges the exact result is obtained. This method gives the better results within less efforts. For edge

detection various edge detectors are used like;

(1) Sobel Edge detector, (2) Perwitt's edge detector, (3) Robert's edge detector, (4) Canny edge detector

This Edge detection gives the exact size and location of the Brain Tumor [1].

Segmentation Based Identification

Image segmentation is based on the division of the image into regions. Division is done on the basis of similar attributes. Similarities are separated out into groups. Basic purpose of segmentation is the extraction of important features from the image, from which information can easily be perceived. Brain tumor segmentation from MRI images is an interesting but challenging task in the field of medical imaging. Fig 2.3 shows the flowchart of segmentation process. Threshold segmentation is one of the simplest segmentation methods. The input gray scale image is converted into a binary format. The method is based on a threshold value which will convert gray scale image into a binary image format. The main logic is the selection of a threshold value. Some common methods used under this segmentation include maximum entropy method and k- means clustering method for segmentation [2].Watershed Segmentation is one of the best methods to group pixels of an image on the basis of their intensities. Pixels falling under similar intensities are grouped together. It is a good segmentation technique for dividing an image to separate a tumor from the image Watershed is a mathematical morphological operating tool. Watershed is normally used for checking output rather than using as an input segmentation technique because it usually suffers from over segmentation and under segmentation[2]. For using watershed segmentation different methods are used. Two basic principle methods are given below:

1) The computed local minima of the image gradient are chosen as a marker. In this method an over segmentation occurs. After choosing marker region merging is done as a second step;

2) Watershed transformation using markers utilizes the specifically defined marker positions. These positions are either defined explicitly by a user or they can be determined automatically by using morphological tools.

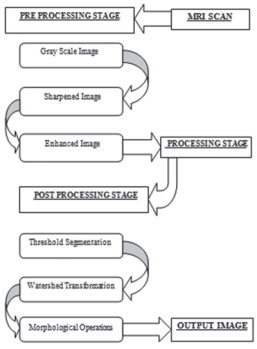


FIG:2.2



Watershed transform is often applied to this problem. The watershed transform finds "catchment basins" and "watershed ridge lines" in an image by treating it as a surface where light pixels are high and dark pixels are low[3].Segmentation using the watershed transforms works well if you can identify, or "mark," foreground objects and background locations. Marker-controlled watershed segmentation follows this basic procedure:

1. Compute a segmentation function.
2. Compute foreground markers.
3. Compute background markers.
4. Modify the segmentation function so that it only has minima at the foreground and background marker locations.
5. Compute the watershed transform of the modified segmentation function.
6. Visualize the Result

The above watershed algorithm was not suitable for all the images. so we go for texture based segmentation. Texture segmentation is to identify regions based on their texture. The goal is to segment two kinds of fabric in an image using texture filters.

1. Read Image
2. Create Texture Image
3. Create Rough Mask for the Bottom Texture
4. Use Rough Mask to Segment the Top Texture
5. Display Segmentation Results

Water shed segmentation is done on the intensity bases. As every pixel has different intensities compared to each other. Different watershed algorithms have been proposed. One of the most commonly used algorithms was introduced by F.Meyer. Here the pixels are grouped based on their intensities. This forms a better way to separate the tumor from image. After segmentation some of the morphological operations are performed to separate the tumor region from the image. Morphological techniques probe an image with a small shape called structuring element which is placed at all possible regions of the image to compare with the corresponding pixels. Brain tumour identification by using segmentation also gives the exact size and location of the tumour in brain but it is a time consuming task.

Neural network based tumour identification

The proposed system is a modified version of the conventional PNN. The modification is based on automatic utilization of specified regions of interest (ROIs) within the tumor area in the MRI images. Form each ROI, set of extracted features include tumor shape and intensity characteristics are extracted and normalized. Each ROI is then given a weight to estimate the PDF of each brain tumor in the MR image. These weights are used as a modeling process to modify the conventional PNN. This method is based on learning vector quantization (LVQ) which is a supervised competitive learning technique that obtains decision boundaries in input space based on training sets to reduce the size of

the hidden layer. It defines class boundaries prototypes, a nearest-neighbour rule and a winner-takes-it-all paradigm. There are four major steps in the proposed approach for brain tumor classification. The first step is ROI segmentation in which the boundary of the tumor (ROI) in an MR image is identified; the second step is the feature extraction of the meaningful features of the ROI; the third step is the feature selection; the last step is the classification process in which learning a classification model using the features. The proposed algorithm starts by reading the input image, converting it to grey scale image then applying image segmentation techniques for extracting the Region of Interest (ROI). A set of reference MRIs is taken as the training database. Feature vectors are extracted for each image in the training set during the training phase. In the testing phase, the feature vector of the test image is computed. Figure 2.3 illustrates the sequence of the proposed approach. The proposed approach is evaluated on real images, and the results are compared with other algorithms, in particular conventional PNN algorithm presented by [5]. During the segmentation process, each image region confined by a rectangular window is represented by a feature vector of length R. These vectors computed for Q selected regions are organized in the pattern matrix PR,Q and form clusters in the R-dimensional space. The Q pattern vectors in P are fed into the input NN layer, while the number C of the output layer elements represents the desired number of segmentation classes [4].

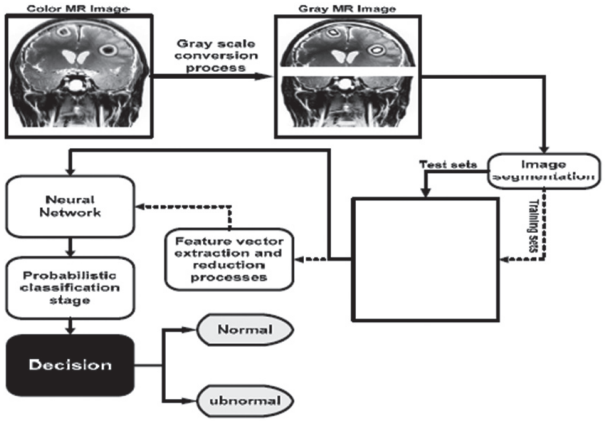


Fig 2.3

The algorithm comprises of the following successive steps:

1. Feature vectors computation to create the feature matrix P using the sliding window.
2. Initialization of the learning process coefficients and the network weights matrix W.
3. Iterative application of the competitive process and the Kohonen learning rule [4] for all feature vectors during the learning stage.
4. NN simulation to assign class numbers to individual feature vectors.
5. Evaluation of the regions classification results.

Acknowledgement

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Conclusion

This paper suggests different methods for Brain Tumour identification. The tumors can be found precisely according to the length, breadth and the exact position of the infected area, these project can help the doctors for the analysis of the tumor and also the damage to the brain in stages i.e in which stage the patient is. Results got with edge detection are good but couldn't extract the detail parameters of the brain tumour. And the results with Image segmentation are better than that of Edge Detection.

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Green Logistics

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ABSTRACT

Logistics are at the heart of the operation of modern transport systems and implies a degree organization and control over freight movements that only modern technology could have brought into being. It has become one of the most important developments in the transportation industry. Greenness has become a code word for a range of environmental concerns, and is usually considered positively. It is employed to suggest compatibility with the environment, and thus, like logistics is something that is perceived as beneficial. When put together the two words suggest an environmentally friendly and efficient transport and distribution system.

INTRODUCTION

Logistics is the integrated management of all the activities required to move products through the supply chain. For a typical product this supply chain extends from a raw material source through the production and distribution system to the point of consumption and the associated reverse logistics. The logistical activities comprise freight transport, storage, inventory management, materials handling and all the related information processing.

The main objective of logistics is to co-ordinate these activities in a way that meets customer requirements at minimum cost. In the past this cost has been defined in purely monetary terms.

As concern for the environment rises, companies must take more account of the external costs of logistics associated mainly with climate change, air pollution, noise, vibration and accidents.

This paper is examining ways of reducing these externalities and achieving a more sustainable balance between economic, environmental and social objectives.

THEORETICAL BACKGROUND

Green Logistics - Supply chain management practices and strategies that reduce the environmental and energy footprint of freight distribution. It focuses on material handling, waste management, packaging and transport.

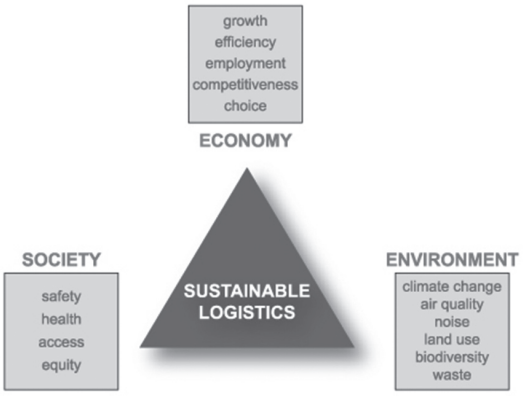
In common with many other areas of human endeavor, greenness became a catchword in the transportation industry in the late 1980s and early 1990s. It grew out of the emerging awareness of environmental problems, and in particular with well-publicized issues

such as acid rain, CFCs, waste disposal and climate change. Environmental concepts, such as material flows or the carbon cycle, became readily applicable to supply chain management.

Even if the term reverse logistics is widely used, other names have been applied, such as reverse distribution, reverse-flow logistics, and even green logistics. Inserting logistics into recycling and the disposal of waste materials of all kinds, including toxic and hazardous goods, has become a major new market but is does not reflect the full extent of green logistic which is the greening of both the forward reserve segment of supply chains.

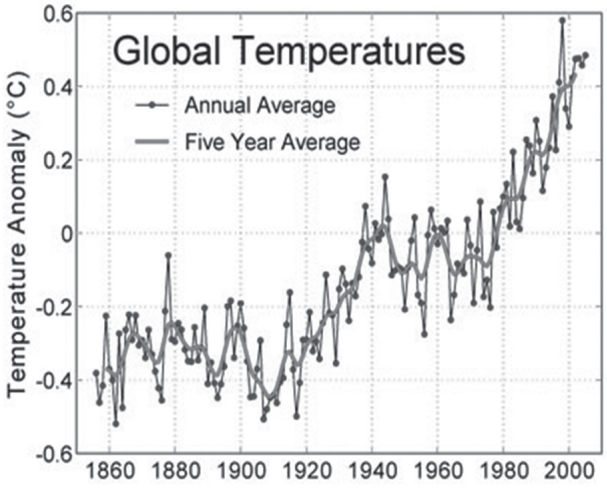
Research Methodology

Logistics is the integrated management of all the activities required to move products through the supply chain. For a typical product this supply chain extends from a raw material source through the production and distribution system to the point of consumption and the associated reverse logistics. The logistical activities comprise freight transport, storage, inventory management, materials handling and all the related information processing.



The main objective of logistics is to co-ordinate these activities in a way that meets customer requirements at minimum cost. In the past this cost has been defined in purely monetary terms. As concern for the environment rises, companies must take more account of the external costs of logistics associated mainly with climate change, air pollution, noise, vibration and accidents. This is examining ways of reducing these externalities and achieving a more sustainable balance between economic, environmental and social objectives

Carbon Emissions – a Global Challenge



With global warming being recognised as one of the largest challenges of this century, carbon emissions are increasingly becoming the centre of attention.

- Global warming is the result of increasing CO2 concentration in the atmosphere
- Global warming is and will be one of the largest challenges of this century
- Transportation activities are one of the main contributors to global warming

Green Logistics and its Paradoxes

An overview of the standard characteristics of logistical systems reveals several inconsistencies with regards to the mitigation of environmental externalities. They take the form of five basic paradoxes:

Cost

The purpose of logistics is to reduce costs, notably transport costs. Corporations involved in the physical distribution of freight are highly supportive of strategies that enable them to cut transport costs in a competitive setting.

Example A salient example concerns food supply chains that have been impacted by lower transport costs, enabling a diversification of the suppliers and longer transport chains.

Time

In logistics, time is often the essence. By reducing the time of flows, the velocity of the distribution system is increased, and consequently, its efficiency. This is achieved in the main by using the most polluting and least energy efficient transportation modes. The



significant increase of air freight and trucking is partially the result of time constraints imposed by logistical activities.

Reliability

At the heart of logistics is the overriding importance of service reliability. Its success is based upon the ability to deliver freight on time with the least breakage or damage. Logistics providers often realize these objectives by utilizing the modes that are perceived as being most reliable. The least polluting modes are generally regarded as being the least reliable in terms of on-time delivery, lack of breakage and safety. Ships and railways have inherited a reputation for poor customer satisfaction. For instance, the schedule reliability of container shipping is around 50%, implying that about half the time a container ship will not arrive at a port terminal at the scheduled day.

Warehousing

A reduction in warehousing demands is one of the advantages of logistics. This means however, that inventories have been transferred to a certain degree to the transport system, especially to roads but also to terminals. Inventories are actually in transit, contributing still further to congestion and pollution

Information Technology

Information technologies have led to new dimensions in retailing. One of the most dynamic markets is e-commerce. Even if for the online customers there is an appearance of a movement-free transaction, the distribution online transactions create may consume more energy than other retail activities. The distribution activities that have benefited the most from e-commerce are parcel-shipping companies such as UPS, Federal Express or DHL rely solely on trucking and air transportation.

Ecological concern

The "ecological concern" in logistics determines how far the logistics or the supply chain of a company is faced with the issue of environmental protection and resource conservation. Basically, a supply chain is affected of various influencing factors in this context. The main influencing factors are the stakeholders of the organization and the rising costs of energy and commodity.

Some of the key stakeholders in this context are:

- The state with growing international and national regulations
- Customers and consumer with increasing awareness and demand for eco-friendly products and (logistics) services
- Employees who want to work in an environmentally and socially responsible

company

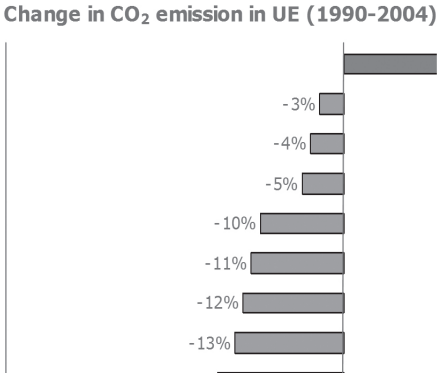
- Society with increasing claims for more corporate social responsibility (CSR)
- Companies themselves; dealing with their own motivation

There is also the pressure of lenders, investors, insurers and investors. Indications of this are new forms of investment in the capital market, such as the Dow Jones Sustainability Index, that tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria.

The dimension of ecological concern of a company is the product of these complex and varying factors.

Transportation - An important source of CO_2

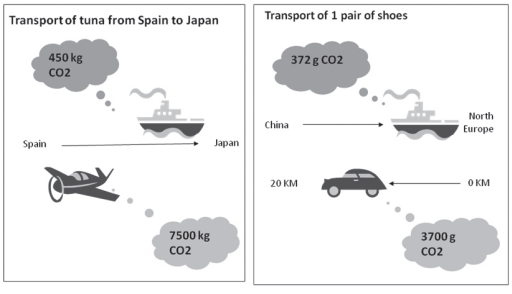
Due to globalization and increased outsourced trends, transportation is the only sector that has increased CO2 emissions in the last two decades



Green Logistics. Because the Future Can't Wait

- Climate change is one of the greatest challenges facing our generation.
- Increasingly authorities and consumers expect business to calculate, account for and reduce their carbon emissions. CO2 accounting is a new science and there is no single way of doing it.

Some examples of the carbon footprints when transporting goods





Approaches

Logistics has a whole range of measures to protect the environment and resources. Some are new, others long-known. These actions can be assigned to different levels – maturity, range, scope, capital expenditure and resource requirements.

Corresponding to the holistic approach of green logistics, logistics has five starting points to implement measures for environmental protection and resource conservation:

- customer, market and product (level 1)
- structures and planning (level 2)
- processes, control and measurement (level 3)
- technologies and resources (level 4)
- employees, suppliers and service providers (level 5)

Examples

- More efficient packing
- Route optimization
- Load optimization
- Formation of corporate networks, which are connected by logistics service
- Optimizing physical logistics processes by providing a sophisticated IT support

The first four levels form a hierarchy and influence each other sequentially. Decisions on one level define the scope for further decisions on the following levels. Decisions at higher levels reduce the freedom for the following levels. Example: The determination of the packing mass of a product on the Level one defines the volume and weight of a product and therefore the maximum number of items per carrier (e.g., container). Thus, the decision made on level one influences the maximum capacity of a container. The impacts on the environment – as carbon-dioxide (CO_2) emissions per transported product – therefore are strongly influenced by the decisions made on level one. But also decisions made on levels two and three, such as route optimization have an impact on carbon-dioxide emissions.

Reverse logistics

A critical area of the supply chain is reverse logistics. Traditionally defined as the process of moving product from its point of consumption through channel members to the point of origin to recapture value or ensure proper disposal, this chapter uses a more holistic definition. Reverse logistics includes activities to avoid returns, to reduce materials in the forward system so that fewer materials flow back, and to ensure the possible reuse and recycling of materials. Returns can affect every channel member from consumers, retailers and wholesalers to manufacturers. Returns are caused for different reasons depending on who initiates them – end consumer, wholesaler or retailer and manufacturer – and on the nature of the materials involved – packaging or products. Reusable packaging is becoming

more and more common, especially in Europe where manufacturers are required to take back packaging materials.

The size of reverse logistics is considerable. According to Stock et al (2001), reverse logistics costs are as high as 4 per cent of total logistics costs, which amounts to an estimated $35 billion in 2001 for the US alone. Consumers cause most product returns. According to a survey of 311 logistics managers in the US in 1998, average consumer returns across retailers are 6 per cent.

Characteristics of reverse logistics

The reasons for returning products can be distinguished by where the returns initiated. Listed below are the main return reasons for each supply chain partner

- Customer not satisfied
- Installation or usage problems
- Warranty claims
- Faulty order processing
- Retail overstock
- End of product life cycle or product replacement
- Manufacture recall programs

Case study 1

In this study, we have analyzed the environmental impact of alternative transportation modes

The Project

> An electronics company exporting goods from Barcelona to Denmark
> Environmental impact analysis of two scenarios: Truck vs. Multimodal Results
> The analysis reveals that trucking alternative represents more than 3 times more CO2 emissions compared to multimodal transportation

	Total CO2 (KGs)
Truck	197.120
Multimodal	65.224
Savings	131.896

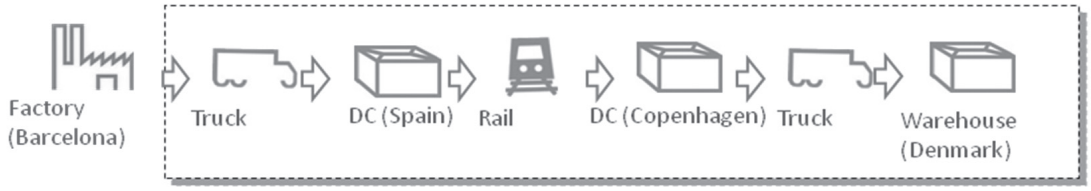
Alternative 1 – Truck

Total CO_2 emissions: 197.120 KGs



Alternative 2 – Multimodal

Total CO_2 emissions: 65.244 KGs



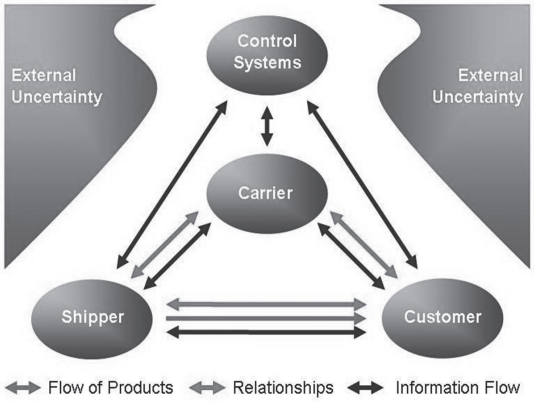
Uncertainty in supply chains

Objectives

- To review the significant amount of research into the sustainability of freight transport and its integration into the wider supply chain. Each academic partner will take responsibility for its own particular field of expertise, coordinated by a lead institution.
- To rationalize our understanding of the role of freight transport in the supply chain, given the complexity of many supply chains.
- To start the process of developing methodologies and tools this will improve our understanding of complex supply chain situations.

Framework

Uncertainty within supply chain operations leads to transport inefficiency and therefore impacts upon environmental performance. In order to evaluate this more fully, a conceptual model has been developed which we have termed the Logistics Pyramid. This is an extension of models previously developed for evaluating uncertainty within a manufacturing environment.



Within logistics operations, five main sources of uncertainty are identified:

- Shipper - the organization dispatching the products (i.e. the consignor)
- Customer - the organization receiving the products (i.e. the consignee)
- Carrier - the transporter of the load. This may be a third party or an in-house transport function
- Control systems - uncertainty caused through the information flow within a supply chain
- External environment - uncertainty from outside the logistics system being studied

By using this framework, it is possible to codify the main sources of uncertainty affecting transport operations and identify the root causes of these disturbances.

Result and discussion

- Considered during initial product development and raw material purchasing stage
- Can choose local suppliers
- To use recycled materials in manufacturing and production
- Typically, lower carbon emissions come along with lower overall logistics costs and maintained or improved service levels – a win-win situation for our clients and the environment

How will logistics become greener?

- Top down government intervention
- The industry claims that one of the fastest growing cost of warehousing is compliance with governmental regulations.
- Labor and health regulations (training).
- Environmental regulations, mainly concerning dangerous substances and fuels.
- Congestion pricing, road pricing (US) 'fair pricing' (EU).

- Recent trends show an attempt by governments to internalize cots.
- Outcomes uncertain
- Policies may impact differentially on the modes.
- Contradictory policies between tiers.

How will logistics become greener?

- Bottom-up, industry action
- Technology will improve the situation (to a limit).
- Fleet management, vehicle efficiencies.
- Attitudes will change; greenness can become a marketing tool.
- Composite solutions
- Environmental management and audit systems (EMAS).
- Adoption of ISO 14000 by logistics industry
- Paradoxical situation
- Problems occur at all spatial scales, from the local through to the global, so a political response is inevitable.
- There are hopeful signs of greener attitudes in the industry.

Conclusions

As mentioned earlier, developing reverse logistics further can result in lower environmental impacts since materials and components can be reused. Applying a green logistics system to any supply will require a substantial amount of research, planning, and risk-analysis. Sometimes while performing the environmental audit we have to maintain the balance between the financial budgets and the green logistics. There are a number of issues that may affect service performance and logistics costs if a green system is implemented. However, a reduction in environmental impacts is beneficial to all consumers. The concept of green logistics should be at the source of a firms supply chain strategy.

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A Literature Review on Prospectus of Ethical Hacking in Education Field

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ABSTRACT

As we know in India, the usage of internet and networks is growing tremendously and in that same proportion the problems are also increasing too. The problems are in form of security threats, cyber crimes, cyber attacks, online baking frauds, etc. Many times these kinds of tasks are performed by professionally trained programmers; we called them 'Hacker'. To prevent them we need the team of trained programmers; we called them 'Ethical hackers' who search the vulnerabilities in the system and fix it, that a hacker could possibly exploit.

But prevention is not only the solution. Precaution is better than prevention. We can take the precaution by adding Ethical Hacking subject in academic syllabus for graduation or post graduation students. So student will knows the importance of Ethical Hacking and try to implement different strategies to stop hacking.

Key Words : *ethical hacking, hacking, prevention*

INTRODUCTION

The need for more effective information security practices is increasingly evident with each security breach reported in the media. When adopting new technologies like cloud computing, virtualization, IT outsourcing, enterprises are facing imminent security threats and must adjust their security processes, policies, and architectures accordingly. Among the many options available to help peoples to achieve this goal, organizations should consider the value of ethical hacking services, which are rapidly gaining attention as an essential security practice that should be performed on a regular basis. Have you ever thought that hacking could be ethical? It can be and is widely used. With the fast growth of the Internet technologies, computer security has become a major concern for governments and business where the possibility of being hacked is proportional to the security implemented in their infrastructure. Firstly, we have to know the difference between two terms Hacker and Ethical Hacker.

A hacker is someone who seeks and exploits weaknesses in a computer system or computer network. Hackers may be motivated by a multitude of reasons, such as greed, revenge, adventure, destruction, access to forbidden information, profit, protest, or challenge. Hacker was used for an exceptionally talented programmer. However, these



days it is largely used for people practicing unauthorized and unethical use of internet and other network resources. Hacking is considered a crime in most of the countries. It is a punishable offence.

An ethical hacker is a computer or network expert who attacks a security system on the behalf of its owners, seeking vulnerabilities that a malicious hacker could possibly exploit. Ethical hackers will use the same methods as their less malicious counterparts, but report problems to the owners instead of taking advantage of them. Ethical hacking is also known as penetration testing, intrusion testing and red teaming. However, there are times when the police or investigation teams require the help of ethical hackers to solve a case.

In the 1970's the United States government used groups of experts called "red teams" to hack its own computer systems to determine the systems vulnerabilities. Since then, ethical hacking has continued to grow, and is becoming increasingly common outside the government and technology sectors where it began. Many large companies, such as IBM, maintain employee teams of ethical hackers in order to test their company's computer system vulnerabilities.

Now we can say that, Hacking is getting unauthorized access to a computer system or a resource and Ethical hacking involves getting authorized access to resources in order to test if that resource is vulnerable against attacks.

BACKGROUND

We required different strategies to stop hacking or search vulnerability in our system so that we need many experts. There are many private institutes or courses that provide the training of ethical hacking but ethical hacking subject is not introduced in regular syllabus. So the flow/awareness of the student towards the ethical hacking is too low as compared to medical or engineering field.

If we include this subject in regular syllabus for computer science students then we will immerse the student into an interactive environment where they will be shown how to scan, test, hack and secure their own systems. The lab intensive environment gives each student in-depth knowledge and practical experience with the current essential security systems. Students will begin by understanding how perimeter defenses work and then be lead into scanning and attacking their own networks, no real network is harmed. Students then learn how intruders escalate privileges and what steps can be taken to secure a system. Students will also learn about Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation. When a student completes the course they will have hands on understanding and experience in Ethical Hacking.

Students also can generate money with the help from ethical hacking. The latest example about is : A 21 years old Indian electronics and communications engineer – Arul Kumar from Tamil Nadu state won USD $12,500 as per Facebook white-hat program where anyone reporting security flaws, bugs to Facebook Security team can get awards/ prize money where minimum award is $500 USD and maximum depends on its severity

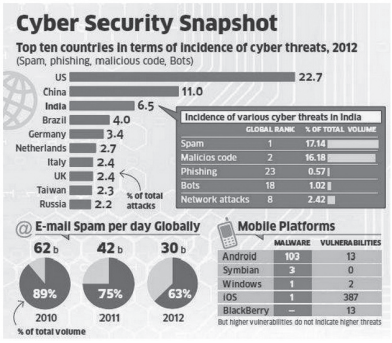
and creativity. Arul Kumar is Security Enthusiast and practice in Ethical Hacking and got facebook bounty twice in year 2013.

There are several different ways to define hacking, but the best and most used definition describes hacking as a computer system being entered through unauthorized access. Ethical hackers are network and computer experts who attack a security system to help the computer system's owners. They do this to look for any vulnerability that could be exploited by a malicious hacker.

They will use the same methods as a malicious hacker to test a security system, but instead of taking advantage of these vulnerabilities, they will report them. Ethical hacking is also referred to as intrusion testing, penetration testing and red teaming.

The figures will show the need of ethical hackers in India. India is the third largest county where the cyber attacks are executed. The cyber attacks are in the form of spam, malicious code, phishing, bots, network attacks on computer as well as mobile, tables and many more different platforms.

The second serious figures got from the report of Syma-ntec Security Threats are the mail attacks in our financial or banking sectors in India.





IMPLIMENTATION

Techniques of Ethical Hacking

One type of ethical hacking involves testing an organization's networks, both internal and external, to identify any weaknesses that outsiders could tap. Ethical hackers could also test applications to find any flaws and go through an organization's source codes. Other techniques include testing for the possibility of attacks from someone with access to the wireless network, and checking for unauthorized modems.

Advantages

One major advantage of ethical hacking is that it helps an organization better protect its systems and information. It is a way of augmenting the efforts of an organization's information technology professionals. The adoption of ethical hacking techniques must be a part of an organization's overall security efforts. However, the realities of tight budgeting mean that this additional layer of security is not always a priority for many organizations.



Protection Against Theft

If a hacker gets into an organization's systems, then the hacker could gain access to valuable information. The organization's intellectual property and sensitive client information are at risk. Hackers have been known to steal such information. If organizations want to protect against theft, they could schedule routine ethical hacking exercises to find out if any flaws exist in their systems. This makes them less vulnerable to outside hackers.

Protection from Lawsuits

The United States is a litigious society. If hackers get into a company's systems and steal customer information, then the company could face potential lawsuits. Consumers could file lawsuits against an organization for failing to safeguard their personal information. Ethical hacking could help prevent the possibility of such lawsuits. Organizations may also have to meet certain legislative and regulatory requirements relating to safety of consumer information. Ethical hacking helps them meet such mandates.

Goals of Ethical Hacking

Before an ethical hacker can begin the process they must create a plan, such as:

- Identify any and all networks they will test
- Detail the testing interval
- Detail the testing process
- Create their plan and then share it with stakeholders
- Get the plan approved

Ethical hacking has a variety of uses on the primary and secondary levels.

Benefits of ethical hacking

There are various benefits of ethical hacking.

1. To fight against terrorism: There are many terrorists and terrorist organizations that are trying to create havoc in the world with the use of computer technology. They break into various government defense systems and then use this for their terrorist activities. This can be prevented by using the services of ethical hackers who counter the terrorists by misleading them.
2. To take preventive action against hackers: Preventive action against the terrorists can be taken by the ethical hackers. This can be done because the ethical hackers use their expertise to create alternate information that is false, of the hackers to get while the real information that is necessary and important is hidden from the terrorists. Preventive action that is taken by the governments against the breaking of the networks saves money in billions of dollars as rectifying and building new systems will cost a lot and also is very time taking. So the use of ethical hackers in doing this work of preventing the real hackers from getting to the important information helps save a lot of money and also time.
3. To build a system that helps prevent penetration by hackers: The ethical hackers are

also used to try and test the existing defense systems. These people are also used to build a foolproof system that prevents the breakdown of the existing system. Using the powers of the hackers to get a proper system built helps to prevent penetration by the hackers and saves the information in the various government networks.

These are also the various benefits of having ethical hackers in a defense system.

CONCLUSION

Day by day the attacks of cyber threats are increasing. A single cyber threat can harm or badly effect on time, money, and confidential data of any company, institute or organization. To avoid this, we have to create a team of ethical hacker. For that we have to introduce this subject from college level; so students can aware about this and they will choose ethical hacking as a profession.

The hacking means performing bad things in bad ways and ethical hacking means performing bad things in good way. So the ethical hacking is a two sided sword; it will cut on both sides. That means it we trained our students for ethical hacking, so there is possibility of our students might change their mind and move towards hacking for their profit or greedy nature.

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Automatic Number Plate Recognition Using Optical Character Recognition

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ABSTRACT

Automatic number plate recognition is an image processing technology used to identify to Vehicles by their license plates. ANPR is a computerized method of matching a License plate to a database of registration numbers. Automatic vehicle identification (AVI) has many applications in security system (highly restricted area like military zones or area around top government offices e.g. Parliament, Supreme Court etc.), in traffic systems (highway electronic toll collection, red light violation enforcement, border and customs checkpoints, etc.). In the ANPR system software model the proposed algorithm consists of three major parts: Extraction of plate region, segmentation of characters and recognition of plate characters. The performance of the proposed algorithm has been tested on real images. It is obseverd form the experimental result, that ANPR system shows successes fully detect vehicle number.

Keywords : *Optical Character recognition, license plate recognition, plate region extraction, segmentation, smearing, template matching.*

Introduction

The Automatic number plate recognition (ANPR) is a mass surveillance method that uses optical character recognition on images to read the license plates on vehicles. They can use existing closed-circuit television or road-rule enforcement cameras, or ones specifically designed for the task. They are used by various police forces and as a method of electronic toll collection on pay-per-use roads and monitoring traffic activity, such as red light adherence in an intersection.

ANPR can be used to store the images captured by the cameras as well as the text from the license plate, with some configurable to store a photograph of the driver. Systems commonly use infrared lighting to allow the camera to take the picture at any time of the day. A powerful flash is included in at least one version of the inter section monitoring cameras, serving both to illuminate the picture and to make the offender aware of his or her mistake. ANPR technology tends to be region-specific, owing to plate variation from place to place.

The objective of the paper is to successfully locate standard Egyptian number plate, segment characters and recognize them given a car image. The system must deal with different angles, distances, scales, resolutions and illumination conditions.

ANPR SYSTEM

ANPR system can be subdivided into the two model.

- Software model
- Hardware model.

The section will discuss the both models in detail.

A . Stages of Software Model

The software model uses image processing techniques which are implemented in MATLAB 7.5.0.

Preprocessing :

This stage uses captured image by camera in RGB format. The RGB image is then converted into a grayscale image for easy analysis as it consists of only two color channels. Median filtering is then implemented for the effective removal noise.

License plate extraction

The purpose of this part is to extract the License Plate from a captured image. This process includes Yellow regions extraction, Dilating yellow regions, Fixing the license plate region Candidate selection, Determining the angle of the plate using the Radon transform, Improved license plate region, LP Quantization and Equalization, Normalized LP, Adjusting normalized LP horizontal contours.

Character Segmentation

ANPR by using a pixel based segmentation algorithm of the alphanumeric characters in the license plate. In process adaptive segmentation method is used. The character segmentation acts as a bridge between the number plate extraction and optical character recognition modules. Its main function is to segment the characters on the chosen candidate region (number plate) such that each character can be sent to the optical character recognition module individually for recognition.

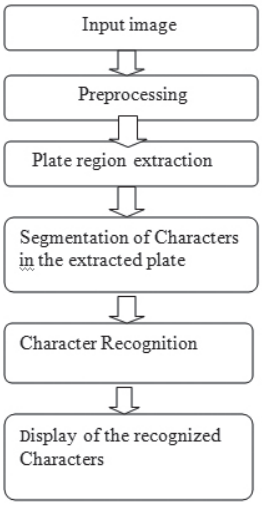
Recognition

Dilating the digit image permits to reduce noises due to poor image quality. It also exaggerates the digit width making a clear separation between the digit and the background which make the work easier for the OCR machine.

Contours adjusted and resized digit method adjusts the LP contours using similar method as in the precedent steps both in the horizontal and vertical directions. Then the digit is resized to standard dimensions, according to the neural network dataset.

The digit recognition algorithm method from the Neural Network is used and Retraining the Artificial Neural Network (ANN) by building a new sample font database.

Proposed VNPR Process



B. HARDWARE MODEL

The first step is the sensors to sense the presence of a vehicle. The camera connected to the PC through USB port capture the image of vehicle.

ANPR algorithm on PC receives the image and performs the processing, recognizes the vehicle number, confirms its validity & finally provides the signal to microcontroller to control the system hardware. If input image or plate contain the authorized number green indication light will be switched ON, otherwise red indication light will be switched ON.

Block Diagram of Hardware Model:

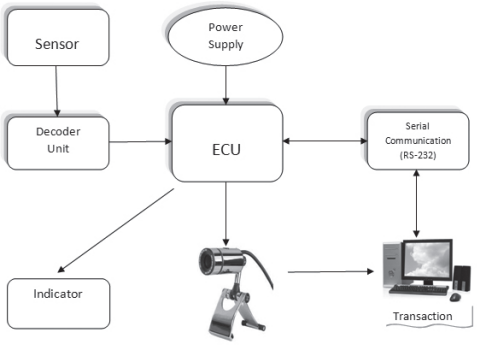


Fig2.: Complete hardware model.

RESULTS

This section presents the simulation results of the developed ANPR system.

Firstly, the camera is interfaced using Matlab with the PC. The camera is attached

using USB port. Different images of cars having different colors and structure types are taken and stored in PC. The different effects of the day lights are also considered during the processing. The images are in RGB format and the resolution is 800 x 600 pixels as shown in figure 3.

After capturing the image the next step was the yellow search algorithm. Figure 4 shows the images after the executing the yellow search algorithm. The white region represents the yellow or color closer to the yellow. It can be observed that the yellow search algorithm successfully detect the ROI that only contain vehicle number plate. The smearing algorithm used next to extract the vehicle number plate as shown in figure 5. Once the vehicle number plate is extracted, it is converted into the binary format. Figure 6 and figure 7 show the binary and inverted binary format respectively.

The row and column segmentations methods are used next to extract the individual character in the vehicle number plate. The results of the row and column segmentation are shown in figure 8 and figure 9 respectively.

Finally OCR is used for character recognition and each and every alphanumeric character is recognized as shown in figure 10.

DISCUSSION

The system start works when the sensor detects the presence of car at the entrance. The micro-controller sends the signal to PC for capturing image using USB camera attached with the PC. The PC starts the ANPR algorithm and identifies the vehicle authorization.

The ANPR algorithm is tested on large number of images with the resolution of 800 x 600 pixels. The results shows that the developed ANPR algorithm successfully detects the Sindh standard vehicle number plates in various day conditions and shows the higher detection and recognition rate. It can detect and recognize vehicle plates from various distances.

The distance affects the size of the number plate in an image. Once the vehicle number plate is detected, the individual characters are recognized using the OCR algorithm.

The OCR use correlation method for the character recognition and the probability of the recognition can also be calculated.

The system is computationally in expensive and can also be implemented for real time vehicle identification system.



Figure 3 Images taken using USB camera

Figure 4 ROI detection using yellow search algorithm

Figure 5 Vehicle number plate extraction using smearing algorithm

Figure 6 Binary image

Figure 7 Inverted binary image

Figure 8 Line separation using row segmentation

Figure 9 Character separation using column segmentation

Figure 10 Recognize character using OCR

CONCLUSION

In This paper, a new approach for the detection of vehicle number has been presented. A recognition method in which the vehicle plate image is obtained by the digital cameras and the image is processed to get the number plate information. A rear image of a vehicle is captured and processed using various algorithms.

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Applications of Data Mining in Web Data (Mining Web Data)

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ABSTRACT

In recent years we have witnessed an ever-increasing flood of written information, vulminating in the advent of massive digital libraries. The World Wide Web has become a very popular medium of publishing. Data mining is the process of non-trivial discovery from implied, previously unknown, and potentially useful information from data in large databases. Hence it is a core element in knowledge discovery, often used synonymously. The data is integrated and cleaned so that the relevant data is taken. Data mining presents discovered data that is not just clear to data mining analysts but also for domain experts who may use it to derive actionable recommendations. Successful applications of data mining include the analysis of genetic patterns, graph mining in finance, and consumer behavior in marketing. The Institute of Information Systems has developed and researched a wide spectrum of data mining applications with a focus on web applications in education, B2C retail applications, and knowledge management. One focus is on the analysis of the web as "the world's largest database."

Keywords : *data mining: web data, web usage mining.*

INTRODUCTION

Data mining is the process of non-trivial discovery from implied, previously unknown, and potentially useful information from data in large databases. Hence it is a core element in knowledge discovery, often used synonymously. The data is integrated and cleaned so that the relevant data is taken. Data mining presents discovered data that is not just clear to data mining analysts but also for domain experts who may use it to derive actionable recommendations. Successful applications of data mining include the analysis of genetic patterns, graph mining in finance, and consumer behavior in marketing. The content of the raw data for web usage mining on the one hand, and the expected knowledge to be derived from it on the other, put a special challenge. While the input data are mostly web server logs and other primarily technically oriented data, the desired output is an understanding of user behavior in the domain of online information search, online shopping, online learning etc. This requires on the one hand an understanding and formal modeling of the behavior examined in the domain and on the other a picture of how the input data figures in these models. We are investigating "semantic web" approaches as



a promising avenue for the formal and computational aspects of this goal. The contents aspects of this goal require an understanding of behavioral theories in the investigated domains and a highly interdisciplinary research approach. The eventual presentation of the mining results for domain experts should consider general aspects of user interface design as well as domain-specific customs. Further, the development of visualizations as an important design element of user oriented mining systems is in the focus of our research efforts. In particular we analyze and develop methods and tools for exploratory analysis of behavioral data. Another area of interest is the transition of from temporal data analysis (still plays an important role) that implicitly assumes a stationary role for the described domains, to the analysis of the dynamic aspect of such data (these data, as a rule, are too complicated to examine using standard time series analysis techniques). Web mining describes the application of traditional data mining techniques onto the web resources and has facilitated the further development of these techniques to consider the specific structures of web data. The analyzed web resources contain (1) the actual web site (2) the hyperlinks connecting these sites and (3) the path that online users take on the web to reach a particular site. Web usage mining then refers to the derivation of useful knowledge from these data inputs

BACKGROUND

- **Web Mining Efficiently :** Web mining means to download information from websites. Now you may ask why we do not do this by hand, and the answer is very simple. To do this by hand is a waste of time and very tedious work. All this work could be done by simply using a computer with web mining software installed on it, so that the computer can use this software from 'Mozenda.com' to download the essential information that you would like. It doesn't just download everything because that would be a waste of time. Rather it is smart software that can be used to gather the exactly right and perfectly fitting information from websites that you require.
- **Copy Website Content :** Copying website content is done by using website download software. This software allows you to copy web pages to your hard drive from the internet. After you download the website pages you can view them later from your hard drive. Most of the software has an export feature that allows you to view the downloaded pages in different browsers. The export feature also allows you to copy downloaded websites to other computers in order to view them later and prepares websites for burning them to a CD or DVD. JPEG images can also be ripped with this software and stored on your hard drive to be viewed at a later date.



- **Extract Text :** It is often a inconvenience when you have to get text from documents that are in PDF, DVL or HTML format. While it is possible to copy and paste the text you want, it can be very tedious and you may even get the inaccurate text.

  Extract text is software that allows you to get the text in a much easier way. It is possible to extract the text using extract software. This software will help you extract text from any website that you are using. It also makes it possible to extract the text from multiple websites at the same time. The text that you extract will be accurate and takes a short time.
- **Website Scrapers :** Grabbing Data-The Data Grab - The Internet Through a Strainer Scouring the internet for it's one key resource Data. Performing a data grab is using a program to sift through a website or database for a specific kind of information. To data grab is to seek to quickly form enough of a base of information to be useful in studies, be they medical, financial or legal. This kind of operation is engaged in more and more frequently as data begins emerging as the most valuable of commodities.
- **Article scraper :** An article scraper, or website scraper, is a very useful tool for anybody who needs to extract tailored data from the Internet. An automated system that can weed through vast amounts of information to find exactly what is needed, an article scraper can help companies understand their customers' needs and wants, allowing them to tailor their products accordingly and to ultimately boost their profits. Researchers can gather needed information quickly and efficiently, saving them untold hours of research they would normally have to do on their own. Anyone who has a need for tailored Web-based information should consider article scraping to meet their data needs.

IMPLIMENTATION

User behavior and data availability tend to change over time. Therefore the dynamism of a domain is an important question in every mining analysis and in each presentation of

mining results for domain experts. Most data mining algorithms tend to treat the dataset being analyzed as a static unit. However a dataset may change in terms of content and/or structure over time, either due to updates or just because the data was collected over a long period of time. Regarding updates, it seems sufficient to update the patterns discovered previously from the data. Most of the "incremental mining techniques" proposed to solve this task are based on their static counterparts and re-use information from earlier mining runs, to update patterns. The data collection over a long time period creates another situation. In this case the data experiences only one form of update: insertions of data. The distribution of entities in the data set can change on account of external and/or internal factors. Due to these changes, the patterns over time may also change (pattern evolution).

There are two types of pattern change: 1. Changes in the essential make up of a pattern, for example the relationship in the data as reflected by the specific pattern.2. Changes in the statistical measurement of the pattern. Both types of changes can have a significant influence on the decision process and hence should be observed. The pattern supervision necessitates a data model that contains a temporal component to illustrate a specific pattern for the corresponding time. A second question that automatically comes in to play is: which patterns should be supervised or observed? The interesting thing is that even when examining smaller data amounts, the number of discovered patters is often very big. In these cases the analyst must choose a manageable subset of the patterns. The area is closely related to knowledge management, data protection and data security. In particular questions from knowledge management are highly relevant because the web usually implies the access to information and therefore the construction of knowledge. This raises a number of E-privacy questions. Data collection and data analysis practices are coming under increasing scrutiny from legislation and technical proposals that aim at either minimizing recording or at extending it. Web mining - is the application of data mining techniques to discover patterns from the Web. According to analysis targets, web mining can be divided into three different types, which are Web usage mining, Web content mining and Web structure mining.



A. Web usage mining : Usage mining is the process of extracting useful information from server logs. Web usage mining is the process of finding out what users are looking

for on the Internet. Some users might be looking at only textual data, whereas some others might be interested in multimedia data. Web Usage Mining is the application of data mining techniques to discover interesting usage patterns from Web data in order to understand and better serve the needs of Web-based applications. Usage data captures the identity or origin of Web users along with their browsing behavior at a Web site. Web usage mining itself can be classified further depending on the kind of usage data considered:

- Web Server Data: The user logs are collected by the Web server. Typical data includes IP address, page reference and access time.
- Application Server Data: Commercial application servers have significant features to enable e-commerce applications to be built on top of them with little effort. A key feature is the ability to track various kinds of business events and log them in application server logs.
- Application Level Data: New kinds of events can be defined in an application, and logging can be turned on for them thus generating histories of these specially defined events. It must be noted, however, that many end applications require a combination of one or more of the techniques applied in the categories above.

B. Web structure mining : Web structure mining is the process of using graph theory to analyze the node and connection structure of a web site. According to the type of web structural data, web structure mining can be divided a into two kinds:1. Extracting patterns from hyperlinks in the web: a hyperlink is a structural component that connects the web page to a different location. 2. Mining the document structure analysis of the tree-like structure of page structures to describe HTML or XML tag usage

C. Web content mining : Web content mining is the mining, extraction and integration of useful data, information and knowledge from Web page content. The heterogeneity and the lack of structure that permeates much of the ever-expanding information sources on the World Wide Web, such as hypertext documents, makes automated discovery, organization, and search and indexing tools of the Internet and the World Wide Web such as Lycos, Alta Vista, WebCrawler, ALIWEB, MetaCrawler, and others provide some comfort to users, but they do not generally provide structural information nor categorize, filter, or interpret documents. In recent years these factors have prompted researchers to develop more intelligent tools for information retrieval, such as intelligent web agents, as well as to extend database and data mining techniques to provide a higher level of organization for semi-structured data available on the web. The agent-based approach to web mining involves the development of sophisticated AI systems that can act autonomously or semi-autonomously on behalf of a particular user, to discover and organize web-based information. Web mining in foreign languages-It should be noted that the language code of Chinese words is very complicated compared to that of English. The GB code, BIG5 code and HZ code are common Chinese word codes in web documents. Before text mining, one needs to identify the code standard of the HTML documents and transform it into inner code, then use other data mining techniques to find useful knowledge and patterns. Web Usage mining Pros and Cons:-Pros-Web usage mining essentially has many advantages which makes this technology attractive to corporations including the government agencies. This technology has enabled e-commerce to do personalized marketing, which eventually



results in higher trade volumes. Government agencies are using this technology to classify threats and fight against terrorism. The predicting capability of mining applications can benefit society by identifying criminal activities. The companies can establish better customer relationship by giving them exactly what they need. Companies can understand the needs of the customer better and they can react to customer needs faster. The companies can find, attract and retain customers; they can save on production costs by utilizing the acquired insight of customer requirements. They can increase profitability by target pricing based on the profiles created. They can even find the customer who might default to a competitor the company will try to retain the customer by providing promotional offers to the specific customer, thus reducing the risk of losing a customer or customers. Cons-Web usage mining by itself does not create issues, but this technology when used on data of personal nature might cause concerns. The most criticized ethical issue involving web usage mining is the invasion of privacy. Privacy is considered lost when information concerning an individual is obtained, used, or disseminated, especially if this occurs without their knowledge or consent. The obtained data will be analyzed, and clustered to form profiles; the data will be made anonymous before clustering so that there are no personal profiles. Thus, these applications de-individualize the users by judging them by their mouse clicks. De-individualization, can be defined as a tendency of judging and treating people on the basis of group characteristics instead of on their own individual characteristics and merits.

Web Content Mining : Mining Text- Web content mining, also known as text mining, is generally the second step in web data mining. Content mining is the scanning and mining of text, pictures and graphs of a web page to determine the relevance of the content to the search query. This scanning is completed after the clustering of web pages through structure mining and provides the results based upon the level of relevance to the suggested query. With the massive amount of information that is available on the World Wide Web, content mining provides the results lists to search engines in order of highest relevance to the keywords in the query. Web text mining is very effective when used in relation to a content database dealing with specific topics. For example-Online universities use a library system to recall articles related to their general areas of study. This specific content database enables to pull only the information within those subjects, providing the how will web data mining benefit my business? If you would like to know more about your customers and when and how they make purchases, web data mining could help. What differentiates business site visitors, who read articles and move on to the next site, from site visitors who purchase your goods and services? You can search the traffic data on your company web site, or compiled in your database to find out when a person makes a purchase. Where did they come from and what pages of your site were of interest to them? These are some of the things you can mine from your data. Most specific results of search queries in search engines. This allowance of only the most relevant information being provided gives a higher quality of results. This increase of productivity is due directly to use of content mining of text and visuals. Once web information is collected it can be used to improve your marketing results. Your company can make educated decisions about what kind of contacts to make with a customer, when, and in what format. Rules can be created about what type of data to gather, how it is organized, and how it is assessed. You can decide if it is most likely that a customer will make a purchase after Web data mining tools

are plentiful. And most vendors offer a demo, freeware or both to help you determine which tool for mining are the best for your business. For a list of web data mining tools vendors, try DMOZ. Kdnuggets also has a list, that is categorized commercial or free .Two very well known industry vendors are SAS and Congo's. And never one to miss out on a hot market, Microsoft has an analytic product as well. Take advantage of free trials for data mining tools by trying out more than one before you decide.

Web Mining Software: free and open-source -

- Alter Wind Log Analyzer Lite - quickly generates all traditional reports, supporting 430+ search engines from 120 different countries.
- Analog (from Dr. Stephen Turner) - a free and fast program to analyses the web server log files (Win, Unix, more)
- Jwanalytics - a Java utility for the storage of information in a dimensional model, useful for storing Web Analytics data for Java web applications; Web real time data mining functionality being built.
- Htminer - support analysis of web logs (including unique visitors, sessions, and transactions); organizes the data in a PostgreSQL data warehouse.
- Visitator - Clustering and visual presentation of visitor groups based on access patterns.

WUM: Web Utilization Miner, an integrated, Java-based Web mining environment for log files preparation, basic reporting, discovery of sequential patterns and visualization.

CONCLUSION

For web mining there are three modes namely, webbed content mining, web structure mining and web usage mining. Needless to say, these tree approaches cannot be independent, and any efficient mining of the web would require a judicious combination of information from all the three sources. Clustering of hyperlinked documents can rely on combinations of textual and link based information. Similarly, information about the web structure would greatly enhance the capability of web usage mining. We have noted that web content mining mostly concentrates on text mining, and textual content in the web can be in an unstructured, semi-structured form or structured form. Similarly, for unstructured text such as XML, features can be extracted for mining purposes. Thus, data mining applied to the Web has the potential to be quite beneficial.

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Talent Acquisition - Retention Lifeblood of Every Organization

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ABSTRACT

In an organization, there is nothing more crucial than fitting the right employee in the right position. When people do jobs that just do not suit their liking, inclination or temperament, the results; or rather the lack of them will be disastrously obvious. Low productivity, dissatisfaction, low morale, absenteeism and other negative behavior will become typical till the employee is shown the door. Or perhaps, there is another option - Talent Management. Every organization is confronted with the continuously evolving challenges of hiring and retaining critical positions in a market place characterized by massive demand and a dearth of appropriate talent. Every organization operates in an environment where strong demand for talent and large volumes of supply, introduce the huge and intensely complex challenge of managing recruitment for their unique and specific requirements. Talent acquisition is the targeted recruitment/acquisition of high performing teams into a company from a competitor or similar type of organization.

Research methodology used for research involves the sampling technique-simple random sampling; sample size was 30 industries in Baramati region. Both primary and secondary data sources were used for research work. Findings and conclusions were purely based on data analysis and interpretation.

Key words : *Talent Management, Talent Acquisition, Recruitment, Retention*

INTRODUCTION

Talent in general terms refers to the capabilities, skills or the art, a person possess in a particular field. It also refers to those people who have high potential, scarce knowledge and skill or who can successfully bring about transformation and change in the organization. Such individuals are usually sought after in the market and their contributions to the business add direct value to its strategic or competitive positioning

Talent management, also known as human capital management, is the process of recruiting, managing, assessing, developing, and maintaining an organization's most important resource its people. Talent management initiatives must involve dialogue and engagement with business in order to hire, retain, and develop the talent that is needed to achieve the business goals.

Talent Acquisition allows us access to a pool of competitive talent that would otherwise

have been missed or even worse ignored. The focus of the process is on attracting talented workers to the organization. The process stages were typically performed as disconnected steps that made the process inefficient and ineffective.

Today, business leaders understand the strategic significance of talent acquisition. They are carefully looking at how they are going to fill the gap in skills and company knowledge left by retired persons. They are applying new uses of technology for virtual workplace options that can make them more flexible to employees, more attractive to candidates and open to talent from around the world. They are adopting advanced strategies and tactics to evolve their talent acquisition operations and they are embracing a range of emerging best practices, from workforce planning to employment branding. In short, they are recognizing the need to continue to advance their abilities not only in talent acquisition, but also to support retention and employee development.

Literature Review

It is widely recognized that human resource plays a significant role for enhancing an organization's performance and effectiveness. No wonder there are persistent efforts by organizations irrespective of their size, age, type sector, etc to attract the best talent available. (Barney and Wright 1998). Talent has become the key differentiator for performance management and for leveraging competitive advantage organizations. With better talent acquisition and development, employee engagement improves and so does productivity. Maximizing team engagement, motivation, and retention through due diligence in talent acquisition is vital in today's highly competitive environment. The 21st century has witnessed an explosive pace of technological advancement, facilitating global sourcing and the consequent global operations, which are the main drivers of change in employment patterns, leading to intense competition among employers to attract and retain talented workers (Osborn-Jones, 2001). Without doubt it can be said that today an organization's success is directly linked to the talent it can recruit and retain. Recruitment is critical not only for sustaining competitive advantage but also for basic organizational survival (Taylor and Collins, 2000). Escalating demand for highly talented and skilled employees coupled with limited supply makes the acquisition and retention of talented employees a major priority for organizations (Flegley, 2006) especially organization. Organizations invest substantially in their employees. It is a major challenge for organizations to retain skilled employees once they have been hired and trained. In addition to reasons like lack of growth opportunities, low pay packages and inability to adapt to the organization, high turnover has also been identified as a cause for higher attrition rate. The ease with which employees can now change jobs, move and change functions and industries, has reduced employees' loyalty towards organizations. The corresponding costs to the firm with regard to employees' quitting the organization and the subsequent hiring or replacement of employees can be quite significant in terms of personal, work-unit, and organizational readjustments (Thomas and Terence, 1994).



Theoretical background:

Talent acquisition is the ongoing cycle of processes related to attracting, sourcing, recruiting, and hiring (or placing) employees within an organization. This includes elements of employment branding, outreach, networking, and relationship building with potential candidate communities to continually build and enhance the talent pool for an organization.

1) Recognize talent: Notice what do employees do in their free time and find out their interests. Try to discover their strengths and interests. Also, encourage them to discover their own latent talents.
2) Attracting Talent: Good companies create a strong brand identity with their customers and then deliver on that promise. Great employment brands do the same, with quantifiable and qualitative results. As a result, the right people choose to join the organization.
3) Selecting Talent: Management should implement proven talent selection systems and tools to create profiles of the right people based on the competencies of high performers. It's not simply a matter of finding the "best and the brightest," it's about creating the right fit - both for today and tomorrow.
4) Retaining Talent: In the current climate of change, it's critical to hold onto the key people. These are the people who will lead the organization to future success, and one can't afford to lose them. The cost of replacing a valued employee is enormous. Organizations need to promote diversity and design strategies to retain people, reward high performance and provide opportunities for development.
5) Managing Succession: Effective organizations anticipate the leadership and talent requirement to succeed in the future. Leaders understand that it's critical to strengthen their talent pool through succession planning, professional development, job rotation and workforce planning. They need to identify potential talent and groom it.
6) Change Organization Culture: Let us ask ourselves, "Why would a talented person choose to work here?" If the organization wishes to substantially strengthen its talent pool, it should be prepared to change things as fundamental as the business strategy, the organization structure, the culture and even the caliber of leaders in the organization.

Need of Study

These days it's getting pretty easy from the perspective of management to get fresher's inducted to its own organization. But its gets difficult to the same extent to retain them for a long run as opportunities for betterment of their career come flashing to them day by day once they acquire some knowledge on the system through training and practice at the cost of the employer. So, to cater to the need of the situation, people working at the top of management should device out certain tools and techniques to retain them. The technique used may vary from industry to industry depending on the type of job that they are in, the nature of people that they are dealing with.

Scope of Study

1. Identifying the Talent which is required
2. Right Selection of the Talent
3. Training and continual development of Competencies
5. Practicing state-of-the–art performance appraisal systems
6. Aligning the acquired Talent
7. Developing and nurturing the Talent, and
8. Retaining the Talent.

Objectives of Study

1. To study and understand the process of talent management/acquisition.
2. To study talent management, ensure that the company has the right personnel at the right time.
3. To study how organization acquires talent and takes efforts to retain them.
4. To study that talent management provides link between organizational and business strategy.

Research Methodology of the Study:

Towards the accomplishment of the mentioned objective, information is obtained from primary as well as secondary data sources; primary data is generated by meeting different executives, employees concerned. Also a survey on Talent Acquisition Process is conducted by means of a questionnaire to derive the effectiveness of the process.

Type of research:	Descriptive research
Research instrument:	Questionnaire, Interviews
Type of data:	Primary and Secondary data
Primary data:	Collected using Questionnaire
Secondary Data:	Through Magazines, HR reports, E-journals,
Sampling technique:	Simple random sampling
Sample Size:	30 Industries in Baramati Region.

Data analysis and interpretation

1. Feeling comfortable with the Recruitment process

Yes	No	Neutral
20	5	5

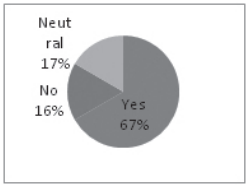


Chart no.1 Feeling comfortable with the Recruitment process

Interpretation: From above chart it has been interpreted that, 67% respondent are comfortable with the recruitment process while 16% and 17% are not comfortable and have neutral opinion about process.

Working with the company

Less tham 1 yrs	1-2 yrs	2-5 yrs	5-10 yrs	More than 10 yrs
2	5	10	12	1

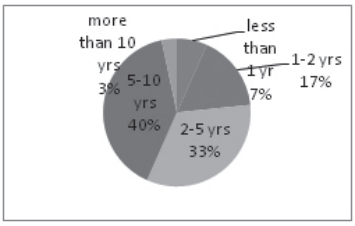


Chart no.2. Working with the company

Interpretation: From above chart it has been interpreted that, 40% of respondents are working with organization from last 5-10 yrs, 33% for 2-5 yrs, 17% for 1-2 yrs, 7% for less than 1 yr, 3% for more than 10 yrs with organization.

3. Feeling about job

Challenging	Interesting	Monotonous
15	12	3

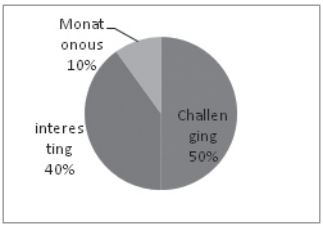


Chart no.3. Feeling about job

Interpretation: From above chart it has been interpreted that,50% respondent says job found challenging, 40% say it interesting, 10% says its Monotonous.

4. Organization identify talent

Competencies	Potential	Result
17	6	7

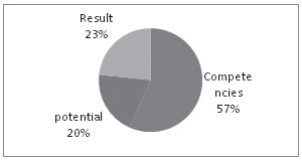


Chart no.4 organization identify talent

Interpretation: From above chart it has been interpreted that, 57% respondent says organization identifies talent through competencies, 23% says through result, 20% says through potential of employees.

5. Talent management initiatives a top priority

Yes	No	Neutral
20	4	6

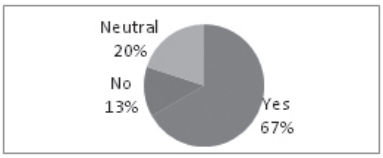


Chart no.5 Talent management initiatives a top priority

Interpretation: From above chart it has been interpreted that, 67% respondent says top management takes initiative in talent management, rest of 20% and 13% have neutral and no opinion.

6. Specific talent management initiatives

Yes	No	Neutral
18	8	4

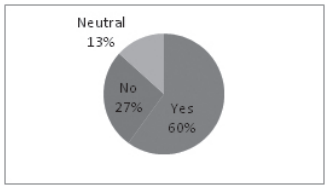


Chart no.6 Specific talent management initiatives

Interpretation: From above chart it has been interpreted that, 60% respondent says their specific initiative in talent management, rest of 13% and 27% have neutral and no opinion.

7. Degree to Which Organizations Execute and Align Talent Practices

Not at all	To Some Degree	at considerable degree	Consistently Across the Organization
0	3	3	24

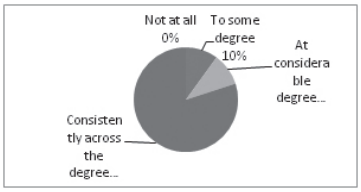


Chart no.7 Degree to Which Organizations Execute and Align Talent Practices

Interpretation: From above chart it has been interpreted that, 80% respondent says there is consistent degree in execution and alignment of talent practices, will rest of 20% respondent are not agree

8. Degree to Which Critical Roles and Capabilities are Identified

Not at all	To Some Degree	at considerable degree	Consistently Across the Organization
0	1	2	27

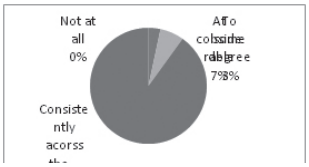


Chart no.8 Degree to Which Critical Roles and Capabilities are Identified

Interpretation: From above chart it has been interpreted that, 90% respondent says there is consistent degree in identification of critical role and capabilities, will rest of 10% respondent are not agree

9. Degree of Alignment and Integration of Workforce Strategy with Business Strategy.

Not at all	To Some Degree	at considerable degree	Consistently Across the Organization
1	2	2	25

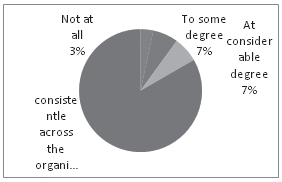


Chart no.9 Degree of Alignment and Integration of Workforce Strategy with Business Strategy.

Interpretation: From above chart it has been interpreted that, 83% respondent says there is consistent degree of alignment and integration of workforce strategy with business, 7% says to considerable degree, will rest of 10% respondent are not agree

10. Talent retention initiatives

Retaining current potential	Leveraging existing talemt	Acqiromg new talemt
15	9	6

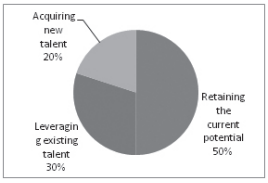


Chart no.10 Talent retention initiatives

Interpretation: From above chart it has been interpreted that, 50% respondent says talent retention is done by retaining the potential employee, 30% says by leveraging existing talent, 20% says by acquiring new talent.

11. Strategy of organization for retaining employee

Working environment	Relationship	Support	Growth	Compensation
4	3	6	12	5

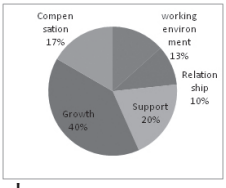


Chart no.11 Strategy of organization for retaining employee

Interpretation: From above chart it has been interpreted that, 40% respondent says organization retain employee by providing growth to them, 20% say by support, 17% says by compensation, 13% says by proper working environment, and rest 10% says by maintaining relationship.

12. Talent acquisition affects the quality of product

Yes	No	Neutral
20	5	5

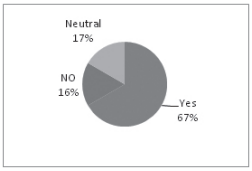


Chart no.12 Talent acquisition affects the quality of product

Interpretation: From above chart it has been interpreted that, 67% respondent says talent acquisition affects quality of product, 17% have neutral opinion, and 16% have negative opinion.

13. Change in ratio of employees to left job new candidates in organization

Not at all	To Some Degree	At considerable degree
8	7	21

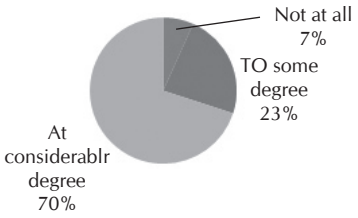


Chart no.13 Change in ratio of employees to left job new candidates in organization

Interpretation: From above chart it has been interpreted that, 70% respondent says due to talent management ratio of employees left job to joins organization has decreased to consistent degree, 23% says it decrease to considerable extent, while 7% has negative opinion.

Finding:

Findings of the research work are purely based upon the data collected and interpretation done.

- 67% respondents are comfortable with the recruitment process which organization used.
- 40% of respondents are working with organization from last 5-10 yrs, 33% for 2-5 yrs it indicates that organization takes effort in talent retention.
- 57% respondent says organization identifies talent through competencies, 23% says through results.
- 80% respondent says there is consistent degree in execution and alignment of talent practices.
- 90% respondent says there is consistent degree in identification of critical role and capabilities.
- 83% respondent says there is consistent degree of alignment and integration of workforce strategy with business.



- 50% respondent says talent retention is done by retaining the potential employee.
- 40% respondent says organization retain employee by providing growth to them.
- 67% respondent says talent acquisition affects quality of product.
- 70% respondent says due to talent management ratio of employees left job to joins organization has decreased to consistent degree.

Conclusion

Talent management practices optimized to address the future changing needs of business. So, they should be at right up at organization list. The ability to effectively hire, retain, deploy and engage talent is really the only true competitive advantage organization can have. There is clear link between better talent and better business performance. Talent management is one of the best legacies (lifeblood) that every organization has with them to sustain in competitive environment.

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Blue Eyes Technology

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ABSTRACT

Is it possible to create a computer which can interact with us as we interact each other? The basic idea behind this technology is to give the computer the human power. We all have some perceptual abilities. That is we can understand each others feelings. For example we can understand ones emotional state by analyzing his facial expression. If we add these perceptual abilities of human to computers would enable computers to work together with human beings as intimate partners. The "BLUE EYES" technology aims at creating computational machines that have perceptual and sensory ability like those of human beings.

How can we make computers "see" and "feel"? Blue Eyes uses sensing technology to identify a user's actions and to extract key information. This information is then analyzed to determine the user's physical, emotional, or informational state, which in turn can be used to help make the user more productive by performing expected actions or by providing expected information. The machine can understand what a user wants, where he is looking at, and even realize his physical or emotional states.

This paper is about the hardware, software, benefits and interconnection of various parts involved in the "blue eye" technology.

Keyword : *Study of Blue Eyes Technology.*

INTRODUCTION

Imagine yourself in a world where humans interact with computers. You are sitting in front of your personal computer that can listen, talk, or even scream aloud. It has the ability to gather information about you and interact with you through special techniques like facial recognition, speech recognition, etc. It can even understand your emotions at the touch of the mouse. Adding extraordinary perceptual abilities to computers would enable computers to work together with human beings as intimate partners. Researchers are attempting to add more capabilities to computers that will allow them to interact like humans, recognize human presents, talk, listen, or even guess their feelings. Blue eye seeks attentive computation by integrating perceptual abilities to computers wherein non-obtrusive sensing technology, such as video cameras and microphones, are used to identify and observe your action. 2. Blue Eyes aims at giving the computers the ability to sense,

recognize and respond to the human communication of emotion (such as frustration, confusion, interest, distress, anger and joy).

The basic idea behind this technology is to give the computer the human power. We all have some perceptual abilities. That is we can understand each other's feelings. For example we can understand ones emotional state by analyzing his facial expression. If we add these perceptual abilities of human to computers would enable computers to work together with human beings as intimate partners.

SYSTEM OVERVIEW

Blue eyes system monitors the status of the operator's visual attention through measurement of saccadic activity. The system checks parameters like heart beat rate and blood oxygenation against abnormal and triggers user defined alarms.

Blue Eyes system consists of a mobile measuring device and a central analytical system. The mobile device is integrated with Bluetooth module providing wireless interface between sensors worn by the operator and the central unit. ID cards assigned to each of the operators and adequate user profiles on the central unit side provide necessary data personalization so the system consists of

- Data Acquisition Unit (DAU)
- Central System Unit (CSU)

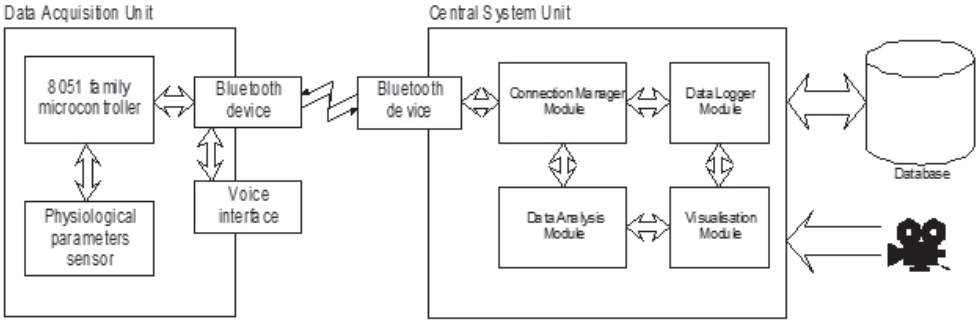


Figure 1. Overall system diagram

1. Data Acquisition Unit (DAU) : Data Acquisition Unit is a mobile part of the Blue eyes system. Its main task is to fetch the physiological data from the sensor and to send it to the central system to be processed. To accomplish the task the device must manage wireless Bluetooth connections (connection establishment, authentication and termination). Personal ID cards and PIN codes provide operator's authorization. Communication with the operator is carried on using a simple 5-key keyboard, a small LCD display and a beeper. When an exceptional situation is detected the device uses them to notify the operator. Voice data is transferred using a small headset, interfaced to the DAU with standard mini-jack plugs.

To provide the Data Acquisition Unit with necessary physiological data we decided

to purchase an off-shelf eye movement sensor – Jazz Multi sensor. It supplies raw digital data regarding eye position, the level of blood oxygenation, acceleration along horizontal and vertical axes and ambient light intensity.

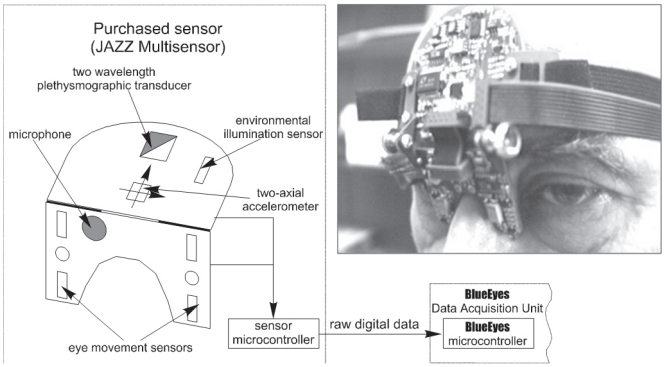


Figure 5. Jazz Multisensor

Eye movement is measured using direct infrared oculographic transducers. The eye movement is sampled at 1 kHz, the other parameters at 250 Hz. The sensor sends approximately 5,2kB of data per second.

2. Central System Unit (CSU) : Central System Unit hardware is the second peer of the wireless connection. The box contains a Bluetooth module (based on ROK101008) and a PCM codec for voice data transmission. The module is interfaced to a PC using a parallel, serial and USB cable. The audio data is accessible through standard mini-jack sockets To program operator's personal ID cards we developed a simple programming device. The programmer is interfaced to a PC using serial and PS/2 (power source) ports. Inside, there is Atmel 89C2051 microcontroller, which handles UART transmission and I2C EEPROM (ID card) programming.

CSU software is located on the delivered Toshiba laptop, in case of larger resource demands the processing can be distributed among a number of nodes. In this section we describe the four main CSU modules like Connection Manager, Data Analysis, Data Logger and Visualization.

CONNECTION MANAGER

Connection Manager is responsible for managing the wireless communication between the mobile Data Acquisition Units and the central system. The Connection Manager handles:

- communication with the CSU hardware
- searching for new devices in the covered range
- establishing Bluetooth connections
- connection authentication



- incoming data buffering
- sending alerts

DATA ANALYSIS MODULE

Data Analysis module performs the analysis of the raw sensor data in order to obtain information about the operator's physiological condition. The separately running Data Analysis module supervises each of the working operators. The module consists of a number of smaller analyzers extracting different type of information. Each of the analyzers registers at the appropriate Operator Manager or another analyzer as a data consumer and, acting as a producer, provides the results of the analysis. The most important analyzers are:

- Saccade detector - monitors eye movements in order to determine the level of operator's visual attention.
- Pulse rate analyzer - uses blood oxygenation signal to compute operator's pulse rate.
- Custom analyzers - recognize other behaviors than those which are built-in the system. The new modules are created using C4.5 decision tree induction algorithm.

VISUALIZATION MODULE

Visualization moduleprovides a user interface for the supervisors. It enables them to watch each of the working operator's physiological condition along with a preview of selected video source and related sound stream. All the incoming alarm messages are instantly signaled to the supervisor. The Visualization module can be set in an offline mode, where all the data is fetched from the database.

APPLICATIONS

One of the main benefits of speech recognition system is that it lets user do other works simultaneously. The user can concentrate on observation and manual operations, and still control the machinery by voice input commands. Another major application of speech processing is in military operations. Voice control of weapons is an example. With reliable speech recognition equipment, pilots can give commands and information to the computers by simply speaking into their microphones—they don't have to use their hands for this purpose. Another good example is a radiologist scanning hundreds of X-rays, ultra sonograms, CT scans and simultaneously dictating conclusions to a speech recognition system connected to word processors. The radiologist can focus his attention on the images rather than writing the text. Voice recognition could also be used on computers for making airline and hotel reservations. A user requires simply stating his needs, to make reservation, cancel a reservation, or making enquiries about schedule.

CONCLUSION

The BLUE EYES technology ensures a convenient way of simplifying the life by providing more delicate and user friendly facilities in computing devices. Now that we have proven the method, the next step is to improve the hardware. Instead of using cumbersome modules to gather information about the user, it will be better to use smaller and less intrusive units. Researchers are attempting to add more capabilities to computers that will allow them to interact like humans, recognize human presents, talk, listen, or even guess their feelings.

It avoids potential threats resulting from human errors, such as weariness, oversight, tiredness.

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Sports Management

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ABSTRACT

In Asia Pacific, sports marketing business touched 15 per cent growth this year and would touch 22 per cent next year. It has been registering a world-wide growth of five to six per cent annually. New opportunities are coming up in sports marketing, not just in cricket but other sports as well. These need to be tapped. Sport management is a field of education concerning business aspect of sport. Some examples sport of managers of managers include the front office system in professional sports, college sports managers, recreational sport managers, sports marketing, management, facility, sports economics, sport finance, and sports information. Many colleges and universities offer bachelors and masters degrees in sport management. This certain profession is slowly increasing in popularity, yet is predicted to not be able to fill positions due to the explosion in supply. Entry level persons with a degree in sports management can expect an hourly wage due to the higher level of interest and fewer available jobs.

Key words : *Sports Management, Sports marketing, opportunities.*

INTRODUCTION

The sports industry's core sources of revenue can be divided into three main categories: Broadcast and media rights, sponsorships (including licensing and merchandising), and ticketing and hospitality (such as entertainment and catering in sports venues).

Today sports marketing are the most lucrative and sought after industry with a total size of USD 38 billion. Corporate sponsorship is growing annually in sports at the rate of 12 per cent, faster than in any other field. Next year it is expected to complete 15 per cent growth. In India, which has seen an exponential growth in sports recently, the huge resources are simply waiting to be tapped!

Sports marketing comprise a whole host of disciplines. Event marketing and management, media planning, selling sponsorships, celebrity management, merchandising and managing teams are just some of the activities comprising sports management.

Opportunities are seen in areas such as market research, providing administrative services for sports federations, getting sponsorships for events and new media (Internet, m-commerce) management among others.

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would touch 22 per cent next year. It has been registering a world-wide growth of five to six per cent annually. New opportunities are coming up in sports marketing, not just in cricket but other sports as well. These need to be tapped.

Sport management is a field of education concerning business aspect of sport. Some examples of sport managers include the front office system in professional sports, college sports managers, recreational sport managers, sports marketing, management, facility, sports economics, sport finance, and sports information. Many colleges and universities offer bachelors and masters degrees in sport management.

This certain profession is slowly increasing in popularity, yet is predicted to not be able to fill positions due to the explosion in supply. Entry level persons with a degree in sports management can expect an hourly wage due to the higher level of interest and fewer available jobs.

Anyone with an interest in sports, finance, management and leadership should consider a sports management degree and career. After completing such schooling, there is a world of opportunity available. This is a chance to not only work with athletes but also see the corporate and business side of the sports world. Passionate individuals can find great opportunities in the intercollegiate or professional sports industries.

OBJECTIVES

1. To study sports management.
2. To evaluate recent practices in sports.
3. To create awareness about sports management.
4. To explore new techniques in sports management.
5. To create awareness about the benefits of sports management.
6. To find out the career opportunities in sports management

METHODOLOGY

This paper is of exploratory research type. This study is based on secondary data from various sources like web sites , sports news, journals and publications. This paper gives theoretical information about Sports degrees, related jobs and responsibilities, salary structure and advantages.

The Sports Management Degree:

While pursuing a sports management degree, students can expect to take a wide range of classes to better understand the industry. People not only need to understand sports and health but also marketing, accounting, economics, business and more. The top ranked sports management degree programs will ensure that people can understand how to make use of the latest marketing and technology techniques and better understand the ins and outs of sports marketing, law, finance and management. After all, sports is as much marketing events and refining a brand as it is about working with players and scheduling games and events.

Types of Sports Management Degrees Sports management is all about understanding how to apply business and marketing techniques to the sports world. This is a chance to manage everything from the marketing and finance of a sports group to the management of actual teams and arenas. Most of these positions require not only a bachelor's degree and experience but possible even a master's and doctoral level degree. If people want to become sports agents or lawyers, then a law degree may also be a worthwhile investment.

Sports Management Jobs

Sports management degrees can lead to a variety of jobs. For example, some people go on to lead community and after-school sports- programs. Other people will go on to work for academic services in high schools or colleges as a physical director or a physical instructor. Other options include working for professional sporting groups in the marketing, health, promotions and compliance sectors. There are even fitness- and health-focused positions for people who want to work directly with the athletes. Some people take their sports management degrees and head into retail: representing sporting goods stores and more. Interested students need to consider their interests when looking for careers in the sports world. There is something for everyone.

Sports Job Opportunities Include

Sports Agent, Player Personnel, Scout, Management, Administration, Front Office, Digital Video Editing, PR and Community Relations, Game Day Operations, Sports Marketing, Sports Management, Sports Broadcasting, Salary Cap Analyst, Account Manager, Media & Communications, Event Management, Ticket and Sponsorship, Athletic Director, Sports Information Director, Coaching, Spotter, Pit crew, Crew Chief, Race Management, MMA Events, Promotions & Management, Track & Field Management

Sports Management Internships

Students both in and out of school want to enter the door of most sports programs, businesses and teams by interning. Some of these positions are paid as a stipend whereas others are unpaid. This is a chance for people to make an impact on leaders in the sports management industry. Interns could do everything from sell goods and tickets to filing in the office of an important coach or manager. Other interns may work on marketing and website copy or could see the accounting office. Performing at a high level gets interns noticed, which could lead to a permanent position.

Responsibilities of Different Positions

Duties will vary according to the job and organization. A lot of sports happen during the weekends and evenings. Thus, anyone looking into this type of degree or industry should expect weekend hours and late evenings. The sporting world relies on tickets. Thus, no matter the position, a basic understanding of business, marketing and finance will be important. Most employees should also understand sports law, event management and how to understand the publicity world.

Salary Expectations for Sports Management Professionals

As with any career, there are different levels. Directors of marketing in the professional sports world could get a package of Rs.20,00,000 whereas an entry level position in the

academic world could begin with a package at Rs.3,00,000. Middle-level jobs like an athletic trainer, manager can earn a person around Rs.6,00,000. Some people, like sports agents and lawyers, have a set salary but earn the bulk of their money through bonuses and commission. A person's experience and the prestige of the program or organization will affect salary expectations.

Scope of Sports Management

There are many benefits to a sports management career. Not only do people get to work in a field they love but they also get to meet industry leads: everyone from talented athletes and managers to brilliant executives and marketing heads. Health and dental insurance in this industry also tend to be excellent. Most people often score discounted tickets to major sporting events, apparel and more.

The Future of Sports Management

The sports management industry may be competitive but it is also thriving. Professional sporting groups pull in billions of dollars every year. There are many sports-related careers out there: from the academic and professional to community-related, arena management and retail. Motivated students need to use their degrees to find the right benefit for them.

Whether looking for public relations, recruiting, managing, or coaching position, and motivated students need to be proactive if they want to secure their dream job. This means learning as much about the sports management world as is possible. Competition is fierce for the top management and executive positions. However, people who are willing to work their way up and get the necessary education and experience can find great positions that suit their talents. A sports management degree prepares people for the next steps.

CONCLUSION

After the study of sports management it seems that there are lots of career opportunities available in this field but there is a need to create awareness about sports management. There is a need to explore new techniques in sports management so that maximum people will get the benefits of sports management. Finally it seems that the Future of Sports Management is bright.

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E-Learning in Libraries – An Overview

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ABSTRACT

E-Learning as an advanced system for learning through ICT is an engine of innovation in education. E-learning is a process of education using computer, telecommunication, networks, and storage technology. The present paper covers, what is E-learning, technological tools used for e-learning categories of E-Learning and its role of in LIS professionals.

Keywords: - E-Learning, LIS Education, LIS Professionals.

INTRODUCTION

E-learning has got special intention in the last decades in the researchers and scientists in order to expedite the learning procedures. Because the facility of internet technology enhances the global knowledge and makes the resources available to the readers, researcher and engineers respectively. We are living in the era of IT; it has entered the library professional also. E-Learning is a gateway into a new realm of information. It is a powerful system that makes information accessible to you on computer. It is very important because it gives better use of time, accelerated learning, global search, fast pace and assessment. It reduced overburden of learners and learning provider. E-Learning is not unlike any other form of education- and it is widely accepted that E-Learning can be as rich and as valuable as the classroom experience or even more so.

THEORATICAL BACKGROUND

E-Learning

Allison Rosett (2001) defines E-Learning as: Web based learning (WBT) also known as e-learning on line learning is training that resides on a server or host computer that connected World Wide Web.

Basically, E-Learning is the online delivery of information, communication, education and training. E-learning can be in offline form like CD, DVD etc. E-learning provides new set of tools that can add valve to the entire traditional learning modes classroom experiences, textbooks study, CD-ROM and traditional computer based training. It is characterized by speed, technological transformation and mediated human interaction.

E-learning also defined in number of different ways in literature. In general learning is the expression broadly used to describe, instructional content or learning experience delivered or enabled by electronic technologies.

Types of E-Learning

There are two types of E-Learning Synchronous and Asynchronous.

Synchronous Learning means "at some time" involves interaction of participants with an instructor via the web in real time Synchronous technologies are telephone video conferencing, web conferencing etc.

Asynchronous Learning means "not the same time" allows the participant to complete the WBT at his own pace without live interaction

Why E-learning?

- Learning is self paced and gives students a chance to speed up to slow down necessary.
- Learning is self-directed, allowing students to choose content and appropriate to their differing interests, need and skills levels.
- Accommodates multiple learning styles using as verity of delivery methods geared to different learners, more effective for entrain learners.
- Geographical barriers are eliminated, opening up broader education options.
- Accessibility makes scheduling easy and allows a greater number of people to attend classes on demand access means learning can happen precisely when needed travel-time is reduced or eliminated.
- Overall students costs are frequently less (tuition, residence, food)
- Potentially lower costs for companies needing training and for the providers.
- Fasters greeters students interaction and collaboration.
- Fasters greater student/instructor contact.
- Enhance computer and internet skills.
- Draws upon hundreds of established pedagogical principles.
- Has the attention of every major university in the work, most with their own online degrees, certificate and individual course.

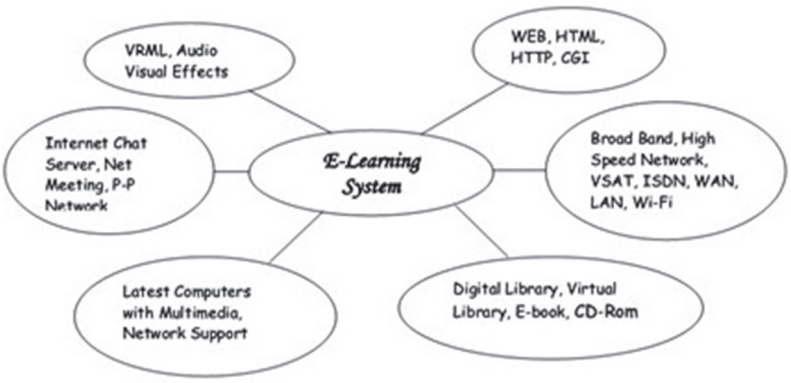
Categories E-Learning

- Courses
- Informal learning
- Blended learning
- Communities
- Knowledge Management
- Networked Learning
- Work-based Learning(EPSS)

New Trends in E-Learning:-

- Web 2.0
- Social Software
- Social Media
- Tagging
- Blogs

Figure 1



Advantages of E-Learning

- Flexibility ,Accessibility ,convenience
- Cross - Platform Support.
- It is convenient for learning provider as well as learner to access resources at anytime anywhere.
- Inexpensive Worldwide Distribution Ease of updates.
- Browsers and Internet connections are widely available.
- Savings in Travel cost and Time.
- It is learner centric.
- E-Learning course contents are cheaper than printed documents.
- Online learning does not require physical presence.
- It stimulates the learner to access variety of E-resources on the WWW.
- E-resources easily updated and learner can get quick benefit to latest development in their respective field.

Disadvantages of E-Learning

- Lake of technical trained staff.
- Lack of technical support to learning providers & learners
- Maintenance also very costly.
- Lack of face to face conversation.

- Equipment needs of learners/learning providers.
- Very difficult for learner as well as learning provider to move traditional Content Online.

Role of E-Learning in Library

LIS professional can play important role in providing effective library and information services to learner. The maximum use of information is depend upon how is LIS professionals discharged their duties and how they satisfy the needs of learners.

The world scenario of LIS education is changing fast. The change is enforced by many forces such as technology, demographic features, economic characters, etc. The LIS education is responding to these changes by making appropriate changes in its teaching-learning strategies. Adoption of e-learning in LIS is robust indicator of this response. The Indian LIS education too, is slowly but steadily making progress in this direction. Availability of proper and adequate infrastructure will add momentum to LIS e-learning in India.

The E-Learning environment provides a number of opportunities to both learning provider and learner. In this environment learner gets access to a wide range of information. E-learning also provides an opportunity to store, acquire and preserve e-resources and e-learning objects in the portal technology. E- Learning providers an opportunity to the LIS professionals to expand their vision and offer a wide range of services to their learner. LIS professionals can generate many online services by forwarding and linking with online courses.

Need for e-Learning

E-Learning is a continuous process when the learner is unable to attend the traditional methods of learning; the distance mode of learning was introduced. The student need to learn and syllabus with nearby libraries or materials sent by the course organizer. Modern Medias such as radio and television were also used in the distance mode of learning process. These Medias benefit a lot the learner, but they have their own limitations. The distance mode of learning process is further strengthened by video conference mode. The nodal centre will have studio where the experts assemble and deliver the lecture. This will reach audience through different Medias. This technique will create the environment of the classroom and enables direct interaction between the teacher and learner.

Now internet has shown new paths to learning. The educational resources are accessible to students. Learner needs are increasingly seen to be continuous throughout the working life. Education is a means of empower their lives and future within workplace, at least in the advanced market led societies. The person who acquire and apply the knowledge and skills will be sustained in the future. One should require learning for updating their knowledge, skills and competencies.

Technologies used for e-learning

- Internet-Based learning;
- Interactive CD-ROM, DVD, etc;
- Audio-Based Media:



- ◊ Radio and Audiocassettes
- ◊ Telephone: Tele-conferencing and Audio-conferencing;

- Video-Based Media:
  - ◊ Television
  - ◊ Videocassette
- Video-Based Media: Television
  - ◊ Videocassette
  - ◊ Optical disc technology
  - ◊ Videotext, Tele text, and View data
- Video conferencing via Satellite and Cable;
- Computer-Based Technology.
- E-mail;
- Whiteboard;
- Asynchronous discussion;
- Synchronous discussion;
- Animations;

E-learning can be divided into content, technology and service areas. E-learning can be either synchronous or asynchronous. Synchronous connects instructors and students in different locations simultaneously over streaming audio, video or in a chat room while asynchronous allows students to access coursework on their own time and at their own pace, in the office or at home.

CONCLUSION

E-Learning has given a new path of learning to those who could not gain knowledge on regular basis. E-Learning reduces time, cost of course material and improves the quality of E-resources. With the help of academicians and IT experts, LIS professionals can generate E-resources and develop portals to integrate E-Learning information. At last we conclude that E-Learning provides an opportunity to the LIS professionals to expand their vision and offer a wide range of services to their learner.

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Branding and Brand Extensions Reasons for Success - An Empirical Study

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ABSTRACT

Every once in a while a marketer has to keep re-inventing, re-energizing and re-positioning the brands to appeal to the customers. Unless and until the customer is constantly reminded of the brands he will shift elsewhere to what is his immediate recall brand. This paper attempts to look at how one of the most well known watchmaker used the brand repositioning and extension strategy to extend its product portfolio over the years and capture customer attention, loyalty and market share.

Keywords : *branding, brand loyalty, brand extension, repositioning*

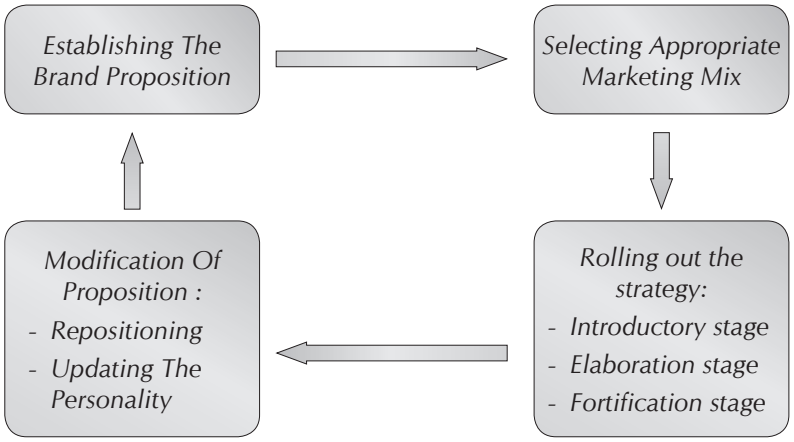
INTRODUCTION

In today's competitive world branding becomes a very critical aspect for every marketer. Brands that are successful with the radical transformations are successful for a variety of reasons (Brad VanAuken, June, 2012).

- They are forced to change direction due to their brand's declining core markets.
- They may completely reposition the brand. They do not try to extend just portions of the brand into new market segments. There are no stretched, inconsistent or multiple brand meanings. The meaning is radically and permanently altered.
- They 'bet the future of the brand' on the repositioning. That is, they carefully plan, invest heavily in and flawlessly execute the new position.
- The marketing strategies and tactics completely change to address the new target audiences.

Theoretical Background: Brands help create strong customer relationships. Lifestyle products are created by branding them likewise. Brands are not things they're emotional experiences. Creating these experiences, and the use value they offer, is the result of an integrated creative process of design. While there were important steps along the way, the thinking was that the more people you put in the front, the more would come out the back. That model, although it wasn't 100% accurate, was true enough to build the great brands of the 20th century.

Stages In Brand Strategy Development



"Repositioning is a change, principally about trigging the vision, mission and value in a new direction that is more suited for the brand in the future".

(Brand consultant)

"Principally, reposition concerns change the consumer's perception of the brand"

(PR- consultant)

Titan has been the only and the most dominant player in the watch market space since the gradual fall of HMT which was erstwhile the prominent player in India. Over the years there has been a constant effort by Titan Industries to grow the brand and rejuvcnate the brand time and again. This is what has ensured that Titan has been able to retain its position in the marketplace and more or less remain competitiorless in its space of dominance.

Research Methodology

The study is an empircal paper and the information contained herein is gathered from both secondary and primary sources.

Secondary from published reports, articles, company reports, website Primary data has been gathered through telephonic and personal discussion with company representatives, franchisee owners and customers.

"The art of marketing is the art of brand building. If you are not a brand, you are a commodity. Then price is everything and the low-cost producer is the only winner".

– Philip Kotler.

Building brands leads to building customer experiences. Most companies in India donot realise the value of branding. They simply think that a brand is a name, a logo or slogan. But a brand is much more than just that. It makes an inner connect between the company and its customers. At times it becomes the sole link for existence of certain brands.

Companies like Titan Industries Ltd., have realised the value offering and the mileage that they can get out of investing in brand building and have very successfully used this to nurture a range of variants and products under their brand umbrella.

The Indian watch market is today of 40 million units, out which 60% is in the unorganized sector in which the maximum number of watches are sold are below Rs.300. Quartz watches form two thirds of the organized sector and the rest is split between mechanical and digital watches. Even in the organized sector, three fourth of the sales by volume comes from watches that are priced below Rs.1000.

Plastic as such is not acceptable to average Indian consumers, especially those from the small towns and rural areas who regard it as cheap and flimsy. They want toughness-which translates into a good quality metal model at a reasonable price.

Watch is one of the consumer durables whose replacement rate is very high. The replacement rate of watch is 43.8% (Source: India market demographics report, 2008). This is also due to the fact that the estimated scrap rate of wrist watches is 11.8%, which is applicable after 6 years (Source: India market demographics report, 2008). So due to high scrap rate, outdated models, and the shift from the mechanical watches to the quartz watches is causing a very high replacement demand for watches. This along with the low penetration levels represents the untapped market potential for watches in India.

Major brands in the Indian watch market:

The major players in the Indian watch market include HMT, Titan and Timex. The other players include Westar, Shivaki, Maxima, SITCO. Foreign brands such as Cartier, Piaget, Omega, Tiffany's and Corrum, Gucci, Longines, Casio, Citizen, Tag Heuer and Espiritare also making an inroad into the Indian market.

Titan has been consolidating its market share over the past decade. Timex watches, which entered in India with collaboration with Titan, now independently has also gained substantial market share. Titan introduced several brands and also brought in foreign brands such as Tommy Hilfiger and Xyls.

Titan adopts a few unique strategies to ensure its market leadership position that have led to a gradual increase in its market share. The marketer has repositioned some products by following the below steps -

1. Identify - A single dominant factor and play around that factor to suit the market segment it can fit into. Titan has taken its flagship products of watches to build a strong value offering to customers.
2. Personify - Personify the space they acquire. Gradually after having grown strong in their core product segment, today they personify the watch segment in India.
3. Create a new generic – A new generic of products are created by Titan. It ranges from the company consolidating its position in the watch segment and simultaneously moving on to lucrative patches in the jewellery space and the eye wear space. All being part of the same fashion accessories segement of the consumer wallet space.



4. Change the name - Wherever necessary to create brand associations and recall they have retained the Titan brand association since it has helped the brand extensions make a niche in the market. Eg., Fast Track by Titan, Skin perfumes by Titan.
5. Reposition the category - Brand repositioning is more difficult than initially positioning a brand because marketers must in the first place help the customer "unlearn" the current brand positioning. Three actions aid in this process:
   (1) Well designed communication,
   (2) New products, packaging, etc. that emphasize the new positioning and
   (3) Associations with other brands (co-branding, co-marketing, ingredient branding, strategic alliances, etc.) that reinforce the new brand positioning. Eg., the childrens watch segment was renamed and repositioned with appropriate advertising strategy.

Conclusion:

Today, just creating brand awareness leads any marketer nowhere. If a marketer tries to solely create brand awareness (of course it is critical to existence) but continues to stay at that pint he would have spent money to build brand awareness and then he would have enriched competition more than his own company.

How? Because the customers are more aware since he has given them information so with information access at fingettips, the smart customer of today would have searched for more information and may settle for your competitor's brand rather than your own.

In the digital age, marketers must change their focus from grabbing attention to holding attention by focusing on three core business objectives: Awareness, sales and advocacy.

Simple metrics such as awareness, sales and advocacy will give a very accurate snapshot of the brand's health and how best it can be improved.

Titan Company has grown stronger by created strong brand awareness, creating brand extensions and repositioning some critical products in their suite. They realise the true potential of what is branding.

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3D - Password Service in Security

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ABSTRACT

In existing system of authentication suffer many weaknesses. There are many authentication techniques are available, such as textual password, graphical password, biometrics password, etc. textual password are used to secure data or user accounts. But the drawback of textual password is easy to break to overcome the drawbacks of previously existing authentication technique. A new improve authentication technique is used; these authentication technique is called as 3D password. 3D password authentication technique is based on a combination of multiple sets of factors. The most important part of the technique is inclusion of 3D virtual environment. The advantages of 3D password is that it can combine many existing system of authentication provide the higher degree of security. Several techniques like face recognition, fingerprint recognition, hand geometry this techniques are used. It can even be applied in the most basic level such as for a user on a home system as it is based on recall recognition and is easy to use.3D password become Morse cure and more user friendly to users of all catagaries.3D password, applications of scheme as etc. All this concepts are explained in this paper.

Key points : *Introduction, Existing system, proposed system, 3Dvirtual environment, Attacks, 3Dpasswrd application.*

INTRODUCTION

Security is the most important in today's life just like a social networking sites, net banking etc. 3D password is part of the security. The authentication scheme the user undergoes very soft or strict. Authentication is very interesting approach. The protect any system authentication must be provide so that only authorized person can have right user handle that system and data related so that system is secure.

Existing System

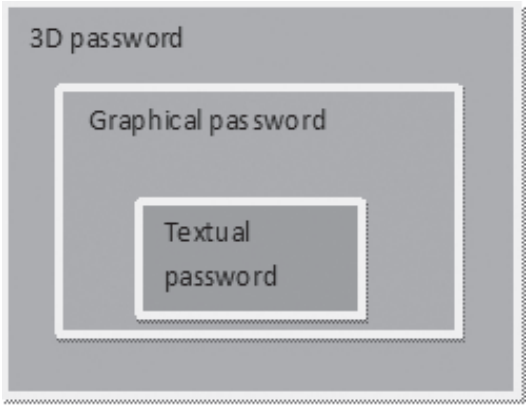
Current authentication system suffers from much weakness. Textual password is commonly used. Users to choose meaningfully words from dictionaries, which make textual passwords easy to break and vulnerable to dictionary or brute force attacks. Many available graphical passwords have a password space that is less than or equal to the textual password space. Smart cards can be many biometric authentications have been proposing however, users tend to resist using biometrics because of their intrusiveness

and the effect on their privacy. The 3D password is a multifactor authentication scheme. The design of the 3D virtual environment and the type of objects selected determine the 3D password key space user have freedom to select whether the 3D password will be solely recall, recognition, or token based or combinations of two schemes or more.

Proposed system

Previously there are many authentication technique introduced such as a graphical password, text password, biometric authentication, etc. biometrics means what you are. Include thumb impression etc. there are four techniques are available such as knowledge based, token based, biometrics based and recognition. Knowledge based means what you know textual passed is best example. Recognition based means what you recognition. Include graphical password. Token based means what you are. This is includes credit cards, ATM cards to overcome these drawbacks & limitations of previously existing authentication schemes. We have introduced a new authentication scheme which is based on previously existing schemes. This authentication scheme is based on combination of passwords called as "3D Password". Which is a multifactor scheme uses combination of above discussed scheme as well as biometric & many other schemes. All these schemes are implemented in virtual 3D environment while creating 3d Password. Where this environment contain various virtual objects through which user interacts with. The interaction with 3D environment changes as per user changes. The 3-D password is constructed by observing the actions and interactions of the user and by observing the sequences of such actions. So that 3D password is multifactor & multi password authentication scheme .i.e. it is the combination of textual password, etc. and graphical password, biometrics, etc.

Fig- 3D password

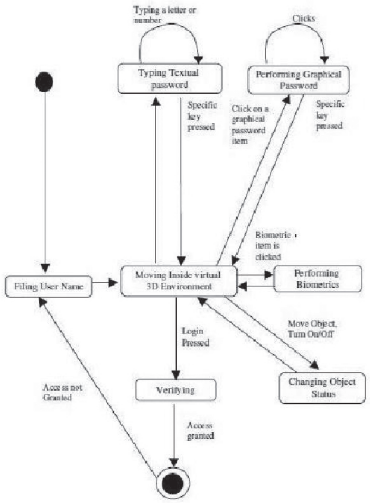


System Description

In this system, we use multiple authentication schemes for give access of data or any system for authorized user and also the security for any system or data. Following schemes are used in this system.

1) Text Authentication In this scheme, we use simple Username and Password for Authentication. When register the new user, save all detail information of that user and also save Username and Password of that user as per user's choice in System Database. This Password is stored in database in encrypted format using Message Digest 5 Algorithm. When user log's in, firstly he/she enters the Username and Password then system checks whether the new Username and Password is same or not. If incorrect then give the error and if it is correct then give permission for next authentication scheme.
2) Bio-Metrics Authentication In this scheme, we use thumbnail expression of user for Authentication. When register the new user, take the thumbnail expression of user using thumb detection device and stored in image format in System Database. When user log's in, user give the thumbnail expression using thumb detection device then system checks that image is same or not. If incorrect then give the error and if it is correct then give permission for next authentication scheme.
3) Graphical Authentication In this scheme, we use images for Authentication. When register the new user, first select the one image from given images and then click any four points that is pixel values in sequence which stored in System Database. This click points are also stored in database in encrypted format using Message Digest 5 Algorithm. When user log's in, first select the proper image and click points in same sequence then system checks that image and click points are same or not. If incorrect then give the error and if it is correct then give permission for next authentication scheme.

(fig-State diagram of a 3D password)



Architectural study This section tell about that how to create 3D password & what are different schemes used to form a complete 3d password.. 3D password is multi-factor & multi password authentication scheme. So that many password schemes like textual

password, graphical password, biometric, etc. password schemes can be used as a part of 3D password. Choosing of different schemes are based on category of user who are going to use this scheme to there system. Above Fig. shows state diagram of 3D password creation. Working of 3D password scheme

Working

- **Registration**

1. When new user register, first enter the all details which give in registration form.
2. Then select any one image from multiple images and also click the minimum 4 points at any sequence.
3. Then represent the Thumb expression of user
4. Then select any one sound clip, play and pause that clip at particular time.
5. This all interactions stored in database in encrypted format.

Authentication

1. Enter username and password.
2. Select proper image and their sequence of click points.
3. Recognize the Thumb expression of that user.
4. Select proper sound clip and their pause time.
5. All interactions fetch from database then compared one by one. Then access granted to authorize user for access applications.

Objective of proposed system

- To provide more secure authentication technique than existing one
- To design & develop more user friendly & easier authentication scheme and giving user to freedom of selecting more than one password scheme as single system
- To overcome the drawbacks & limitations of previously existing systems (textual password, graphical password .etc)
- New scheme should be combination of recall-, recognition -, biometrics-, and token based authentication schemes.

3D VIRTUAL ENVIRONMENT

The design of the 3D virtual environment affects the usability, effectiveness, acceptability of 3D password. The first step in building a 3D password system is to design a 3D environment that reflects the administration needs and the security requirements.

The design of 3D virtual environments follows these guidelines.

1) Real life similarity the prospective 3D virtual environment should reflect what people are used to seeing in real life. Objects used in virtual environments should be relatively s similar in size to real objects. Possible actins and interactions toward virtual object should reflect real life situations. Object responses should be realistic. The target should have a 3D virtual environment that users can interact
2) Object uniqueness and distinction every virtual object or item in the 3D virtual environment is different from any other virtual object. The uniqueness comes from the fact that every virtual object has its own attributes such as position. Thus, the prospective interaction with object1 is not equal to the interaction with object 2.how ever; having similar objects such as 20 computers in one place might confuse the user. Therefore, the design of the 3D virtual environment should consider that every object should be distinguishable from other objects. Similarly, in designing a 3D virtual environment, it should be easy for users to navigate through and to distinguish between objects. Therefore, it improves the system usability.
3) Three dimensional virtual environment size a 3D virtual environment can depict a city or even the world. On the other hand, it can depict a space as focused as a single room or office. A large 3D virtual environment will increase the time required by the user to perform a 3D password. Moreover, a large 3D virtual environment can contain a large number of virtual objects. Therefore, the probable 3D password space broadens. However, a small 3D virtual environment usually contains only a few objects, and thus, performing a 3D password will take less time.
4) Number of objects and there types are part of designing a 3D virtual environment is determining the types of objects and how many objects should be placed in the environment. The types of objects reflect what kind of response the object will have for simplicity, we can consider requesting a textual password or a fingerprint as an object response type. Selecting the right object response type and the number of objects affects the portable password space of a 3D password
5) System importance the 3D virtual environment should consider what systems will be protected by a 3D password the number of objects and the type of objects that have been used in the 3D virtual environment should reflect the importance of the protected system.

3D password applications

The 3D password can have a password have a password space that is very large compared to other authentication schemes, so the 3D password's main application domains are protecting critical systems and resources.

1. Critical server many large organizations have critical servers that are usually protected by a textual password.
2. Nuclear and military facilities such facilities should be protected by the most powerful authentication system. The 3D password has a very large probable



password space, and since it can contain token, biometrics, recognition and knowledge based authentications in a single authentication system, it is a sound choice for high level security locations.

3. Airplanes and jet fighters because of the possible threat of misusing airplanes and jet fighters for religion, political agendas, and usage of such airplanes should be protected by a powerful authentication system.

In addition, 3D passwords can be used in less critical systems because the 3D virtual environment can be designed to fit to any system needs. A small virtual environment can be used in the following system.

1) ATM
2) Personal digital assistance
3) Desktop computers and laptop logins
4) Web authentication
5) Security analysis

To analyze and study how secure a system is, we have to consider,

- How hard it is for the attacker to break such a system
- A possible measurement is based on the information content of a password space . it is important to have a scheme that has a large possible password space which increases the work required by the attacker to break the authentication system.
- Find a scheme that has no previous or existing knowledge of the most probable user password selection.

Attacks

As mentioned earlier 3D password is most secure authentication. We will see different kinds of attacks & how 3D password scheme is more secure against different attacks.

1) **Timing Attacks :** This attack is based on how much time required completing successful sign-in using 3D password scheme. Timing attacks can be very much effective while Authentication scheme is not well designed. But, as our 3D password scheme is designed more securely, these kinds of attacks are not easily possible on 3D Password & also not much effective as well.
2) **Brute force Attacks :** In this kind of attacks the attacker has to try n number of possibilities of 3D Password. As these attacks considers following two points.
   - required time to login: as in 3d password time required for successful login varies & is depend on number of actions & interactions, the size of 3d virtual environment.
   - Cost required to attack: as 3d password scheme requires 3D virtual environment & cost of creating such a environment is very high.

3) **Well-studied attacks :** In this attack attacker has to study whole password scheme. After studied about scheme the attacker tries combination of different attacks on scheme. As 3d password scheme is multi-factor & multi-password authentication scheme, attacker fail to studied whole scheme. This attacks also not much effective against 3D password.

4) **Key logger :** In this attack attacker install as software called key logger on system where authentication scheme is used. This software stores text entered through keyboard & those text are stored in text file. In this way this attacks is more effective & useful for only textual password, but as 3D password is multi password authentication scheme. So that this kind of attacks are not much effective in this case

5) **Shoulder Surfing attacks :** Attacker uses camera for capturing & recording of 3D password. This attack is more effective than any other attacks on 3D password. So that 3D password must be performed in a secure place where this attack can't be performed. Shoulder surfing attacks is still effective & easily possible against 3D password.

CONCLUSION

The 3-D password is a multifactor & multi password authentication scheme that combines these various authentication schemes. The virtual environment can contain any existing authentication scheme or even any upcoming authentication schemes. Gathering attackers from different background and attack made by them and how to overcome them is main future work. Shoulder surfing attacks are still possible to know how to overcome. That is a field of research & development. 3D password provides more secured authentication.

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A Study on 'Talent Tarnishing Phobia' in Padma Software Solution Pvt.Ltd. Belgaum

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ABSTRACT

Almighty has intrinsically gifted every single human being with a very unique characteristic and unmatched qualitative behavior which is known as "talent'. Numerous persons in different capacity like, parent, teachers, elders, society and other positive environment is quietly blossoming and shaping the talent, right from the day one of our birth. The entire life cycle has the component of three phases namely; childhood, youth and old age (nurturing, growth and downfall), the study indicates that the age brackets are up to 20 years, 40 and 60 years in general as a thumb rule.

Knowingly or unknowingly, our talent has been groomed and brought up for utility to live a healthy and happy life. But the external factors and imitations have made our wants and desires exceed beyond our earnings and so to achieve more and faster in limited time, we have become job hoppers and diversifiers. The technology, soft and white goods have made all the things very much easy to fetch and satisfy the needs of human being on day to day basis. Of late routine practice in all households and offices has become more automated and on finger tips. The economy of scale has made all the gadgets more affordable and further it is fuelled by the better purchasing power. Our good practices and salubrious habits have been victimized and created greater phobia of tarnishing the talent which is cultivated over a period of time with lot of sacrifice of energy, time and money.

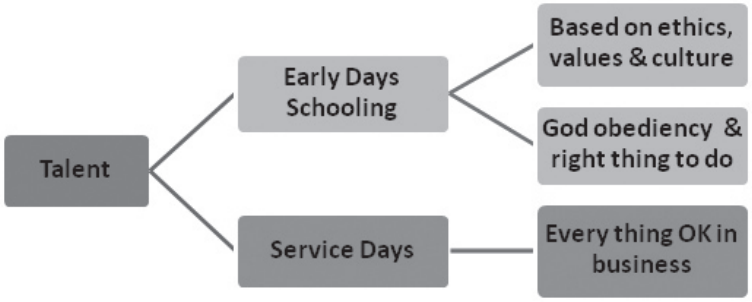
Key words : *intrinsically, unique characteristic, utility, imitations, job hoppers, sacrifice etc.*

INTRODUCTION

The very definition of 'talent' is an innate ability or aptitude for artistic accomplishment. But in the boarder sense it is defined as, "a recurring pattern of thought, feeling or behavior that can be productively applied." The meaning of talent has different perspectives but the ultimate definition is the natural agile ability to do work. The component of talent is 'recurring' the behaviors of work doing often. You have a mental filter that sifts through your world, forcing you to pay attention to some stimuli, while others slip. Your instinctive ability to remember places with names and like such lot more, is a talent. The key to excellent performance, of course, is finding the match between your talents and your role. According to the global study, carried out by Future step - a Korn/Ferry company, innovation plays a very important part in attracting and retaining top talent, but indicated that there are significant barriers to adopting 'best practice' methods in India. The grooming of talent is influenced by two major factors namely - Early Days Schooling and Service Days, as depicted below;

Figure. 1

Talent Budding Matrix



The above diagram indicates that, the talent which is an intrinsic element is being groomed in the early stage of human life; the major inputs are the ethics, values and good culture. Doing good things and healthy practices is taught arduously. Over a period of time the external factors and the fever of competition makes every person to do the penance, which is predatory to the early days nurturing of ethics, values, culture, and obedience of God and leads to talent tarnishing phobia. The adverse effect of market and environment upheavals our life style, job profile, habits and practices etc. thereby creating phobia of tarnishing.

The study reveals that, talent grooming is driven from nurturing, well defined job/ activity, training, bottom up approach, autonomy in the work and at work place etc. The tarnishing phobia of talent is because of monotonous nature of work, uncongenial working environment, informal garrulous group, time wasters and unhealthy teams. In the race of competition under the pretext of appreciation, star performance, outstanding results etc. most of the persons dissipate their basic talent and commence the act of penance to manage the life and survive.

OBJECTIVES OF THE STUDY

The core and the precise objectives of this study are as follows:

1) To study the talent grooming phases.
2) To analyze the talent tarnishing reasons.
3) To understand the talent tarnishing phobia process.
4) To examine the magnitude of talent required.
5) To find out the lead time to promulgate the talent.

METHODOLOGY

Paper presenter has undergone an extensive review of literature and did a keen and perennial observation as well as personal interaction with the persons involved in the process of talent tarnishing phobia. It is an empirical study pertaining to Padama Software Solution Pvt Ltd., Belgaum-Karnataka State. All the primary data is collected through personal interview and structured closed ended designed questionnaire. The secondary data such as review of literatures, books, journals etc. was also referred to make the study more comprehensive and fruitful. The simple mathematical and statistical tools were used

wherever required like table, average, percentage, diagram etc.

The researcher has adopted random convenient sample and the size of sample is 25. The category of sample is divided into two;

- Campus selected Students - 15 respondents.
- Employees working with company for 10+ years of service - 10 respondents.

The scope of this research is to study various aspects of talent grooming practices and the tarnishing phobia of talent among employees. The geographical scope of the study is confined to Belgaum since Padama Software Solution Pvt. Ltd., is located at Belgaum in Karnataka State. The limitation of study is that, the findings arrived in this study cannot be used in other industry and location. Always there is ample number of chances to have biased responses from the respondents, which can reduce the authenticity of the study.

STATEMENT OF THE PROBLEM

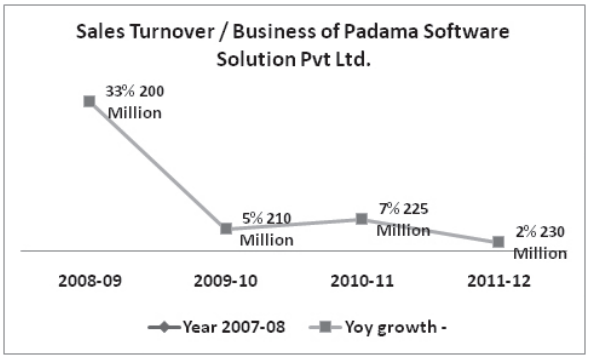
Padama Software Solution Pvt. Ltd. is geographically located in MIDC Belgaum-Karnataka State. It is a small scale Software Company providing service pertaining to the software mostly as a nozzle for the outsourcers. The company's employees are on high talent and thoroughbreds at initial stage of their services, as time passes the employees turn to be dormant even though the company is taking measures to motivate its employees by 'n' number of welfare activities like, bonus, incentives, good pay cheques, etc.

To understand the declining and sagging talent, this study is carried out. The crux and phobia is that, though the company is the best pay master and motivates the employees by a lot more number of welfare activities, but the employees have become perfunctory and procrastinate their work. Company as a whole has 100 employees on the muster and the employees' turnout is also very high, barring few.

DISCUSSION AND INTERPRETATION

Padama Software Solution Pvt Ltd., Belgaum-Karnataka State is financially sound and has a good business track/record. The performance of the Company is shown below;

Figure.2



Source: Company's Financial Statements

The business registered and growth thereon is very impressive more particularly in the year 2008-09 which shows 33 percent increase viz from 150 million in 2007-08 to 200 million and thereafter may be engulfed by recession, however it shows year on year steady growth in business. In the year 2009-10 and thereafter, the Company's performance is not so good, the Company's officials said that, due to the recession in the market the business is on hold otherwise Company is economically viable and has sufficient fund planning to tide over.

Company is hiring employees from College Campuses, since it is easy and economical said the HR Department of Padama Software Solution Pvt. Ltd. The manpower of the Company is broadly classified into two departments;

A. Administrative Staff- who are in the administrative department & office, accountable for staff function and exercise control over line staff of the company.

B. Operational Staff- these staff are the main revenue generators of the company, who work on projects.

The study reveals that the main bottle neck is the operational staff, where talent tarnishing phobia is happening and causing high employees' turnover in the company. And as per observation and interrogation with employees it is noticed that, the lead time process of talent tarnishing is around 2 to 3 years. The information obtained in primary survey is tabulated herein which further intensifies the study;

Table 1

Experience of Campus Hired Staff / Students

(Span less than 3 years of work)

Sr. No	Element	Respondents	Percentage
1	Best-learn lot	10	40%
2	Better-place of learning	06	24%
3	Good-New & different	06	24%
4	Fair- as usual	03	12%
	TOTAL	25	100%

Source: Primary survey

In the above table the respondents have expressed their experience in four areas and as per the significance and importance, Best-learn lot is more significant with 40 percentage respondents whereas other variables such as Better-place of learning, Good-New & different and Fair- as usual have 24, 24 and 12 percentage respondents respectively. Thus, Padama Software Solution Pvt. Ltd., is a best place to learn as experienced by most of the hired staff. Hence, it may be the main cause of employee turnover, because after learning they are jumping for better prospective and lucrative jobs.

Table 2

Nature of Work & Job Profile

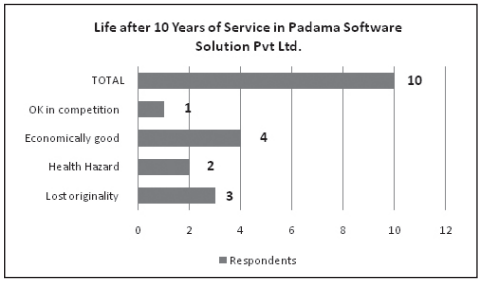
Sr. No	Element	Respondents	Percentage
1	Assimilation & working	10	40%

2	Lot of responsibility & accountability	07	28%
3	Different from study	06	24%
4	Just work for salary	02	8%
	TOTAL	25	100

Source: Primary survey

In above table No.4 the respondents have spelled out on the nature of work and job profile in Padama Software Solution Pvt Ltd., Belgaum. Among four variables, Assimilation & working is significant with the weight-age of 40 percentage respondents, followed by Lot of responsibility & accountability, Different from study and Just work for salary with the respondent percentage of 28, 24, and 8 respectively and hence these are insignificant. The significant variables are the Assimilation & working and Lot of responsibility & accountability which may be a basic cause and phobia for the talent tarnishing in Padama Software Solution Pvt Ltd., Belgaum.

Figure 3



Source: Primary survey

The above figure gives a real picture of talent tarnishing and how it creates phobia in one's life. The survey is carried out on the employees who are working with Padama Software Solution Pvt Ltd., Belgaum 10+ years of service. Among four variables such as, Lost of originality, Health Hazard, Economically good, and OK in competition are assessed. The economically good is more significant with 40 percent of respondents, followed by Lost of originality, 30 percent of respondents, Health Hazard, 20 percent of respondents and OK in competition, 10 percent of respondents. The variable component of Lost of originality and Health Hazard together is 50 percent hence it is greater than economically good variable, which creates tarnishing of talent phobia.

FINDINGS

1) It is found that, in Belgaum the practices are embedded with ethics, values and good culture and accordingly the talent is groomed for goodness. The Campus hiring system of Padama Software Solution Pvt Ltd., gets them good, sincere, honest and workaholic staff/employees.
2) Most of the students too also prefer Padama Software Solution Pvt Ltd., Belgaum

because it is a best place to learn as shown in the table No. 3, as well as best pay master in its class. Hence, students and Padama Software Solution Pvt Ltd., Belgaum has dyads relation.

3) In the initial days of work employees/staff are packed with high talent of performance but tend to get slowly perfunctory and dormant in due course of time. The study reveals that, the significant variables such as Assimilation & working and Lot of responsibility & accountability are creating phobia for talent tarnishing in Padama Software Solution Pvt Ltd., Belgaum. (See table No. 4)

4) It is found out that, talent tarnishing phobia is more in operation department rather than in administrative, barring few. The root cause is the monotonous nature of work and may be unwritten culture of the Company, which may create uncongenial environment and place for work.

5) Some employees are working with the Company for longer period of time also indicated that, though they are happy monetarily but it dissipates their sound talent originality (culture, ethics, values etc.) and good health. In diagram / chart No. 5 it is clearly indicated.

CONCLUSION

The talent grooming and tarnishing phobia are the two faces of our lives; to gain some thing we have to lose some thing. The major threat is that the talent is tenuous due to the cogent environment of the Company and working culture of meddles. The competition and life style (automated, dissipated and hideous) has a seminal role in tarnishing the talent which was groomed arduously.

RECOMMENDATION

To desist from the talent tarnishing phobia, the employees should be careful about the surreptitious modern management policies and practices. The daily chore such as exercise, household work, parenting, activities in obedience to God, need to be carried out, no matter how much busy you are and how much work load you have. Employers should have transparent spiritual practices in the Company, necessarily it should be altruism, which may create positive employees health (feel good environment) and psychological wellbeing. Also, it has been experienced that a high degree of spirituality and spiritual leadership is a driving force to retain talent.

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"IT & Management : Innovations and Inventions- Global Perspective"

24th, 25th & 26th October, 2013



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AES @ A GLANCE

Anekant Education Society (AES), established in 1961 under the dynamic guidance of Late Shri. Fulchandji Gandhi, former Education Minister of the Hyderabad State. Anekant is a Religious Minority (Jain Community) Institution having the reflection of "Anekantavad" in its name. AES founded renowned Tuljaram Chaturchand College (T.C) in 1962, with more than 10,000 students and around 320 faculty members. T.C College celebrated its Golden Jubilee in 2012. It also has another degree college i.e. Jaysingpur College, Jaysingpur, Dist. Kolhapur. AES added another feather to its cap by establishing Anekant Institute of Management Studies (AIMS), in June 2011 and Anekant English Medium School in 2012. Right from its inception, society is providing quality education and in a period of five decades, the society has made its marks on academic, cultural and social environment of Baramati.

Anekant Institute of Management Studies (AIMS)

AIMS, the modern temple of professional learning unfolds a golden career prospect to walk through the avenue of professional skills and managerial leadership that a student dreams always. Our performance is beyond excellence because we create visionary pioneers in management field and not only assist to get mere employment but also beyond that. The Institute is approved by AICTE, DTE and affiliated to University of Pune, Maharashtra for two years Full Time Master in Business Administration (MBA) programme. Being the extended arm of the legendry T.C College, it has already inherited a legacy of high repute at its birth itself.

AIMS has extensive Wi-Fi campus. It provides incredible infrastructure and facilities for the students. Boys' hostel and girls' hostel, Computerized Library, Computer Labs and well equipped Seminar hall, Amphitheatre, Placement cell and well experienced faculties from industry are the uniqueness of AIMS.



Objectives of Conference – 2013

- To identify present scenario of IT and Management
- To provide Knowledge Exchange platform to the Research Scholars, Academicians, Professionals and Students
- To generate and create applied knowledge for betterment of business and society

Commemoration : National Seminar 2012

AIMS conducted a one Day National Seminar on "Agriculture Development – Role of Women: Emerging Perspectives, Issues, Challenges and Strategies" on 31st October, 2012.

It focused on women's significant and crucial role in varied aspects of life, particularly in agricultural development. Their contribution in allied fields including the main crop production, livestock production, horticulture, post harvest operations, agro / social forestry, fisheries etc. is a fact long taken for granted but also long ignored.

Conference Themes 2013

India is marching toward achievement of Vision 2020. Study of various aspects related to IT and Management are required to accomplish the Vision. We need to understand present scenario of all aspects so that we can plan and apply it to lead in global scenario.

Track 01 – IT

- Data Mining Techniques
- Cloud Computing
- Artificial Intelligence
- Social Media Networking
- Role of IT in capacity development of Learning Organization

Track 02 – Marketing

- Shop Lifting
- Pilferages by Demonstration
- Virtual Marketing and its benefits to End-Users
- Retailing and E – Tailing
- Emerging Trends in Film Promotion.

Track 03 – Human Resource

- Talent Acquisition and Retention
- Don't Drain Money on Training
- Automation of HR & its Application (HRIS)
- Role of ICT in Talent Development
- Use of Psychology in HR

Track 04 – Finance

- Rupee Devaluation
- Environmental Audit
- Money Laundering
- Commodity Market
- Behavioural Finance

Track 05 – General

- PhD: Academic view Vs Creation of Knowledge
- Managing Work life balance.
- Ethics and Etiquettes of Business
- Management of Library & Information Centres

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From Chairman's Desk



Shri. Shantikumar Jambukumar Shah (Saraf)
Chairman, Anekant Education Society, Baramati

This book is a compendious set of papers presented at the '2nd National Conference' on 'IT & Management: Innovations and Inventions-Global Perspective', organized from 24th-26th October, 2013 by Anekant Institute of Management Studies (AIMS), a flagship aegis of Anekant Education Society.

It is needless to mention that, now the entire world is economically volatile and packed with lot of fluctuations in market and uncertainties in business. In such a distress, my Management Institute (AIMS) organized a conference in association with the University of Pune, to address the burning & current issues of the business world and global economy at large.

I am pleased to note that, the conference had well packed attendance of students, scholars, industry & NGO personnel and academicians and the participants were from different states viz. Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Jharkhand besides our own state of Maharashtra. The presentations were very systematic, interactive; revealed many practical insights based on the grass root experiences and were much more significant on the title of the National Conference. More than 100 papers were received in different tracks / areas of specialization, even papers were from Riyadh (Saudi Arabia).

My heartiest congratulations for such a voluminous and commending stature of work by the Team of AIMS.

Shri. Shantikumar Jambukumar Shah (Saraf)

From Secretary's Desk



Shri. Jawahar Motilal Shaha (Wagholikar)
Chairman, Anekant Education Society, Baramati

I am happy to learn that Anekant Institute of Management Studies an off- shoot of Anekant Education Society, Organized a National Conference on 'IT & Management: Innovations & Inventions – Global Perspective' in association with BCUD, University of Pune. It is a mark of achievement considering stupendous efforts of the AIMS team.

I am sure you must have enjoyed the Conference concourse for disseminating knowledge, sharing information & ideas in connection with IT & Management spectrum.

I applaud and appreciate the remarkable efforts taken by the staff of AIMS for organizing such a meaningful and relevant National Conference on IT & Management for three days.

I wish AIMS all the success.

Shri. Jawahar Motilal Shaha (Wagholikar)

Forword



Dr. E. B. Khedkar
Dean-Faculty of Management
University of Pune

In the changing scenario of Globalization, cut-throat competition and predatory strategies, the role of 'IT & Management' is very significant and highly challengeable. At this juncture, Anekant Institute of Management Studies (AIMS), organized 3 days National Conference, on 'IT & Management: Innovations and Inventions-Global Perspective.'

Indeed, it gives me immense pleasure to note that, the workaholic efforts for the National Conference taken by AIMS team under the guidance of Dr. M. A. Lahori, Director of Institute are marvelous and matter of record.

The conference papers received from Tamil Nadu, Karnataka, Kerala, Andhra Pradesh besides home state of Maharashtra both from academia and industry are mind boggling, interesting and really thought provoking in the field of management and application of IT. The whole event and exercise was motivated and inspired by the AES committee. The efforts taken by Shri. Shanti Kumar Shah, Chairman AES, Shri. Jawahar Motilal Shaha, Secretary, AES, Shri. Milind Rajkumar Shah, Joint Secretary, AES and active members Shri. Vikas Shah, Shri. Chandrawadan Shah in envisioning and organizing the conference are commendable.

One can't resist spontaneous and ardent appreciation for the impeccable work done by, Prof. Sachin S. Jadhav, Prof. D. P. More, Prof. Dr. A. V. Thuse, Prof. Manisha Vhora, Prof. Smita Khatri, Prof. A. Y. Dikshit, Prof. P. V. Yadav, Prof. T. V. Chavan, Prof. Preeti Hanchate who have considerably contributed to the success of the Conference.

My Best Wishes to the participant scholars, academicians, NGO personnel, scientists and importantly dynamic youth graduates, who have special sensitivity to the subject and to the entire team of Anekant Institute of Management Studies (AIMS), Baramati.

Dr. E.B. Khedkar

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Impact of Unethical Advertisement on Society

Mr. Rohit Ramchandra Pailwan **Mr. Bharat Rameshrao Sawade**
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Abstract

There is no doubt that advertising attracts all of us in number of ways, but there are also number of controversies associated with advertising Generally, these controversies are concerned about the impact of advertising on economy, society and ethics Advertising is primarily a means by which sellers communicate to prospective buyers. Advertisements are not just the sellers they reflect the society. Indian society is people-oriented and not self-oriented For the sake of our family and others, we Indians can postpone our own gratification. Ethics in advertising Should not mislead the consumer What it promises must be there in the performance of products Ad should not be indecent and obscene As advertising is also a social process, it must honor the norms of social behavior, and should not offend our moral sense ASCI (Advertising Standards Council of India) regulates the advertising in India ASCI guidelines to ensure the truthfulness and honesty of representations and claims made by advertisements and to safeguard against misleading advertising. To ensure that advertisements are not offensive to generally accepted standards of public decency. To safeguard against indiscriminate use of advertising for promotion of products which are regarded as hazardous to society or to individuals to a degree or of a type which is unacceptable to society in large. To ensure that advertisements observe fairness in competition so that consumers need to be informed on choices in the market place and the canons of generally accepted competitive behavior in business are both served. Ethical issues in advertising are a highly visible business activity and any lapse in ethical standards can often be risky for the company. Some of the common examples of ethical issues in advertising are given below: Vulgarity/Obscenity used to gain consumers' attention Misleading information and deception Puffery Stereotypes Racial issues Controversial products (e.g. alcohol, gambling, tobacco etc.)

Keywords : *Controversies, Gratification, Indecent, Obscene, Vulgarity/Obscenity, ASCI.*

Objectives of the Study

1. To Study the impact of unethical advertisement on the society.
2. To study the ethics in advertisement.
3. To understand the controversy in advertisement.
4. To Know the ASCI and Codes of conduct of ASCI.

Introduction of Advertisement

Advertising play an essential and important role. Though advertising does not mean

selling of products and services but it helps in increasing sales. Advertising creates awareness in people. When general public becomes conscious to the products, services and goods under the brands, they persuade people towards these brands and make them buy better brands. Advertising can be used to create brand awareness in general public and to make business more popular within the circle of potential buyers. In short, advertising does not only give a proper awareness of brands but a nice introduction of companies as well. Attractive advertising increases the demands of public which directly boost sales of the brand. Advertising is the best way to communicate to the customers. Advertising helps informs the customers about the brands available in the market and the variety of products useful to them. Advertising is for everybody including kids, young and old. It is done using various media types, with different techniques and methods most suited. When a product is manufactured, its existence needs to be made known to the general public; otherwise the product will not sell. Advertising draws the attention of potential consumers to a product. Advertising is a way persuading potential customers to buy the product. Advertising informs potential customers of the products functions and features. Good advertising creates a demand for a product. Good advertising may even create a brand identity for a product or series of products. Advertising seeks to create an image surrounding a product, so that customers feel that they need it. Advertising can promote a new product and increase sales of existing products.

ETHICS IN ADVERTISEMENT:

Ethics is a choice between good and bad, between right and wrong. It is governed by a set of principles of morality at a given time and given place. Ethics is a related to group behavior in ultimate analysis, setting thus norms for an individual to follow in consistence with groups' norms. Advertising has also ethical values. Advertising communication is a mix of art and facts to ethical principles. In order to be consumer oriented, and advertisement will have to be truthful and ethical. It should not mislead the consumers. Advertisements also should not be indecent and obscene. Gambling is also against ethical code. Endorsement of products by celebrities who are opinion leaders is also sometimes criticized. And advertisement is a social process, it must honor time tested norms of social behavior and should not cross our moral since.

Objectives of Advertising

1. Trial
2. Continuity
3. Brand switch
4. Switching back

Let's take a look on these various types of objectives.

1. Trial : The companies which are in their introduction stage generally work for this



objective. The trial objective is the one which involves convincing the customers to buy the new product introduced in the market. Here, the advertisers use flashy and attractive ads to make customers take a look on the products and purchase for trials.

2. Continuity : This objective is concerned about keeping the existing customers to stick on to the product. The advertisers here generally keep on bringing something new in the product and the advertisement so that the existing customers keep buying their products.

3. Brand switch : This objective is basically for those companies who want to attract the customers of the competitors. Here, the advertisers try to convince the customers to switch from the existing brand they are using to their product.

4. Switching back : This objective is for the companies who want their previous customers back, who have switched to their competitors. The advertisers use different ways to attract the customers back like discount sale, new advertise, some reworking done on packaging, etc.Basically, advertising is a very artistic way of communicating with the customers. The main characteristics one should have to get on their objectives are great communication skills and very good convincing power.

Social Criticism and Responsibility

1. Advertisement should not be Fraudulent.
2. Advertisement should not be Untruthful.
3. It makes people buy the things not needed.
4. Comparative advertisement changes the opinion of customer.

Importance of Advertising

Advertising plays a very important role in today's age of competition. Advertising is one thing which has become a necessity for everybody in today's day to day life, be it the producer, the traders, or the customer. Advertising is an important part. Let's have a look on how and where is advertising important:

1. Advertising is important for the customers

Just imagine television or a newspaper or a radio channel without an advertisement! No, no one can any day imagine this. Advertising plays a very important role in customer's life. Customers are the people who buy the product only after they are made aware of the products available in the market. If the product is not advertised, no customer will come to know what products are available and will not buy the product even if the product was for their benefit. One more thing is that advertising helps people find the best products for themselves, their kids, and their family. When they come to know about the range of products, they are able to compare the products and buy so that they get what they desire after spending their valuable money. Thus, advertising is important for the customers.

2. Advertising is important for the seller and companies producing the products

Yes, advertising plays very important role for the producers and the sellers of the products, because:

1. Advertising helps increasing sales
2. Advertising helps producers or the companies to know their competitors and plan accordingly to meet up the level of competition.
3. If any company wants to introduce or launch a new product in the market, advertising will make a ground for the product. Advertising helps making people aware of the new product so that the consumers come and try the product.
4. Advertising helps creating goodwill for the company and gains customer loyalty after reaching a mature age.
5. The demand for the product keeps on coming with the help of advertising and demand and supply become a never ending process.

3. Advertising is important for the society

Advertising helps educating people. There are some social issues also which advertising deals with like child labor, liquor consumption, girl child killing, smoking, family planning education, etc. thus, advertising plays a very important role in society.

Effects of Advertisement : Advertising is everywhere, from television to billboards, newspapers and the Internet. Items are sold through effective advertising, which helps businesses and also stimulates the economy. Print advertising has been giving way to the electronic age, while Internet and TV advertising have taken the industry by storm due to their cost-effectiveness, distribution capabilities and convenience.

Information : Advertisement supplies consumers with information about products and services. This information is broadcast for the open market, and discusses specials, sales, and new lines of products and services. A consumer also learns about the comparisons between features, benefits and options of different products and services through advertisement.

Brand identity : Brand identity is one of the biggest functions and effects of advertisement. By selling products and services through advertisements, businesses differentiate themselves from one another. The right advertising campaign defines a company's unique brand, which helps consumers build emotional relationships with that brand. This increases the likelihood that consumers will buy from that company.

Promotion action : Advertising's purpose is to attract buyers through a call-to-action statement, which encourages the customer to visit a store or website, or to contact the advertiser for more information. Advertising is essentially an action catalyst that brings customers and products or services together.

Improving customer base : Advertising's purpose is to attract buyers through a call-to-action statement, which encourages the customer to visit a store or website, or to contact the advertiser for more information. Advertising is essentially an action catalyst that brings

customers and products or services together.

Production creation : Advertising, according to "The Social and Cultural Effects of Advertising" by Jeremiah O'Sullivan R., stimulates the development of better products, and allows consumers to have a wider variety of products, competitive pricing, and competition entering the marketplace.

Purchase persuasion : Powerful and captivating advertisements persuade consumers to purchase a new product, try out services, and fulfill voids they feel are present in their lives. In fact, persuasion is one of the main functions of advertising, which is why many firms strive to create powerful impacts that reach customers on emotional and physical levels.

Education : Advertising serves as a form of consumer education. Not all advertisements sell a product or service; sometimes they sell a concept. Government agencies use advertisement as a way to educate and compel consumers to act a specific way. "The Social and Cultural Effects of Advertising" notes that advertising is geared toward the ideas of art, religion, sexual attraction and myth. Advertising also educates consumers on what products and services out are there, how much they should pay, and what they can expect with certain purchases.

ASCI- Advertising Standard Council of India : Advertising Standards Council of India is a self regulatory voluntary organization of the advertising industry. The Role and Functioning of the ASCI & its CCC in dealing with Complaints received from Consumers and Industry, against Advertisements which are considered as False, Misleading, Indecent, Illegal, leading to Unsafe practices, or Unfair to competition, and consequently in contravention of the ASCI Code for Self-Regulation in Advertising. In order to enforce an ethical code we in India now have the Advertising Standard Council of India it is a nonprofit origination set up by 43 founder members who are

Involved with advertising in one way or the other it is established in 1985 its board of governor has members with equitable representation to advertisers, agency, media. It puts forward a regulating code.

Objectives of ASCI

1. To ensure the truthfulness an honesty of representations and claims made by advertisements and to safeguard against misleading advertising.
2. To ensure that advertisements are not offensive to generally accepted standards of public decency.
3. To safeguard against indiscriminate use of advertising for promotion of products which are regarded as hazardous to society or to individuals to a degree or a type which is unacceptable to society.

Codes of conduct of ASCI

This code was presented to parliament in mid- 1987. It incorporates the indecent

representation of women act and the consumer act, both of which were passed by parliament in 1986. It suggests 33 do s and don't s for advertiser. Here are some of them. Advertisement should conform to laws and should not offend against morality, decency and the religious susceptibilities of people. The success of advertising depends on public confidence and no piratic should be permitted which tend to impair this.

In the following code of conduct advertisement should not be permitted

1) Ads which deride any caste, color, and nationality or are against the directive principles or the constitution.
2) Ads which tend to incite people to crime or cause order or adversely affect friendly relations with foreign states.
3) Ads which exploit national emblem, a part of the constitution, or the person/ personality of national leaders or state dignitaries.
4) No advertisement shall be presented as news.
5) Ads which have any relation to religion, political or industrial dispute.
6) Ads which promote chits funds, money lender, jewellery, fortune tellers, foreign goods, and private saving schemes.
7) Guaranteed goods will have to be made available to director general of Doordarshan for inspection is necessary.
8) No disparaging or derogatory remarks of other product or comparison with them should be made.
9) Ads which portray women as passive or submissive.
10) Ads which are likely to startle viewers- such as gunfire, sirens, bombardments, screams, and raucous laughter.

CONCLUSION

Ethics are very necessary while framing any advertisement. All the codes of conduct of ASCI should take into consideration. Advertisements should not mislead to society. It is the prime responsibility of business/company to maintain the ethics in their advertisement. It largely affects on the customer's mind.

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GPS Based Vehicle Information System

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Abstract

This paper embed the various GPS services into a system so that many problem related to transportation system can be resolved in real time by providing data and information into our own pre-set format and provide individual vehicle data such as location and velocity by using GPS, estimated time of arrival, the speed count, number of passengers and seat availability and these details can be sent to passengers by SMS using GSM technology. Till now a date, no such kind of a system is exists which provides all kind of a result we want for any types of vehicles. This research project is aimed to design with an embedded system which will use for tracking and positioning of vehicles with GPS. The initial data will be captured by GPS device, after that captured data will be considered as an input file for conversion tool for conversion purpose. With the use of conversion tool the next processing will be done. This work also uses sensors to detect the speed of vehicle, passengers present in the bus. The Microcontroller is programmed to control and display the information according to the received signal from the GPS and sensors placed satellite and the position of a satellite implies that the GPS receiver is on the surface of a sphere centered at the position of a satellite. Thus the indicated position of the GPS receiver is calculated.

Keywords : *GPS, GSM, GPRS, Sensor*

Introduction

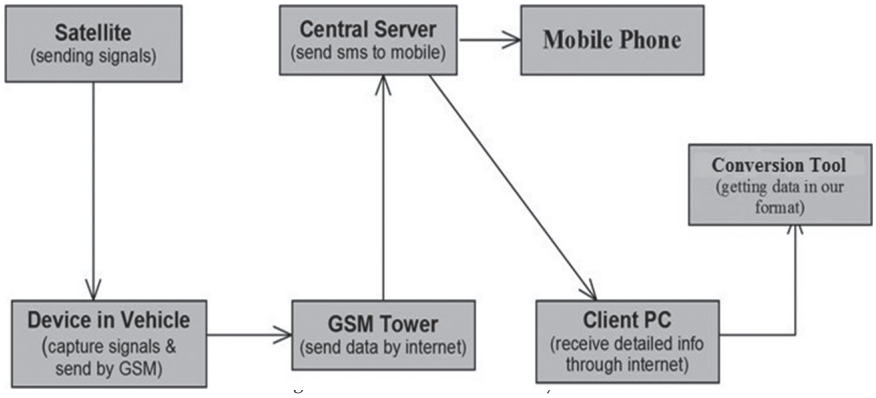
Nowadays vehicle (BUS) is very important mode of transport to move from one place to other place. During the time of travel passengers face many problems such as seat availability, arriving time of bus and travelling time. The important objectives of this paper are:

1. Vehicle's real time parameter such as speed, current bus location, number of passengers in bus, seat availability is gathered and used for benefit.
2. Improve the quality of transportation system.
3. Developing Automatic Vehicle Location system using GPS for positioning information and GSM/GPRS or information transmission.
4. Tracking the driver's activity whether he/she is following the pre-define route and speed.
5. To send information about the location of vehicles (buses), seat availability in

buses to the passenger by SMS.

6. Getting the data into our pre-set format.

This paper consists of GSM modem, level converter, microcontroller, Speed Sensor, passenger counter, display, power supply, GSM modem and online conversion tool. The online conversion tool helps us in getting the data and information into our required format. This paper embed the various GPS services into a system which is used for tracking and positioning of vehicle by using the global positioning system (GPS) and using sensors to detect the speed of vehicle, passengers present in the bus. The Microcontroller is programmed to control and display the information according to the received signal from the GPS and sensors placed in the bus. GSM modem is used to transmit and receive information. Mobile is used to get the information about bus. When the people are sending SMS to bus unit, the GSM modem in bus unit receives the SMS and signal is given to level converter and level converted signal is given to microcontroller, which is used to process the signal. GSM modem is used to send the information to the mobile. The overview of the system is shown in fig 1.0.



Backbone of the System

Position calculation Through GPS

To provide an introductory description of how a GPS receiver works, measurement errors will be ignored in this section. Using messages received from a minimum of four visible satellites, a GPS receiver is able to determine the satellite positions and time sent. The x, y, and z components of position and the time sent are designated as where the subscript i is the satellite number and has the value 1, 2, 3, or 4. Knowing the indicated time the message was received, the GPS receiver can compute the indicated transit time of the message. Assuming the message travelled at the speed of light, the distance travelled, can be computed. Knowing the distance from GPS receiver to a satellite and the position of a satellite implies that the GPS receiver is on the surface of a sphere centered at the position of a satellite. Thus the indicated position of the GPS receiver is calculated.

Global System for Mobile Communications

Global System for Mobile Communications is one of the widely used mobile standards. As the name specifies, it enables the mobile users to interact all over the world at any time. GSM was actually designed to be platform independent. Because GSM provides a common standard, cellular subscribers can use their telephones over the entire GSM area which includes all the countries around the world where the GSM system is used. In addition, the GSM provides user services such as high-speed data communication, facsimile and a Short Message Service (SMS). The GSM technical specifications are also designed to work with other standards as it guarantees standard interfaces.

According to this paper the information about the location of the vehicle which is trapped is received by the GPS receiver then it is send to the user by using GSM technology

Counting Passenger Using Sensor

To count the No. of passenger in bus, we setup a pair of sensors on the doors of vehicle (bus) i.e. on the front and back door which is connected to GPS device installed in vehicle. In this case we consider that the front door of bus will be used for passenger entry and rear door of bus will be used for passenger exit, if any passenger enters into the bus from front door then the set counter increases by 1 and at the same time the value of other counter which is fixed on to the rear door of the bus is get updated and if any passenger get out from the rear door of the bus then the set counter reduced by 1. Therefore, the sensors automatically are able to count the number of incoming and outgoing passenger in real time and data is sent to the database.

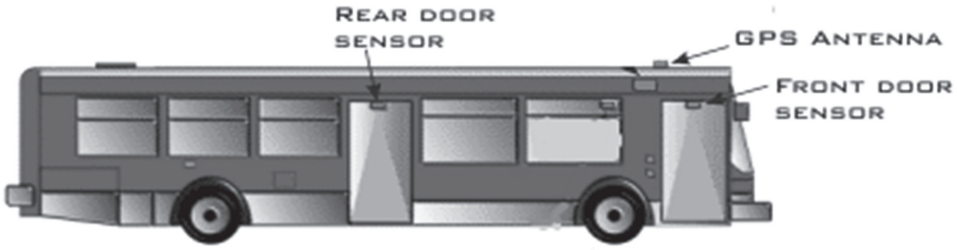


Figure 2.0: Sensor System on Bus

Proposed Work

The system being proposed makes use of the GSM and GPS technologies that allows the system to track vehicle and provides the most up-to-date information. The system tasks advantage of wireless technology in providing powerful management transportation engine. Overall system is partitioned into two major design units.

1. Vehicle unit
2. Tracking Server

This system is based on a stand-alone single-board embedded system that is equipped with GPS and GSM modems that is installed in the vehicle.

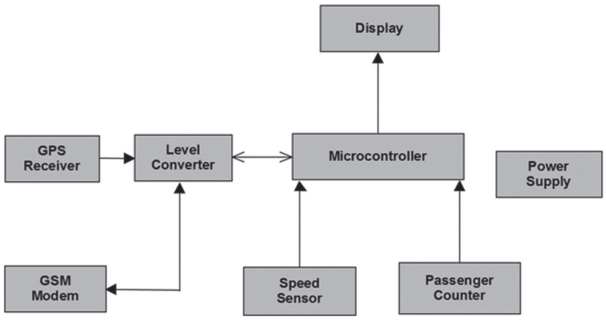


Figure 3.0: Block Diagram of Vehicle Unit

Vehicle Unit

This is major part of the system and it will be installed into the vehicle. It is responsible for capturing the Following information for the vehicle

1. Current location of vehicle.
2. Speed of the vehicle.
3. No of passenger in vehicle(bus)

Vehicle unit is also responsible for transmitting this information to Tracking Server located anywhere in the world.

Data Transceiver

When all required information is extracted and processed, it needs to be transmitted to a Remote Tracking Server which will be able to display this information to the end user. For real time tracking of vehicle, reliable data transmission to remote server is very important. Wireless network is required to transmit

Vehicle information to remote server. Existing GSM network is selected to transmit vehicle information to remote server because of broad coverage of GSM network. It is also cost effective rather than to deploy own network for transmission of vehicle information. For data transmission over GSM network GSM modem is required. GSM modem can send and receive data SMS text messages and GPRS data over GSM network. Location data is transferred to microcontroller through serial interface. After processing of the data provided by GPS receiver, microcontroller transmits this information to remote location using GSM/GPRS modem. Microcontroller controls the operation of GSM/GPRS modem through serial interface using AT commands.

Software flow

Microcontroller is acting as Central Processing Unit for Vehicle unit. All operations of the Vehicle Units are to be controlled by the microcontroller. Microcontroller needs

instructions to operate the whole System. These instructions are provided to microcontroller by writing the software into microcontroller's flash memory. It reads the software instruction by instruction and performs the action as required by instruction.

Tracking Server

Tracking server maintains all information received from all Vehicle units installed in different vehicles into a central database. This database is accessible from internet to authorized users through a web interface. Authorized users can track their vehicle and view all previous information stored in database. Tracking server has a GSM/GPRS modem attached to it that receives SMS from Vehicle units and sends those messages to the server through serial port. Tracking server saves this information into database.

Managing Database and Interface Design

Tracking Server maintains all information in a database. To display this information to users front end software is required that can display all information to the user. The system is being installed the Vehicle unit in his vehicle and also the administrator of the system who is managing Vehicle Tracking System. There may be a number of vehicles installed with Vehicle units therefore server must be able to manage and distinguish information sent by all Vehicle units. For this purpose information must be available to server about all vehicles that are installed with Vehicle units. Whenever Vehicle unit is installed, information about that vehicle is stored in the database. Web interface must also support this functionality. Since web interface will be accessible over the internet therefore access must be restricted to authorized users only. Therefore information about all users of the system must be stored in database.

Conversion Tool (for converting the Initial GPS data into our required format)

The GPS device give the output in the simple text or in GPX format, that contains time, position, and velocity data and other required data in the fixed width fields (not delimited) defined in the following table:

FIELD DESCRIPTION:	*WIDTH:*	*NOTES:*
Sentence start	*1*	*always '@'*
Year	*2*	*Last 2 digits of UTC year*
Month	*2*	*UTC month,"01"..."12"*
Day	*2*	*UTC day of month, "01"..."31"*
Hour	*2*	*UTC hour, "00"..."23"*
Minute	*2*	*UTC minute, "00"..."59"*
Second	*2*	*UTC second, "00"..."59"*
Latitude hemisphere	*1*	*'N' or 'S'*
Latitude position	*7*	*WGS84 ddmmmmm, with an implied, decimal after the 4th digit*
Longitude hemisphere	*1*	*'E' or 'W'*
Longitude position	*7*	*WGS84 dddmmmmm with an implied, decimal after the 5th digit*
Altitude sign	*1*	*'+' or '-'*
Altitude	*5*	*Height above or below mean sea level in meters*

Sentence end.

The initial data captured by the GPS device is shown in the figure 4.0.

```
@040703112755S2933200E03017304g017+01149E0000N0000U0033
@040703112756S2933200E03017304g017+01149E0000N0000U0033
@040703112757S2933200E03017304g017+01149E0000N0000U0033
@040703112758S2933200E03017304g018+01149E0000N0000U0030
@040703112759S2933200E03017304g018+01149E0000N0000U0027
@040703112800S2933200E03017304g019+01149E0000N0000U0026
@040703112801S2933200E03017304g019+01149E0000N0000U0026
@040703112802S2933200E03017304g019+01149E0000N0000U0026
@040703112803S2933200E03017304g019+01149E0000N0000U0026
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@040703112809S2933201E03017304g021+01149E0000N0000U0021
@040703112810S2933201E03017304g021+01149E0000N0000U0021
```

Figure 4.0: GPS data captured by the data logger.

The data we are getting at initial phase is very complex and difficult to understand, so by using Conversion Tool i.e. GPSvisualizer the initial data is arranged according to pre-set format by which one can get data in whatever format he/she wants.

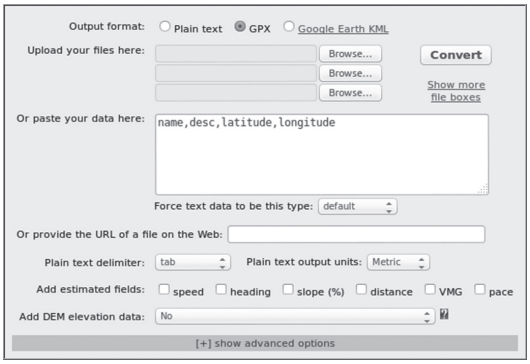


Figure 4.1: Conversion tool

The above figure 4.1 shows the Conversion tool i.e. GPSvisualizer. After getting the initial data we can either simply upload the GPS data which is in GPX format or we can simply copy paste the text file according to set field and then by clicking over the convert button The resulting file can then be saved to our computer.

Conclusion

Using and implementation of this embed GPS system is very easy. By using this system the vehicle tracking will be completed. The number of passengers inside the bus is found keeping infrared sensors in the footsteps. The seats available in bus will be found by number of passengers inside the bus and the information about the location, speed count, seat availability is informed to the passengers using SMS.The advantages of the system is that all the people will get the information easily, especially those passenger who are waiting for the bus at the bus stop, we can easily track the vehicle location as well as activity of driver. Implementation of this system will help to reduce the corruption also.

This system is quite hard to implement on all the buses especially in India as the condition of buses in India is not so good and there is also huge rush to catch up the buses at peak hour, but it is not impossible also. At start we can implement it on the buses which provide good facility and which are in good condition for example: low floor buses of Delhi, Shivneri buses and many more. After that we can try to implement it on all the buses and help to provide this system to all.

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Policy Paralysis in India: Role of RBI

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ABSTRACT

Today monetary policy is in India is in a deep crisis. The Reserve Bank of India (RBI) has operated monetary policy in an environment in which other macro-economic policies are not in match with our key policy objectives. This departure from fundamental principles has weakened our monetary policy.

Our political economy imperatives lead to policy inconsistencies, It seems that we have undermined the importance of monetary policy which leads to a policy paralysis between monetary policy and fiscal policy. This problem of monetary policy in India is compounded by the fact that monetary economics is looked at as an extraneous thought process not relevant to India. It will not be an exaggeration to say that only a very few of economists have an abiding interest in monetary economics.

Lack of appreciation on monetary economics is every where, not only in academic circles but also in government, and, sometimes, even in the RBI circles. We see that a "monetarist" is someone who has an unswerving commitment to the use of monetary policy to combat inflation.

INTRODUCTION

We could see that the RBI has, from time to time, effectively using strong monetary policy measures to combact inflation. But the academic 'community, industry and government have been critical of the RBI measures when it has resorted to monetary tightening, under the impression such policies would adversely affect our economic growth.

Thanks to Indian economic thought which still hold up with the Keynesian economic thoughts which were suited for the industrial countries in the 1930s. The Keynesian economics stressed the importance of government to undertake pump-priming as there was an excess of saving over investment which leads large unemployment.

The global financial crisis of 2008, led Indian economists and policy-makers to believe that pump-priming was the only solution as it was embraced by other countries .So we also resorted to the same action which resulted unprecedented monetary- fiscal expansion followed by a sharp acceleration of inflation. This has paid to the aspirations of our double-digit growth. It is unfortunate to mention that this scenario continues till date. This situation is totally in contrast with the development economics prescribed by Indian economists which are suited to developing countries like India.

The validity of the Keynesian multiplier theory depends on crucial assumptions, mainly the existence of involuntary unemployment, upward sloping supply curve, excess capacity in industry and elastic supply of working capital. But this is not the case of the developing countries like India. Indian economists even warned that a blind application of the Keynesian formula resulted considerable damage on our economy which only helped to strengthen the forces of inflation. According to Dr VKRV. Rao the Keynesian policy of deficit financing and disregard for thrift does not apply to underdeveloped countries for which the policy formulated by the classical economists is relevant: work harder and save more. It is high time the planners and administrators of India has to go through the work of Dr. VKRV Rao.

A mild inflation is always acceptable in a growing economy. But an inflation without growth is disastrous. An uncontrollable inflation leads a country from bad to worst . A country like India where there is no inclusive growth the highest affected people would be those who are living in below poverty line and also middle class. Today pays a heavy price for ignoring the work of our own economists.

THEORETICAL BACKGROUND

Ups and downs in the economy : In India, we ignore the repercussions of business cycles. We believed that India was a planned economy, and we are immune to business cycles. India has totally ignored the over-investment theory of the business cycle set out in F. A. Hayek's Prices and Production (1931). Under the Hayekian approach, there is excess of investment over saving, and this has to be equilibrated by forced saving via created money. At this situation inflation takes its own momentum where central bank inevitably presses the panic button. The upper turning point is the most important point of the business cycle according to Hayekian approach. Without least hesitation one could say that Hayekian approach was very much relevant to developing country like India.

This reveals that monetary tightening should be undertaken during the upswing of the business cycle, well before the upper turning point is reached. Invariably, monetary tightening is undertaken after the upper turning point, when the downturn has started, and this accentuates the downturn. Economists argues that economic history of developed countries has proved that early monetary tightening is better as it would be a mild one.

It is the usual practice we invite outstanding experts to tide over the economic troubles which could have been nip in the bud by our own economists. No advice is better than wrong advice . It is disheartening to tell that some of the advice what we got was not relevant for a developing country like India . This has resulted pouring oil to the burning fire . It is high time we have to think about economists who are experts in dealing with business cycles as world as a whole is in the clutches of business cycles. The economic policies followed by other developing countries may not be relevant to India as we are having a mixed culture with various religions, different castes and creeds, various languages, non- inclusive economic growth ,and above all an agriculture oriented population.

Recent experience : The RBI increased its repo rate by 1.75 per cent between May



and October 2011 to 8.5 per cent. A criticism was leveled against RBI that all that the monetary tightening did was to slowdown growth without controlling inflation. It is further argued that the reduction of the repo rate in April 2012 to 8 per cent and, thereafter, keeping it unchanged has hurt growth. As a whole people started looking RBI with suspicion. Government, industry and economists urged monetary policy ought to be quickly relaxed.

By going back it would appear that the increase in the repo rate by 1.75 per cent between May and October 2011 was insufficient in the context of the high inflation rate (the repo rate remained negative in real terms). As a matter of fact this period of monetary tightening, the cash reserve ratio (CRR), by far the most powerful instrument of monetary policy, remained unchanged at 6 per cent. When monetary easing was necessitated the repo rate was reduced only once in April 2012 by 0.50 percentage points to 8 per cent, and the critics argue that further reductions should have been effected. However since January 2012, the CRR was reduced from 6 per cent to 4.25 per cent to facilitate monetary easing. Experts and bureaucrats evaluate that the recent inflation is structural, and also attributable to external factors. Today inflation is generalized, as a monetary phenomenon.

It is generally believed that the RBI did not tighten fast enough and strong enough during 2011 and that in the absence of an abatement of retail inflation (10.6 per cent, year-on-year, in December 2012), the relaxation of monetary policy in 2012 was premature and excessive. However no one talked about all these developments even today.

Policy paralysis : Today the RBI's is bearing the burden of inconsistencies in other macro - economic policies, and the focus the RBI's critics should be on these policies. The balance of payments current account deficit (CAD) in 2012-13 could well end up at 4.5 per cent of GDP which, if not corrected expeditiously, could result in a large exodus of foreign capital. Our forex reserves are now less than the external debt. To make things from bad to worst our short-term debt, on a residual maturity basis, has reached 43 per cent of total external debt. This situation is quite alarming.

The forex reserves what we have now could cover only seven months of imports. This shows a red signal to the economy. Despite this our false prestige are calling for an appreciation of the Indian rupee which is against fundamentals. History tells that no country can correct a large CAD by appreciating its currency. In the 1930s, there was an international policy of competitive depreciations. The need of the hour is an early correction of the overvalued exchange rate which is having over-riding priority if a crisis is to be avoided.

We can correct the CAD position by promoting small , medium and large scale industries. It will not happen all on a sudden. Right from educational institutions we have to develop entrepreneurship talents among young generation. Leaving white collar jobs people should attract to entrepreneurship. That is the need of the hour.

The government is reportedly making serious efforts to control the gross fiscal deficit. The result remains to be seen whether the medium-term fiscal correction takes place or not. Recently the government expects its large borrowing programme to be put through at sub-8 per cent interest rates for long-term paper. We have to pay a price as an overarching

influence on monetary policy as interest rates are kept soft to facilitate the borrowing program which may further weaken our monetary policy.

CONCLUSION

Formulation and execution monetary policy have all along been a difficult task. Today this task is made even more difficult as the government has been airing its views in the public before the monetary policy announcement. This puts monetary policy in a dilemma.

Monetary policy is in the hands of RBI. This makes RBI to be accountable to the nation. It is seen that on many occasions RBI was controlled by respective governments who were in the helm of affairs. This situation has to be changed by giving functional autonomy to the RBI. RBI should be able to function independently. Today what we need is a harmonious blending of fiscal policy and monetary policy. Monetary policies initiated by RBI should not be diluted at any cost. The fundamentals of monetary policy could be satisfied only when it is not affected by easing of fiscal policies putting an eye on vote bank.

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Successful Revenue Generation Through Movie Promotions : Film Maker's Perspective

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ABSTACT

In recent times, it has been seen that Indian film makers are going overboard with their film promotions, and to everyone's surprise, the films that didn't even live up to the audiences' expectations have made decent money simply based on promotional efforts. This paper tries to study the various factors that influence the film viewership and an attempt has been made to analyze how important film promotions are for the success of a film. This paper also discusses some of the innovative steps adopted by Indian film makers for their movie promotions. However, it has to be noted that, nothing can substitute the quality of the film itself.

INTRODUCTION

Indian film industry often referred to as Bollywood, is rapidly growing in popularity across the globe. Indian films have in the recent past made enough noise at the International level and grabbed the attention of the international film fraternity. Indian film popularity and its wide and diversified customer base has prompted International film producing giants to invest in Indian movies. With Indian films going great guns, lot of players are jumping into this field and undoubtedly there is cut throat competition all around. Those involved in a film are constantly under pressure to deliver a hit and make money that has been invested. Hence, the film makers who generally in the 1990s and 2000s focused on the quality and content of the movies to attract the audience to theatres are now using unique promotional techniques to generate awareness of the movie release and attract people to the cinemas. While focusing on the many factors that attract the Indian audiences to the cinemas, this paper discusses the recent innovative steps taken in the Indian context for successful film promotions.

OBJECTIVES

The basic and core objectives of study are;

1. To understand the concept Film Promotion.
2. To study the benefits of Film promotion to society.

3. To analyze the impact of Promotion, on film viewers.
4. To discuss the trend of revenue generation by Film promotion.
5. To study the perspectives of promotion to film producers.

LITERATURE REVIEW

This section discusses about the literatures surveyed. Eliashberg & Shugan (1997), stated that films are intangible things that are consumed for pleasure. Hence studying the consumer behavior plays a pivotal role in developing strategies that can attract the audiences to theatres. Mohammadian and Habibi (2012) came out with a framework that deals with 4Ps concept that talks about attracting viewers to the cinemas. This framework is very important from modelling and simulation point of view discussed in this paper. Herlina (2012), talked about the various factors that influenced the audience's decisions to watch a particular movie. People today have many entertainment options and taking a decision to watch a movie is influenced by many parameters. Promotional drive of the movies is one among such parameters. It has to be noted that, promotional activities help in generating awareness about a particular movie and may be successful in generating initial viewership. But after a few days of release, for a movie to sustain, the content and quality of the movie are critical factors.

RESEARCH METHOLOGY

Film promotion may look like a simple routine activity when one sees from a narrow perspective. But when seen from a broader perspective, one can see many tiny factors that can have a rippling effect on the awareness generated by the film promotions. The methodology used in this research is System Dynamics methodology. System dynamics deals with modelling and simulation and then looking at a problem from a wider angle so that the researcher understands how the system works and then the concentration is focused upon the problem under consideration. Originated in 1950s, System dynamics is a methodology that can be applied to any domain (Sterman, 2000). Researchers have used System dynamics in fields ranging from engineering, technology, management, energy conservation, and sustainable development issues etc.

DISCUSSION

System dynamics basically starts from the problem articulation and then a cause and effect diagram is developed, followed by a stock and flow diagram wherein the various parameters under consideration are equated and finally simulations are carried out to see how the system would behave under different inputs (Sterman, 2002). This paper deals with a cause and effect diagram that shows the importance of film promotions, and the various innovative film promotion techniques have been discussed here.

Figure 1, shows a cause and effect diagram that has been adopted from Kamath et al. (2013). The causal loop highlights the various parameters that help in generating

cine viewership in theatres. Since piracy is a threat to the film industry, to make money that they invested, film makers have to see to it that people come to the theatres and watch a movie. As shown in figure 1, advertising and publicity has a key role to generate awareness amongst people about an upcoming movie release and this awareness attracts the audiences to the theatre.

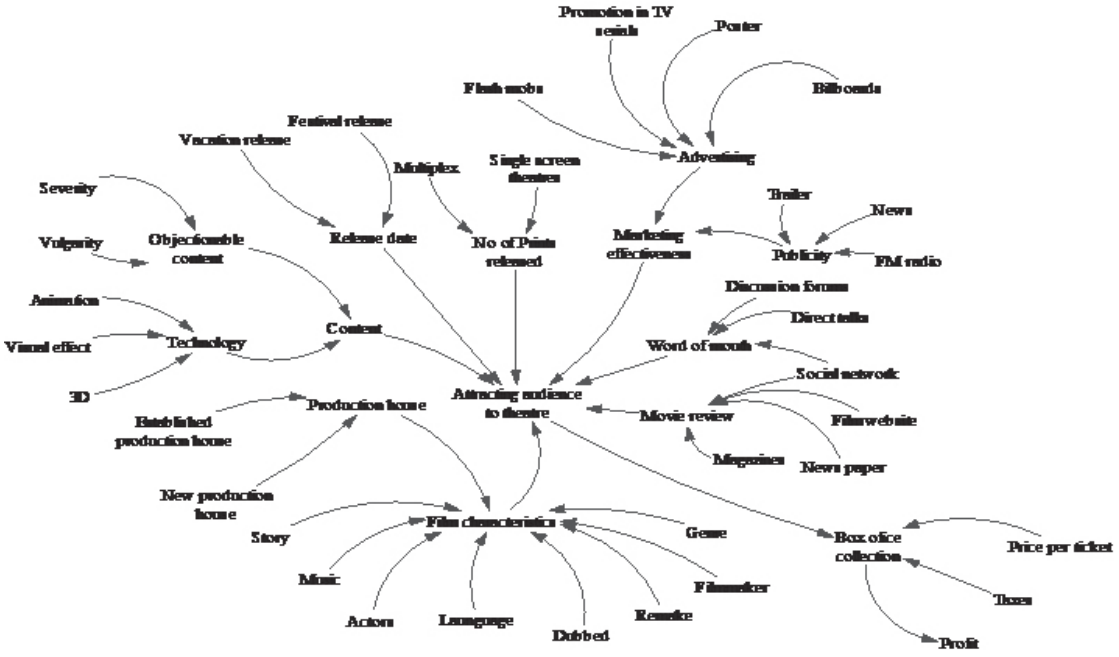


Figure 1: Factors that attract audiences to theatres. Adopted from: Kamath et al. (2013)

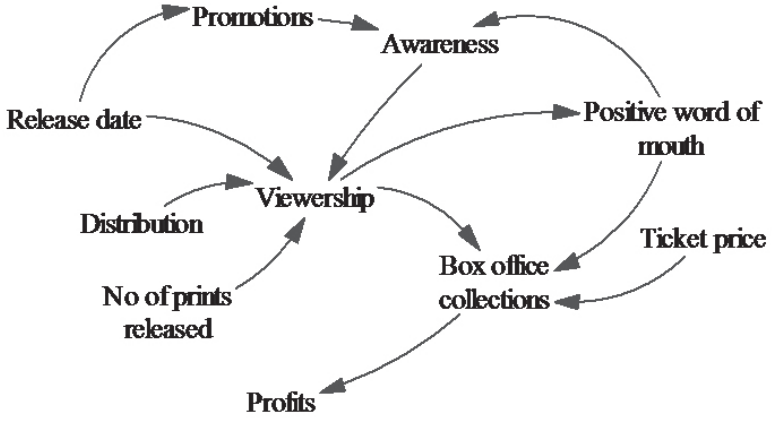


Figure 2: Factors influencing the film viewership and the profits

Figure 2 highlights the relationship between the profits and the viewership. Viewership is based on the awareness generated about the movie. This can be through the trailers,

posters, and other promotional activities. Word-of-mouth also generates significant awareness about the movies. The release date too plays a major role in attracting the audiences. Recently film makers have started releasing the movies on days other than Fridays. Films in the recent past have released on festival days and public holidays and as expected, made a huge amount of money on the day of release itself. The main reason here was the promotional activities generated so much interest in the audiences that, the audiences thronged to the theatres. With a large number of prints being released and with multiplexes growing in number, it becomes easier for the audiences to choose a show of their convenience and thus huge viewership is generated.

Now-a-days films are released in various languages and this helps the film makers to reach the audiences who would otherwise not be watching the movie. Filmmakers have started coming up with posters in many other languages other than Hindi or English which attracts the masses to the movie. Movies being released worldwide also adds to the kitty of the filmmaker as there is a substantial percentage of Indians living across the globe who want to be up and running with the latest movies back home.

Cyber games are a revenue generation machines in themselves. Filmmakers have started coming out with games based on their movies. These games rapidly gain popularity in the virtual world and also create awareness of the film being released. Mobile applications based on the movies to be release also gain instant publicity and generate a huge instant hype. Tie-up with products is not a new thing in Bollywood context. But in the last few months, this concept has been widely used by the filmmakers for their benefits. While the film is about to release, the leading actor or actress can be seen repeatedly promoting a product in association with their movies. TV promotions are the most important ones during the movie release time. The leading actors or the directors either come in groups or individually to promote their films in those TV serials that have the highest TRP ratings. The actors can be seen in a number of channels in number of programs busy talking about their movie.

Merchandising: The filmmakers come out with clothing or items that have their movie name written on it and try to capture as much attention as possible. Promotional songs are widely used techniques to generate publicity. Including an international singer or dancer or any famous and popular artist in the promotional song attracts a lot of attention and works to the benefit of the film makers. Giving a number of interviews, and making frequent public visits have now become common. In addition, sometimes the film makers create deliberate controversies related with the movie to gain public and media attention that usually acts in favor of the movie.

CONLUSION

This paper highlighted the importance of film promotions in the current era. When more than one film releases on the same day, the audiences have plenty of choice to choose the movie they want to watch. Under such circumstances, the movies that generate a huge hype based on the promotional activities succeeds in the race. Since a lot of money is invested in movies, it becomes necessary for the film makers to publicize their movie

on every platform possible and attract large viewership in theatres, so that they can rake in the money they invested.

This paper discussed a few innovative promotional methods used by the film makers in the recent times. In future, the film makers can make arrangements where a group of people can book a show at a particular time of their convenience. This can be a huge boost to the film viewership numbers. Even though this suggestion may look challenging now, it is definitely not impossible. After a week of the film's release, to attract the repeat audiences, a small discount on ticket prices may be awarded, which can act in favor of the movies.

The cause and effect diagram developed in this paper can be converted in to a stock and flow diagram and real data can be infused into the model and a simulation can be carried out to study the most significant factor that influence the movie viewership and hence the profits.

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The Depreciating Rupee – The Recent Trends & Implications

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ABSTRACT

The external value of the Indian Rupee has been depreciating steadily in recent years, with their harmful effects. The increasing current account deficit (CAD) in the balance of payments of the country is considered to be the main factor causing such depreciation in the external value of the Rupee. This paper is an attempt at examining the trends in the CAD of the country and the depreciation of the Rupee during the period from 2000-01 to 2011-12 and their implications and at suggesting certain remedial measures to stabilize the external value of the Rupee. The analysis shows that though CAD causes depreciation in the external value of the Rupee, it is not the major factor. Deliberate and effective monetary and fiscal measures have to be adopted to stabilize the external value of the Rupee and to avoid the harmful effects of currency depreciation on the economy.

The external value of the Indian currency unit, the Rupee, has been subject, recently, to wide, almost unprecedented, fluctuations with far reaching implications. These fluctuations have culminated in a marked depreciation1 of the external value of the Rupee, depicted by a fall in the rate of exchange of the Rupee in terms of the U.S.Dollar, the generally used international currency unit. The falling external value of the Rupee is not, however, a recent phenomenon. The Rupee has been depreciating continuously right from 1951, the beginning of planned economic growth of the Indian economy.2 This paper is an attempt at analysing the trends in the depreciation of the Rupee and at bringing out their implications. The analysis that this paper attempts to make is, however, limited to the falling trend in the external value of the Rupee since the year 2000-01 with a view to restrict its size.

Key words : *current account deficit (CAD), effective monetary and fiscal measures.*

INTRODUCTION

The Nature of Money – Its Domestic and External Purchasing Power: Money, in a money economy, acts as the medium of exchange, besides its function as a store of value and standard of deferred payments, through whose medium goods and services are exchanged among people. An essential requirement of good money, as a medium of exchange, is that its value or purchasing power should remain stable, for if its purchasing power changes between the time when a person sells his service or goods to others, in the



market, and the time he purchases the good or services he needs from others he will either stand to lose, if its value falls, or gain if its value rises. In either case, such changes in the value of money will cause distrust among the people in the institution of money since, in an exchange economy a person's gain is another person's loss, giving rise to interpersonal inequity, injustice and confusion in society.

While the domestic or internal value or purchasing power of a currency is relevant for transactions within the country, its external value assumes relevance when international transactions in goods and services take place. While the changes in the internal purchasing power of a currency is gauged by changes in the general level of prices, inflation or deflation, inflation indicating falling value of money and deflation indicating rising value of money, within the country, changes in the external value of a nation's currency is denoted by the rate of exchange between the currency of the country and the currency of the country with which it has economic transactions.

Defining the Rate of Exchange: The rate of exchange between the domestic currency and a foreign currency is the number of units of the foreign currency which a unit of the domestic currency can get in exchange in the foreign exchange market, the market in which foreign currencies are sold and purchased. The rate of exchange is defined as the price of the foreign currency in terms of the domestic currency. To be specific, the rate of exchange between the Rupee and the U.S.Dollar is the Rupee price of the U.S.Dollar in the exchange market..If the price of a Dollar in the exchange market on any day is Rs 62/- it means that the rate of exchange between the Rupee and the U.S.Dollar is $1 = Rs.62/-.

The Exchange Rate Mechanism: The rate of exchange between two currencies is determined differently under different systems of currency. The rate of exchange between two currencies based on the metallic standards, a system that was in vogue prior to 1940, under which money consisted of actual metallic coins, the rate of exchange between two currencies was determined by the value of the metallic contents of a unit of the two currencies. If a dollar coin is made up of one gram of pure gold and a pound coin is made up of five gram of pure gold, then the rate of exchange between the dollar and the pound sterling is Pound one is equal to five dollars.

The metallic standards of currency gave place to a system of managed paper currency system by the nineteen-forties, a system under which the value of the currency is managed by the concerned central bank through appropriate changes in monetary policy. Hence the system is called the managed currency system.

The Purchasing Power Parity Theory of the Rate of Exchange: Gustav Cassel developed the purchasing power parity theory of the rate of exchange between two currencies in a managed currency system. According to the theory, the rate of exchange between two currencies is determined by the relative domestic purchasing powers of the two currencies. If a dollar purchases a certain quantity of goods in the United States and if the purchase of the same quantity of goods in India requires Rs.50/- at the prevailing price level in India, then, according to the purchasing power parity theory the rate of exchange between the Dollar and the Rupee is Dollar one = Rs. 50/-.

The Market Rate of Exchange and the Equilibrium Rate of Exchange: The rate of exchange between two currencies determined by the Purchasing Power Parity Theory is the equilibrium rate of exchange. In contrast with this equilibrium rate of exchange, the actual rate of exchange or market rate of exchange that prevails in the exchange market is determined by the relative supply and demand conditions for the currency in the exchange market. If, for instance, the demand for Dollar in the Indian foreign exchange market increases without a corresponding increase in its supply, then the price of the dollar in terms of the Rupee in the exchange market will rise, say to Rs.52/- a dollar, thereby indicating a fall in the exchange value of the Rupee in terms of the Dollar. The Rupee depreciates in the process. If, on the other hand, the supply of Dollar in the exchange market increases without a corresponding increase in the demand for it, then the Rupee price of the Dollar will fall in the exchange market, say to Rs. 48/- per Dollar indicating, thereby, an appreciation in the external value of the Rupee. Such rise or fall in the external value of the Rupee cannot go too far, for, an initial change in the price of the Dollar will soon set in motion appropriate changes in the supply and demand conditions in the exchange market that shift the exchange rate back to its equilibrium rate. Changes in the rate of exchange between two currencies are self-correcting.

Factors Causing Supply and Demand for Foreign-exchange, Foreign Currency, in the Exchange-market: As has been pointed out earlier, the external value of a nation's currency has relevance to the international economic transactions of a country. When a country imports goods and services, it has to make payments to foreign countries giving rise to demand for foreign exchange. On the other hand, when the country exports goods and services to foreign countries, it receives payments from other countries, thereby giving rise to the supply of foreign exchange in the exchange market. If changes in these forces of supply and demand for foreign-exchange balance each other, the rate of exchange of the currency will remain the same. If, on the other hand, these forces do not balance each other, then the rate of exchange will change, causing either an appreciation or a depreciation of the exchange value of the currency. The appreciation or depreciation in the external value of a nation's currency, thus, hinges on the relationship between the exports and imports of a country, causing supply of foreign exchange and demand for foreign exchange in the exchange market.

The above explanation of the foreign-exchange mechanism places the falling external value of the Rupee in recent years in the right perspective.

The Current Account Deficit (CAD) and the Depreciation in the External Value of the Rupee: The balance of trade of the country has been chronically unfavorable, with the value of imports of the country being larger than exports, causing a chronic deficit in the current account of the nation's balance of payments, popularly termed CAD, causing an excess of the demand for foreign exchange over its supply. This has been causing a steady depreciation in the external value of the Rupee. Since the U.S.Dollar is the generally used currency unit in terms of which the exchange values of other currencies, including the Rupee, is expressed, the depreciation in the external value of the Rupee is measured in terms of the price of the Dollar in the Indian foreign exchange market.



The CAD will not lead to depreciation in the value of the Rupee if the country has an offsetting favourable balance in the capital account of the balance of payment, indicating an inflow of foreign exchange in amounts that would meet the excess of demand for foreign exchange. The Rupee will continue to depreciate externally in the absence of such inflow of foreign exchange, as has been the situation in India in recent years.

METHODOLOGY

Paper presenter has undergone an extensive study and review of literature and did an in-depth observation. Basically it is a conceptual paper, the secondary data such as review of literatures, books, journals etc. was referred to make the study more meaningful and comprehensive. It is a descriptive study done

OBJECTIVES

The basic and core objectives of study are;

1. To understand the concept of Rupee devaluation.
2. To study the benefits of Rupee valuation.
3. To analyze the impact of Rupee valuation on industries.

DISCUSSION AND RESULTS

The Data: The data presented in Table-I show the price of the Dollar in terms of the Rupee since the year 2000-01.

Table No. I

Current Account Deficit (CAD) in Balance of Payments and the Price of the U.S.Dollar in terms of the Rupee, 2000-01 to 2011-12

Year	CAD in Balance of Payments in Rs. Crore	% age increase over previous Year in CAD	Rupee Price of U.S. Dollar	%age increase over previous Year in Rupee Price of U.S.D
2000-01	-11598	....	45.68	....
2001-02	16426	241.63	47.69	4.4
2002-03	30660	86.66	48.40	1.49
2003-04	63983	108.69	45.95	-5.06
2004-05	-12174	190.03	44.93	-2.22
2005-06	-43737	259.27	44.27	-1.47
2006-07	-44383	1.48	42.30	-4.45
2007-08	-63479	43.03	40.26	-4.82
2008-09	-127600	101.01	45.99	14.23

2009-10	-179700	40.83	47.42	3.11
2010-11	-219700	22.26	45.58	-3.88
2011-12	-376000	71.14	47.92	5.13

Source: For CAD: Government of India- Economic Survey, 2007-08, PP.A72-73; Economic Survey, 2011-12, PP.A72-73; Economic Survey, 2012-13, PP. A76-77. For Rupee Price of U.S.Dollar: Economic Survey, 2011-12, P.A78, and Economic Survey, 2012-13, P. A80

Note: CAD = Current Account Deficit in Balance of payments.

The data show the depreciation in the external value of the Rupee and the CAD of the country since the year 2000-01. It is enlightening to note that during the period chosen for analysis, the CAD of the country increased from Rs. 11,598 crore in 2000-01 to Rs. 3,76,000 crore in 2011-12., and the Rupee price of Dollar rose from Rs.45.68 in 2000-01 to Rs. 47.92 in 2011-12, thereby indicating a depreciation in the external value of the Rupee. This trend in the CAD of the country and in the external value of the Rupee lends support to the hypothesis that the depreciation in the external value of the Rupee is caused largely by the deficit in the current account of the balance of payments of the country.

It is, however, found that though the CAD of the country and the depreciation of the Rupee are positively related during the period chosen for analysis, 2000-01 to 2011-12, the relationship is found to be weak as shown by the fact that value of Karl Pearson's coefficient of correlation between the two variables, CAD and Rupee price of Dollar, is only 0.19, though positive, supporting, thereby, the positive relationship between them.

a) The Correctives: Exports and imports form only a part of the sources of supply and demand for foreign exchange. The imbalances caused by these factors in the exchange market can be offset by counteracting movement in the international capital transactions which act as the balancing factors in the exchange market. A current account deficit can be offset by an inflow of foreign exchange in the form of inflow of foreign capital or by increasing remittances by the citizens of the country working abroad. If such inflow of foreign exchange offsets the volume of CAD, then CAD will not cause currency depreciation. If, on the other hand, the inflow of foreign exchange on capital account do not offset the CAD, the external; value of the currency will continue to depreciate, as is happening in India in recent years.

b) Complicating Factors: It should be remembered that the actual or market rate of exchange in the exchange market on any day is determined by the interaction between the forces of supply of foreign exchange and the demand for foreign exchange in the foreign exchange market of the country. When there is a deficit in the current account of the balance of payments of the country, the demand for foreign exchange tends to be in excess of the supply of foreign exchange, resulting in a rise in the Rupee price of foreign exchange which indicates a depreciation of the external value of the Rupee. A surplus in the current account of the balance of payments will increase the supply of foreign exchange, causing a fall in the Rupee price of foreign exchange, indicating an appreciation of the external value of the Rupee. The market mechanism points out that such movements correct themselves automatically in the market; when the price of a certain commodity goes up, demand tends to fall causing a fall in its price caused



by the earlier rise in demand for the commodity.

Such automatic and built-in corrective measures do not operate in the exchange market due to the operation of certain complicating factors that vitiate the efficacy of market forces in correcting market disequilibrium. One such vitiating factor is the operation of speculative forces in the foreign exchange market during a period of large fluctuations in exchange rates that open up opportunities for making speculative gains in foreign exchange transactions.

c) Implications: The sharp depreciation in the external value of the Rupee, observed in the country in recent years, makes the imports of the country, particularly essential petroleum products and capital goods that raise the cost of production within the country and result in higher prices and inflation with all its harmful effects. Domestic inflation, caused initially by a depreciating Rupee, discourages exports and aggravates the CAD in the balance of payments of the country, causing further depreciation of the currency in a vicious movement. Effective measures have, therefore, to be initiated at stabilizing the external value of the Rupee. It is positively desirable if thjese measures raise the external value of the Rupee to its Pre-liberalization level.3

d) The Remedial Measures: It is essential that the slide in the external value of the Rupee is controlled and its value is stabilised, not only to avoid the harmful effects of fluctuations on the domestic economy through their effects on the costs of imports, but also because of their adverse impact on the international economic indicators, since the stability of the exchange value of a nation's currency is an immediate and important indicator of its internal economic strength. The following measures can be suggested to stabilize the external value of the Rupee:

i) Measures should be adopted to increase the volume of exports of the country so as to increase export earnings and reduce the CAD in the balance of payments of the country. It is essential that the CAD is converted into a current account surplus, which is not unattainable if the data contained in Table- I above are any indicator. The data show a current account surplus in the balance of payments of the country during the period from 2001-02 to 23003-04. A current account in the balance of payments of the country will increase the supply of foreign exchange leading to an increase in the external value of the Rupee.

ii) Imports of the country have to be reduced through measures at import substitution through domestic production of imported goods, and through the restriction and control of the imports of selected nonessential items like gold4 the imports of which has been increasing in recent years thereby raising the CAD of the country.

iii) Measures have to be adopted to contain the prices of domestic electronic products and other consumption goods, besides improving their quality, so that the relative low prices of such items reducers the craze among the consumers for imported consumer goods.

iv) The inflow of foreign funds on a long term basis, as distinguished from the inflow of 'hot money' should be encouraged so as to increase the supply of foreign exchange

by taking measures to encourage the inflow of such funds.

v) Measures have to be adopted to control speculative transactions in foreign exchange which cause fluctuations in the rate of exchange and in the external value of the Rupee. It may be noted that such speculative transactions in the foreign exchange market occur only when the exchange rate of the Rupee fluctuates widely giving rise to opportunities for making speculative profit, causing, in their turn, further fluctuations in the rate of exchange of the Rupee. The best and effective way of avoiding speculative transactions in the foreign exchange market is to stabilise the exchange value of the Rupee so as to remove the scope for making speculative gains by dealing in the foreign exchange market.

vi) Open market operations in the foreign exchange market by the Reserve Bank, by supplementing the market supply of foreign exchange when the demand for foreign exchange increases and absorbing the excess supply of foreign exchange when it is excessive, to supplement its foreign exchange reserves, a method which the Reserve Bank adopts at times, should be resorted to to contain short term fluctuations in the exchange rate of the Rupee.

vii) Domestic inflation should be effectively controlled and the price level stabilised since in a managed paper currency that prevails at present, unlike the metallic standards of currency that prevailed in the past, the rate of exchange between two currencies depends on their relative domestic purchasing powers, the purchasing power parity theory of the rate of exchange, referred to earlier. This is because money represents purchasing power over goods and services and when the Rupee is exchanged for Dollar it is done with a view to purchasing American goods and services, and hence the comparative purchasing powers of the currencies are important in determining the rate of exchange between them. Effective control on inflation and stabilising the domestic price level will stabilise the external value of the Rupee, besides its favourable domestic effects.

viii) Finally, selective controls on foreign exchange transactions in the country have to be initiated, if it is realised that free convertibility of currency, in the name of economic reforms, has done more harm to the economy than good, since no economic policy is sacrosanct that should not be given up at any cost. Economic policy needs to be modified in the light of experience and changing needs of the economy.

CONCLUSION

The foregoing analysis of the trends and implications of the recent depreciation in the external value of the Rupee shows that the depreciation in the external value of the Rupee is caused by various factors. The depreciation of the Rupee can be checked and its harmful effects can be controlled if concerted action is initiated on the lines suggested above. Since domestic inflation has the effect of depreciating the external value of a nation's currency, it is essential to stabilize domestic price level through effective measures at controlling inflation in the country through the adoption of effective monetary and fiscal measures.

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1) *The words 'depreciation' and 'appreciation' in the external value of a currency are often used to explain the changes in the external value of the currency due to changes in the market forces of supply and demand in the foreign exchange market, as distinguished from 'devaluation' and 'overvaluation' which are deliberate measures at lowering and raising the external value of the currency as a policy measure at adjusting the external purchasing power of the currency. Since the recent falling trend in the external value of the Rupee is the consequence of changing market conditions and not of deliberate official measures, the word 'depreciation' is used in this paper to describe the falling trend in the external value of the Rupee.*

2) *Planned economic development of the Indian economy was initiated with launch of the First Five Year Plan of the country on the first of April, 1951, and hence it is customary among trends in the economic growth and development of the country. Even the official publication of time series data pertaining economists and policy makers in India to consider the year 1951 as the base year to analyse to the national product and domestic product of the country in the annual economic survey reports released annually by the Government of India begin with the year 1950-51 as the base.*

3) *The price of the US Dollar in 1991-92 was Rs.24.474 and that of the Pound Sterling was Rs.42.515. See: Government of India- Economic Survey, 2012-13, Table- 6.4, P. A80.*

4) *Increasing demand for gold in the country in the last three four years causing large scale imports of gold is often blamed for the increasing CAD of the country. It The should be remembered that the cause of increasing CAD is an increase in the imports of the country without a corresponding increase in the exports of the country. Import of gold is just an item of the imports of the country and need not be treated separately. Import of gold is picked up for blame because it is a nonessential item of import. The increasing demand for gold, it may be noted, is due to its store of value function and its suitability as the best form of holding savings during a period of high inflation. If inflation is avoided, and institutional savings are made attractive the increasing demand for gold will disappear by itself.*

Importance of Privacy Policies While Mining Data - A Review

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ABSTRACT

In this paper we first look at data mining applications in safety measures and their suggestions for privacy. After that we then inspect the idea of privacy and give a synopsis of the developments particularly those on privacy preserving data mining. We then present an outline for research on confidentiality and data mining.

Key Word : *Data Mining For privacy Prevention & Its Suggestions.*

Introduction

Data mining is the procedure of posing questions and taking out patterns, often in the past mysterious from huge capacities of data applying pattern matching or other way of thinking techniques. Data mining has several applications in protection together with for national protection as well as for cyber protection. The pressure to national protection includes aggressive buildings, demolishing dangerous infrastructures such as power grids and telecommunication structures. Data mining techniques are being examined to realize who the doubtful people are and who is competent of functioning revolutionary activities. Cyber security is concerned with defending the computer and network systems against fraud due to worms and viruses. Data mining is also being useful to give solutions for invasion finding and auditing. While data mining has several applications in protection, there are also serious privacy fears. Because of data mining, even inexperienced users can connect data and make responsive associations. Therefore we must to implement the privacy of persons while working on practical data mining. In this paper we will talk about the developments and instructions on privacy and data mining. In particular, we will give a general idea of data mining, the different types of threats and then talk about the penalty to privacy.

OBJECTIVES OF STUDY

Objective of this research is to examine data mining applications in security and their implications for privacy. Examine the idea of privacy and then know about the developments particularly those on privacy preserving data mining

DATA MINING FOR SAFETY APPLICATIONS

Data mining is fitting a key technology for identifying doubtful activities. In this section, data mining will be discussed with respect to use in both ways for non real-time and for real-time applications. In order to complete data mining for counter terrorism applications, one wants to gather data from several sources. For example, the subsequent information on revolutionary attacks is wanted at the very least: who, what, where, when, and how; personal and business data of the possible terrorists: place of birth, religion, education, ethnic origin, work history, finances, criminal record, relatives, friends and associates, and travel history; unstructured data: newspaper articles, video clips, dialogues, e-mails, and phone calls. The data has to be included, warehoused and mined. One wants to develop sketches of terrorists, and activities/threats. The data has to be mined to take out patterns of possible terrorists and forecast future activities and goals. Fundamentally one wants to find the more suitably doubtful needles among probably millions of needles. Data integrity is essential and also the methods have to scale. For several applications such as urgent situation response, one needs to complete real-time data mining. Data will be incoming from sensors and other strategy in the form of nonstop data streams together with breaking news, videocassette releases, and satellite images. Some serious data may also exist in caches. One wants to quickly sift through the data and remove redundant data for shortly use and analysis (non-real-time data mining). Data mining techniques require to meet timing restriction and may have to stick the quality of service (QoS) tradeoffs among suitability, accuracy and precision. The consequences have to be accessible and visualized in real-time. Additionally, alerts and triggers will also have to be employed. Efficiently applying data mining for safety applications and to develop suitable tools, we need to first find out what our present capabilities are. For instance, do the profitable tools balance? Do they effort only on particular data and limited cases? Do they carry what they assure? We require a balanced objective study with display. At the same time, we also require to work on the large picture. For instance what do we desire the data mining tools to carry out? What are our end consequences for the predictable future? What are the standards for achievement? How do we assess the data mining algorithms? What test beds do we construct? We require both a near-term as well as longer-term resolutions. For the future, we require to influence present efforts and fill the gaps in a objective aimed way and complete technology transfer. For the longer-term, we require a research and development diagrams. In summary, data mining is very helpful to resolve security troubles. Tools could be utilized to inspect audit data and flag irregular behavior. There are many latest works on applying data mining for cyber safety applications, Tools are being examined to find out irregular patterns for national security together with those based on categorization and link analysis. Law enforcement is also using these kinds of tools for fraud exposure and crime solving.

PRIVACY SUGGESTIONS

We require finding out what is meant by privacy before we look at the privacy suggestions of data mining and recommend efficient solutions. In fact different societies

have different ideas of privacy. In the case of the medical society, privacy is about a patient finding out what details the doctor should discharge about him/her. Normally employers, marketers and insurance corporations may try to find information about persons. It is up to the individuals to find out the details to be given about him. In the monetary society, a bank customer finds out what financial details the bank should give about him/her. Additionally, retail corporations should not be providing the sales details about the persons unless the individuals have approved the release. In the case of the government society, privacy may get a whole new significance. Permitting access to individual travel and spending data as well as his/her web surfing activities should also be provided upon receiving permission from the individuals. Now that we have explained what we signify by privacy, we will now check up the privacy suggestion of data mining. Data mining provides us facts that are not clear to human analysts of the data. For instance, can general tendency across individuals be calculated without enlightening details about individuals? On the other hand, can we take out highly private relations from public data? In the former case we require to protect the person data values while enlightening the associations or aggregation while we need to defend the associations and correlations between the data.

GROWTH IN PRIVACY-

Different types of privacy problems have been considered by researchers.

We will point out the various problems and the solutions projected.

1. Problem: Privacy contraventions that consequence due to data mining: In this case the way out is Privacy protecting data mining. That is, we perform data mining and give out the results without enlightening the data values used to perform data mining.
2. Problem: Privacy contraventions that result due to the Inference problem. Note that Inference is the procedure of realizing sensitive data details from the lawful answers received to user inquiries. The way out to this problem is Privacy Constraint Processing.
3. Problem: Privacy contravention due to un-encrypted data: the way out to this problem is to make use of Encryption at different levels.
4. Problem: Privacy contravention due to poor system design. Here the way out is to build up methodology for designing privacy-enhanced systems. Below we will observe the ways out projected for both privacy constraint/policy processing and for privacy preserving data mining.
5. Simple Constraint: an aspect of a document is private. Content footed constraint: If document holds information about X, then it is private.
6. Association-based Constraint: Two or more documents used together are private; individually each document is public.
7. Free constraint: After X is freed Y becomes private. The way out projected is to augment a database system with a privacy checker for constraint processing. During the inquiry process, the constraints are checked up and only the public information is freed unless certainly the user is approved to obtain the private information. Our



approach also contains processing constraints during the database update and design operations.

Some early work on managing the privacy problem that consequence from data mining was performed by Clifton at the MITRRE Corporation. The suggestion here is to avoid useful outcomes from mining. One could initiate cover stories to provide false outcomes. Another approach is to only build a sample of data existing so that a challenger is not capable to come up with helpful rules and analytical functions. However these approaches did not impression as it beatenthe idea of data mining. The objective is to perform effective data mining but at the same time guard individual data values and sensitive relations. Aggrawal was the first to invent the word privacy preserving data mining. His early work was to initiate random values into the data or to bother the data so that the real data could be confined. The challenge is to initiate random values or agitate the values without touching the data mining results. Another new approach is the Secure Multi-party Computation (SMC) by Kantarcioglu and Clifton. Here, each party knows its individual contribution but not the others' contributions. Additionally the final data mining outcomes are also well-known to all. Various encryption techniques utilized to make sure that the entity values are protected. SMC was demonstrating several promises and can be used also for privacy preserving scattered data mining. It is provably safe under some suppositions and the learned models are correct; It is assumed that procedures are followed which is a semi truthful model. Malicious model is also investigated in some current work by Kantarcioglu and Kardes. Many SMC footed privacy preserving data mining algorithms contribute to familiar sub-protocols (e.g. dot product, summary, etc.). SMC does have any disadvantage as it's not competent enough for very large datasets. (E.g. petabyte sized datasets). Semi-honest model may not be reasonable and the malicious model is yet slower. There are some novel guidelines where novel models are being discovered that can swap better between efficiency and security. Game theoretic and motivation issues are also being discovered. Finally merging anonimization with cryptographic techniques is also a route. Before performing an evaluation of the data mining algorithms, one wants to find out the objectives. In some cases the objective is to twist data while still preserving some assets for data mining. Another objective is to attain a high data mining accuracy with greatest privacy protection. Our current work imagines that Privacy is a personal preference, so should be individually adjustable. That is, we want to make privacy protecting data mining approaches to replicate authenticity. We examined perturbation based approaches with real-world data sets and provided applicability learning to the existing approaches. We found that the rebuilding of the original sharing may not work well with real-world data sets. We attempted to amend perturbation techniques and adjust the data mining tools. We also developed a new privacy preserving decision tree algorithm. Another growth is the platform for privacy preferences (P3P) by the World Wide Web association (W3C). P3P is an up-and-coming standard that facilitates web sites to convey their privacy practices in a typical format. The format of the strategies can be robotically recovered and appreciated by user agents. When a user comes in a web site, the privacy policies of the web site are communicated to the user; if the privacy policies are dissimilar from user favorites, the user is notified; User can then make a decision how to continue. Several major corporations

are working onP3P standards.

DIRECTIONS FOR PRIVACY-

Thuraisingham verified in 1990 that the inference problem in common was unsolvable; therefore the suggestion was to discover the solvability features of the problem. We were able to explain comparable results for the privacy problem. Therefore we need to inspect the involvement classes as well as the storage and time complication. We also need to discover the base of privacy preserving data mining algorithms and connected privacy ways out. There are various such algorithms. How do they evaluate with each other? We need a test bed with practical constraints to test the algorithms. Is it meaningful to observe privacy preserving data mining for each data mining algorithm and for all application? It is also time to enlarge real world circumstances where these algorithms can be used. Is it possible to build up realistic commercial products or should each association get used to products to suit their needs? Investigative privacy may create intelligence for healthcare and monetary applications. Does privacy work for Defense and Intelligence purposes? Is it even important to have privacy for inspection and geospatial applications? Once the image of my home is on Google Earth, then how much isolation can I have? I may wish for my position to be private, but does it make sense if a camera can detain a picture of me? If there are sensors all over the position, is it important to have privacy preserving surveillance? This proposes that we require application detailed privacy. Next what is the connection between confidentiality, privacy and faith? If I as a user of Association A send data about me to Association B, then imagine I read the privacy policies imposed by Association B. If I agree to the privacy policies of Association B, then I will drive data about me to Association B. If I do not concur with the policies of association B, then I can bargain with association B. Even if the website affirms that it will not distribute private information with others, do I faith the website? Note: while secrecy is enforced by the association, privacy is strong-minded by the user. Therefore for confidentiality, the association will conclude whether a user can have the data. If so, then the association can additional decide whether the user can be trusted. Another way is how can we make sure the confidentiality of the data mining procedures and outcome? What sort of access control policies do we implement? How can we faith the data mining procedures and results as well as authenticate and validate the results? How can we join together confidentiality, privacy and trust with high opinion to data mining? We need to check up the research challenges and form a research schema. One question that Rakesh Agrawal inquired at the 2003 SIGKDD panel on Privacy"Is privacy and data mining friends or rivals?" We think that they are neither associates nor rivals. We need progresses in both data mining and privacy. We require planning flexible systems. For some applications one may have to hub entirely on pure data mining while for some others there may be a need for privacy-preserving data mining. We need flexible data mining techniques that can settle in to the changing environments. We consider that technologists, legal specialists, social scientists, policy makers and privacy advocates MUST work together.

CONCLUSION

There is no collective definition for privacy, each organization must clear-cut what it indicates by privacy and develop suitable privacy policies. Technology only is not adequate for privacy; we require Technologists, Policy expert, Legal experts and Social scientists to effort on Privacy. Some well acknowledged people have believed "Forget about privacy" Therefore, should we follow research on Privacy? We trust that there are attractive research problems; therefore we need to carry on with this research. Additionally, some privacy is better than nil. One more school of consideration is tried to avoid privacy destructions and if destructions take place then put on trial. We need to put into effect suitable policies and check up the legal aspects. We need to undertake privacy from all directions.

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Emerging Trends in Talent Acquisition and Retention in The Organisations

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ABSTRACT

In today's global economy, companies must continually invest in human capital. In the role of business Partner, HR leaders work closely with senior management to attract, hire, develop and retain talent. Thus, in view of workforce trends such as shifting demographics, global supply chains, the aging workforce and increasing global mobility, forward-looking organizations must rethink their approach to talent management to best harness talent. By doing so, they will be positively positioned to succeed in a highly competitive marketplace. In addition, organizational culture, employee engagement and leadership development have a significant impact on talent retention. Taking these factors into consideration, an integrated approach to talent management offers a pathway toward sustaining outstanding business results. This paper aims to contribute to the development of a broader, more balanced approach to talent management that will help in studying and implementing talent management across different contexts. The paper starts with an overview of the advances made in previous reviews and studies with respect to three central themes: the definition of talent, intended outcomes of talent management, and talent management practices.

Key Words : *Talent Management, global economy, human capital, employee engagement.*

OBJECTIVES

- To know about the need of Talent Management in the organizations.
- To know about the challenges in front of the talent acquisition and retention in the organizations.
- To understand about the emerging trends in the talent acquisition and retention in the organizations.

RESEARCH METHODOLOGY

The researcher has used Descriptive type of research methodology for this study.

The researcher has used the secondary data for the current study.

1. Introduction : "It is nearly unanimous that HR can add more value to corporations. The best way to do this is by being a business partner—by directly improving the



performance of the business. This can be accomplished by effective talent management, helping with change management, influencing strategy and a host of other value-added activities that impact effectiveness. In a competitive marketplace, talent management is a primary driver for organizational success. Broadly defined, talent management is the implementation of integrated strategies or systems designed to increase workplace productivity by developing improved processes for attracting, developing, retaining and utilizing people with the required skills and aptitude to meet current and future business needs. A recent study shows that 85% of HR executives state that the "single greatest challenge in workforce management is creating or maintaining their companies' ability to compete for talent. Effective talent management provides one of the most critical points of strategic leverage today. Influenced by external factors such as the economy, global expansion and mergers and acquisitions, critical success factors for effective talent management include alignment with strategic goals, active CEO participation and HR management. Going beyond succession planning for top leadership positions, companies that value talent have a deep appreciation for the contribution of individuals at all levels, now and for the future. In essence, talent is the vehicle to move the organization where it wants to be.

2. Drivers of Talent Management : To gain competitive advantage, the demand for human capital drives talent management. Talent management strategies focus on five primary areas: attracting, selecting, engaging, developing and retaining employees. Talent management strategies also provide the context for diversity and inclusion. Proctor and Gamble, for example, feels that getting the right mix of people is a major part of talent management and hires many of its leaders as university recruits. Talent management is also driven by the anticipated skills shortage in the coming years. While not all organizations, industries and professions will experience a lack of skills, organizations are already competing for talent. For example, customer service, health care, computer support and technology repair are areas where there is an anticipated acute talent shortage. In addition, as noted in SHRM's 2005 Future of the U.S. Labor Pool Survey Report, the anticipated loss of talent in the next decade will vary by organization size, sector and industry. For example, large organizations— as compared with small and medium companies— are more concerned about loss of talent from the retirement of the baby boom generation, and public and government organizations are more concerned about the loss of potential talent than private companies. Corporate branding, a key organizational strategy, is another business strategy that drives talent management. Increasingly, firms are linking their brand to employees and corporate behavior. At JP Morgan Chase, for example, the concept of leadership for all employees is part of its corporate branding: "One Firm, One Team, Be a Leader."

3. Ownership of Talent Management : While responsibility for talent management is shared throughout the organization—from the CEO to the line manager—the role of HR is to identify and deploy optimal strategies to engage employees by driving satisfaction, loyalty and retention. Commitment to talent management requires HR to be a strategic business partner That is, all levels of management must be on board with the importance of talent management strategies. When the board is involved, the value of talent management

is apparent and has high visibility. At the same time, for talent management initiatives to be effective, organizations need formal processes, with many people involved and with strong links between leadership and talent to translate into specific organizational value-based behaviors. For example, an employee's decision to stay or leave is related to career possibilities in the company as well as how he or she can become better prepared to move to other opportunities. To keep a valued employee, the easy answer is not merely compensation. Employee loyalty tends to be more directed to his or her professional skills rather than to the organization. Thus, to best attract, engage, develop and retain talent, those who have responsibility for talent management must understand what is important to employees.

4. The Role of HR : In the role of business partner, HR works closely with the board, the CEO and senior management to ensure that they are committed to talent management work. As talent management facilitator, HR also pays close attention to how the organization's culture supports talent. HR needs to develop an integrated and proactive strategic approach to talent management—the big picture—as well as managing critical information, such as tracking turnover and knowing what factors contribute to retention. To integrate talent management into all areas of the company, HR also plays a role of change management agent. To drive this change, HR addresses four diverse talent management activities: recruitment, performance management, leadership development and organizational strategy. In this role, HR manages four major risks to the business: 1) vacancy risk (to safeguard key business capabilities, focus on scarce skills and fit to position); 2) readiness risk (to accelerate leadership development, provide full business exposure to rising stars); 3) transition risk (to avoid loss of key talent, select successors with leadership ability and hire for organization capability); and 4) portfolio risk (to maximize strategic talent leverage, focus on senior management's commitment to development and performance standards).

5. Employee Engagement and Its Relationship to Talent Management : Employee engagement has a substantial impact on employee productivity and talent retention. The foundation for an engaged workforce is established by the quality, depth and authenticity of communication by HR and senior management to employees, as well as the quality of supervision. Practices that support talent management also support employee engagement (e.g., work-life balance programs—flex time, telecommuting, compressed workweeks, reward programs, performance management systems). Rewards and recognition also help both to retain talent and to improve performance. To be most effective, however, organizations must regularly communicate to employees about reward programs. Discussing reward programs as early as during the interview process demonstrates that the organization values its employees. Beyond compensation and benefits, employee engagement is best fostered through a meaningful and emotionally enriching work experience. The opportunity and challenge for HR, working with senior management, is to increase the strength of employee engagement. Focus on engagement demands strong leadership, a sense of shared destiny, autonomy, accountability and opportunities for development and advancement. To better engage workers, companies must work harder to inspire people and provide a sense of passion, pride and mission. Ultimately, it is



organizational culture that determines employee engagement and retention of talent.

6. Finding The Right People : In the war for talent, organizational success depends on effective recruitment and retention. To accomplish this goal, HR can provide value by focusing on five key areas: ensuring organizational stability, emphasizing employer brand and reputation, developing integrated talent strategies, supporting multilevel accountability, getting involved in talent management initiatives and offering opportunities for career and personal development. According to SHRM's 2006 Talent Management Survey Report, the top areas in need of improvement regarding talent management practices and strategies are 1) building a deeper reservoir of successors at every level; 2) creating a culture that makes employees want to stay with the organization; 3) identifying gaps in current employee and candidate competency levels; and 4) creating policies that encourage career growth and development opportunities. For example, women who have either not yet begun their careers or are reentering the labor market from childbearing years represent a sizeable talent pool. With a workplace environment supportive of women's career development, Whirlpool Corporation, a top U.S. home appliance maker, targets women in recruiting and promotion. Some organizations focus on workers with disabilities, an excellent source of talent. For example, at IBM, 42% of the organization's disabled workers possess key skills such as marketing, IT architecture and software engineering. By carefully assessing the organization's current and future talent needs, HR can develop recruiting and retention strategies that align with the company business goals, thus promoting organizational growth and sustainability.

7. Succession Planning Management : Under the talent management umbrella, succession planning and leadership development are important organizational business strategies to develop and retain talent. As noted in the 2005 Human Capital Index Report, succession planning is also one of the key strategies to reduce turnover costs. S.C. Johnson & Son, the consumer products company, is a good example of a company that uses its performance appraisal program to identify rising stars for management and technical positions. High performers are evaluated through 360-degree feedback to evaluate promotion readiness. The company has processes to identify ready replacements for crucial jobs. Due to the organization's carefully-honed talent development strategies, nine out of 10 positions are filled internally. As HR leaders work to support their organizations, leadership development and succession planning are areas that provide substantial business value.

8. Measuring Business Impact : Many firms are beginning to include talent management in their dashboards or scorecards. For example, HSBC, a banking and financial services institution, uses the Balanced Scorecard, with talent management listed under learning and growth. Scorecards provide a clear "line of sight" to organizational strategic goals by linking talent management to objectives and performance appraisals. Companies also create their own measurements to fit their organizational cultures. Pfizer, for example, developed three primary talent management objectives— strength of leadership team and pipeline, robustness of talent management processes, and development of talent mindset and values—with corresponding drivers and metrics. One metric used to evaluate the

robustness of talent management processes is the percentage of key position holders with individual development plans. Avon, a global cosmetics company, is an example of a company that transformed its talent management system by shifting how it looks at talent and consequently how it utilizes technology. This transformation was necessary to be able to answer four key questions: 1) is there the necessary bench strength to staff the organization's growth and transformation initiatives; 2) is world-class talent in key roles; 3) how can the talent "hit rate" be increased; and 4) when and where does the company make or buy talent? To be able to identify where talent in the organization is located, a database now houses employee profiles, which can be routinely updated. As a result, the organization can make more data-driven decisions regarding talent. Databases with all relevant data in one location can result in significant time savings for staffing, such as the ability to quickly identify talent for open positions. Organizations are recommended, however, to carefully evaluate which talent management technology program best fits their current and future needs. Strategic talent management software may help, manage workforce skills and capabilities (hourly, salaried and contingent), demographics, career planning, employee retention initiatives, workforce and succession planning, and performance and learning management.

9. Challenges of Global Talent Management : Global competition for skilled workers is keen; worldwide, many employers are experiencing a talent shortage. A survey of nearly 33,000 employers in 23 countries reveals that 40% are struggling to locate qualified candidates .Increased globalization has resulted in socio-economic and cultural challenges. Further, talent now takes many forms, from migrants crossing borders (temporarily or seeking new homes), students gaining degrees and expatriates on assignment to tourists and business travelers Thus, the need for talent creates movement between countries. The United States relies on foreign talent, particularly in certain fields. U.S. universities, for example, are not graduating enough U.S. students in science and engineering, and by 2015, 25% of the nation's scientists and engineers will reach retirement age. Reflecting this shift, in 2000, 22% of all U.S. science and engineering positions were held by foreign-born professionals, up from 14% in 1990. In contrast, countries such as China and India have a wealth of talent in science, engineering and technology. Each year, China produces 350,000 graduate engineers and India 120,000, compared with 63,000 in the United States. Clearly, the ability to attract and retain talent is increasingly important to long-term growth. Managing global talent has challenges and significant implications for sustainability and growth. A recent study of global companies, for example, states that companies are concerned about the development of future leaders capable of navigating the global business environment. Key findings show that the most important determinant of global talent management (GTM) success is the degree of involvement by the CEO, the board of directors and the GTM leader in talent management activities.

OPERATION PRINCIPLES APPLIED TO TALENT MANAGEMENT

A supply chain perspective on talent management relies on four principles, two that address the risks in estimating demand and two that address the uncertainty of supply.

Principle 1 : Make and Buy to Manage Risk : A deep bench of talent is expensive, so companies should undershoot their estimates of what will be needed and plan to hire from outside to make up for any shortfall. Some positions may be easier to fill from outside than others, so firms should be thoughtful about where they put precious resources in development: Talent management is an investment, not an entitlement

Principle 2 : Adapt to the Uncertainty in Talent Demand : Uncertainty in demand is a given, and smart companies find ways to adapt to it. One approach is to break up development programs into shorter units: Rather than put management trainees through a three-year functional program, for instance, bring employees from all the functions together in an 18-month course that teaches general management skills, and then send them back to their functions to specialize. Another option is to create an organization-wide talent pool that can be allocated among business units as the need arises.

Principle 3 : Improve the Return on Investment in Developing Employees : One way to improve the payoff is to get employees to share in the costs of development. That might mean asking them to take on additional stretch assignments on a volunteer basis. Another approach is to maintain relationships with former employees in the hope that they may return someday, bringing back your investment in their skills.

Principle 4 : Preserve the Investment by Balancing Employee-Employer Interests : Arguably, the main reason good employees leave an organization is that they find better opportunities elsewhere. This makes talent development a perishable commodity. The key to preserving your investment in development efforts as long as possible is to balance the interests of employees and employer by having them share in advancement decision

CONCLUSION :

The talent problems of employers, employees, and the broader society are intertwined. Employers want the skills they need when they need them, delivered in a manner they can afford. Employees want prospects for advancement and control over their careers. The societies in which they operate and the economy as a whole need higher levels of skills—particularly deeper competencies in management—which are best developed inside companies But before an old paradigm can be overthrown there must be an alternative, one that describes new challenges better than the old one can. Talent on demand gives employers a way to manage their talent needs and recoup investments in development, a way to balance the interests of employees and employers, and a way to increase the level of skills in society.

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Mobile Phone Cloning

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ABSTRACT

Some of the features of mobile communication make it an attractive target for criminals. It is a relativelynew invention, so not all people are familiar with its possibilities, in good or in bad. Cloning is harmful to mobile phone.Mobile cloning is copying the identity of one mobile telephone to another mobile telephone. It is also known as cell phone piracy and has been taking place throughout the world .Usually this is done for the purpose of making fraud telephone calls. The bills for the calls go to the proper subscriber. The cloner is also able to make effectively unknowns calls, which attracts another group of interested users. In Cloning, the programmed information is taking which is stored in a proper mobile phone and illegally programming the identical information into another mobile phone. The result is that the "cloned" phone can make and receive calls and the charges for those calls are billed to the proper subscriber. There is no technique to identify which phone is the proper phone and the "cloned" phone. Recently this crime has come to India.

This paper describe about mobile phone cloning with implementation in GSM and CDMA technology phones . CDMA and GSM technology gives way of preventing cloning and future threat of this fraud being studied.

INTRODUCTION

Remember Dolly the young sheep, cloned from a six-year-old ewe in 1997, by a group of researchers at the Roslin Institute in Scotland. For the first time, we are faced with a more harmful version of cloning and this time it is your cell phone that is the target.

A cell phone user if you have been receiving very high bills for calls that were never placed, chances are that your cell phone could be cloned. Unfortunately, there is no way the subscriber can detect cloning.

Cloning occurs most frequently in areas of high cell phone usage – airports, shopping malls, concert halls, sports stadiums, and high traffic areas in metropolitan cities.

How cell phone works?

Cell phones send radio frequency transmissions through the air on two distinct channels, one for voice communications and the other for control signals. When a cellular

phone makes a call, it normally transmits its Electronic Security Number (ESN), Mobile Identification Number (MIN), its Station Class Mark (SCM) and the number called in a short burst of data. This burst is the short buzz you hear after you press the SEND button and before the tower catches the data. These four things are the components the cellular provider uses to ensure that the phone is programmed to be billed and that it also has the identity of both the customer and the phone. MIN and ESN is collectively known as the 'Pair' which is used for the cell phone identification.

When the cell site receives the pair signal, it determines if the requester is a proper registered user by comparing the requester's pair to a cellular subscriber list. Once the cellular telephone's pair has been recognized, the cell site emits a control signal to permit the subscriber to place calls at will. This process, known as unknown Registration, is carried out each time the telephone is turned on or picked up by a new cell site.

WHAT IS CELL PHONE CLONING?

Cell phone cloning is copying the identity of one mobile telephone to another mobile telephone.

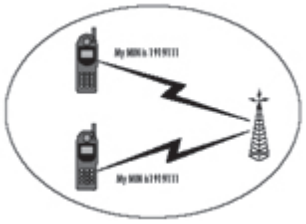


Fig. Cellular Phone cloning

Loop holes in Cell phone Networks

ESN/MIN data is NOT encrypted on the way to the MSC (Mobile Switching Centre) for further authentication. Thus, scanning the airwaves for this data if you wish to clone a phone. By changing ESN and MIN, the cellular carrier will accept the call and bill it to either a wrong account or provide service based on the fact that it is NOT a disconnected receiver. It will also look at the other two components, in order to insure that it is actually a cellular phone and to forward billing information to that carrier.

The Station Class Mark can also be changed if you wish to prevent the cellular carrier from determining the type of phone that is placing the call. By providing the cellular tower with a false SCM, the cellular carrier, the FCC, or whoever happens to chase down cellular fraud is often looking for a particular phone which in reality is not the phone they are looking for.

The Number Assignment Module (NAM) also has the SIDH (System Identification for Home System) number programmed into it. The transmittal of the SIDH number tells the carrier where to forward the billing information to in case the user is "roaming". The SIDH table tells the major cities and their identifying numbers. Changing an SIDH is

programming job that takes only minutes, but be aware that the ESN is still sent to the cellular phone company. After they realize that the ESN is connected to either a fake number or a phone that is not in the network, they will block service. They only way around this is to reprogram the ESN.

HOW TO IDENTIFY OUR PHONE IS CLONED?

There's nothing that can help a subscriber detect cloning. There are several techniques that can be adopted by service providers . However, huge mobile bills could act as a problem for subscribers.

GSM - Global System for Mobile Communications. A digital cellular phone technology based on TDMA GSM phones use a Subscriber Identity Module (SIM) card that contains user account information. Any GSM phone becomes immediately programmed after plugging in the SIM card, thus allowing GSM phones to be easily rented or borrowed. Operators who provide GSM service are Airtel, Hutch etc.

CDMA - Code Division Multiple Access. A method for transmitting simultaneous signals over a shared portion of the spectrum. There is no Subscriber Identity Module (SIM) card unlike in GSM.Operators who provides CDMA service in India are Reliance and Tata Indicom.

Identifying the ESN in your Cellular Phone

Depending on what model phone you have, the ESN will be located on a PROM. The PROM is programmed at the factory, and installed usually with the security fuse blown to prevent tampering. The code on the PROM might possibly be obtained by unsoldering it from the cellular phone, putting it in a PROM reader, and then obtaining a memory map of the chip.

The PROM is going to have from sixteen to twenty-eight leads coming from it. It is a bipolar PROM. The majority of phones will accept the National Semiconductor 32x8 PROM, which will hold the ESN and cannot be reprogrammed. If the ESN is known on the phone, it is possible to trace the memory map by installing the PROM into a reader, and obtaining the fuse map from the PROM by triggering the "READ MASTER" switch of the PROM programmer. In addition, most PROM programming systems include verify and compare switch to allow you to compare the programming of one PROM with another. As said earlier, the ESN is uniformly black with sixteen to twenty-eight leads making from its rectangular body, or square shaped body. If it is the dual-in-line package chip (usually found in transportable and installed phones) it is rectangular. If it is the plastic leaded chip carrier (PLCC), it will be square and have a much smaller appearance. Functionally, they are the same chip, but the PLCC is used with hand held cellular phones because of the need for reduced size circuitry.

ESN Replacement.

De-solder the ESN chip. Solder in a zero insertion force (ZIF) replacement, so that replacement chip can be changed easily.



After the ZIF socket has been successfully soldered in, reinsert the ESN and attempt to make a phone call (Be sure the NAM is programmed correctly). If it doesn't, check the leads on the ZIF to insure that you have soldered them correctly.

After that, insert your ESN into your PROM reader and make sure it provides some sort of reading. You should use the search mode to look for the manufacturer's serial number to identify the address on the PROM where to reprogram the ESN.

ARE OUR CELL PHONES SECURED?

Too many users treat their mobile phones as gadgets rather than as business property covered by corporate security policy. Did you realize there's a profitable black market in stolen and "cloned" Sim cards? This is possible because Sims are not network specific and, though tamper-proof, their security is to crack. In fact, a Sim can be cloned many times and the resulting cards used in numerous phones, each feeding illegally off the same bill.

How is a phone cloned?

The "cloning" occurs when the account number of a victim telephone user is stolen and reprogrammed into another cellular telephone. Each cellular phone has a unique pair of identifying numbers : the electronic serial number (ESN) and the mobile identification number (MIN).

The ESN/MIN pair can be cloned in a number of ways without the knowledge of the carrier or subscriber through the use of electronic scanning devices. After the ESN/MIN pair is captured, the cloner reprograms or alters the microchip of any wireless phone to create a clone of the wireless phone from which the ESN/MIN pair was stolen. The entire programming process takes 10-15 minutes per phone. Any call made with cloned phone are billed to and traced to a proper phone account. Innocent citizens end up with unexplained monthly phone bills.

CAN CALLS ON CLONED PHONE BE TRACKED?

Yes. A SIM can be cloned again and again and they can be used at different places. Messages and calls can track sent by cloned phones. However, if the accused manages to also clone the IMEI number of the handset, for which software is available, there is no way the cell can be traced.

HOW TO PREVENT CELL CLONING?

Uniquely identifies a mobile unit within a wireless carrier's network. The MIN often can be dialed from other wireless or wire line networks. The number differs from the electronic serial number (ESN), which is the unit number assigned by a phone manufacturer. MINs and ESNs can be checked electronically to help prevent fraud. Mobiles should never be trusted for communicating/storing confidential information. Always set a Pin that's required before the phone can be used.

Check that all mobile devices are covered by a corporate security policy. Ensure one person is responsible for keeping tabs on who has what equipment and that they update the central register. How do service providers handle reports of cloned phones?

proper subscribers who have their phones cloned will receive bills with charges for

calls they didn't make. Sometimes these charges amount to several thousands of dollars in addition to the proper charges.

Typically, the service provider will assume the cost of those additional fraud calls. However, to keep the cloned phone from continuing to receive service, the service provider will terminate the proper phone subscription. The subscriber is then required to activate a new subscription with a different phone number requiring reprogramming of the phone, along with the additional headaches that go along with phone number changes.

ARE THESE METHODS EFFECTIVE?

Yes, for the most part. However, Authentication is the most robust and reliable method for preventing cloning fraud and it is the only industry "standard" method for eliminating cloning. The fact that it is standardized means that all mobile telecommunications networks using IS-41 can support Authentication. There is no need to add suitable equipment, software, or communications protocols to the networks to prevent cloning fraud.

Future Threats.

Resolving subscriber fraud can be a long and difficult process for the victim. It may take time to discover that subscriber fraud has occurred and an even longer time to prove that you did not incur the debts. As described in this article there are many ways to abuse telecommunication system, and to prevent abuse from occurring it is absolutely necessary to check out the weakness of existing telecom systems. If it is planned to invest in new telecom equipment, a security plan should be made and the system tested before being implemented. It is therefore mandatory to keep in mind that a technique which is described as safe today can be the most unsecured technique in the future.

CONCLUSION-

Existing cellular systems have a number of potential weaknesses that were considered. A technique which is described as safe today can be the most unsecured technique in the future.Presently the cellular phone industry relies on common law (fraud and theft) and in-house counter measures to address cellular phone fraud. It is essential that intended mobile crime to make law be comprehensive enough to incorporate cellular phone fraud, in particular "cloning fraud" as a specific crime.

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Management of Library & Information Centres

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ABSTRACT

Management is the term, which is familiar to almost everyone as a process or an activity that brings together several resources like persons, materials, techniques and technologies to accomplish a task or tasks. These tasks may pertain to performing a variety of functions of an organization like university, college or a library. Library management is the process of organized activity consisting of operations and the librarian as a leader must resort to the art of working through motivating others and directing them towards objectives. The librarian as a manager of the library, therefore, must be able to achieve some good results by planning, organizing, staffing, controlling. He should be able to induce or persuade his staff to put their maximum efforts willingly, he must have the ability to inspire and motivate his staff to get the best out to them, he should also have a quality of decision making, effective decision is very important in the routine matters. A librarian who is well versed with the theory of management may be able to do his duties effectively and efficiently.

Keywords : *Library Management, Library Functions, TQM in Libraries, HRM in Library, Library Manager.*

NEED OF MANAGEMENT IN LIBRARIES

Today, the library and their information systems are the complex organizations committed to serve the users demands. Libraries have growth with times in the social, cultural, scientific and technological environments in which they have been developing and operating. Modern libraries are not merely store house of information and knowledge, but are also live and active institutions involved in a vital service to the society. Today information and knowledge are considered as important as energy and biotechnology and hence have to be taken care of and managed well. Therefore in the libraries, the theories and principles of scientific management are being increasingly applied to manage them.

MERITS OF MANAGEMENT IN LIBRARIES :

1. It helps the librarian in putting facts : The main goal of the libraries are to provide optimum better library service to the people of the society in response to the money paid by them the form of library tax or cess. Libraries are the growing organisms, hence the growth is seen in every part of the libraries. Therefore the libraries need additional amount of grants every year for providing these extra services. Everybody wants to know why

additional grant is requiring? They wish to know the real facts for the said demands. The librarian as a manager of the library could have the base for answering these questions, it management is applied scientifically. In this way we can say that scientific management helps the librarians in putting real facts and their reasons before the public.

2. It helps in increasing the working efficiencies of the staff : Most of the routine hobs of the libraries are of repeated and mechanized nature, i.e. the possibility of their occurring repeatedly. Hence the routine hobs should be analyzed qualitatively for improving them. The daily routine of the libraries are acquisition order, circulation, shelving of books etc. Therefore the scientific management is applied in these daily routines of the libraries, they may be improved by efficiencies.

3. It is the tool for personnel and financial management of the library : Job analysis is the main principle of scientific management. It also functions as a key for division of work between the library staff. The librarian, who is to manage the library, can determine the quantity of the worker, done by every library works, if he is managing the library on scientific basis. He gets success in measurement of the work done by each worker of the library by his ability and intelligence used in applying scientific management.

IMPORTANCE OF SCIENTIFIC MANAGEMENT IN LIBRARIES :

The implementation of management techniques in libraries have become necessary to active the exact timely and personalized information service. Management techniques in libraries began to attract attention in the mid 1950s when the libraries come to be recognized as community resources. With the management techniques the libraries with their limited resources try to maximize their public service. The theory of library management has developed over the years in different countries.

1. ***Top management :*** In a university library VC and university librariean are included in the top managements as they are the administrators and executives of the library and they are decision makers and policy makers of the library activities also.
2. ***Middle management :*** In the middle management the deputy librarian and assistant librarians are included. Deputy librarians are the heads of departments, through these persons the top management yields his authority and gets the jobs done.
3. ***Lower management :*** In libraries, the third level consists of professional assistants, classifier, cataloguers, office staff etc. The works of the personnels of lower level management are under the control of middle management.

The scientific principles of management can be profitably applied to the following library jobs which are amenable to proper analysis.

1. Frequently performed jobs such as duplicate checking, typing book orders, classifying, book numbering, reproducing cards, filling cards, book charging and discharging and book shelving.
2. Repetitive jobs involving recurrence of same steps each time a jobs performed, such as book charging and discharging.



3. Jobs requiring frequent movement of people or equipment such as physical arrangement between acquisition and technical sections, public catalogue, major bibliographical tools, references, lending and circulation sections.
4. Jobs with bottlenecks such as delay caused in labeling or confusion in describing call numbers written in ink on the spines of book.
5. Jobs involving large amounts of money such as provision of reference service in a large library. Job-costing or cost-accounting is very useful in such case.

FUNCTIONS OF MANAGEMENT

Management is a process or an activity that brings together varied functions of the organization. Hence it is said that Management is what Management does, which points out the functional approach to any type of management and emphasizes the importance of distinctive managerial functions. All managers should perform all managerial functions of planning, organizing, directing and controlling. To these four basic managerial functions we may add staffing, directing, reporting and budgeting also. The Acronym POSTCORB stands for these functions.

1. ***Planning :*** In an organization planning is the first function performed by a manager, which begins with the setting of objectives of the organization. This is done through planning. The planning of an organization involves developing objectives, strategies, policies, procedures, programs etc.
2. ***Organizing :*** After planning, the second task is to determine and identify the activities needed to realize the plan separate them into blocks or departments, put them in change of specific groups of personnels. This is the task of organization. The need for it is indicated by the principle of division of labour.
3. ***Staffing :*** In the organizing process, staffing is an important managerial function. It deals with hob and person matching in organization. Staffing covers the principle topics of job analysis, recruitment, selection and induction; appraisal and counseling, manpower inventory and development and training program.
4. **Directing :** Directing is the part of management process which activates the staff to work efficiently and effectively to attain the objectives of the organization. We cannot achieve tangible results in the organization until we implement the proposed course of action. For this directing is needed which literally means the moving into action. Directing is telling staff members what to do and seeing that they do it to the best of their ability.
5. ***Coordinating :*** Coordination in an organization is balancing and keeping together all the staff by ensuring a suitable allocation of task to the various staff members and seeing that the tasks are performed with one harmony among the all members.
6. ***Reporting :*** Reporting is the way to keep the authorities and the concerned public informed about the performance, achievements and shortfalls of the organization. Usually reporting is done by preparing the reports of the organization for one year.

7. ***Budgeting :*** The most common function of managerial organization is budgeting, where it is to make the plan of the financial matters. Budget is fundamental to all the organisations, which generally receives the attention and support of top management. At the time of preparing the budget it should be kept in mind that the budget should be prepared flexible so that it can be adopted to change circumstances of future and can be revised when the plan is modified.

VARIOUS STEPS OF PLANNING IN LIBRARIES

1. ***Forecasting :*** Forecasting is the basis of planning. Since planning is concerned with the objectives to be attained in the future and provision of means for their attainment, it is imperative that various dimensions of the future are explored and estimated. Intelligent and informed estimating or predicting the future internal and external environment of the enterprise is called forecasting. The importance of forecasting for planning was emphasized by Fayol also. Fayol referred to plan as synthesis of various kinds of long and short term forecasts.
2. ***Determination of objectives :*** The second step is the determination of corporate objectives on the basis of various kinds of forecasts. These objectives generally relate to survival, growth, efficiency, services to the users and personnel development. The objectives are divided and sub-divided into successively smaller components until each department or section of the library has a definite set of goals for the short as well as long period. These objectives aim at their achievement.
3. ***Means for the attainment of Planned Objectives :*** The means for the attainment of planned objectives consist of strategies, policies, procedures, schedules, methods, standards, budgets, programmes and projects. They constitute the instruments and content of planning.
4. ***Determination of requirement of Resources :*** Once the plans have been formulated, the next step in the planning process is the determination of various kinds of resources that would be required for their implementation.

   These resources are of four types :

   - Financial resources
   - Equipment and facilities
   - Materials. Supplies and services and
   - Manpower

THE ORGANIZATIONAL STRUCTURE OF THE LIBRARY

The most common and usable form is the functional structure. Practically all libraries use this form which divides a library into functional sections such as acquisition, processing, circulation, reference, reprography etc. This structure has a number of advantages in libraries. It groups specialists with similar backgrounds and interests. It also ensures that top management levels will be aware of the contributions and the needs of various sub-units of the library. In addition, the following merits have also been enumerated from



functional organization in the libraries.

1. It helps in achieving the benefits of specialization of work. Every functional in charge is an expert in this area and he can help the subordinates in better performance.
2. A functional manager, in case of the libraries, is required to have expertise in one function only. This makes easy to develop executives.
3. It reduces the burden on the top management i.e. of the librarian. There is joint supervision in the library, and every functional in charge looks after is functional area.

TRAINING OF THE STAFF

The main aim of personnel management of any organization is to get the best quality maximum output from the staff by their performance and the total efficiency of the library depends directly on how well its staff are trained. Hence trained staff is very much essential to fulfill the objectives of personnel management. Among the many requirements which promote best performance of staff, training facilities is also essential which contribute to high performance of the staff.

Merits of Training of the Library Staff :

1. A systematic training program helps to reduce the learning time to reach the acceptable level of performance.
2. A well trained person usually shows a greater increase and a higher quality of work output than a untrained person. The training increases the skill of the staff members in the performance of particular job of the library.
3. Through the training the best available methods of performing the work can be standardized and made available to all the staff members of the libraries. Standardization will make high level of performance rule rather the exception.

FINANCIAL MANAGEMENT

Libraries have also a set of goals to achieve just like other organizations. For achieving their goals libraries have to do so many arrangements regarding staff, reading materials, services and other matters. Finances are very much necessary for doing such arrangements. In other words, we can say that financial management is the study of principles and practices involved in financial operations in a library. Financial management deals with the problems of acquisition, distribution and utilization of funds, balancing of revenue and expenditure.

BUDGETING

The most central aspect of financial management of the library is the budget, which is a statement of income and expenditure of the library. The budget provides guidance in spending the appropriated funds through a period of time. It is also an instrument of control, communication, coordination, evaluation and motivation.

Methods of Library Budgeting :

- Line-by-line Budget
- Program Budget
- Performance Budget
- Planning Programming Budgeting System (PPBS)
- Zero Based Budget

LIBRARY BUILDING

Library is a place where interaction between the user and his required document takes place. To carry out this activity, the library must be planned well and the building of the same must design should be inviting and attractive. For all of this, the building of the library should be planned before its construction very carefully.

The Library building is the outcome of a close relationship of the librarian with the architect. An ideal library is a happy combination of both function and design. The librarian not only draws up the preliminary plan based on the considerations such as users, location, resources, and team work etc. but he should also be in touch with the architect at every stage of the plan. For building up a library, the following points also must be considered.

- Selection of suitable site of Building
- Size of the Library Building
- Architecture of the Library
- Proper Lighting Arrangement

MARKEING OF INFORMATION PRODUCTS & SERVICES

Today, information is the power and libraries and information centers are the reservoir of this information. Libraries are non-profit service industries and information is their key product. The possible products and services offered by a library or information centers may be as mentioned below.

1. Physical information products/services i.e. books journals, bibliographies etc.
2. Electronic information products/services, i.e. diskettes, CD-ROMS etc.
3. Online information products/services, i.e. LAN,OPAC,INTERNET, E-mail, etc.

By applying marketing concept, the library and information centers try to disseminate their product and services to satisfy users' needs through predetermined well defined coordinated plan and activities. Thus marketing of information product and services helps in increasing users satisfaction.

TOTAL QUALITY MANAGEMENT

The aim of any profit making organization or a company is to earn profit, and for that it is important for the company to do more and more business. This can be achieved by having better quality in the business. Total Quality Management is a step towards,



this desired goal. The concept of TQM has come out through the meaning of quality. The concept of quality has given the concept of total quality management in the field of management or organization. Total Quality Management (TQM) is a concept which make quality the responsibility of all people within an organization. All the persons involved are expected to contribute to the overall improvement of quality. TQM is the preferred method to increase the user satisfaction. It reduces the defects of the organization and increases the productivity.

Characteristics of Total Quality Management :

1. To become user driven rather than self-focused.
2. To concentrate on process rather than to be preoccupied with results.
3. Use of workers heads in addition to their hands
4. External and internal alignment
5. Total involvement, continuous improvement and leadership commitment
6. Requires fundamental changes in workers management, treating them as an ever-appreciating asset.

CONCLUSION

Library organization must obviously precede library administration. Decision upon the methods and lines along which the library is to be run, and getting these methods into working order is the basis of library organization. Plans for, and erection of, the library building, executive decisions with regard to selection, appointment and duties of the staff, the planning and putting into practice of a definite system upon which the work of the library is to be carried on – these are successive stages in Library and Information Centers.

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Role of Hadoop to Manage Big Data

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ABSTRACT

This paper discusses the problems that organizations are facing in handling the massive amounts of data being generated, and the solutions available in the Open Source world to tackle those issues. The paper also talks about the solution that impetus offers to solve these Big Data problems.

Apache Hadoop was born out of a need to process a tremendous incoming of Big Data. The web was generating more and more information on a daily basis, and it was becoming very difficult to manage over one billion pages of text.

This paper is focused on discussing the challenges facing large scale data processing and the approaches and solutions to manage structure and apply analysis on this huge amount of data to draw valuable insights and business intelligence.

Hadoop is built to process large amounts of data from terabytes to petabytes and beyond. With this huge data, it's unlikely that it would fit on a single computer's hard drive, much less in memory. The beauty of Hadoop is that it is designed to efficiently process huge amounts of data by connecting many commodity computers together to work in parallel. Using the MapReduce model, Hadoop can take a query over a dataset, divide it, and run it in parallel over multiple nodes. Distributing the computation solves the problem of having data that's too large to fit onto a single machine.

Key word : *Map Reduce, HDFS (Hadoop Data File System)*

INTRODUCTION

Big Data analysis means identifying hidden patterns and business information from large amounts of data, to make the business more efficient. This data comes from- web server logs, social network activity, sensors used to gather climate information, stock market data, e-mails, transaction records, web click streams, etc. The four V's of Big Data - Volume, Velocity, Variety, and Variability .When most people hear the term Big Data, they assume it to be a huge transactional data set. However, volume is only the first dimension of Big Data, and is potentially the least important among all four dimensions. The four V's of Big Data (Volume, Velocity, Variety, and Variability) constitute a comprehensive definition, and they bust the myth that Big Data is only about data volume.



Volume : The terabytes to petabytes of existing data.

Velocity : The rate of change in the data and how fast it must be processed to gain business value.

Variety : Big Data means much more than traditional RDBMS data. It includes unstructured text, sound and movie files, images, documents, geo-location data, web logs, etc.

Variability : Semantics or the variability in language. Cost of 1 petabyte of data with 1000 node :

1 PB = 10^15 = 1 Million gigabyte = 1 thousands terabyte

9 hour for each node to process 500 GB

1000*9*0.34$ = 3o60$ for single run

1PB = 1000000/500 = 2000*9 = 18000h/24 = 750day

The cost for 1000 cloud node = each processing 1pb

2000*3060$ = 6,120,000.

eg.New York stock Exchange 1 TB of data every day.

WHAT IS APACHE HADOOP?

Appache Hadoop was born out of a need to process an avalanche of Big Data. The web was generating more and more information on a daily basis, and it was becoming very difficult to index over one billion pages of content. In order to cope, Google invented a new style of data processing known as MapReduce. Doug Cutting and Mike Cafarella , inspired created Hadoop to apply these concepts to an open-source software framework to support distribution for the Nutch search engine project. Given the original case, Hadoop was designed with a simple write-once storage infrastructure. Hadoop has moved far beyond its beginnings in web indexing and is now used in many industries for a huge variety of tasks that all share the common theme of lots of variety, volume and velocity of data – both structured and unstructured.

Using the MapReduce model, Hadoop can take a query over a dataset, divide it, and run it in parallel over multiple nodes. Distributing the computation solves the problem of having data that's too large to fit onto a single machine.

WHY USE APACHE HADOOP?

It's cost effective. Apache Hadoop controls costs by storing data more affordably per terabyte than other platforms. Instead of thousands to tens of thousands per terabyte Hadoop delivers compute and storage for hundreds of dollars per terabyte.

It's fault-tolerant. Fault tolerance is one of the most important advantages of using Hadoop. Even if individual nodes experience high rates of failure when running jobs on a large cluster, data is replicated across a cluster so that it can be recovered easily in the face of disk, node or rack failures.

It's flexible. The flexible way that data is stored in Apache Hadoop is one of its biggest assets – enabling businesses to generate value from data that was previously considered too expensive to be stored and processed in traditional databases. With Hadoop, you can use all types of data, both structured and unstructured, to extract more meaningful business insights from more of your data.

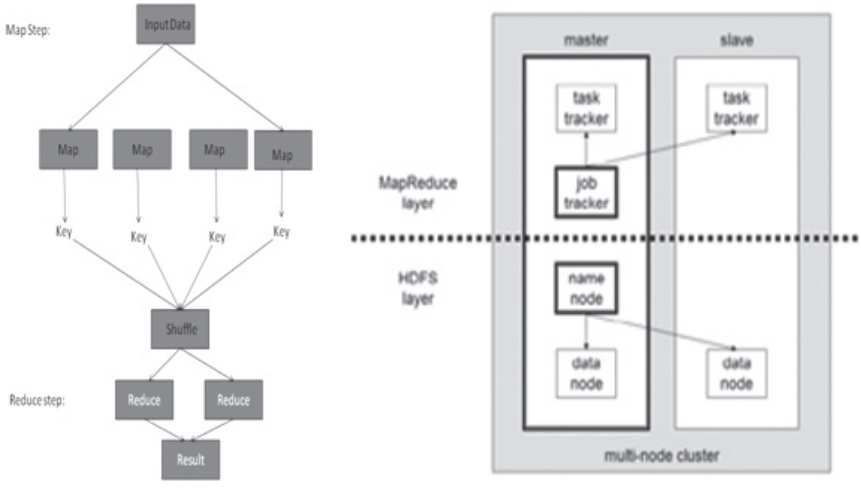
It's scalable. Hadoop is a highly scalable storage platform, because it can store and distribute very large data sets across clusters of hundreds of inexpensive servers operating in parallel. The problem with traditional relational database management systems (RDBMS) is that they can't scale to process massive volumes of data.

SOLUTIONS TO LARGE DATA CHALLENGES :

Although, there are various solutions available for storing large amounts of data, Hadoop is one of the best options available. Hadoop is a flexible infrastructure for large scale computation and data processing on a network of commodity hardware. It is a common infrastructure pattern extracted from building distributed systems. Hadoop takes a large piece of data, breaks it up into smaller pieces and distributes it into various nodes of the cluster. These nodes then execute the pieces in parallel and independently, feeding back into each other. They follow the programming paradigm of MapReduce MapReduce programs have been created for everything from text tokenization, indexing, search to data mining and machine learning algorithms.

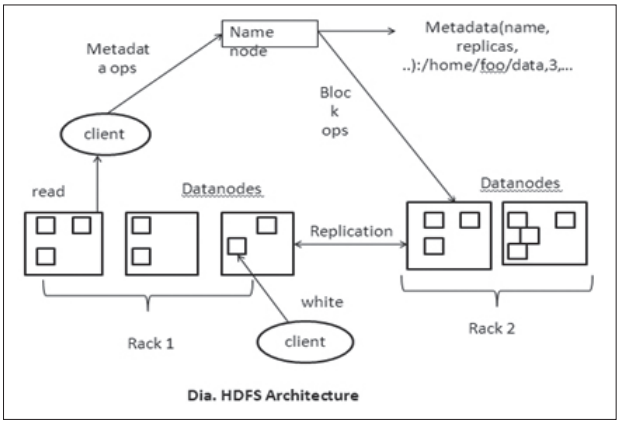
The best part about Hadoop is that it is an Open Source project initiated by Apache . Today, Yahoo is one of the largest contributors to the evolution of Hadoop and also responsible for getting Hadoop to its current state

1. MapReduce :



MapReduce is a programming model for processing large data sets with a parallel, distributed algorithm on a node. The model is inspired by the map and reduces functions commonly used in functional programming although their purpose in the MapReduce framework is not the same as their original forms. Apache Hadoop includes a Distributed File System (HDFS), which breaks up input data and stores data on the compute nodes. This makes it possible for data to be processed in parallel using all of the machines in the cluster. The Apache Hadoop Distributed File System is written in Java and runs on different operating systems. Hadoop was designed from the beginning to accommodate multiple file system implementations and there are a number available. HDFS file system are probably the most widely used, but many others are available, including the MapReduce file system.

2. HDFS(Hadoop Data File System) :



Dia. HDFS Architecture

HDFS has Master/slave architecture. An HDFS cluster consists of a single Namenode, a master server that manages the file system namespace and regulates access to files by clients. In addition, there are a number of Datanodes, usually one per node in the cluster, which manage storage attached to the nodes that they run on. HDFS exposes a file system namespace and allows user data to be stored in files. Internally, a file is split into one or more blocks and these blocks are stored in a set of Datanodes. The Namenode executes file system namespace operations like opening, closing, and renaming files and directories. It also determines the mapping of blocks to Datanodes. The Datanodes are responsible for serving read and write requests from the file system's clients. The Datanodes also perform block creation, deletion, and replication upon instruction from the Namenode. Some of the goals of HDFS are Very Large Distributed File System.

METHODOLOGY :

It is the framework of tool. Objective of this tool is to support running on application of big data. Hadoop is a open source set of tool & it is distributed under apache licence. Big data is creating challenges like velocity,volume,varity. In traditional approach an

interprices will get powerfull computer & data is stored in powerfull computer,but only so much data is store & it is not scalability. In traditional approach does have certain limitation when it come into big data. Hadoop take very different approach than the traditional approach it break the data in to small pieces & that why it's able to dial with data. Breaking the data into small pieces is good idea. How are the you going to perform The computation its break the computation is well down in to smaller pieces & each send each pieces computation to each pieces of data. So data is Brocken down equal pieces and so that computations these Childs computation could finish in equal amount of time and ones of the all computation are be finish then result combine together & sent combine result to the application. One important characteristic it work on distributed model .In Hadoop number of low computer are used it called commodity hardware. Hadoop is a Linux based set of tool. So we have Linux on the all the low cost numerous computer.

TASK TRACKER AND DATA NODE :

All computers will have two component Task tracker and data node. job of task tracker component is to process the small pieces of task that has been given to this particular node & this job of is data node is to manage the pieces of data here has been given to this particular node & all this computer is call slaves. Why they call slaves? Because we have a master. The master will have two traditional component that running one the computer, will have task tracker & data node. But additional to this two computer job tracker & name node. So we have learn that hadoop has two main component map reduce & file system(HDFS). job tracker & task tracker are part of the high level component map reduce so they are fall under the umbrella of map reduce and similarly the name node and data node under the umbrella of Hadoop File system called HDFS. The application running on the hadoop will contact the master node one of the attribute of hadoop is that it is batch processing set of tool. So application will be informed and result will given to application keeping mind to the certain project. So the role of job tracker component running on the master nodes is do break higher bigger task into smaller pieces and will sent result back to the job tracker then it will combine the result & the final result sent back to the application, & the name node running on the master computer master node is responsible to keep an the index of which data is residing on which datanode , so when application contact name node, it tells the application go to these particular computer to get the data. So it has all the index. So the name node tell the application where the data is residing & where the goes directly to that node & will get the data directly from the node. The application is note dependent on the name node. MapReduce is a programming model for processing large data sets with a parallel, distributed algorithm on a cluster(node). A MapReduce program comprises a Map() procedure that performs filtering and sorting (such as sorting students by first name into queues, one queue for each name) and a Reduce() procedure that performs a summary operation (such as counting the number of students in each queue, yielding name frequencies). The "MapReduce System" (also called "infrastructure", MapReduce is a framework for processing parallelizable problems across huge datasets using a large number of computers (nodes), collectively referred to as a cluster (if all nodes are on the same local network and use similar hardware) or a grid (if



the nodes are shared across geographically and administratively distributed systems, and use more heterogenous hardware). Computational processing can occur on data stored either in a filesystem (unstructured) or in a database (structured). MapReduce can take advantage of locality of data, processing data on or near the storage assets to decrease transmission of data.

"Map" step : The master node takes the input, divides it into smaller sub-problems, and distributes them to worker nodes. A worker node may do this again in turn, leading to a multi-level tree structure. The worker node processes the smaller problem, and passes the answer back to its master node.

"Reduce" step : The master node then collects the answers to all the sub-problems and combines them in some way to form the output – the answer to the problem it was originally trying to solve.

MapReduce use to sort a petabyte of data in only a few hours

Companies uses the Hadoop Approach :

- Facebook
- IBM
- Amazon
- Yahoo
- eBay
- American Airlines
- The new York times
- IBM

CONCLUSION

Finally, in conclusion it can be said that Big Data is an opportunity, not a problem. This is because the challenges it creates are far smaller than the benefits it generates.

Furthermore, many data integration and analyzing technologies are available in market today, which your organization can use to generate those big opportunities from massive amounts of data.

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Cloud Computing-Business Cloud Computing

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ABSTRACT

The cloud computing is technology of internet and remote servers to maintain database and our applications and information. In the cloud computing user and businessman can access all his information by using internet but without the internet connection.This technology allows efficient by centralizing database.It gives flexibal structure and on demand service. There are many examples of cloud computing which are gmail,google,Hotmail,yahoo,etc. If any user want to send an email or want to use email service at that time he need internet connection but you uses cloud(internet) then all cloud service provider like yahoo,google,etc. they gives service fastly then user can enjoy the service.If user want to service of any computer software/hardware like facebook then why should user buy a software/hardware?Threrfor he can use cloud computing.

Cloud computing is must be essential to the current scenario in business.Cloud computing used widely because of its applications are without installations and access centralizeddata by using internet exclusive of its own server at anywhere and anytimeCloud computing is divided into three segments: "application" "storage"and "connectivity." Each segment serves a different purpose and offers different products for businesses and individuals around the world. In June 2011, a studyconducted by Version One found that 91% of senior IT professionals actually don't knowwhat cloud computing is and two-thirds of senior finance professionals are clear by theconcept, highlighting the young nature of the technology. In Sept 2011, an AberdeenGroup study found that disciplined companies achieved on average an 68% increase intheir IT expense because cloud computing and only a 10% reduction in data centerpower costs.

Key Words : *Cloud computing,Business cloud computing,central remote server.*

OBJECTIVES

To study the cloud computing to current scenarios.

To study the business cloud computing.

INTRODUCTION

Cloud computing is the name because the information is cloud and does not require



any specific place and connection to gain access to it.It is independent of place.Companies may find that cloudcomputing allows them to reduce the cost of information management, since they are not required to owntheir servers and can use capacity leased from third parties. Additionally, the cloud-like structure allowscompanies to improve software more quickly.

Cloud computing involves delivering hosted services on the internet.The name inspired by the cloud symbol which is used to represent the internet diagrams. A cloud servicehas three distinct characteristics that differentiate it from traditional hosting. It is sold on demand, typicallyby the minute or the hour; it is elastic -- a user can have as much or as little of a service as they want at anygiven time; and the service is fully managed by the provider. In cloud computing the internet is used by fastly.

There are 2 types of clouds: private or public.in the public cloud service is provided to any one. In the private cloud service is provide in cenrralized and provided to some peoples. When a service provider uses public cloud resources to create their private cloud, theresult is called a virtual private cloud. Private or public, the goal of cloud computing is to provide easy,scalable access to computing resources and IT services.

Infrastructure-as-a-Service like Amazon Web Services provides virtual server instance API tostart, stop, and access and configure their virtual servers and storage. In the enterprise, this computingallows a company to pay for only as much capacity as is needed, and bring more online as soon as required.Because this pay-for-what-you-use model resembles the way electricity, fuel and water are consumed; it'ssometimes referred to as utility computing.

Platform-as-a-service in the cloud is defined as a set of software and product development toolshosted on the provider's infrastructure. Developers create applications on the provider's platform over theInternet. PaaS providers may use APIs, website portals or gateway software installed on the customer'scomputer. Force.com and Google Apps are examples of PaaS. Developers need to know that currently,there are not standards for interoperability or data portability in the cloud.

In the software-as-a-service cloud model, the vendor supplies the hardware infrastructure, thesoftware product and interacts with the user through a front-end portal. SaaS is a very broad market.Services can be anything from Web-based email to inventory control and database processing. Because theservice provider hosts both the application and the data, the end user is free to use the service fromanywhere.

ARCHITECTURE

In the cloud computing it involves multiple cloudes to communicate with each other on a loose coupling mechanism.it involves delivery of cloude.

Cloud computing architecture consists of two components "Front end" and "Back end" . Front endcomprises the client's device and back end comprises the cloud itself. The central server adminstreated cloud complting and used to fillful the users demand.

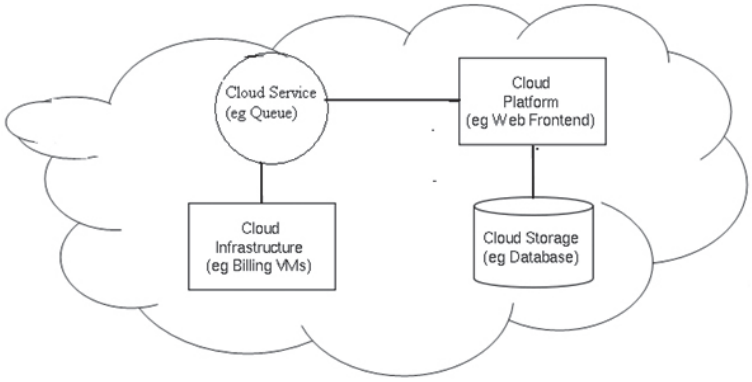


Fig 1: Cloud Computing Sample Architecture

CHARACTERISTICS

Cloud computing have following key characteristics:Application programming interface (API) accessibility to software that enables machines to interact withcloud software in the same way the user interface facilitates interaction between humans and computers.Cost is to be reduced and in a public cloud delivery model capital expenditure is converted to operational expenditure.

Independent of the location user can be acces the data.This technology allows shared servers and devices then increasing the speed of access. Therefore applications can be easily migrated from one physical server to another.Data is shared therefore no of users can uses the data at a time so cost is minimizes of centralized data.Trustworthiness: is enhanced if multiple unnecessary sites are used, which makes well-designed cloudcomputing suitable for business stability and catastrophe recovery.In the cloud computing data is centralized therefore security of data is more.

APPLICATIONS

- Clients would be able to access any kind of information from anywhere at any time. They couldaccess the cloud computing system using any computer linked to the Internet. Data wouldn't be cramped toa hard drive on one user's computer or even a corporation's internal network.
- It could bring hardware costs down. Cloud computing systems would reduce the need foradvanced hardware on the client side. You wouldn't need to buy the fastest computer with the large memory,because the cloud system would take care of those needs for you. Instead, you could buy an economicalcomputer terminal. The terminal could include a monitor, input devices like a keyboard and mouse and justenough processing power to run the middleware necessary to connect to the cloud system. You wouldn'tneed a large hard drive because you'd store all your information on a remote computer.
- Cloud computing systems give these organizations company-wide access to



computer applications. The companies don't have to buy a set of software or software licenses for every employee.Instead, the company could pay a metered fee to a cloud computing company.

- Servers and digital storage devices take up space. Some companies rent physical space to storeservers and databases because they don't have it available on site. Cloud computing gives the option ofstoring data on someone else's hardware, removing the need for physical space on the front end.

CLOUD COMPUTING BENEFITS IN BUSINESS

Cloud computing is the more popular technology so todays world much small and big compamies uses the cloud computing. Cloud computing can be compared to electricity and power grid. The consumer can easily gain access to electricity or power by simply turning on an appliance; although the consumer does not involve in the manufacturing or know the location where electricity is produced accessing it is very simple.

Cloud computing designed for the scalability and make sure that user can meet his all requirements.Since these services are outsourced immigration to cloud computing is fairly easy, everything will be done and be provided by the vendor. Conventional computing usually, involves it takes months and months of preparation and installation of servers, however since cloud computing is outsourced these phases are no longer required hence cutting down the number of days and hours for installation alone.

Everyone of us may have heard of cloud computing at least once, the only problem is not everyone is aware of what it is all about and how it can change our computing styles and resolve some of the complex computing issues we may have encountered. Several cloud computing companies are making noise around the world and have revolutionized business processes for the better. What makes these cloud computing companies so popular? It's the computing models they offer and what these models and how these models can resolve complex computing issues. Computers are complicated machines and applications are full of restrictions, and takes space to run and install in computers. Imagine all the applications and programs you can run without that ultra powerful, expensive and power hungry server seating there in that air-conditioned room staring at you

CONCLUSION

Cloud computing helps to store data on remote servers and applications are used virtually, hencethere is no need to have own servers. Small and Medium enterprises move towards cloud computing toreduce the cost of information management. It delivers hosted services on internet so that companies usethat services without installation and free of cost.

The user loses control over the software application and becomes dependent on the provider to maintain,update and manage it.

We have presented our vision of cloud computing architectures, where mobile devices becomecore computing nodes because of their rapidly growing capabilities.

We have discussed some examples ofthe mobile Clouds approach. Although these ideas are preliminary, we believe that mobile Clouds will playa vital role in the future mobile computing landscape. Cloud Computing will definitely leverage the mobilehandsets to the level of Super Duper Smart with no foggy future ahead.

FINDINGS

Thereis much companies that are nit familiar with cloud computing threrfore they are thinking about privacy, security,transferability and other terms and conditions.

SUGGESTIONS

To increase the use of cloud computing.

Be familiar with cloud computing.

Go with best organizations which provide privacy, security and guarantee.

Choose standardized companies.

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Green Computing and Related Technologies

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ABSTRACT

Green computing is the study and practice of efficient and eco-friendly computing. The principle behind energy efficient coding is to save power by getting software to make less use of the hardware, rather than continuing to run the same code on hardware that uses less power. The field of green computing is defined as the knowledge and practice of designing, manufacturing, using and disposing of computers, servers, and associated subsystems - which include printers, monitors, and networking, storage devices and communications systems - efficiently and effectively with minimal or no impact on the environment. This computing is similar to green chemistry that is minimum utilization of hazardous materials and, maximizing energy efficiency during the product's lifetime, and also promote the recyclability or biodegradability of defunct products and factory waste.

This paper, discuss the concept of green computing and why Green computing, Environmental impacts and various technologies. Subsequently, this paper helps to identify key issues relevant to green computing and evaluate different approaches to these problems.

INTRODUCTION

Our world is making an effort to make everything greener. Green computing, the study and practice of efficient and eco-friendly computing resources, is now under the attention of not only environmental organizations, but also businesses from other industries. Green computing is basically attached to the flow, which represents an environmentally responsible way to reduce power and environmental waste. This computing actually relates to understanding and managing the environmental impacts of IT systems which basically includes materials and resources required for equipment, energy and also materials used in OS, potential health effects on humans from using equipment, and responsibility for the waste products that are created from IT systems. Green computing is mainly focused on super computers and cluster system. The increased number of advanced computing devices adds to utilization of large amount of power around the globe. The large volume of heat thus dissipated add to the global warming in addition to e-waste getting accumulated everywhere.

In recent years, companies in the computer industry have come to realize that going green is in their best interest, both in terms of public relations and reduced costs.

Organizations use the Green Computing Lifecycle when designing and implementing green computing technologies.

The stages in the Life Cycle include Strategy, Design, Implementation, Operations and Continual Improvements.

GREEN COMPUTING – WHY?

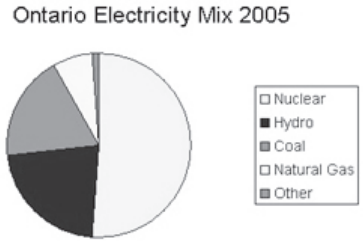
- Computers are made of poisonous materials like lead, chromium, cadium and mercury.
- Growing public environmental awareness.
- Increasing impacts on environmental and human health.
- Corporate social responsibility.
- Computers can also be harmful to your health because toxic chemicals evaporate in a computer room, are absorbed by your body through your lungs.
- The radiation that is emitted from computer monitors can pose a serious health risk especially to those with long hours of exposure.

ENVIRONMENTAL IMPACTS

(April 2013) Roughly 40 million metric tons of electronic waste (e-waste) are produced globally each year. About 9 million tons of this waste—discarded televisions, computers, cellphones, and other electronics—are produced by the European Union, according to the United Nations Environment Programme (UNEP).The UNEP estimates that between 2007 and 2020, domestic television e-waste will double, computer e-waste will increase five times, and cell phones 18 times.

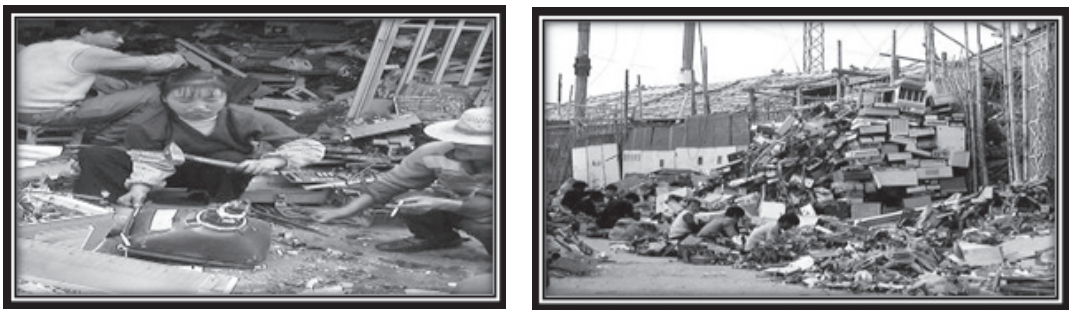
E-waste is an important global environmental and health issue. Promising policy responses have arisen from the European Union, which is defining the source as responsible for e-waste.

- Electricity consumption for desktops and peripherals.
- 120W CRT + CPU; more for older Machines.



- Fossil fuel power – Greenhouse gas emissions, mercury atmospheric pollution, SOX and NOX lead to acid rain and smog formation.
- Nuclear power – difficulties with long term management of radioactive wastes.

1. E-Waste :



E-waste Impacts in China

Electronic waste, e-waste, e-scrap, or Electronic-disposal, waste electrical and electronic equipment (WEEE) describes discarded electrical or electronic devices. There is a lack of consensus as to whether the term should apply to resale, reuse, and refurbishing industries, or only to a product that cannot be used for its intended purpose. Informal processing of electronic waste in developing countries may cause serious health and pollution problems, though these countries are also most likely to reuse and repair electronics.

"Electronic waste" may be defined as discarded computers, office electronic equipment, entertainment device electronics, mobile phones, television sets and refrigerators. This definition includes use electronic which are destined for reuse, resale, salvage, recycling, or disposal.

2. Tips For Going Green :

1. Computer Management : Here are some easy ways to save energy and money when computing.

- Turn off your computer and peripherals when you aren't using them.
- When you're not using your monitor, put it to sleep or turn it off instead of using a screensaver.

2. Reduce paper waste :

- printing as little as possible;
- reviewing document drafts and emails onscreen instead of printing them out.
- using email instead of paper memos and fax documents when possible.

3. Recycle :

Removal of used or unwanted electronic equipment in a convenient and environmentally responsible manner. Computers have toxin metals and pollutants that can emit harmful emissions into the environment. Discardation of computers can be avoided with the help of Recycling them instead through manufacturer programs as there are number of which includes HP's Planet Partners recycling service or recycling facilities available Or donate computers to a non-profit agency.

Recycle your old computers, monitors, batteries, and ink and toner cartridges.

4. Disposal–Electronic Waste :

- Short product life expectancy (2-4 years).
- Same toxins in manufacturing process can cause environmental contamination.
- Human health risks.
- Lead, barium, chromium, CNS disruptors etc. (Baul, 2002)
- Human rights problems – "Exporting harm".

5. Reuse and responsibly recycle computer equipment :

At home :

- Sell it.
- Donate it : Computers for Schools.
- Recycle it : Sweep it to Sarcan.

At work (for U of S employees) :

- Transfer older, but working, computers to other U of S departments
- Send truly obsolete gear to Logistics Management - Surplus Equipment Disposal filling out the Declaration and Disposal of Surplus Assets Form .
- Review Secure Data disposal information from Campus Safety.

TECHNOLOGIES GREEN COMPUTING :

The company has been focusing on power efficiency throughout the design and manufacturing process of its products. Its environmentally friendly products are manufactured using a range of clean-computing strategies, and the company is striving to educate markets on the benefits of green computing for the sake of the environment, as well as productivity and overall user experience.

A. Carbon-free computing : One of the VIA Technologies ideas is to reduce the "carbon footprint" of users — the amount of greenhouse gases produced, measured in units of carbon dioxide (CO2). Greenhouse gases naturally blanket the Earth and are responsible for its more or less stable temperature. An increase in the concentration of the main greenhouse gases -carbon dioxide, methane, nitrous oxide, and fluorocarbons — is believed to be responsible for Earth's increasing temperature, which could lead to severe floods and droughts, rising sea levels, and other environmental effects, affecting both life and the world's economy.

B. Solar Computing : Amid the international race toward alternative-energy sources, VIA is setting its eyes on the sun, and the company's Solar Computing initiative is a significant part of its green-computing projects. For that purpose, VIA partnered with Motech Industries, one of the largest producers of solar cells worldwide. Solar cells fit VIA's power-efficient silicon, platform, and system technologies and enable the company to develop fully solar-powered devices that are nonpolluting, silent, and highly reliable. Solar cells require very little maintenance throughout their lifetime, and once initial installation costs are covered, they provide energy at virtually no cost. Worldwide production of solar cells has increased rapidly over the last few years; and as more governments begin to recognize



the benefits of solar power, and the development of photovoltaic technologies goes on, costs are expected to continue to decline. As part of VIA's pc-1initiative, the company established to the first-ever solar-powered cyber community center in the South Pacific, powered entirely by solar technology.

C. Lead-Free and RoHS computing : In February 2003, the European Union adopted the Restriction of Hazardous Substances Directive (RoHS). The legislation restricts the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment. The directive is closely linked with the Waste Electrical and Electronic Equipment Directive (WEEE), which sets collection, recycling, and recovery targets for electrical goods and is part of a legislative initiative that aims to reduce the huge amounts of toxic e-waste. Driven by these directives, VIA implemented a set of internal regulations in order to develop products that are compliant with these accepted policies, including the use of nonhazardous materials in its production of chipsets, processors, and companion chips. In 2001, they focused on lead-free manufacturing, introducing the Enhanced Ball Grid Array (EBGA) package for power efficient VIA processors and the Heat Sink Ball Grid Array (HSBGA) package for their chipsets. In traditional manufacturing processes, lead is used to attach the silicon core to the inside of the package and to facilitate integration onto the motherboard through tiny solder balls on the underside of the package. VIA's lead-free manufacturing technologies do not require a lead bead, and the solder balls now consist of a tin, silver, and copper composite.

D. Energy-efficient computing : A central goal of VIA's green-computing initiative is the development of energy-efficient platforms for low-power, small-form-factor (SFF) computing devices. In 2005, the company introduced the VIA C7-M and VIA C7 processors that have a maximum power consumption of 20W at 2.0GHz and an average power consumption of 1W. These energy-efficient processors produce over four times less carbon during their operation and can be efficiently embedded in solar-powered devices.

VIA isn't the only company to address environmental concerns: Intel, the world's largest semiconductor maker, revealed eco-friendly products at a recent conference in London. The company uses virtualization software, a technique that enables Intel to combine several physical systems into a virtual machine that runs on a single, powerful base system, thus significantly reducing power consumption. Earlier this year, Intel joined Google, Microsoft, and other companies in the launch of the Climate Savers Computing Initiative that commits businesses to meet the Environmental Protection Agency's Energy Star guidelines for energy-efficient devices.

E. vision through the pc-1 initiative : VIA isn't focusing only on the technological aspects of its eco-friendly devices, it's also taking a look at their applications. The VIA pc-1 initiative seeks to enable the next 1 billion people to get connected, by providing wider access to computing and communications technologies. The company is concentrating on empowering new, emerging markets, looking at models that reach beyond individual ownership of a PC, such as local pay-for-use facilities. Products built for such a use are characterized by ultra-efficient energy consumption and the ability to withstand heat and dust in harsh environments. In VIA's own words: "Pc-1 brings together business ingenuity

with corporate responsibility and altruism. Helping to build skills and literacy throughout the world and incorporating and preserving cultural content are goals now within our grasp. Information is the oxygen to nurturing social mobility, economic equality and development, and global democracy. Providing not just the tools and the know-how, but the support and the maintenance, is all part of what makes pc-1 the next generation of information technology, the next generation of global development". Among the company's projects under the pc-1 program are the tuXlab computer center in South Africa and an ICT Training Center in Vietnam.

These technologies are beneficial as it :

- Reduce energy consumption of computing resources during peak operation.
- Save energy during idle operation.
- Use eco-friendly sources of energy.
- Reduce harmful effects of computing resources.
- Reduce computing wastes.

CONCLUSION

The field of "green technology" is a broad range of subjects — from new energy-generation techniques to the study of advanced materials to be used in our daily life. As individuals and organizations around the world look to reduce their impact on the environment, a growing concern is the reduction of one's Carbon Footprint which is a measure of the impact human activities have on the environment in terms of the amount of green house gases produced, measured in units of carbon dioxide (CO_2). Creating fully recyclable products, reducing pollution, proposing alternative technologies in various fields, and creating a center of economic activity around technologies that benefit the environment. Use mobile phones for your computing needs whenever and wherever possible.

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Information and Communication Technology (ICT) in Education

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ABSTRACT

The correlation between ICT-supported education system and economic development of a developing country has been documented by several studies. Today's Information and Communications Technology can significantly and positively impact the educational and economic landscape of the India.

INTRODUCTION

1. What is ICT?

Information and Communication Technologies are defined as all devices, tools, content, resources and services, digital and those that can be converted into or delivered through digital forms, which can be deployed for realising the goals of teaching learning, enhancing access to and reach of resources, building of capacities, as well as management of the educational system.

ICT is thought of as a reliable vehicle for education, a platform for communication, and a powerful tool for economic growth.

These will not only include hardware devices connected to computers, and software applications, but also interactive digital content, internet and other satellite communication devices, radio and television services, learning management systems, and management information systems. These will also include processes for digitisation, deployment and management of content, development and deployment of platforms and processes for capacity development.

2. Need OF ICT

Educational systems around the world are under increasing pressure to use the latest Information and Communication technologies (ICTs) to teach the students the knowledge and skills they need in the 21st century. The new Information and Communication technologies have radical implications for conventional teaching and learning. It predicts the transformation of the teaching-learning process and the way teachers and students gain access to knowledge and information.

3. Strength of ICT's

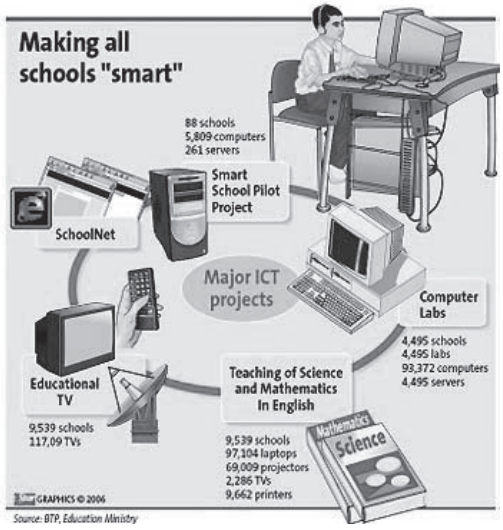
Some of the strengths of the ICTs include :

Individualization of learning : This means that people learn as individuals and not as a homogenous group. ICTs allow each individual to relate to the medium and its content.

Interactivity : Interactivity is the way in which a person can relate to the content, go forward and backward in the content, start at any point depending upon prior knowledge instead of always in a sequential way.

Low per unit cost : Per person, ICTs reduce the cost of education from very high to very low.

Distance and climate insensitive : It does not matter where you are, or how the weather is, you can still access and learn from ICTs.



4. Scope of ICT in Education

ICT as a subject (i.e. computer studies)

ICT as a tool to innovate teaching-learning practice (i.e. digital content, multimedia, teaching-learning methods, learning environment)

ICT as an administrative tool (i.e. education management information systems (EMIS)

ICT as an expanding learning opportunity (i.e. distance learning, e-Learning)

ICT as a facilitator of higher-order thinking skills (i.e. learner-centered, self-directed learning, tailored learning)

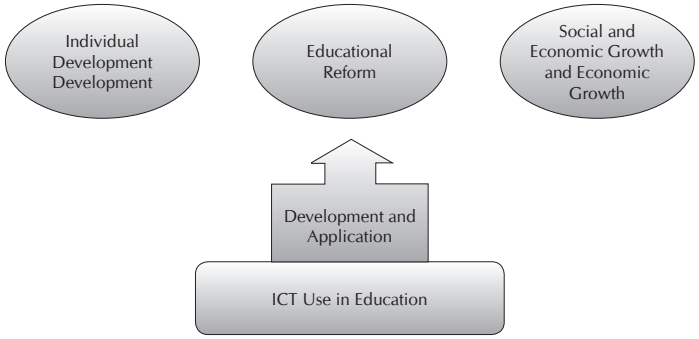
5. Role of ICT in Education?

ICT is increasingly becoming a more and more powerful tool for education and economic development.

"ICT can be a catalyst by providing tools which teachers use to improve teaching and by giving learners access to electronic media that make concepts clearer and more accessible".

ICT is used for capacity development and citizen empowerment.

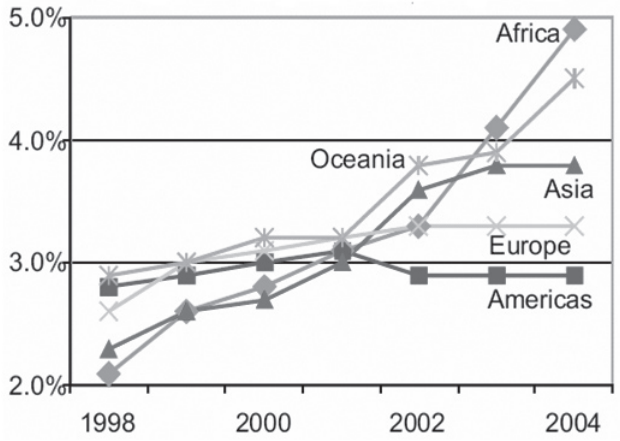
Figure : Goal of ICT in Education



(Source: Song, 2009)

6. Impact of ICT on Economic Growth

Figure : Telecommunication service revenues as a percentage of GDP, 1998 -2004.



7. Conclusion

It appears that ICT use in education and economic growth are closely correlated. In today's interconnected world, information and communication technology in education is increasingly playing important roles in boosting the economies of many developing countries. ICT has become a key driver in education, economy, politics, and culture.

Virtually all countries are investing in ICT in education today. ICT is widely viewed as a means of effecting change in education and in national economy.

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A Study on Work Life Balance of Employees With Special Reference to Polybond India Pvt. Ltd., Pune

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ABSTRACT

Work-life balance is a broad concept including proper prioritizing between "work" (career and ambition) on the one hand and "life" (Health, pleasure, leisure, family and spiritual development) on the other. A work life balance means the balance between work and personal life. There are many situations, life experiences, and "things" that can have a positive or a negative impact on level of work and life balance. There are a number of work-related improvements to everyone can make to ensure a work life balance.

The study is focused on understanding the technique used for Work life Balance at Polybond India Private Limited, Pune and its step-by-step Procedure. The study also includes collection of feedback of employees on present Work life. Researcher's focus is on deriving recommendations to the, Work life Balance if any, based on analysis and interpretation of the collected data to eliminate the problems faced by management.

The objectives set for present study are as follows :

- To find out the balance of the work life cycle of employees.
- To know about the mentality of an employee towards the work.
- To understand the importance of work life balance and its effectiveness and efficiency for performance of employees in organization.
- To find the impact of stress on employees work life.

Keywords : *Work-life balance, Stress at work, Work life cycle*

INTRODUCTION

An organisation need to attract and retain valued employees in a highly competitive labour market is a strong motivating factor for increasing organisational awareness and action with regards to human resource policies and practices that address work life balance. Work life balance is an important area of human resource management that is receiving increasing attention from government, researchers, and management and employee representatives.

Work life spillover theory states that a person's attitudes, emotions, skills and behaviours produced in one domain flow into the other. Spillover can have positive or negative effects, and can occur in both directions- Work-To-Personal Life and Personal Life- To- Work.



Work life balance, from an employee perspective, is the maintenance of a balance between responsibilities at work and at home. Employee view the benefits or working conditions that they provide to help employees balance the family and work domains as work life benefits. Work life balance strategies in an organizational setting include policies covering flexible work arrangements, child and dependent care, and family and parental leave.

In contrast, work/life conflict is defined as a form of inner role conflict in which the role pressures from the work and other life domains, such as family, are mutually incompatible in some respect, whereby participation in one role is made more difficult by the virtue of participation in the other. Climbing the organizational ladder often requires employees to work long hours.

Research has in fact shown that employees who believe they do not have time for the personal life feel drained and distracted while they are at work. In addition, the spillover of negative aspect of work into an employee's personal life can lead to job exhaustion, disruption of relationships with family and friends, loss of enjoyment, and increased stress.

NEED OF STUDY

To understand the need of work life balance, one first needs to understand about work life imbalance, as with the understanding of the origin, causes and effects of this imbalance, the balancing act becomes easier. The corporate world of today is exceedingly demanding. The work culture varies from organization to organization.

In the PIPL, balanced nature of work will enable increase in productivity and efficiency of employees. Employees will become more creative and will derive more satisfaction from work. Better teamwork and communication will offer a conducive working environment. This leads to enjoyment at work and increase passion for it. Work life balance on an individual level can bring phenomenal changes in his life and can also heavily impact a society. A balanced work life is of advantage to an employee's health. Stress levels decline drastically to healthy levels. Individuals derive more value from their work and from life that leads to greater satisfaction and is also seen as a mode of self-actualization.

RESEARCH PROBLEM

Researcher conducted the study under the title as "The Study of Work Life Balance" at Polybond India Private Limited.

Polybond has increasingly recognized that an inadequate work-life balance can have detrimental impacts on staff performance, satisfaction and retention. When employers target good work-life balance, they can see that reducing stress and frustration resulting from poor work-life balance can be beneficial to both parties.

COMPANY INTRODUCTION

- India's first rubber company certified to ISO9000, ISO14001, TS16949 standards.

- Manufacturing world-class rubber parts since 1978, with two modern plants located in the Pune region.
- Joint Venture since 2006 with Vorwerk Autotec GmbH, Germany
- Rathi Group, Pune
  - Textiles (1947)
  - Chemicals (1954)
  - Engineering(1965)
  - Rubber(1978)
- Group Companies
  - Rathi Transpower
  - Rathi Turboflex
  - Rathi Engineering Services
  - Rathi Polybond, Australia
  - Lovejoy Finance

THE PROMOTERS & CUSTOMERS OF COMPANY

• Cummins	• Volvo-Eicher	• MAN Force
• Force Motors	• Mahindra & Mahindra	• Mitsubishi Caterpillar
• Tata Motors	• Volvo/Renault/Mack	• Atlas Copco
• Bharat Electronics	• Ferromatic	• L&T- Demag
• Kaeser Kompressoren	• Audi *	• BHW *
• Daimler AG *	• General Motors* (*Through Vorwerk Autotec, Germany.)	

- **Its customers are from :**

• Sweden	• Holland	• United Kingdom
• Germany, U.S.A, Canada	• Dubai, South Africa	• Australia

STRESS AND WORK LIFE BALANCE

Steven I. Sauter, chief of the Applied Psychology and Ergonomics Branch of the National Institute for occupational Safety and Health in Cincinnati, Ohio, States that recent studies show that "The workplace has become the single greatest source of stress". Michael Feuerstein Professor of clinical psychology at the Uniformed Services University of the Health Sciences at Bethesda Naval Hospital states, "We're seeing a greater increase in work-related neuroskeletal disorders from a combination of stress and ergonomic stressors".

RESPONSIBILITY OF THE EMPLOYER

Companies have begun to realize how important the work-life balance is to the productivity and creativity of their employees. Research by Kenexa Research institute in

2007 shows that those employees who were more favorable toward their organization's efforts to support work-life balance also indicated a much lower intent to leave the organization, greater pride in their organization, a willingness to recommend it as a place to work and higher overall job satisfaction.

Employers can offer a range of different programs and initiatives, such as flexible working arrangements in the form of part time, casual and telecommuting work. More proactive employers can provide compulsory leave, strict maximum hours and foster an environment that encourages employees not to continue working after hours.

It is generally only high skilled workers that can enjoy such benefits as written in their contracts, although many professional fields would not go so far as to discourage workaholic behavior. Unskilled workers will almost always have to rely on bare minimum legal requirements. The legal requirements are low in many countries, in particular, the United States. In contrast, the European Union has gone quite far in assuring a legal work-life balance framework, for example pertaining to parental leave and the non-discrimination of part-time workers.

According to Stewart Friedman – professor of Management and founding director of the Wharton School's Leadership Program and of its Work/Life Integration Project–-a "one size fits all" mentality in human resource management often perpetuates frustration among employees. " (It's not an) uncommon problem in many HR areas where, for the sake of equality, there's a standard policy that is implemented in a way that's universally applicable – (even though) everyone's life is different and everyone needs different things in terms of how to integrate the different pieces. It's not to be customized".

Friedman's research indicates that the solution lies in approaching the components of work, home, community, and self as a comprehensive system. Instead of taking a zero-sum approach, Friedman's Total Leadership program teaches professionals how to successfully pursue "four-way wins" – improved performance across all parts of life.

A diagram depicting what happens when the delicate ratio of work/life gets out-of-whack



COLLECTION OF DATA :

The sources of data are divided into two types, i.e. Primary data & Secondary data.

1. Primary Data Sources : The Primary Data are those which are collected a fresh and for the first time. Primary data is also called basic data or original data. Sources used by researcher for it are :

a. Questionnaire, b. Discussion

2. Secondary Data Sources : The secondary data means data that are already available in various reports, diaries, letters, books, periodicals, etc. The secondary data are those, which have been used previously for any research and now used for second time. In short, the data presented in research reports when used again for further research, the data are to be said as 'Secondary Data'. Sources used by researcher for it are:

a. Books, b. Journals, c. Annual reports, d. Reports published in organizations.

SAMPLE DESIGN

A sample of employees is taken out of a total population of 850 employees, based on Random sampling. The sample is selected in such a way that it includes the employees of all ages, different designations from different educational streams with distinct experience from various departments.

Hence the sample is a representative of the population and an unbiased mix of all factors

SAMPLE SIZE

Out of the total universe of employees a total of 100 employees belonging to different units of PIPL namely:

- Human resources (10), • Production (52), • Maintenance (35)
- Moulding (340), • Quality (14), • Marketing (17)
- Mixing (376), • Testing (6) etc.

Was interviewed and given the questionnaire to fill.

RESEARCH INSTRUMENT

The research instrument used for the survey is a structured undisguised questionnaire. The questionnaire has been framed in structures and undisguised form, with a total number of 18 questions. It has both open ended and closed ended questions. The information collected through personal interview is also being used. Pre-testing was conducted to find if there were any discrepancies in the questionnaire designed necessary changes were made after designing the questionnaire for which data was collected.

Diagrams used :

- Bar Charts
- Pie Chart

FINDINGS

The research is conducted in Polybond India Private Limited, Pune. The researcher found the following findings, which are on the basis of Data Analysis and Interpretation:



1. Most of the employees are able to balance their work life
2. 85% employees feels that there will be good work life balance when the organization will be more effective and successful.
3. 42% employees are satisfied with the working conditions of company
4. Employees concentration on work will effect by residing thinking on their family future.
5. 17% employees miss out quality time with family/ friends due to pressure of work.
6. 82% employees works for 6 days in a week.
7. 24% employees spend more than 2 hours to reach at home from work.
8. 55% employees suffer stress due to interpersonal relations.
9. Employees suffer physical as well as mental stress in their job.
10. Employees spend more of the time with their children's after going back home.
11. For 41% employees conflict of work impact on their personal life.
12. Various welfare facilities like health care, safety equipments, social security, healthy environment are provided by company.
13. Employees suffer physical inconvenience like headache, high blood pressure, hypertension, nervousness due to stress.
14. Employees use strategies like exercise, meditation, listening to music, spending time with children's to manage stress.
15. Various companywide programs are adopted to manage stress.
16. 36% employees feel that their job is challenging.

SUGGESTIONS

The researcher has done the research on the relation between work life balance and stress at PIPL. The following pit holes which can be used for the improvement for the company:

1. Company must arrange training based on stress management every month through which employees can reduce their physical and mental stress due to work. Here trainer can be from the organization itself or outside trainer can be arranged.
2. Management would concern for workload sharing and proper planning of timing of each employee and his/her individual work which can increase the efficiency and effectiveness of company. For it if needed more employees can be hired to reduce excess workload.
3. 3. The success of the company depends upon the performance of the employee so they should consider the balance diet which is prescribe by law that is 180 calories for each lunch/dinner so they can physically and mentally be fit for job.
4. 4. Most of employees spend near about 1 to 2 hours to reach at work therefore in the company bus motivational cds can be played that can reduce the stress and be useful for motivation

CONCLUSIONS

Company may enhance the work life balance which can have detrimental impacts on staff performance, satisfaction and retention. The higher levels of work-to-family conflict reported by managers or professionals often are a function of their longer work hours. Today's worker have many competing responsibilities such as work, children's, housework, volunteering, spouse, and elderly parent care and this places stress on individuals, families and the communities in which they reside . the improvements in people management practices, especially work time and work location flexibility, and the development of supportive managers, contribute to increased work life balance. Work life balance programs have been demonstrated to have an impact on employees in terms of recruitment, retention/turnover, commitment and satisfaction, absenteeism, productivity, and accident rates.

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Analyzing Employee Satisfaction Towards Welfare Measures- GTN Spinning Mills Baramati

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ABSTRACT

The paper entitled Analyzing Employee Satisfaction towards Welfare Measures-GTN Spinning Mills Baramati in concerned with various welfare measures prevailing in the GTN Spinning Mills Baramati and also identifying employee satisfaction with it. Welfare provisions of Factories Act 1948 are important as far as the nature of the work in the textile mills where labours are working in harmful and stressful environment. Therefore, it needs to concentrate more in the area of employee welfare. In this study we measured that, welfare measures provided in the company and awareness of workers about such practices. We also measured that, satisfaction of workers towards each welfare measures by way of using weighted average and rank test method.

Keywords : *Welfare Measures, Spinning Mills.*

INTRODUCTION

Welfare is comfortable living and working conditions". Employee welfare means the efforts to make life worth living for workman. Anything done for the comfort and improvement of the workers over and above the wages paid. The factories act 1948 made provision of welfare measures includes various facilities, services and amenities provided to workers for improving their health, efficiency, economic betterment and social status. The very logic behind providing welfare schemes is to create efficient, healthy, loyal and satisfied labor force for the organization. The purpose of providing such facilities is to make their work life better and also to raise their standard of living.

LITERATURE REVIEW

"Cooperative Unionism and Employee Welfare" by Michael R. White (University of Westminster - Policy Studies Institute) Industrial Relations Journal, Vol. 36, No. 5, pp. 348-366, September 2005. Using British national survey data, this article assesses the impact of unions on management practices to reduce labour costs, implement high-performance work systems, and make employee welfare provisions. Relative to non-union workplaces, those with unions are found to have practices which are consistent with 'mutual gains' outcomes.

"Provision Of Welfare Under Factories Act & Its Impact On Employee Satisfaction" by Parul P Bhati (Research scholar Karpagam University), Dr. Ashokkumar M (Professor & Head,

Department of Management, Karpagam University) Journal of Business Management & Social Sciences Research (JBM&SSR) ISSN No: 2319-5614 Volume 2, No.2, February 2013. This paper studies the impact of Welfare under Factories Act 1948 On Employee Satisfaction. For this researchers have taken the overviews of Engineering Industry. Researcher has measured the impact of welfare provisions on employee satisfaction by way of the correlation technique and also measured that whether any difference in terms of employee satisfaction towards welfare provision exists by way of using one way Annova test.

"A Study On Performance of Labour Welfare Measures of Indian Industries: An Overview" by Dr. A. Jebamalairaja (Associate Professor, Dept of Economics, Urumu Dhanalakshmi College, Trichy, Tamilnadu, India) R. Pichumani (Associate Professor, Dept of Economics , A.A.Govt. Arts College, Musiri, Trichy, Tamilnadu, India) IJMRR April 2012/ Volume 2/Issue 4/Article No-9/546-551 ISSN: 2249-7196. In this article find out the labour-welfare measures adopted by various industries in India, analyzed the statutory and Non-statutory measures of Industrial labour, effectiveness of these measures in morale building and in enhancing the productivity of the Organization, assess the social security measures at Industrial labours. Researcher has observed that the labour-welfare measures in the industrial sectors are not yet developed and implemented. They are the crucial for any industrial orgnisation to enhance its productivity in the global world, No labour, No production is the slogan of Industrial sectors.

SCOPE OF THE STUDY

The scope this research is to study various welfare measures which mentioned in factories act 1948 provided by GTN Spinning Mills, Baramati and their relation with employee satisfaction. The geographical scope of the study is confined to GTN Spinning Mills, Baramati.

OBJECTIVES OF THE STUDY

The following are the objectives of the study :

1. To study various welfare measures prevailing in the GTN Spinning Mills.
2. To analyze the relation of welfare measures & employee satisfaction.

RESEARCH DESIGN

The nature of the study is descriptive research. Working blue collar employees of GTN Spinning Mills, Baramati is sample unit for this research. There are 116 on roll blue collar workers in the mill out of that 25% sample size is selected i.e. 29 respondents. Hence simple random sample method is adopted. To collect primary data from the respondents, researcher has used structured questionnaire which will be filled by the respondents. Secondary data is collected from company records HR manual, Reference Books, website etc.

DATA ANALYSIS AND INTERPRETATION

Table No.1 : Personal profile of the respondents using percentage analysis

Group	Classification	No. of Respondents	Percentage
Gender	Male	20	68.96552
	Female	09	31.03448

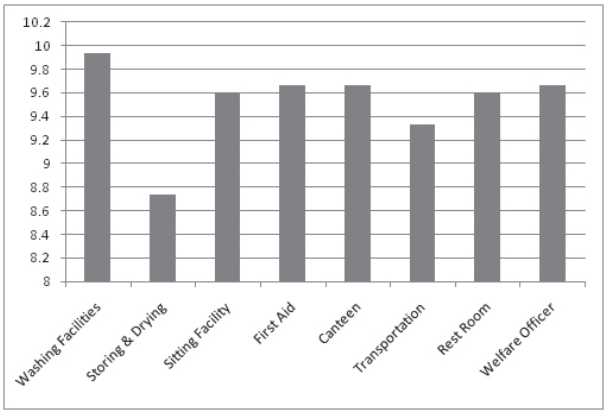
Educational Qualification	5th Std. To 10th Std.	25	86.2069
	ITI	04	13.7931
	UG	00	0
	PG	00	0
Years of Service	1-5 Years	22	75.86207
	6-10 Years	07	24.13793
	11-20 Years	00	0
	Above 20 Years	00	0
Marital Status	Married	14	48.27586
	Unmarried	15	51.72414

From the above table it shows that, Majority of the respondents are male, Majority of the Majority of the respondents are between 5th to 10th standard level of Educational qualification, near about 50% of the respondents are married, Majority of the respondents experience are in between 1 to 5 years.

Table: 2- Shows workers satisfaction towards welfare measures

Sr.No.	Welfare Measure	Weighted Average	Rank
1.	Washing Facilities	9.93333333	1
2.	Storing & Drying	8.73333333	5
3.	Sitting Facility	9.60000000	3
4.	First Aid	9.66666667	2
5.	Canteen	9.66666667	2
6.	Transportation	9.33333333	4
7.	Rest Room	9.60000000	3
8.	Welfare Officer	9.66666667	2

(Source : Primary Data)



FINDINGS

1. From the above table it shows that, all statutory welfare measures prevailing in the company. Even though the majority of workers education is below matriculation but, still they aware about welfare practices.
2. Weighted average method is applied to analyze satisfaction of workers towards welfare measures. According to the calculated values it is found that majority of workers are highly satisfied with welfare measures.
3. According to rank test method it is found that, majority of workers i.e. above (Weighted Average) 9.5 are highly satisfied with Washing Facilities, Sitting Facility, First Aid, Canteen, Rest Room, Welfare Officer.
4. It is observed from the weighted average analysis that, Storing and drying & transportation are the measures for which employee satisfaction is less (The rank for Storing and drying is 5 and for transportation are it is 4)

CONCLUSION

Provision of welfare measures has been made in Factories act 1948. It has made to maintain healthy and comfortable workplace environment in the company. These practices are used to improve the motivation and job satisfaction among the employees and ultimately the productivity also increases. To implement such practices in the organization management needs to put first step forward because, such things influences organization's goodwill in the market and in society also.

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Sustainable Development : A Case Study With Special Reference to Vasundhara Vahini, Community Radio (90.4 Mhz), Baramati

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ABSTRACT

The day came and Baramati got its own Community Radio "Vasundhara Vahini" 90.4 MHz on 1-April-2004. With Vision of improving knowledge of farmers with the help of Radio Media Hon. Sharadchandra'ji Pawar wished to have common platform to farmers for sharing their ideas to others. Under the direction of Dr. Amol Goje, Director VIIT the station started its working. Community Radio also focused on children education and improvement of women activities.

At the time of inception Vasundhara received funding from World Bank and Trust for procurement of technical equipment's. Current funding needs are fulfilled on local advertisements which are listened up to 30 km radius around the station.But this funding is not enough to run Vasundhara Vahini, so there is need to improve sources of funding by different means. This will assure long term sustenance for the Radio in era of internet and information technology which has deepened its roots among people in the society.

When it comes to Receipt and Payment accounts of the Radio with current earnings there is very low possibility of sustenance of radio in long term and development as well. After analyzing situation Dr. Amol Goje calls meeting to discuss problem of funds facing by Vasundhara Vahini with Mr. Sanjay Jagtap, Project Co-Ordinator and Mr. Yuvraj Jadhav, Station In-charge.

Key Words : *Sustainable Development, Community Radio, Funding.*

INTRODUCTION OF COMMUNITY RADIO

Community radio is defined as having three aspects: nonprofit making, community ownership and control, community participation. It should be made clear that community radio is not about doing something for community but about the community doing for itself. Community radio gained momentum as an alternative to publish and commercial radio in the late 70s.in the west; community radio fulfils the needs of self-expression for groups who have negligible access to the mass media. In countries with autocratic or totalitarian governments, community radio become a means for passive or active resistance. Radio reaches people who cannot read or write. Even in the very poorcommunities, radio has a far-reaching penetration.

Tabingdefines a community radio station as 'one that is operated in the community, forcommunity, about the community and by the community'.

Thus community radio may be owned and managed by one group or by combined groups. It could also be controlled and run by people such as women,children,farmers,fisher folk,ethnic groups, senior citizens. Community radio works s a cultural broadcast mechanism that adapts perfectly to reflect the interests and needs of the community it serves and offers people of the marginalized sectors an opportunity to express themselves socially, politically and culturally.

COMMUNITY RADIO STATIONS

- Serve a recognizable community.
- Promote access to media facilities and to training,production and distribution facilities as aprimary step towards full democratization of the communication system.
- Facilitate full interaction between the producers and receivers of massages.
- Are managed and own by the community members. Community or their representatives have a voice in the financing of radio programmes.

WORLDWIDE COMMUNITY RADIO

The right of communicate & to have affordable access to the means of communication is increasingly being acknowledged throughout the world as a fundamental human right. The pioneering experiences from which today's community radio has evolved began some 50 years ago in America. Poverty & social in justice were stimulus for those 1st experiences, one beginning in Bolivia in 1947 & known as the Miners radios & another in Colombia In the same year, known as Radio Sutatenza/AccionCulture popular.These experiences in Bolivia & Colombia set a trend, even if today's concept of community radio has evolved considerably. Thus, their principal focus was to unite the community of Miners to battle for better & fairer working conditions they were generally considered to be trade union radios, even if the Miners provided much of the finance for the purchase of equipment &running costs.

According to Dagron (2001), radio is the most pervasive & economical electronic medium in the world with the potential to serve as an 'ideal medium for change' F or over 50 years now, radio has been the 'most appealing tool' for participatory communication & development & community radio stations have 'multiplied by the thousands' all over the world.

FOOTPRINTS FROM DIFFERENT COUNTRIES

Nepal : FM Broadcasting in Nepal may be seen as consisting of commercial and community Radio stations. Out of the 22 independent radio stations that were issued licenses and operational deal 2002 in Nepal, five could be categorized as non-profit



community station. The community broadcasters focus on locally relevant information and discussions and on national/local culture.

Latin America : Latin America today has one of the most diverse and dynamic radio station in the world with hundreds of stations even in the smaller countries the radio activists and independent stations are lobbying aggressively for the need to legislate for socially-owned media as essential for social communication especially for small community.

Australia : In Australia, Community broadcasting has been allowed for nearly two decade on the condition that stations licensed under that category must be: (A) Non-Profit enterprises that reflect community purposes and interests. (B) Operated with the participation of community members.

The objective of the Australian policy includes promoting the diversity of broadcasting services, developing and reflecting Australian identity, character and cultural diversity and providing programming material that is locally significant.

Philippines : The first genially community based radio to be set up in Asia was in Philippines. As the part of Tamboli Community Radio Project of UNESCO in the 90s. The Danesh International Development Agency (DANIDA) space provided the International and UNESCO setup management and training team to co-operate with communities to organize independent community radio stations in less developed rural areas in the Philippines.

Sri-Lanka : Radio came to Sri-Lanka as early as December 1925 when the Cyclone Broadcasting Service (CBS) was established the CBS was subsequently brought under the broadcasting act no. 37 of 1966 and in now known as the Sri-Lanka Broadcasting Corporation (SLBC). A Farm Broadcasting Unit was established within SLBC in 1967 and a daily rural service was aired from 1969. The programs of SLBC's services of rural communities are broadcast in all three languages – Sinhala, Tamil and English- of the national and local services but focus more on teaching rather than sharing experiences.

A BRIEF HISTORY OF COMMUNITY RADIO

- 1947 Colombia, where the first community radio in the developing world was started.
- 1949 Bolivia's miners' community radio, created a powerful alternative voice from day one 1949 USA's first listener-sponsored community radio went on air.
- 1964 Rural radio began to be developed in Africa with the support of FAO.
- 1971 Australia's first community radio took off.
- 1970s European community, alternative, free, clandestine and often pirate radios emerged in the thousands.
- 1981 Mahaveli community radio, Sri Lanka, was launched with support from UNESCO.
- 1982 Homa Bay community radio was opened in Kenya with important UNESCO support and funding.

- 1981-3 Scandinavian Government initiated periods of community radio experiments which broke the monopolies.
- 1990s African community radios mushroomed, following the gradual democratization of countries.
- 1990s Asian community radios took off with Philippines early 1990s, followed by mushrooming movements in Nepal (1997 Radio Sagarmatha began) and in Indonesia (after Suharto's fall in 1998).
- 2006-7 India's hard work to open access for on air community radios finally succeeded.
- 2008 Bangladesh community radios went to air— after strong advocacy and struggle.

COMMUNITY RADIO INITIATIVES IN INDIA

The Deccan Development Society (DDS), and NGO working with poor, rural, Dalit women in the zaheerabad area of Medak district in Andhra Pradesh, for nearly two decades, set up a community radio station with assistance from UNESCO in 1998.A couple of young Dalit women from the area mange the station, produce programmmes and take the audiotapes for narrowcasting in the village sangams (autonomous groups of women).

Another landmark initiative was jointly set up by VOICES and MYRADA- called 'Namma Dhwani' (Our Voices), where programmes were produced by communities in and around the village of 'Budikote' (about 100 kilometers from Bangalore), and were distributed over the nearest All India Radio station and subsequently over the local cable network. In the west, 'Kutch Mahila Vikas Sanghatan', a civil society group in Gujarat worked with the women in Kutch District to produce programmes on local developmental and cultural issues, and started broadcasting on the nearest All India Radio Station.

In the northern part, Alternative for India Development made programmes with community members in Garhwa block of 'Jharkhand', and broadcast programmes over the Daltonganj All India Radio Station. Community Groups in Chamba, and Rudraprayag, both in Uttarakhand started producing participatory programmes and broadcast over the World Space Satellite Radio network.

By early 2003, the government of India released the first set of community radio guidelines, but unfortunately, restricted eligibility to educational institutions only. Marginalized and voiceless communities continued to remain outside the ambit of the then released community radio policy guidelines. Anna FM was India's first campus "community" radio station. Launched on 1 February 2004, it is run by the Education and Multimedia Research Centre (EMRC); Anna university community radio pioneered by Dr. R Sreedhar.

On 16 November 2006, the government of India implemented new Community Radio Guidelines, which permit NGOs educational institutions and agricultural institutions to own and operate community radio stations. By 30 November 2008, there were 38 operational community radio stations in the country. Of these, two are run by NGOs and the rest by educational institutions.

CHALLENGES TO COMMUNITY RADIO IN INDIA

Community Radio plays a central role in community development. To play this role they need to provide quality programs to ensure continued audience, and support from the community. It has been a great success in developed nations but has lacked in developing countries because of illiteracy and lack of awareness among people. Community radio faces the challenges in effective and quality Program production in terms of content, production quality and community involvement:

- A high turnover of staff that causes a lack of journalistic and technical skills and thus a consistent demand for training. Training on offer in most countries does not address the specific needs of Community Radio.
- Community Radio derives its strength and popularity from community participation. In practice participation is harder than it seems, because it is labor intensive, requires the right attitude, skills and mobile equipment.
- Without proper management skills, as well as some knowledge of financial management and income generation, it is very hard for Community Radio to survive without donor funding, which will always, eventually, dry up.
- Community Radio is by definition relatively small and often situated in locations where basic services, like a constant supply of electricity, are lacking. Due to these conditions equipment suffers and needs to be vigorously maintained and/ or regularly replaced.
- In many countries there is still a lack of a clear regulatory framework in which Community Radio operates.

Among the various challenges faced by the community radio, the participation from the people is the major one and no community radio can survive without participation of people as it demands 70% participation of the community people.

VASUNDHARA VAHINI (90.4 MHZ)

"Vasundhara vahini" 90.4 MHz is dedicated and devoted community radio station that caters to farmers in 35-km radius in and around Baramati. This radio station has started on 4th March, 2005 in Vidya Prathisthan's Institute of Information Technology (VIIT).

"Vasundhara Community Radio is a form of local radio which defines itself as an autonomous entity and relies on the community for its survival without any commercial aims or objects." Vasundhara Community Radio is a medium that gives voice to the voiceless that serves as the mouthpiece of the marginalized and is at the heart of communication and democratic processes within societies. Community radio is a program conceived, devised, developed and managed by the Community.

Vasundhara Community Radio is based on the agro-based radio, which is located in Baramati and rural area of Daund, Phaltan, Indapur and Baramati Tahsil with frequency of 90.4 MHz. Vasundhara has many programs achieving a lot of success in daily four hours broadcasting.Vasundhara vahini do the work to improve the knowledge of farmers with the help of radio media trying for sustainable development in broadcasting area.

Vasundhara Vahini concentrates on children education and create new content for new generation. Vasundhara Vahini is empowering the women by the other activities and various experts talk on the health of them. Vasundhara Vahini's vision is to develop rural community by the experts with medium of radio as mass media, sustaining local art to inspire local culture creates dais for folk artist, common man and farmers to perform of sharing ideas.

Hon. Sharadchandraji Pawar (Agriculture Minister of GOI) have already done a lot of contribution in Agricultural sector. He always wishes that there should be a common platform to farmers for sharing their ideas to others for completion of this wish in Baramati Vidya Pratisthan institutes VIIT Department starting this radio station under the direction of Dr. Amol Goje.

There is one common thought is that "Farmer listens of farmer" Vasundhara vahini was started to provide common platform to all the farmers to discuss their agriculture issue on radio station it began in the campus of Vidya Pratisthan. Vasundhara Vahini focus on children education and the improvement of women activities.

Station launch	1st April 2004.
Hours of broadcast	8 hours. (broadcasting timing morning 6 am to 10 am and evening 4pm to 8 pm)
Languages of broadcast	Marathi.
Program Bank	Sheti Pathshala, Shasan – Darbar, Sant- Vaani, Chala Engraji Shikuya, Amrutvaani, Ayush ghadavnari manase.

Vasundhara Vahini contact to school & colleges and gives them some subject. Station organize different discussion on various social issues and invite authorities. Field officers reach to person who have make some different than other and invite him in the studio if it's not possible then field officers reach in the field for outdoor recording. People who get involved in creating content, Vasundhara Vahini give them participation certificate.

Audience like to listen local folk songs because they have local touch. They are thankful to Vasundhara Vahini about expert talk based on various social and Farm based issues. They get awareness about schemes of government with the help of radio. Station is run with participation of community. Vasundhara Vahiniorganize different sections of discussion on different social issues. So many experts and common people joined with Vasundhara Vahini. Its field officers were reached in the farmers of the farm and communicate with them of different crops and with the help agriculture officer Vasundhara Vahini provide solution through their radio. Vasundhara invites folk artist to record their performance in their station they jointly work with NGOs and various government sectors. They have started second inning program for pensioners.

FUNDING AT THE TIME OF INCEPTION

Funding from trust and World Bank for procurement of technical items.

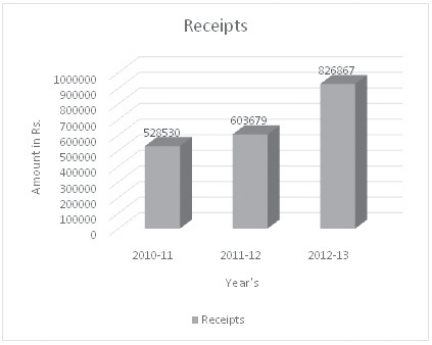
MODE OF PRESENT FUNDING

Vasundhara Vahini is sustaining on local advertisements. There is one marketing representative for collecting the advertisement. Station is earning from different types of ground activities. Working with different type of government sectors and NGOs Vasundhara has started one club for listeners (Women) named 'Vasundhara Mahila Manch' with help of this group Vasundhara play many activities. Vasundhara has taken membership from them. With the help of group Vasundhara plans different type of training programs.

Current Financial Position of Vasundhara (90.4 MHz)

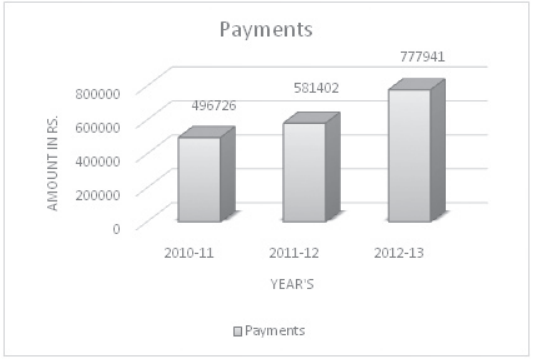
Receipts of Vasundhara for Financial Year 2010-11, 2011-12 and 2012-13 :

Year	Receipts
2010-11	528530
2011-12	603679
2012-13	826861



Payments of Vasundhara for Financial Year 2010-11, 2011-12 and 2012-13:

Year	Payments
2010-11	496726
2011-12	581402
2012-13	777941



Year	Surplus/ (Deficit)
2010-11	31804
2011-12	22277
2012-13	48920



WAY AHEAD FOR VASUNDHARA VAHINI 90.4 MHZ

To establish one common platform for folk artist.

To sustain local culture.

To empower women as broadcaster.

To maintain recording of all old rare forms of folk songs.

To establish consultancy to solve any problem of community with help of experts.

To work as mediator in government and community for solving problems of community.

To carry out these activities Vasundhara Vahini needs funds in sufficient amount.

When it comes to Receipt and Payment accounts of the Radio with current earnings there is very low possibility of sustenance of radio in long term and development as well. After analyzing situation Dr. Amol Goje calls meeting to discuss problem of funds facing by Vasundhara Vahini with Mr. Sanjay Jagtap, Project Co-Ordinator and Mr. Yuvraj Jadhav, Station In-charge.

Analyze the situation and offer your suggestions to the problem of funding.

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A Social Media Networking : Dynamic Medium of Interaction. A Study Based on Students of Baramati Region

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ABSTRACT

The advent of social media is transforming the way in which people connect with each other and the manner in which information is shared and distributed. It is different from traditional media such as print, radio and television in two significant ways – first, the amount of content that can be generated by the users themselves far exceeds the content generated by news/opinion makers and second, its "viral" ability for potential exponential spread of information by word of mouth and interlinking of the various social media platforms, thereby considerably reducing the control over spread of any such information.

These characteristics denote the paradigm shift from Web 1.0 technologies that enabled simple information sharing and basic two-way transactions to Web 2.0 – where literally everyone is/can be a user as well as generator of content. Social media is redefining the way people communicate with one another.

In order to encourage and enable government agencies to make use of this dynamic medium of interaction, a Framework and Guidelines for use of Social Media by government agencies in India has been formulated. These guidelines will enable the various agencies to create and implement their own strategy for the use of social media. The document will help them to make an informed choice about the objective, platforms, resources, etc. to meet the requirement of interaction with their varied stakeholders.

Keywords: *Social Media, Social Media networking, social issues, communication, college students, social media websites.*

OBJECTIVES

The primary objective of this research work is to study the role of social media networking in the students of Baramati region. Also to study the types of various social medium used for the communication by the students of the Baramati region.

I. Introduction :

What is Social Media?

Social Media in recent times has become synonymous with Social Networking sites

such as Face Book or Micro Blogging sites such as Twitter. However, very broadly social media can be defined as any web or mobile based platform that enables an individual or agency to communicate interactively and enables exchange of user generated content.

Social Media Characteristics: Critical characteristics of social media are-

- **Connectedness :** This attribute showcases the media's ability to connect and reconnect like-minded people or people interested in same topics and domains. Through this media, 24*7 connectedness is possible through a variety of media and access devices including PCs, Laptops, mobile phones etc. Individuals re-tweeting & following other people's comments and status and updating their own account at all hours are examples of this attribute.
- **Collaboration :** The connections achieved on this media, enable people to collaborate and create knowledge. Such collaborations can be either open or closed. Wikipedia is an example of open collaboration which enabled creation of an open web based encyclopedia through contribution from hundreds of thousands of people. GovLoop is an example of closed collaboration wherein experts groups contribute on specific policy matters.
- **Community :** Connectedness and collaboration helps create and sustain communities. These communities can create awareness about various issues and can be used for seeking inputs into policy making, building goodwill or even seeking feedback into delivery of public services. Pictorially, the characteristics have been depicted below to show the inter-linkages between all characteristics and their mutual dependency.

Need for Social Media Guidelines-

Given its characteristics to potentially give "voice to all", immediate outreach and 24*7 engagement, Social Media offers a unique opportunity to governments to engage with their stakeholders especially citizens in real time to make policy making citizen centric. Many governments across the world as well many government agencies in India are using various social media platforms to reach out to citizens, businesses and experts to seek inputs into policy making, get feedback on service delivery, create community based programmes etc. However, many apprehensions remain including, but not limited to issues related to authorization to speak on behalf of department/agency, technologies and platform to be

- Used for communication, scope of engagement, creating synergies between different channels of communication, compliance with existing legislations etc. It was therefore felt that Guidelines for use of Social Media were required which would enable project owners/implementers to effectively use these platforms.

II. Review of Literature :

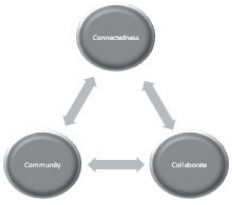
Challenges in Using Social Media-

- **Why to use social media :** Departments sometimes find it difficult to define the need or objective to use social media. Is it for providing information, seeking feedback, generic interaction, etc. Due to this lack of clarity, departments often either choose not to use social media or attempt to be present on all platforms at once.

- **Which Platforms to use:** Given the plethora of platforms and even types of social media, it is very difficult to choose the type and no. of platform on which to engage and how to create inter-linkages between these platforms.
- **Who will engage:** Most departments have limited capacity to engage with traditional media itself and since social media demands a deeper and constant interaction, availability of such resources is even more limited. A closely associated question is that of authority i.e. who is authorized to respond on behalf of the department, whether such a response will be made in personal or official capacity and from personal or official account etc.
- **How to engage:** Use of social media is an ongoing process and requires long term commitment. Many have questions around rules of engagement – how to create and manage an account, what should be response time, what are the legal implications etc.

In order to help departments and government agencies to meet these challenges, Guidelines for use of Social Media have been drafted. In the following section, various elements of the Framework and the Guidelines to use the different elements of Framework have been detailed Commitment. Many have questions around rules of engagement – how to create and manage an account, what should be response time, what are the legal implications etc.

In order to help departments and government agencies to meet these challenges, Guidelines for use of Social Media have been drafted. In the following section, various elements of the Framework and the Guidelines to use the different elements of Framework have been detailed.



Need for Using Social Media: With the ever increasing diffusion of ICTs in all walks of lives, connectedness is increasingly becoming a given part of our lives. This connectedness brings with it many opportunities and also presents many challenges. From the perspective of governments, the following represent some of the reasons for using social media:

- **Enhanced Outreach**: As the recent world events have demonstrated, social media have emerged as a powerful platform for forming an opinion as well as generating mass support. In India, Face Book alone has over 40 million users each. Even a micro blogging site Twitter has about 16 million users. These sites offer an opportunity to reach out this audience at a key stroke. Many of these facilitate access through mobile devices and with nearly 900 million mobile users in India, it offers an unprecedented outreach.
- **Real Time engagement:** Social Media releases the shackles of time and place for engagement. They can connect policy makers to stakeholders in real time. In recent Libyan crisis, Ministry of External Affairs used social media platforms such as Twitter to assist in locating and evacuating Indian Citizens from Libya.
- **Individual Interaction:** In tradition forms of media, interaction with individual user is either not possible or is very limited. Social Media platform offers the ability to connect

with each and every individual. Such an interaction also enables the marginalized to participate in discussions and present their point of view, thereby improving the political position of marginalized or vulnerable groups. It is specifically useful when seeking feedback on services rendered.

- **Managing Perceptions**: One of the big challenges for government is to avoid propagation of unverified facts and frivolous misleading rumors with respect to government policies. Leveraging these platforms can help to counter such perceptions and present the facts to enable informed opinion making.

Types of Social Media

Kaplan and Haenlein in 2010 classified social media into six different types: collaborative projects, blogs and micro blogs, content communities, social networking sites, virtual game worlds, and virtual social worlds. A brief description of some of the most common types of social media is given below:

Social Networking: Social Networking is an online service that enables its users to create virtual networks with likeminded people akin to social networks in real life. It often offers the facilities such as chat, instant messaging, photo sharing, updates, etc. Currently, social networking sites are the most prominent version of social media. Face Book with 800 million users is one of the most well known social networking site.

Blogs: Blogs are descriptive content pages created and maintained by individual users and may contain text, photos and links to other web sites. The main interactive feature of Blogs is the ability of readers to leave comments and the comment trail can be followed.

MicroBlogs: MicroBlogs are similar to Blogs with a typical restriction of 140 characters or less, which allows users to write and share content. Twitter is the most well known micro blogging site.

Vlogs and Video Sharing sites: VideoBlogs or Vlogs are blogging sites that mainly use video as the main form of content supported by text. YouTube is the largest video sharing site.

Wikis A Wiki is a collaborative website that allows multiple users to create and update pages on particular or interlinked subjects. While single page is referred to as "wiki page" the entire related content on that topic is called a "Wiki". Wikipedia is the pioneering site of this type of platform.

Some of the other popular social media sites include

- SlideShare – Similar to YouTube, here only presentations in PDF, PPT, KeyNote or Open Office format can be uploaded
- Orkut and LinkedIn – These are two other popular social networking sites. While the former is an open site, the latter is primarily a business networking site
- Picasa and Flickr – These are photo sharing sites

III. Research Methodology:

It would be more appropriate to call this work as Descriptive type of Research. The descriptive research includes fact finding enquiries and surveys of different kinds to provide

data about the population being studied.

Span	Baramati region of Pune District.
Sampling	Simple Random Sampling.
Type	Students who use Social Media networking sites like facebook, my Space, whatsapp, orkut etc..
Size	Approximately, 200 Students from Baramati.
Research Instrument	Questionnaires and Interviews.
Sample Size	But only 147 students responded positively for the Survey.

Serial no	Samples	Number
1	Respondents(male)	95
2	Respondents(Female)	52
Total		147

Serial No.	Age wise Samples	Number
1	Age 18-19 yrs	24
2	Age 20-21- yrs	45
3	Age 22-23 yrs	31
4	Age 23-24 yrs	48
		147

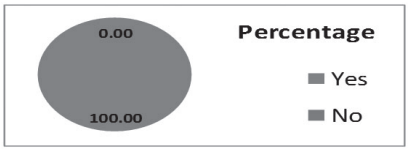
Primary Data Collection: Through Questionnaire filled up from Students from Baramati region of Pune District. They are Active online users like social networking sites.

Secondary Data Collection: Here, Newspapers, Magazines, Periodicals, Government of India Reports, Ministry of Information Technology Reports for Publications, Web sites of Central government, State Governments etc. studied to get the necessary details.

IV. Data Captured and Interpretation:

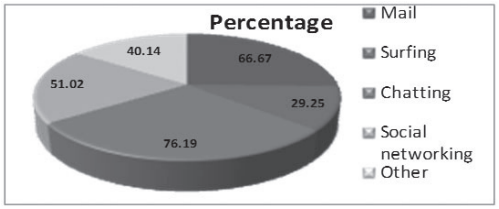
1. Do you use social networking sites?

	Out of 147	*Percentage*
Yes	*147*	*100%*
No	*0*	*0*
	147	*100%*



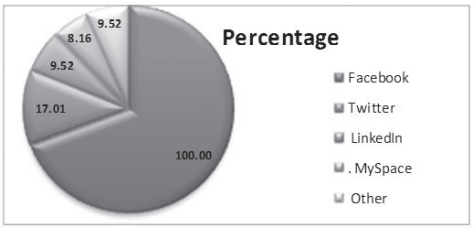
2. Which is the purpose of Internet usage?

	Out of 147	*Percentage*
Mail	*98*	*66.67*
Surfing	*43*	*29.25*
Chatting	*112*	*76.19*
Social Networking	*75*	*51.02*
Other	*59*	*40.14*



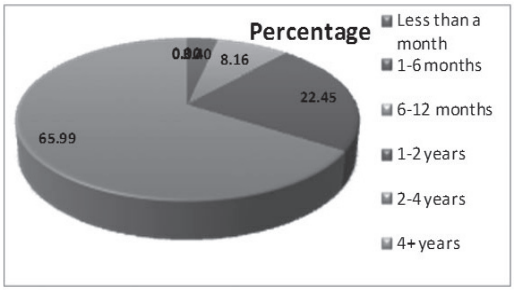
3. What type of Social Media do you use or follow on a regular basis? Check all that apply.

	Out of 147	***Percentage***
Facebook	*147*	*100*
Twitter	*25*	*17.01*
LinkedIn	*14*	*9.52*
MySpace	*12*	*8.16*
Other	*14*	*9.52*



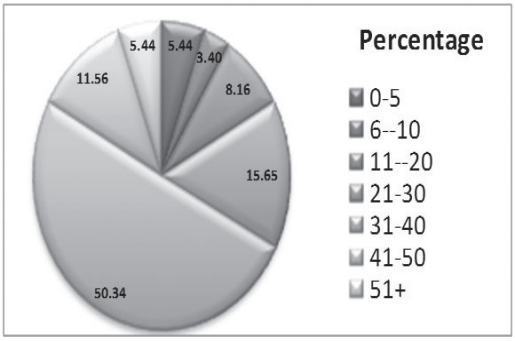
4. Roughly how long have you been using social networking sites?

	Out of 147	***Percentage***
Less than month	*0*	*0*
1-6 Months	*5*	*3.40*
6-12 Months	*12*	*8.16*
1-2 Years	*33*	*22.45*
2-4 Years	*97*	*65.99*
4 + Yrs	*0*	*0*
	147	*100*



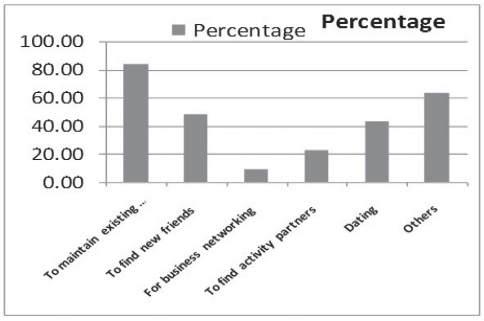
5. Roughly how many hours a week do you spend on social networking sites?

	Out of 147	***Percentage***
0-5	*8*	*5.44*
6-10	*5*	*3.40*
11-20	*12*	*8.16*
21-30	*23*	*15.65*
31-40	*74*	*50.34*
41-50	*17*	*11.56*
51+	*8*	*5.44*
	147	*100*



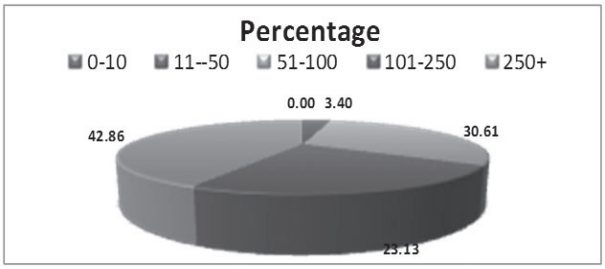
6. For which Purpose of membership in social networking sites

	Out of 147	Percentage
To maintain existing friends / contacts	124	84.35
To find new friends	72	48.98
For Business networking	14	9.52
To find activity partner	34	23.13
Dating	64	43.54
Others	94	63.95



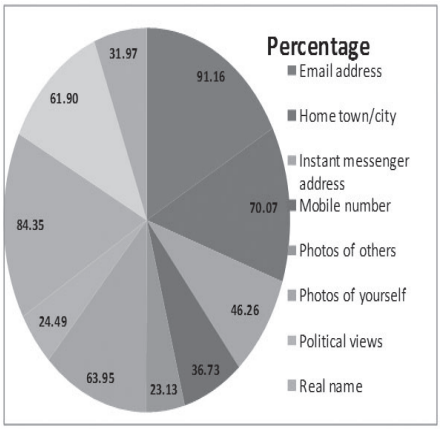
7. Roughly how many friends in total do you have in all of your social networking sites?

	Out of 147	Percentage
0-10	0	0
11-50	5	3.40
51-100	45	30.61
101-250	34	23.13
250+	63	42.86
	147	100



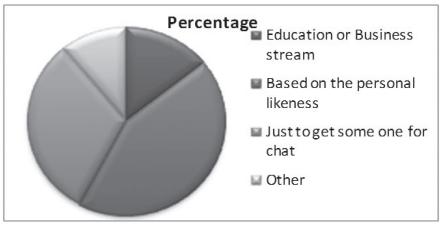
8. Please indicate what information you include on your social networking sites. You may select more than one option.

	Out of 147	Percentage
Email Address	134	91.16
Home Town / City	103	70.07
Instant Messenger Address	68	46.26
Mobile Number	54	36.73
Photos of others	34	23.13
Photos of yourself	94	63.95
Political Views	36	24.49
Real Name	124	84.35
Relationship Status	91	61.90
Other, Plz Specify	47	31.97



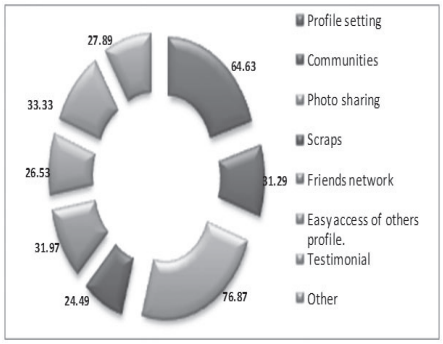
9. On what criteria do you make friends in social networking sites?

	Out of 147	***Percentage***
Education or Business	*21*	*14.29*
Based on the Personal	*64*	*43.54*
Just to get Some one for	*46*	*31.29*
Other	*16*	*10.88*
	147	*100*



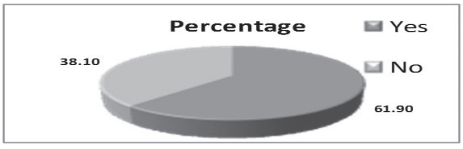
10. Activities in social networking sites

	Out of 147	***Percentage***
Profile Setting	*95*	*64.63*
Communities	*46*	*31.29*
Photo Sharing	*113*	*76.87*
Scraps	*36*	*24.49*
Friends Network	*47*	*31.97*
Easy Access of other Profile	*39*	*26.53*
Testimonial	*49*	*33.33*
Other	*41*	*27.89*



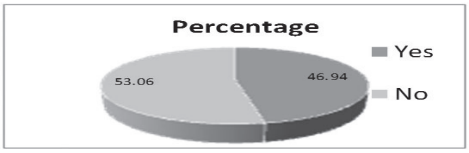
11. Do you attempt to establish your identity/personality in social networking sites?

	Out of 147	***Percentage***
Yes	*91*	*61.90*
No	*56*	*38.10*
	147	*100*



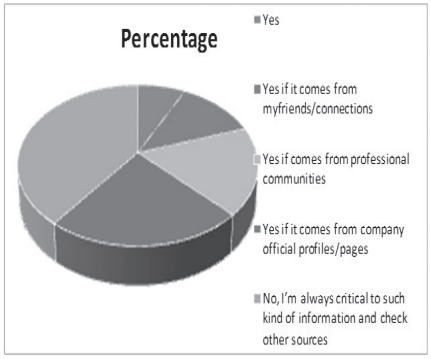
12. Relationship with online friends (strangers in real life)

	Out of 147	***Percentage***
Yes	*69*	*46.94*
No	*78*	*53.06*
	147	*100*



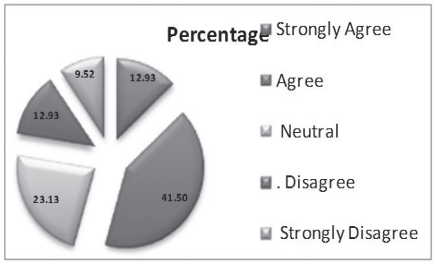
13. Do you trust information you obtain via social networking websites?

	Out of 147	***Percentage***
Yes	*11*	*7.48*
Yes, if it comes from my friends / Connection	*18*	*12.24*
Professional Communities	*26*	*17.69*
Company / Official Profile	*34*	*23.13*
No, I am always critical to such kind of information and check.	*58*	*39.46*
	147	*100*



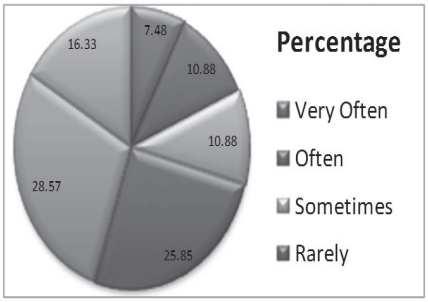
14. Do you feel that you are addicted to Social Media?

	Out of 147	***Percentage***
Strongly Agree	*19*	*12.93*
Agree	*61*	*41.50*
Neutral	*34*	*23.13*
Disagree	*19*	*12.93*
Strongly Disagree	*14*	*9.52*
	147	*100*



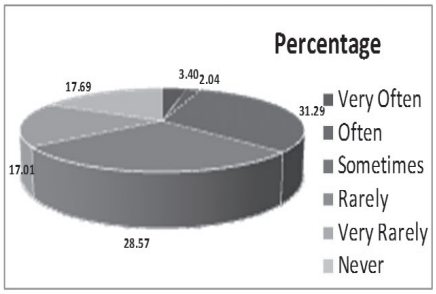
15. How often do other people comment on your social media usage?

	Out of 147	***Percentage***
Very Often	*11*	*7.48*
Often	*16*	*10.88*
Sometimes	*16*	*10.88*
Rarely	*38*	*25.85*
Very Rarely	*42*	*28.57*
Never	*24*	*16.33*
	147	*100*



16. How often do you typically feel stressed out, disconnected, or paranoid when you cannot access social media sites?

	Out of 147	***Percentage***
Very Often	*5*	*3.40*
Often	*3*	*2.04*
Sometimes	*46*	*31.29*
Rarely	*42*	*28.57*
Very Rarely	*25*	*17.01*
Never	*26*	*17.69*
	147	*100*



Findings:

- 100 % Respondents use social networking sites.
- 76% Use internet chatting.66 % use for the mail service.51 % use social networking
- 100 % respondents use social media facebook.
- 66 % respondents use social network sites since form last 1-2 years.
- 50 % respondents spend s 31-40 hrs per week on social networking sites.
- 84 % respondents says that they use social networking sites to maintain existing friend n contacts while 63 % use for other purpose.
- 42 % Respondents have more than 250 friends in all social networking sites.
- 91 % respondents include email address on the social networking sites, 84 % includes their real name.
- 44 % respondents say that they make friends on social networking sites best on personal likeness.
- 76 % respondents says that the mostly perform photo sharing activity on a social networking sites while 64 % does profile setting.
- 61 % attempts to establish your identity/personality in social networking sites.
- 53 % respondents are Relationship with online friends. (strangers in real life)
- 39 % respondents say that they don't trust information you obtain via social networking websites.
- 41 % respondents are agreeing that they are addicted to social network.
- 28 % says that people very rarely commented on their social media usage.
- 31 % says that sometimes they feel stressed out, disconnected, or paranoid when they cannot access social media sites.



Conclusion:

The survey of how the use of social networking sites (SNS) by students is related to who use overall social networks. We did find that more student use chatting on social network sites. Facebook and twitter influence the buying habits of students who frequently check their accounts.

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Challenges for Talent Retention

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MBA 1st year - VIIT-Baramati

ABSTRACT

The business world has become one with the advent of the term globalization. This has created a pool of talent which is ready to be grabbed by various organizations. The demand for talent in this country has increased due to Competitive Environment, Necessity of Continuous Growth, Survival of the Fittest, Changes in the Economic Policy by Government, Better Market Growth as well as Market Share. To achieve success organizations are striving to get good talented people from the country. They are visiting various institutes trying to get good talented people and in this process they are also looking at the future requirements. To attract good talent the organizations are using following things Good Pay Packages, Providing better working conditions, Better Incentive Schemes, Good Promotional Policy. The research paper will discuss the challenges to retain these talents in the organization so that it can move from better to best. The basic challenges are - Regular amendment in Compensation Package, Providing better Employee Welfare facilities, Providing ESOPs (Employee Stock Option Plans), Promotional Policy in relation to the overall Industrial scenario.

Key words : *Talent, Talent retention, Talent challenges, Talent management.*

INTRODUCTION

As somebody has said, "Talent is like a pool in which organizations have to jump to get the best fish." In order to get good talent it takes a Herculean task on the part of the organization and organizational policies. Retaining a person is more difficult than recruiting and in this context I am presenting this paper, in which I will be putting forth certain HR tools that will help organization to retain people and reduce attrition rate. The organizations experience shortage of employees due to employee mobility in the organization structure itself. The mobility can be due to Job Rotation, Transfers, Promotion and some leave the organization to join some other organization with better package. Believe it or not, despite the years of downsizing, layoffs, re-engineering and reorganization we will soon face a major labour crunch! By 2012, we will experience a 33% shortfall of degreed candidates - approximately six million graduates short to fill new jobs and replace retirees (Society for Human Resource Management HR News, October 2002)

So, if you've been lucky enough to find goods people.heck, even people who could be good given just a little encouragement, it's in your best interest to hold onto them!

We can no longer afford an attitude that "there's more where they came from" when Sally or Bob give their notice. Retaining in education sector is also important because good teachers are in short and we don't employ a decent system for retaining them we will not have students. The students are attracted towards a particular institute with reference



to the faculty profile. It is very important that to attract good students you should have good teachers and vis-à-vis.

The Society for Human Resource Management cites the following three organizational behaviors that lead to employee turnover. Failure to make talent supply a long term priority Progressive organizations know that engaging in reactionary hiring binges with subsequent mass layoffs not only demoralizes top producing talent, but also earns them a reputation in the "community" as unpredictable and unreliable. Establish a Project Team to consistently scour the industry for quality people and make room for them as they become available. You may not get a second chance once the labor shortage hits.

Failure to make turnover costs clear

I'd stake my reputation that 99% of frontline supervisors and managers have absolutely no idea what it costs the organization each time a person gives notice and walks out the door! Turnover costs extend well beyond just placing an ad in the newspaper. There are certainly the "hard costs" of advertising, interviewing, background checks etc. but there are also "soft costs". These can include key clients who follow the employee over to the competition, morale and productivity dips when a popular employee leaves, the time it takes to get the replacement up and running. Turnover costs can easily range anywhere from 1.5 times the person's salary for an entry level position to 6 or 7 times for a highly skilled manager.

Failure to recognize that employee's first loyalty is themselves.

We've done a really good job over the years teaching employees that loyalty does not exist. We've flown the "its just business" flag quite high during lean times when cutting positions was the most expedient way to shave expenses. So given that assumption, why do organizations still expect that employees will sacrifice their health and family welfare to give their souls to their jobs! We rely too much on compensation as a retention tool.

Talent Retention

In the industrialized countries, it is being noticed that people are no longer working for the basic needs of living alone. Money is no more considered as the lone driving force behind people's work. Yet, people continue to work hard. What drives them to work that hard? Is it their love for work? Or is it their passion for the job? These questions says that organizations have to create an atmosphere which simply engender "a mind to work" among the employees. The Internet has wrought incredible changes in the very outlook of business and the speed at which it is being carried out. It indeed created a new band of knowledge worker. These are the employees who are putting their knowledge to work rather than their muscle power. Today, knowledge is recognized as a high grade input of the business. As against the traditional workers of manufacturing segment whose functioning is merely considered to be additive, knowledge workers are to be sourced from the strength that they bring in to a given job in alignment with its requirement. Hence, they are being paid incredible sums vis-à-vis traditional workers. It is of course a different matter that knowledge workers are reported to be a disgruntled lot and perhaps that is one reason for their hopping from one job to another.

An essential component of employee helps to remain loyal to employers Chance to use skills on the job/ Trust in senior leadership/ Competitiveness of rewards /Job security/

Quality of company's products and services /Absence of work-related stress /Honesty and integrity of company's business conduct / All other factors. We can determine that the major reason why employee turnover is more is due to lack of Job security. Recently, a trend can be seen in pharmaceutical companies, where people are leaving due to lot of sales pressure and they are joining a profession where the income is also good and less pressure. The major boost can be seen in teaching profession where everyone wants to become a teacher by default because there is less accountability and pressure.

The above picture depicts how employees are leaving the organization. This can be stopped and the challenges that every organization is facing can be accepted & faced.

Major Challenges for Talent Retention:

Presently the companies are using four methods to address the varied needs of the employees. The four methods are as given below - Varied Needs of the Employees

1. Segmentation –

Grouping employees based on shared characteristics such as performance, geography, learning style, role or any other germane factor, and developing policies tailored to each category.

Advantages - Control lies with a central group; executives can see exactly how talent is being managed.

Disadvantages - Company must manage multiple programs and practices; some employees may not fit easily into any category.

2. Modular Choices

Allowing employees to choose from a standard set of options on benefits, work arrangements and more.

Advantages - Company maintains control; viewed as fair, since everyone is offered the same options.

Disadvantages - Managing multiple options may require an increase in HR resources; employees may feel choices are too limited.

3. Flexible Policies -

Providing greater discretion on HR policies, such as more. latitude for managers on pay and for employees on work schedule.

Advantages - Based on a single, simple set of general guidelines; provides for better fit with employee than segmentation or modular choices.

Disadvantages - Policies may be inappropriately interpreted or applied; lack of rigid standards means policies may lack transparency.

4. Individualized Manage ment Practices - Management methods that factor in and build on employee's individuality, such as apprenticeship plan instead of traditional training.

Advantages - Cultivating the work force becomes a line responsibility; best fit with employee.

Disadvantages - less company control and transparency than with other practices; requires greater evaluation effort than standardized approaches.



Something about Attrition

When one discusses the construct of attrition from the perspective of employees leaving an organization, one should make an attempt to ascertain why the employees are leaving; and at what level of the organization they are vacating. It is a paramount consideration for the HRM & HRD practitioners to work closely together to think about the specific particulars associated with why people are vacating their positions. Many organizations employ HR practitioner to conduct exit reviews of individuals who have elected to leave the organization - however, this practice may not reveal reliable information about one's decision to leave an organization.

Some HR managers have seen employees leave an organization and provide little if any reliable information regarding their decision to leave an organization. This scenario could have very profound implications upon the future state of the organization. One HR manager who was interviewed for this endeavor suggested that some individuals simply provide general information about their decision to leave the organization such as a promotion to a new position within another organization; or perhaps relocation. The other end of the continuum reveals information about the work environments that range from supervisors and co-workers being hostile to a feeling that the organization simply does not care about their employees. In this scenario, the exiting employee literally names co-workers and supervisors in an attempt to retaliate against them. This type of information is not very often a reliable means of ascertaining the reasons for vacating a position. This HR manager who was mentioned previously stated that accurate and reliable information regarding the real reasons a person would leave the organization are rarely discovered by HR. Some inferences were often made during the exit interview process but in many examples the person who was leaving organization feared retaliation from either a reference perspective; or perhaps some Compensation issues. In essence, this HR manager affirmed that exit interviews often do not provide the type of information that would allow one to make adjustments or improvements to the environments within the organization.

Why are they leaving?

The reasons people leave an organization are so varied that any attempt to find one comprehensive explanation for this phenomenon would be futile. What is encouraged here is an honest assessment of attrition trends. Can they be explained by environmental factors? Are the organizations attrition numbers consistent with other organizations comprised of similar labor force? Is the attrition the result of organizational behaviors or strategies? These are the kinds of questions that must be asked, since all attrition is not a sign of problems and some attrition is always inevitable. For example, if the economic factors of a region create a situation where unemployment rates are uncharacteristically low, attrition rates in an organization comprised of a labor force hired predominantly for less skilled positions may experience a spike in attrition as employees look for better opportunities in this labor competitive market. While this may be an ongoing challenge for this organization, it is the product of market trends and the inherent characteristics of the organization, and not necessarily an indicator of an unhealthy organizational climate or culture.

Strategies to face Challenges

Segmentation - The employees having shared characteristics should be brought at one place and the knowledge that they have should be managed. Proper management of knowledge will lead to appreciation to the employees showing better performance. The segmentation will comprise of employees having best, good and average knowledge

Modular choices - The organization must provide options on benefits to the employees in order to retain them. A benefit impresses upon the employee and increases the level of loyalty towards organization. Competition or government regulations will invoke some flexible strategies to cope up. The government regulations will make organizations pay more to the employees enhancing the financial burden.

Flexible policies - The managers who are working in the organization must be delegated authority to decide on how benefit the employees if one of them is putting more effort in comparison to others. If you study the entire structure of various organizations in India you will find that the powers on monetary benefits wrest with the management and individual managers are not given any power on decision making. The management should have flexible policies and the powers must be delegated in order to retain good talent.

Individualized management practices - Management should take initiative to train employees. A systematic training and development procedure will enhance the employee's competency resulting into higher productivity and better perks. Latest management practices adopted in various organizations if properly communicated to employees in management cadre will help them to manage people and enhance their moral.

Conclusion

Talent retention has and will be a topic for debate in the coming century. The way talent is progressing and the demand for these talents are increasing; the retention will be major challenges that every organization is going to face. In the above context, I would like to conclude by elaborating certain points - A good compensation package is the need of the hour for talent retention. Updating knowledge through systematic training and development program. Very progressive and future oriented promotional policies. Human resource planning should be very systematic and a continuous effort is needed.

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Review of Mining High Utility Item Set from Transactional Database

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ABSTRACT

Mining high utility item sets from a transactional database refers to the identify the item sets with high utility like profit. Although a number of Algorithm's have been proposed but there is problem like it generate large number of candidate Item sets for High Utility Item sets. Large number of Item sets degrades the performance of mining in terms of execution time and space requirement. This situation may worse when database contains large number of Transactions.

In proposed system Efficient Algorithm for Mining High Utility Item set from Transactional Database i.e. UP-Growth Algorithm. For that algorithm information of high utility item set is maintained in tree based data structure named Utility Pattern Tree. With the help of UP-Tree candidate item set can be generated with only two scans of database. Proposed algorithm, not only reduce number of candidate item set but also work efficiently when database contains lots of long transactions.

Keywords : *Candidate item set, high utility item set, utility mining, data mining.*

INTRODUCTION

1.1 Overview

The purpose of proposed systems is towards finding high utility item set. Here, the meaning of item set utility is interestingness, importance, or printability of an item to users. Utility of items in a transaction database consists of two aspects:

1) The importance of distinct items, which is called external utility, and

2) The importance of items in transactions, which is called internal utility.

Utility of an item set is defined as the product of its external utility and its internal utility. A item set is called a high utility item set if its utility is no less than a user-specified minimum utility threshold; otherwise, it is called a low-utility item set. The goal of frequent item set mining is to find items that co-occur in a transaction database above a user given frequency threshold, without considering the quantity or weight such as profit of the items. However, quantity and weight are significant for addressing real world decision problems that require maximizing the utility in an organization. The high utility item set mining problem is to find all item set that have utility larger than a user specified value of minimum utility.

1.2 Problem Definition

Data mining is the process of retrieving item set from database. Proposed system use transactional database and mine high utility item set. High utility item set is nothing but the item set which have highest profit. In existing System, HUP Algorithm is used to mining High Utility Item set from database but there are some disadvantages like, it generates huge set of PHUIs. This system use UP-Growth Algorithm. Main advantages of this Algorithm are, It scan database only two times and It generates less set of PHUIs.

2 LITERATURE SURVEY

2.1 Existing System

2.1.1 Fast Algorithms for Mining Association Rules

- Author:

R. Agrawal and R. Srikant

- Description:

Apriori is a great improvement in the history of association rule mining, Apriori algorithm was first proposed by Agrawal in 1994. Apriori is more efficient during the candidate generation process for two reasons, Apriori employs a different candidate's generation method and a new pruning technique. There are two processes to find out all the large item set from the database in Apriori algorithm. First the candidate item set are generated, and then the database is scanned to check the actual support count of the corresponding item set. During the first scanning of the database the support count of each item is calculated and the large 1 -item set are generated by pruning those item set whose supports are below the predefined threshold. In each pass only those candidate item set that include the same specified number of items are generated and checked.

- Advantages:

1] Uses large item set property

2] Easily parallelized

3] Easy to implement

4] It doesn't need to generate conditional pattern bases and sub- conditional pattern tree recursively

- Disadvantages:

1] It requires multiple database scans

2] Assumes transaction database is memory resident.

3] generating candidate item set

2.1.2 Efficient Frequent Pattern Mining over Data Streams

- Author:

S.K. Tanbeer, C.F. Ahmed, B.-S. Jeong, and Y.-K. Lee.

- Description:



Frequent pattern mining focuses on discovering frequently occurring patterns from different types of datasets, including unstructured ones, such as transaction and text datasets, semi-structured ones, such as XML datasets, and structured ones, such as graph datasets. The pattern can be item set, sequences, sub trees, or sub graph etc. depending on the mining tasks and targeting datasets. Frequent patterns can not only efficiently summarize the underlying datasets, providing key sights into the data, but also serve as the basic tool for many other data mining tasks, including association rule mining, classification, clustering, and change detection among others.

- Advantages:

1] It finds frequent item set without generating any candidate item set

2] Scans database just twice.

3] Does not generate candidate item set.

- Disadvantages:

1] It treats all items with the same importance/weight/price.

2] In one transaction, each item appears in a binary (0/1) form, i.e., either present or absent.

3] Consumes more memory and performs badly with long pattern data sets.

From this algorithm we get one Advantage in our proposed system i.e. scans database only two times.

2.1.3 Efficient Tree Structures for High Utility Pattern Mining in Incremental Databases

- Author:

C.F. Ahmed, S.K. Tanbeer, B.-S. Jeong and Y.-K. Lee

- Description:

It provide an efficient research method for high utility pattern mining for handling incremental databases, while considering many insertions, deletions, and medications with the currently available memory size. Three variations of our tree structure have been proposed.

1] Incremental HUP Lexicographic Tree (IHUPL-Tree), is arranged according to an items lexicographic order. It can capture the incremental data without any restructuring operation.

2] IHUP Transaction Frequency Tree (IHUPTF-Tree), which obtains a compact size by arranging items according to their transaction frequency.

3] IHUP-Transaction-Weighted Utilization Tree (IHUPTWU-Tree) is designed based on the TWU value of items in descending order.

All of the tree structures have the build once mine many properties and are highly suit-able for interactive mining. All three tree structures require maximum two database scans.

- Advantages:

1] Ability to consider the non binary frequency values of items in transactions and different profit values for every item.

2] Incremental and interactive data mining provide the ability to use previous data structures and mining results in order to reduce unnecessary calculations when a database is updated, or when the minimum threshold is changed.

3] Build once mine many.

- Disadvantages:

1] It generates huge set of PHUIs.

2] Their mining performance is degraded consequently.

This situation may become worse when database contain many long transactions or low thresholds are set from this algorithm we get following Advantages in our proposed system i.e.

1] Ability to consider the non binary frequency values of items in transactions and different profit values for every item.

2] Reduce unnecessary calculations when a database is updated, or when the minimum threshold is changed.

3] Build once mine many.

3 Proposed System

If you consider Existing methods, in that Algorithm multiple number of HTWUIs are generated. For removing this drawback of existing system, new Algorithm is proposed i.e. UP-Growth Algorithm. Main aim of this system is reducing item sets overestimated utilities.

- **Algorithm Used:**

1. UP-Growth Algorithm

- **System Architecture:**

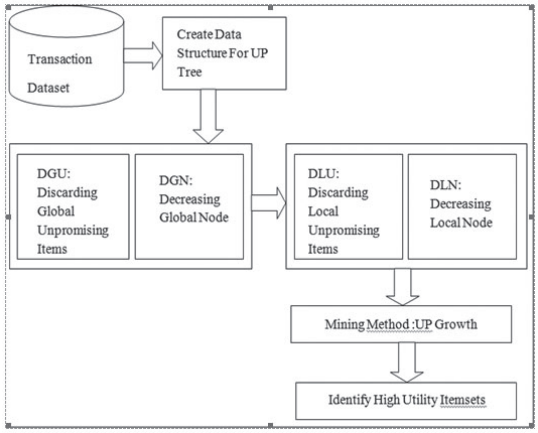


Figure 3.1 System Architecture



Contains the following blocks :

1. Create Data Structure For UP Tree: In this block one UP Tree by using the data structure which consist of node name, node count, node utility, node parent, node link and set of child node.

2. DGU: Discarding Global Unpromising Items: After constructing UP tree the items which transaction weighted utility is less than the minimum utility threshold called unpromising items are discarded from item set.

3. DGN: Decreasing Global Node: After discarding the unpromising items the node utilities are decreased.

4. DLU: Discarding Local Unpromising Items: The items which transaction weighted utility is less than the minimum utility threshold called unpromising items are discarded from item set and construct conditional pattern base.

5. DLN: Decreasing Local Node: In DLN construct the local UP tree.

6. Mining Method: UP Growth: This block generates the fewer candidates from given transactional dataset.

7. Identify High Utility Item set: identify high utility item set and their utilities form the set of given candidates.

- Advantages:

1] Number of generated candidates can be highly reduced.

2] High utility item sets can be identified more efficiently.

3.1 Design and Implementation Constraints

- Design Constraints:

1) For Login User provide username and password.

2) For creating Data structure user should select transaction dataset and profit table.

3) For creating Global UP Tree system should use DGU and DGN methods.

4) For creating Local UP Tree system should use DLU and DLN methods.

- Implementation Constraints:

The proposed system is a Desktop application which requires systematic flow of operations.

1) If user is not logged in the application should not display the access control form.

2) The previous dataset of a user must be accessible for High Utility Item set Mining. So this data is required to be accessed before submitting the command.

3) After successfully submitting the command, application must have to reply with the required item set.

- Assumptions and Dependencies

Basic password authentication and role based security mechanisms will be used to

protect system from unauthorized access. Redundant Database is setup as the role of backup Database Server when primary database is failure. The correct functioning of system will partly be dependent on the correctness of the dataset stored and managed as part of the system. Also, the application will be hosted as one of many applications; the event of the server failing due to an error with one of these applications might result in Dataset becoming temporarily unavailable.

3.2 System Features

Authentication

- Description and Priority

The system offers access resources only by validating the user with the unique user-name and password.

- Stimulus/response sequences

The response/stimulus for the different classes of users is:

1) Users: - Login.

2) Administrator: Adding new accounts.

Mine transactional Dataset

- Description and Priority

The application gets the input transaction dataset, processes the techniques and determines the High Utility Item set

- Stimulus/response sequences

The response/stimulus for the different classes of users is:

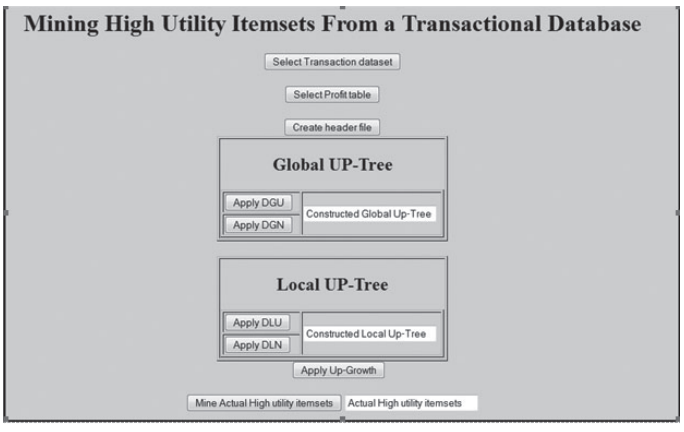
1) User: - Query transaction

2) Application: Determine the High Utility Item set.

External Interface Requirements

- User Interface

The main screen of the system will have the different Button's and Textbox's and a link to previous transaction database.



- Hardware Interface

1) Operating System: windows XP/ Win7
2) Processor: Pentium IV or advanced
3) RAM: 256 MB (min)
4) HDD: 20 GB (min)

- Software Interface

1) Programming Language: Java
2) Framework: Net beans 6.8 or more
3) Development Kit: JDK 1.6 or more

4. SYSTEM DESIGN

System Architecture

Following Fig 4.1 shows the how actually system is working:

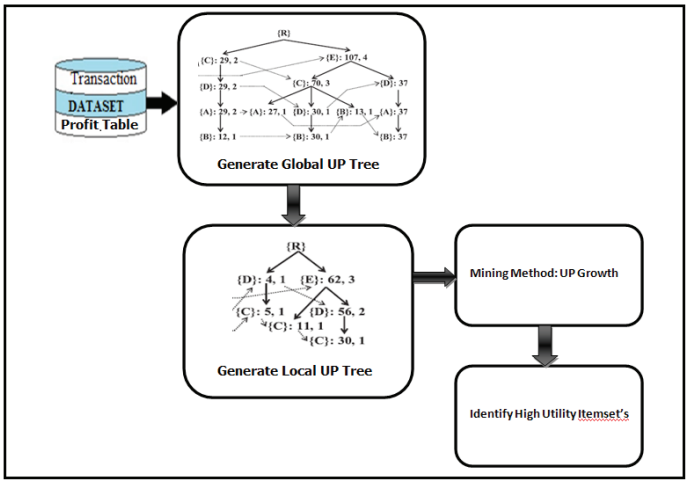


Figure 4.1: System Architecture

Firstly, store transaction dataset and profit table into database.
Generate Global UP-Tree by using DGU and DGN.
Generate Local UP Tree by using DLU and DLN.
Use UP Growth Algorithm for mining HUIs.
Identify the HUIs

4.2 Mathematical Model

4.2.1 DGN: Decreasing Global Node Utilities during Constructing a Global UP-Tree Algorithm:

Variable used in Algorithm

Util-un-prom-item = utility of unpromising item

RTU = Recognized Transaction Utility

Inputs:

Transactional Dataset D = {T1; T2;...; Tn} contains a set of transactions, and each transaction Td (1 < =d< =n) has a unique identifier d, called TID.

Each item i_p in transaction T_d is associated with a quantity q (i_p , t_d) that is, the purchased quantity of i_p in T_d.

min-util = user defined threshold.

Process:

1) Transaction-weighted utility of an item set X, TWU = ∑TU (Td)

2) RTU (T_d): = TU (T_d) - Util-un-prom-item

..... Where TWU (i_p) min-util

3) Insert-recognized-transaction (N, i_x)

If N → left = Ni_x or N → right = $N\, i_x$ ..... Where = $N_{xi.item} = i_x$

$N_{ix.item}$ = $N_{ix.item}$ = +1

Else

$N_{ix.child} = Ni_x$

$N_{ix.item} = i_x$

$N_{ix.count} = 1$

$N_{ix.parent} = N$

$N_{ix.nu} = 0$

4) $N_{ix.nu} = N_{ix.nu}$ + RTU (t'_j) - ∑u (i_p , t'_j)

5) If x! = n

Insert-recognized-transaction ($N_{ix.nu}$, i_{x+1})

Output:

Global UP-Tree

4.2.2 DLN: Decreasing Local Node Utilities during Constructing a Local UP-Tree Algorithm

Input:

Global UP- Tree

Process:

1) Insert-recognized-path (N, $_{ix}$) If N → left = N_{ix} or N →right = N_{ix}

..... Where Nix .item = 1

$N_{ix.count} = N_{ix.count} + P_{j.count}$

Else



$N_{ix.child} = N_{ix}$

$N_{ix.item} = i_x$

$N_{ix.count} = P_{j.count}$

$N_{ix.parent} = N$

$N_{ix.nu} = 0$

2) $N_{ix.nu} = N_{ix.nu} + N_{ix.nu}$ + pu(p,{i_m}CPB) - ∑min(ij) x (p.count)

3) If (p j (Ni_x, x+1 < m))

Insert-recognized-path (Ni_x , i_x+1)

Output:

Local UP Tree

4.2.3 UP-Growth: Mining a UP-Tree by Applying DLU and DLN and DLN Algorithm

Inputs:

A UP-Tree Tx A Header table H x , Item set X and min-util.

Process:

1. For ik in Hx
2. Trace each node related to ik via h.link and accumulate ik.nu to nu total (i k)
3. If nu total (ik) > min-util, do
4. PHUI Y = X ik
5. pu(ik) = estimated utility of Y
6. Construct Y-CPB
7. H y Y-CPB
8. DLU(paths)
9. Insert-recognized-path(N, ix) into T Y with DLN
10. If T Y ! = NULL then
11. UP-Growth(T Y ,H Y ,Y);

Output:

All PHUIs in T x

System Analysis of Algorithmic Design

1] Insert Reorganized Transaction:

After calculating reorganized transaction and utility, these reorganized transaction is inserted into UP Tree by using this algorithm. when reorganized transaction is inserted into Global UP Tree Insert-Reorganized-Transaction(N,ix) is called. Where N is node and ix is an item in reorganized transaction table. First, node for each item is found or created under root node and also items support is updated. So, this statement needs O(1) time to execute.

Second, DGN is applied for discarding the utilities of descendent nodes under node for item. So, this statement needs O(1) time to execute.

Lastly, this procedure is recursively call until all nodes inserted into Tree. So, this statement needs O(n) time to execute.

Total Time Complexity: O(n),Where n is number of nodes in UP Tree.

2] Insert Recognized path:

After creating Global UP Tree maintain the minimum item utility table to keep minimum item utilities for all global promising items in the database. Then path is reorganized by the descending order of path utility of the items in the conditional pattern base.

First, node for each item is found or created under root node and its support count is also updated. So, this statement needs O(1) time to execute.

Second, DLN is applied by decreasing estimated utilities of descendent nodes under each node. So, this statement needs O(1) time to execute.

Lastly, this procedure is recursively call until there exist a node in path. So, this statement needs O(n) time to execute.

Total Time Complexity: O(n), Where n is number of items in reorganized transaction table.

3] UP Growth Algorithm:

For each item in header table do following steps:

Trace each node related to specific item via link and calculate sum of node utility, start from leaf node. So, this statement needs O(n) time to execute.

If sum is less than minimum threshold then remove that node from tree. So, this statement needs O(1) time to execute.

If sum is greater than minimum threshold then calculate highest utility node, select that node and generate path from this node. So, this statement needs O(1) time to execute.

Insert this reorganized path into tree by using DLN. So, this statement needs O(1) time to execute.

if node from local tree is not completed then recursively call this method. So, this statement needs O(n) time to execute.

Total Time Complexity: O(n2),

Where n is number of items in reorganized Header table.

Conclusion

Proposed system has a tree-based algorithm, called UP-Growth, for efficiently mining High utility item set from databases. We take Data Structure UP-Tree for maintaining the information of high utility item set and four effective strategies, DGU, DGN, DLU and DLN, to reduce search space and the number of candidates for utility mining. PHUIs can

be efficiently generated from UP-Tree with only two database scans. UP-Growth Algorithm is faster than existing algorithms when database contains lots of long transactions.

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A study on Goods and Services Tax in Indian perspective

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ABSTRACT

The Goods and Services Tax (GST) also known as the National VAT (Value Added Tax) has been introduced in more than 150 countries. Most of the countries have a unified GST system. Brazil and Canada follow a dual system where GST is levied by both the Union and the State governments. France was the first country to introduce GST system in 1954. The standard GST rate in most countries ranges between 15-20%. Most of the sectors are taxed except for few exemptions. The United States of America does not have a national level VAT.

Indian government proposed to introduce GST in the country form the upcoming financial years. GST will bring about a change on the tax firmament by redistributing the burden of taxation equitably between manufacturing and services. It will lower the tax rate by broadening the tax base and minimising exemptions. It will reduce distortions by completely switching to the destination principle. It will foster a common market across the country and reduce compliance costs. It will facilitate investment decisions being made on purely economic concerns, independent of tax considerations. It will promote exports. GST will also promote employment. Most importantly, it will encourage growth.

Key Words: *GST, VAT, etc.*

INTRODUCTION

The GST (Goods and Services Tax) is a value added tax on the supply of goods and services in Australia, including items that are imported. In most cases, GST does not apply to exports of goods or services, or other items consumed outside Australia. It was introduced by the Howard Government on 1st July 2000, replacing the previous Central wholesale sales tax system and designed to phase out a number of various State and Territory Government taxes, duties and levies such as banking taxes and stamp duty. The basic premise of the new tax was to broaden the tax base, which was heavily biased toward the provision of services.

Indian Government plans to introduce dual GST structure in India. Under dual GST, a Central Goods and Services Tax (CGST) and a State Goods and Services Tax (SGST) will be levied on the taxable value of a transaction. This dual structure will ensure a higher involvement from the states, and consequently their buy-in into the GST system, thus



facilitating smoother implementation. Both the tax components will be charged on the manufacturing cost. The government is deliberating on fixing the value of combined GST rate at the moment, which is expected to be between 14-16 per cent. After the combined GST rate is decided, the centre and the states will finalise the CGST and SGST rates. All kinds of goods and services, barring some exceptions, would be under the GST purview.

Objectives

The paper has an intention to initiate broad discussions regarding the need for more reforms in the tax structure in India which shall provide more resources to the government. Following objectives are studied in the paper:

✓ To study the share of indirect taxes in total revenue be enhanced at the central & State level.

✓ To study measures to remove complexities in the tax structure.

✓ To study the measures best suitable GST models for India.

Research Methodology

The research design and the steps adopted in research methodology kept in focus of objectives set for the study. In course of preparation of the paper, exploratory study has been undertaken. In the scope of exploratory research strategy, detailed search of the literature has been carried out. Since the GST is not introduced in India, the researcher unable to avail primary data. This may be limitation for the paper. Literature review has been performed in order to get secondary data. Also secondary data collected from various sources like books, journals, reports of various committees constituted to look into tax reforms; multiple sources like area based sources like government reports, budget documents, economic surveys and time-series based sources like statistical reports published by government have also been consulted.

Discussion

India is a central republic, and the GST will thus be implemented concurrently by the central and state governments as the Central GST and the State GST respectively. Exports will be zero-rated and imports will be levied the same taxes as domestic goods and services adhering to the destination principle.115th Constitutional Amendment Bill, 2011 ("Bill") was put before the Parliament by the Finance Minister on 22 March 2011. In its current state, the Constitution of India does not provide concurrent powers of taxation to the Union and the States. The Bill proposes to amend the Constitution to empower the Union and States to frame laws for levying goods and service tax ("GST") on transactions involving the supply of goods and services. Keeping this overall objective in view, an announcement was made by Shri Palaniappan Chidambaram, the Union Finance Minister, during the central budget of 2007–2008 that it would be introduced from April 1, 2010 and that the Empowered Committee of State Finance Ministers, on his request, would work with the Central Government to prepare a road map for introduction of GST in India.

This is indeed a staggering sum and suggests the need for energetic action to usher the GST system at an early date. GST rates of some countries are given below. Country Rate of

GST Australia 10%, Canada 5%, Germany 19%, Japan 5%, Singapore 7%, Sweden 25% and UK 17.5% (20% w.e.f. 4 Jan 2011).

Commencement of GST

GST will bring about a change on the tax firmament by redistributing the burden of taxation equitably between manufacturing and services. It will lower the tax rate by broadening the tax base and minimising exemptions. It will reduce distortions by completely switching to the destination principle. It will foster a common market across the country and reduce compliance costs. It will facilitate investment decisions being made on purely economic concerns, independent of tax considerations. It will promote exports. GST will also promote employment. Most importantly, it will spur growth. The following represents the movement of goods after GST.

1. Taxes which cannot be set off will reduce
2. All India tax will be based on value added
3. No value added implies no tax to be paid to the government
4. Creation of a tax neutral supply chain.
5. You follow any route; the tax given to the government will remain the same.
6. Entry tax, Octroi etc. Will be there, but as is evident, these are also being slowly removed. This will make the supply chain perfectly neutral to taxes

Impact of GST on various sectors

The subsuming of major Central and State taxes in GST, complete and comprehensive setoff of input goods and services and phasing out of Central Sales Tax (CST) would reduce the cost of locally manufactured goods and services. This will increase the competitiveness of Indian goods and services in the international market and give boost to Indian exports. The impact of Goods and Services Tax on certain sectors are discussed hereunder.

Food Industry

The application of GST to food items will have a significant impact on those living under subsistence levels. It would have a major impact on the poor. But at the same time, a complete exemption for food items would drastically shrink the tax base. Food includes a variety of items, including grains and cereals, meat, fish, and poultry, milk and dairy products, fruits and vegetables, candy and confectionary, snacks, prepared meals for home consumption, restaurant meals, and beverages. In India while food as such is exempt from the

CENVAT, many of the food items including food grains and cereals attract the state VAT at the rate of 4%. Exemption under the state VAT is restricted to unprocessed food, e.g., fresh fruits and vegetables, meat and eggs, and coarse grains. Beverages are generally taxable, with the exception of milk. Even if food is within the scope of GST, such sales would largely remain exempt due to small business registration threshold. Given the exemption of food from CENVAT and 4% VAT on food items, the GST under a single rate would lead to a doubling of tax burden on food. Hence certain measures need to be taken in this regard.



Housing and Construction industry

In some countries in Europe, supply of land and real property are excluded from the scope of tax whereas in Australia, New Zealand, Canada and South Africa, housing and construction services are treated like any other commodity. When a real estate developer builds and sells a home, it is subject to VAT on the full selling price, which would include the cost of land, building materials, and construction services. Commercial buildings and factory sales are also taxable in the same way, as are rental charges for leasing of industrial and commercial buildings.

FMCG sector

Despite the economic slowdown, India's Fast Moving Consumer Goods (FMCG) sector has grown consistently during the past three to four years, reaching a size of $25 billion (Rs 120,000 crore) at retail sales in 2008. Implementation of the proposed Goods and Services Tax (GST) and opening of Foreign Direct Investment (FDI) are expected to fuel growth further and raise the industry's size to$47 billion (Rs 225,000 crore) by 2013 and $95 billion (Rs 456,000 crore) by 2018, according to a new FICCI-Technopak report. The FMCG sector is also one of the major contributors to the exchequer with $6.5 billion (Rs 31,000 crore) paid through direct and indirect taxes. Implementation of GST will have several benefits for the FMCG sector including uniform, simplified and single point taxation and thereby reduced prices.

Rail sector

There have been suggestions for including the rail sector under the GST umbrella to bring about significant tax gains and widen the tax net so as to keep the overall GST rate low. The inclusion of the rail sector in the tax system which will do away with most of the indirect taxes should be done if the government wants to provide a level playing field to road and air transportation sector. This will have the added benefit of ensuring that all inter-state transportation of goods can be tracked through the proposed information technology (IT) network.

Financial services

In most of the countries Goods and Services Tax is not charged on financial services. For example in New Zealand, almost all goods and services are covered under the GST except that of financial services. The reason behind this is that the charge for services provided by financial intermediaries like banks and insurance companies is generally not precise, i.e. the fee is taken as a margin that is hidden in interest, dividends, annuity payments or such other financial flows from the transactions. If the fee was not a hidden one, then it would be easy to charge the service to tax.

Impact on small enterprises

The impact of GST on small enterprises is of great concern. There will be three categories of small enterprises in the GST system. Those below the threshold need not register for the GST. Those between the threshold and composition turnovers will have the option to pay a turnover based tax or opt to join the GST system. Given the possibilities of input tax credit, not all small enterprise may seek the turnover tax option. The third

category of small enterprises above the turnover threshold will need to be within the GST framework. Possible downward changes in the threshold in some States consequent to the introduction of GST may result in obligations being created for some dealers. In such cases suitable provisions could be made to provide direct assistance to the affected small enterprises if considered desirable.

Complexity in Tax regime

In spite of the improvements made in the tax design and administration over the past few years, the systems at both central and state levels remain complex. Their administration leaves a lot to be desired. They are subject to disputes and court challenges, and the process for resolution of disputes is slow and expensive. At the same time, the systems suffer from substantial compliance gaps, except in the highly organized sectors of the economy. There are several factors contributing to this unsatisfactory state of affairs. The most significant cause of complexity is, of course, policy related and is due to the existence of exemptions and multiple rates, and the irrational structure of the levies.

The key problem with the service tax is the basic approach of levying it on specified services, each of which generates an extensive debate as to what is included in the base. Ideally, the tax base should be defined to include all services, with a limited list of exclusions (the so called "negative list").The Government has been reluctant to adopt this approach for the fear that it could bring into the tax net many services that are politically sensitive.

The complexities under the State VAT relate primarily to classification of goods to different tax rate schedules. Theoretically, one might expect that the lower tax rates would be applied to basic necessities that are consumed largely by the poor. This is not the case under the State VAT. The lowest rate of 1% applies to precious metals and jewellery, and related products—hardly likely to be ranked highly from the distributional perspective. The middle rate of 4% applies to selected basic necessities and also a range of industrial inputs and IT products. In fact, basic necessities fall into three categories –exempted from tax, taxable at 4%, and taxable at the standard rate of 12.5%. The classification would appear to be arbitrary, with no well accepted theoretical underpinning. Whatever the political merits of this approach, it is not conducive to lower compliance costs. Most retailers find it difficult to determine the tax rate applicable to a given item without referring to the legislative schedules. Consumers are even less aware of the tax applicable to various items. This gives rise to leakages and rent seeking.

Another source of complexity under the State VAT is determining whether a particular transaction constitutes a sale of goods. This problem is most acute in the case of software products and intangibles such as the right to distribute/exhibit movies or time slots for broadcasting advertisements. Compounding the structural or design deficiencies of each of the taxes is the poor or archaic infrastructure for their administration. Taxpayer services, which are a lynchpin of a successful self-assessment system, are virtually nonexistent or grossly inadequate under both central and state administrations. Many of the administrative processes are still manual, not benefiting from the efficiencies of automation. All this not only increase the costs of compliance, but also undermines revenue collection.



Findings

This Research suggests that GST Model for the country that could be adopted in short term and identifies issues that arise in designing and implementation of comprehensive GST in India.

There are three Options in this context:

A) Option I: GST at Union Level Only

This Model envisages principal indirect taxes on goods and services to be levied by Union Government only. No such taxes to be levied by State Governments leading to only one GST throughout the country.

- Ideal structure from business perspective – greater stability and facilitation of decision making – also, businesses will have to deal with only one tax authority and comply with only one tax- there will be significant reduction of compliance costs
- Excellent from consumer perspective as the consumer will know exactly how much is the indirect tax burden in the goods and service consumed by it
- Cascading effect can be removed to a large extent as there will not be taxes at two levels leading to improved competitiveness
- Feel good factor for anyone doing business with the country Cons
- Near impossibility of achieving the structure – will require modification of Constitution
- States may not agree to give up power of taxation and depend on the Union for resources
- Entire infrastructure developed for taxation at both levels will have to undergo huge change

B) Option II : GST at State Level Only

This Model envisages levy of GST by State Governments only meaning only State specific GST across the country and no GST by Union Government.

- Reduction of cascading effect of taxes as there will not be tax at two levels.
- Amendment (s) will be required in Constitution which may be supported by industrial and large states and opposed by smaller states which do not have significant source of revenues
- Businesses will have to comply with tax laws of each State – not worse off than current situation but not better off as well except that they will not have to deal with Central Level taxation which is the current position. At the same time, decision making will be impacted and may affect business stability
- Governments, both local and Union will not find it workable as it will require complete change in its finances and allocation of resources.
- There may be unhealthy competition among states using local tax structure as a tool to attract investments within the states, which may be at the cost of other states. This could lead to retaliatory measures by other states.

- Entire infrastructure for taxation will have to undergo change as States will need additional resources whereas Union's infrastructure will be freed up.

C) Option III : GST at both levels

This model envisages GST at two levels operating parallel – one, at Union Level and another at State Level.

- Achievable in the short term
- No significant change required in the current structure of indirect taxation although, some amendments may be required to the Constitution
- Partial removal of cascading effect of taxes
- No change required in infrastructure of tax departments at the Union and State levels Cons

GST Model for INDIA

The Research Paper suggests that Option III - GST at two levels – Union and State operating parallels be adopted to begin with this reform process. Although, it is not ideal Model, we recommend the same to – kick start the move to GST as:

- It is the most workable model especially taking into consideration the changes required in the Constitution and achievability in the short term.
- This Model builds on the current structure of taxation of goods and services and does not envisage drastic changes in the broad mechanism for levy and collection of taxes.
- It results in allocation of taxes between Union and States and between states based on fair and transparent criteria of consumption within a state.

Implementation of this suggested Model will require following steps:

- Constitutional Amendments : Consolidate separate entries in the Constitution empowering Union and State Governments to impose taxes on manufacture and sale of goods and services into one entry which empowers both Union and State Governments to impose tax on sale and supply of goods and services. Optionly, modify Constitution only to the extent required immediately specifically, to extend CENVAT to consumer level and to authorize states to collect and retain tax on services.
- Amend CST law to introduce VAT on import of goods and introduce import VAT– tax on imports is within the jurisdiction of Union Government and Union Government could appropriate it to the State Governments. This collection would need to be allocated to the states where the goods move on importation since that is the state where the sale will take place and which will give credit for import VAT against output VAT.
- Consolidate taxes on services imposed under different enactments by State Governments e.g., duty on entertainment, and electricity, luxury tax.

Conclusion:

The abovementioned analysis shows that there has been a significant progress in tax



reforms in recent years and that has helped to enhance the tax-GDP ratio close to the levels that prevailed prior to reducing customs. This, however, is only the beginning and considerable distance in reforming the tax system is yet to be covered. The tax system reform including reform in administration is a continuous exercise. The reforms will have to continue not only at the centre, but also at state and local levels as well. One important objective of sub national reform is to ensure common market I the federation. It is also necessary that consumption taxes should be calibrated in a coordinated manner in the spirit of co-operative centralism. Domestic and external trade taxes should also be calibrated to ensure the desired degree of protection to industry and the desired burden of consumption taxes to the community. Broadening the base of both central and state taxes and keeping the tax structures simple are important international lessons to be adopted in calibrating further reforms.

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A Study on Valuation of Rupee & Its Impact on The Indian Economy

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ABSTRACT

In this paper earnest steps have been taken by the paper presenter in context to the today's valuation of rupee. An extensive literature study and review is made to find out the probable reasons for this depreciation of the rupee and the outlook for the same. It also reflects on the policy options to help prevent the depreciation of the Rupee.

The Indian rupee is under great stress as overseas investors are paring their exposure to Asia's third-largest economy amid international uncertainty and mounting worries over the domestic economy. For the last couple of months, the sliding rupee has created consternation among many business sectors. The exchange rate of Indian Rupee against the US Dollar has gone over the roof. In 2009-10 the exchange rate was hovering around the 43-45 rupees per US Dollar. Over the past three years, the rupee has consistently depreciated against the dollar with the 3rd quarter of 2013 being one of the worst in terms of Rupee Value Depreciation. The rupee has lost more than 14 percent of its value this year, making it one of the worst performing currencies in Asia. Of course those who are directly affected by the lower value of the rupee are concerned – such as importers, those wishing to travel abroad or spend on foreign education, and so on. But the rupee's decline affects everyone in the economy, because it feeds directly and indirectly into general inflation, which is a continuing problem even as output growth decelerates, and therefore hits common people hard.

Keywords : *Rupee Depreciation, Exchange Rate, Economic Impact.*

INTRODUCTION

Depreciation refers to a fall in the value of the domestic currency which is caused by the demand for foreign currency exceeding its supply in the market. In such a situation one has to pay more than before to get units of foreign currency. This fall takes place in the market and on its own. Market determined exchange rate serves the purpose of aligning the domestic economy with the world economy was the price route. As consequences the domestic price gets linked up with those of the world price. With the liberalizations and globalization of the economy in recent years, imports are bound to increase. The lessening of restrictions on imports and lowering of tariff on imports which the economic reform implies, an increase in imports has in fact taken place.

India got freedom from British rule on Aug 15, 1947. At that time the Indian rupee was linked to the British pound and its value was at par with the American dollar. There was no foreign borrowing on India's balance sheet. To finance welfare and development activities, especially with the introduction of the Five-Year Plan in 1951, the government started external borrowings. This resulted in the devaluation of the rupee. The performance of rupee against USD (globally accepted currency) is depicted herein;

Table 1

Exchange rate (INR per USD)

Year	Exchange rate (INR per USD)	Year	Exchange rate (INR per USD)
1947	1	2007	39.42
1948 - 1966	4.79	2010	46.21
1966	7.5	2011 (April)	44.17
1975	8.39	2011 (Sept)	48.395
1980	7.86	2011 (Nov)	55.395
1985	12.38	2012 (June)	57.15
1990	17.01	2013 (May 15)	54.73
1995	32.427	2013 (July 31)	60.81
2000	43.5	2013 (Aug 28)	68.12
2005	43.47	2013 (Sep 28)	61.98

Source: Wikipedia.org

India being a developing economy with high inflation, depreciation of the currency is quite natural. Depreciation of rupee is good, so long as it is not volatile. A random depreciation that we have seen in the last few months is bad and it has hurt the economy. Right from the beginning of year 2013, the value of rupee has been depreciating. In this weakened environment, the rupee has depreciated by more than 14 percent in the past few months. Secondly, the extent of volatility in the global economy hasn't helped. Besides the Euro zone crisis, the downgrade of the US economy has led to flight of capital in order to boost the US home economy.

High growth coupled with a market driven exchange rate bears well for the economy. However, when growth falters and macroeconomic parameters start appearing vulnerable, one of the first casualties is the exchange rate. Currently, there is no clarity on whether we have seen the worst of the storm or it is just the beginning. The problems are manifold. Persistent high inflation and fiscal deficit, increasing subsidies, faltering exports and slowing industrial production point towards an economy, which is moderating in growth. Monetary policy has so far been ineffective in reversing the inflation trajectory. Fiscal stimulus appears non-existent, especially when the government has added to the subsidy bill by giving a go ahead to the food security bill.

The appreciation in the US dollar has led to the decrease in the value of Indian rupee. The value of US dollar has been rising ever since the US Federal Reserve has announced quantitative easing. This has hit not only the emerging markets and assets of India but also of other countries like Thailand, Brazil and Indonesia. Just as in other countries, the foreign institutional investors (FIIs) have also started withdrawing their investments in the Indian bond market. With growing concern for increasing risks in the global environment, massive redemptions through the global exchange traded funds (ETFs) are taking place. This has further initiated the selling by the FIIs in the equity market of India leading to depreciation in the Indian rupee. The depreciation as it is initiated by global factors that are beyond the control of RBI.

OBJECTIVES

The major objectives of the study are as follows;

1. To study the cause that triggered the fall of rupee.
2. To examine the effect of rupee depreciation on the Indian economy.
3. To analyze the control measures taken by the RBI / Govt.

THEORETICAL BACKGROUND

What is rupee appreciation & depreciation?

Exchange rate is the price of foreign currency (USD, Yen, Euro, Pound etc) in terms of domestic currency (rupee) i.e. amount of domestic currency needed to buy one unit of foreign currency, meaning thereby it is international price mechanism for our trade. Rupee prices keep fluctuating all the time. Sometimes we need more rupees to buy one unit of foreign currency and sometimes we need fewer rupees to buy one unit of foreign currency. This change in rupee price is known as rupee appreciation or depreciation respectively. Currency price is always stated in relation to another currency. So when one currency appreciates the other currency depreciates.

What causes currency to appreciate or depreciate?

Like any commodity whose price is determined by its demand and supply, currency price is also determined by demand and supply of that currency in the international market (which universal law of economics). When supply of a country's currency increases, value of currency falls as more currency is required to purchase another currency causing currency to depreciate. Reverse holds true when demand for a currency increases. Demand for a country's currency comes from its export of goods and services and foreign investment in the country. Supply for a country's currency comes from its imports of goods and services and its investments in other countries.

The major factors which cause currency to appreciate or depreciate are;

a) Current account deficit /surplus,

b) Capital account flows,

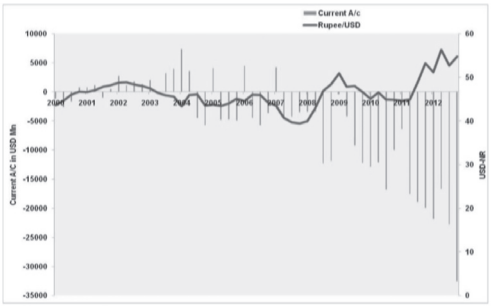
c) Interest rate and

d) Inflation.

Current account deficit is when imports are higher than exports. When a country imports more, it needs to pay in foreign currency, causing the country's currency to depreciate as demand of its currency decreases. Reverse holds true in case of current account surplus. The following chart No.3 below shows India's current account quarterly data and rupee movement from 2000 till December 2012.

Figure 1.

Current Account (in USD) and Rupee Movement



Source: http://gamechangers.idfcmf.com/wp-content/uploads/2013/Rupee-Appreciation-and-Depreciation.pdf

In the above figure, we can see that rupee has depreciated with increase in current account deficit. During 2002-2004, when India saw current account surplus, rupee has appreciated from 48.8 to 43.58. From 2011 with increasing deficit, rupee has depreciated from 49 to 54.7 (as on December 2012).

Measures taken by RBI/Govt

The government and the RBI have issued a series of measures in recent days designed to reduce the current account deficit and bolster the rupee, including increases in the import duty on gold, the end of duty exemptions for flat screen televisions brought in by airline passengers and restrictions on outward direct investment by Indian companies and individuals.

1. **RAISING POLICY RATES:** The rationale was to prevent sudden capital outflows and prevent melt down of currency. RBI has already tightened policy rates significantly since March 2010 to tame inflationary expectations. Higher interest rates along with domestic and global factors have pushed growth levels much lower than expectations. In December 2011 monetary policy review, RBI mentioned that future monetary policy actions are likely to reverse the cycle responding to the risks to growth. India's interest rates are already higher than most countries anyways but this has not led to higher capital inflows. On the other hand, lower policy rates in future could lead to

further capital outflows.

2. **USING FOREX RESERVES:** RBI can sell forex reserves and buy Indian Rupees leading to demand for rupee. RBI Deputy Governor Dr. Subir Gokarn in a recent speech (An assessment of recent macroeconomic developments, December 2011) said using forex reserves poses problems on both sides. "Not using reserves to prevent currency depreciation poses the risk that the exchange rate will spiral out of control, reinforced by self-fulfilling expectations. On the other hand, using them up in large quantities to prevent depreciation may result in a deterioration of confidence in the economy's ability to meet even its short-term external obligations. Since both outcomes are undesirable, the appropriate policy response is to find a balance that avoids either."
3. **EASING CAPITAL CONTROLS**: Dr Gokarn in the same speech said capital controls could be eased to allow more capital inflows. He added that "resisting currency depreciation is best done by increasing the supply of foreign currency by expanding market participation." This in essence, has been RBI's response to depreciating Rupee. Following measures have been taken lately:
   - Increased the FII limit on investment in government and corporate debt instruments.
   - First, it raised the ceilings on interest rates payable on non-resident deposits. This was later deregulated allowing banks to determine their own deposit rates.
   - The all-in-cost ceiling for External Commercial Borrowings was enhanced to allow more ECB borrowings.

METHODOLOGY

This is a descriptive study carried out on secondary data on the depreciation / appreciation of rupee. All secondary data is collected from the reliable source such as World Wide Web, Newspaper articles and published matter on similar topic. A keen interest of the paper presenter has made the paper very interesting and more relevant to the present financial scenario.

DISSCUSION & FINDINGS

The value of rupee follows the simple and universal rule of economics demand and supply. If the demand for the dollar in India is more than its supply, dollar appreciates and rupee depreciates. Similarly, when the supply of dollars in India increases its demand, the value of dollar decreases in terms of rupees.

The study reveals that, the obvious reasons why the current depreciation is not to be welcomed is the effect on domestic living standards. There are several ways in which the falling rupee immediately has an inflationary impact; one of the most important inputs likes the price of energy / fuel. Since the misguided decontrol of oil prices, it is not only the globally traded price of fuel but also the exchange rate that determines domestic oil prices. Both durable and non-durable goods are likely to become more expensive. And, of course, food inflation-the most worrying aspect of recent price movements-is likely to go up as a well. The following are major findings;

a) The wholesome of the country's economic scenario by and large depends on FIIs (Foreign Institutional Investors). Of late most of the foreign institutional investors are not showing interest in India, on top of it they are withdrawing their investments. The obvious and sole reason is the recovery in stock markets of developed economies like US and Japan. The capital outflow by the FII in the FY 13-14 is shown below;

Table 2

Capital Inflow / Outflow by the FII in the FY 13-14

	Figures in $ million		
	FII net inflow/ (outflow) in debt	FII net inflow/ (outflow) in equities	Net inflow/ (outflow) during the month
April	992.20	1,000.27	1,992.47
May	1,132.89	4,042.64	5,175.53
June	(5,683.48)	(1,852.15)	(7,535.63)
July	(2,010.52)	(1,015.05)	(3,025.57)
August	(1,554.43)	(902.51)	(2,456.94)
September so far	(63.99)	986.41	922.42
Total	(7,187.33)	2,259.61	(4,927.72)

Source: http://www.telegraphindia.com/1130914/jsp/business/story_17348464.jsp

In the above table No. 4, the figures in the bracket indicates outflow and figures in the without bracket indicates inflow. Right from April 2013 till September 2013, the total excessive outflow is USD 4,927.72 million; hence it has acted as catalyst in rupee valuation (devaluation).

b) The Inflation also plays a vital role in valuation of rupee. The high inflation has resulted into Indian goods becoming expensive in the global markets, thus making it less competitive, especially when compared to goods from China. Hence rupee does not have any support by way of higher exports. The following table indicates India's inflation rate;

Table 3

India's Inflation Rate (YoY from 2000 – 2012)

In recent years India's inflation rate has been higher than world average							
							(Year-on-year in per cent)
	2000-07	2008	2009	2010	2011	2012	2008-12
	Average	Annual					Average
Global Inflation							
World	3.9	6.0	2.4	3.7	4.9	4.0	4.2
EDEs	6.7	9.3	5.1	6.1	7.2	6.1	6.8
Inflation in India							
WPI	5.2	8.1	3.8	9.6	8.9	7.6	7.6
WPI-Food	3.8	8.9	14.6	11.1	7.2	9.1	10.2
WPI-NFMP	4.3	5.7	0.2	6.1	7.3	5.2	4.9
CPI-IW	4.6	9.1	12.2	10.5	8.4	9.9	10.0
Indian inflation data pertains to financial year, WPI: Wholesale Price Index, CPI-IW: Consumer Price Index for Industrial Workers. DEs: Emerging and Developing Economies, NFMP: Non-food manufactured products,							

Source: http://rbi.org.in/scripts/Publications.aspx

In the above table No. 5, the inflation rate in India is higher when compared to the world average. In the year 2000-07 the global inflation rate was 3.9 whereas Indian inflation was at 5.2. A study indicates that the world's average inflation rate for 5 yrs (2008-12) was 4.2 whereas Indian inflation was around 7.6. The Indian inflation rate is 0.8 times

higher than the world's average, and this is the major cause to pull the rupee value.

c) On the investment front - steady decline in GDP growth, constant and continuing contractions in industrial output, spiraling inflation, growing instance of financial corruption, policy confusions etc. do not help in portraying India as a favored investment destination. It is here that the government has a very crucial role to play. In reality the only role the government has played till date is to try and correct certain policy nuances (FDI regulations etc.) but has done precious little to address the concerns of the domestic economy.

d) The cascading and promulgating the adverse effect of devaluation of rupee on the Indian economy in different spectrum such as, costlier imports, worsening the current account deficit, slow capital inflow, diminishing Forex reserves and cracking stock market.

e) During the study it was noticed that gold and petroleum products are the major import commodity which drains our currency. At the initial government must control the sale of gold in the form of bars and coins barring the sales of ornament since gold ornaments are symbol of status and progress in rural India. The NGOs and Informal trusts need to observe 'Green Day' every month by not using their vehicles. And modalities need to be framed on concept like carpooling, usage of public transport only, and tuning up vehicles to improve their fuel efficiency etc.

CONCLUSION

Growing Indian economy has led to widening of current account deficit as imports of both oil and non-oil have risen. In the study it is noted that, despite of dramatic windfall increase in software exports, current account deficits have remained elevated. Apart from rising CAD, financing CAD has also been seen as a concern as most of these capital inflows are short-term in nature. The exports have risen but so have prices of crude oil leading to further widening of current account deficit. Efforts have been made to invite FDI but much more needs to be done especially after the holdback of retail FDI and recent criticisms of policy paralysis. Without a more stable source of capital inflows, Rupee is expected to remain highly volatile shifting gears from an appreciating currency outlook to depreciating reality in quick time.

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Technological Innovations and Innovative Practices Used by The Banking Sector

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ABSTRACT

Organisations need to be innovative to survive, with ability to constantly create a new product, service, process or a system, so as to be competitive and efficient. Banks are no exception to this principle. Banks now operate in a highly competitive environment in globally integrated markets with the all pervasive influence of technology. Bank markets have changed from local to global. Customers have been transformed from acceptance level to delight level. The society, at present, is demanding more and more with regard to the rights of its consumers. The new game requires new strategies with an accent on innovation for organisational transformation and to achieve world class competitiveness through improved efficiency and reduced operational cost. In this paper, the discussion would be mainly on the new financial innovations in banking industry in India as of now, which is mainly related to technology. Along with it we have also concentrated on the innovative practices followed by the banks. Also we would like to find out reasons as to why do we require these innovations & innovative practices to be followed by the banks.

"Innovation is the process of turning ideas into manufacturable and marketable form."

— Watts Humprey

INTRODUCTION

Globalisation of Indian economy has resulted in modernisation and innovations in banks in India. Globalisation has brought about structural changes in the world economy. This includes services, particularly banking and financial services. Although service sector contributes significantly to the national output, the impact of globalisation on services is yet to capture the attention of researchers and policy makers in many countries.

Innovation is defined as the use of new knowledge to offer a new product or service that customers want .The new knowledge here refers to technological or market knowledge. Globally, usage of technology is very extensive in the financial sector of which banking sector is an integral part. Indian financial sector has made rapid strides in late 1980's and early1990's picking up momentum with the advent of the 21st century. Liberalisation of the Indian economy has provided scope to the banking sector to reorient its focus by

shifting from developmental role obligated mostly by socio-political considerations into professional financial agencies keen on preserving their bottom lines. The direction in which the Indian banking is moving presently indicates that the prevailing competition will lead to consolidation & convergence. Small players will either have to forge a merger to become big players or else they will be either extinguished or swallowed by larger players in the years to come. The pressure will equally be more on the existing large players to retain their lead over others. This emerging scenario warrants innovative approach by banks to keep themselves sailing in the sea of competition.

METHODOLOGY

Unstructured interviews with qualitative approach were carried by interviewing Managers of private and public sector banks. The primary data was collected through telephonic interviews as well as personal interviews with the managers of the various banks. This helped us to identify the financial innovations & the innovative practices in the different ownership systems and the reasons for the same. The secondary data is what helped us in concretizing & accelerating the work on primary data.

Interviews were conducted with the managers of the following banks to get the primary data required for the study. The study was done extensively in Mangalore only.

- HDFC Bank
- ICICI Bank
- YES Bank
- Indusind Bank
- ING-Vysya Bank
- AXIS Bank
- RBS
- Bank of Maharashtra
- Indian Overseas Bank
- Bank of India
- State Bank of India

Findings

After going through the detailed study on these banks we can arrive at the following initiatives that the banking sectors have come up to cope with the changes and the challenges in the environment

The Major Initiatives are

- Investing in the state of the art technology as the back bone to ensure reliable service output.
- Leveraging the branch network and sales structure to mobilize low cost current and savings deposits



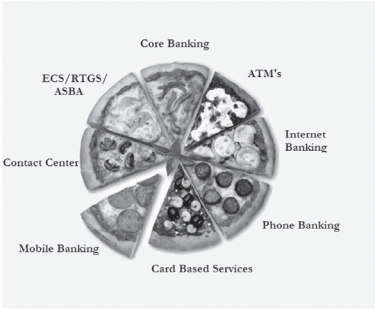
- Making aggressive forays in the retail advances segment of home and personal loans.
- Implementing organization wide initiatives involving people, process and technology to reduce the fixed costs and the cost per transaction.
- Focusing on fee based income to compensate for squeezed spread, (e.g. CMS, trade services)
- Innovating Products to capture customer 'mind share' to begin with and later the wallet share.
- Improving the asset quality as per Basel II norms.

LATEST FINANCIAL INNOVATION IN BANKING SECTOR:

- **Introduction of Biometrics in ATMS :** It provides for better security system, by linking credentials verification to recognition of the face, fingerprints, eyes or voice. Some large banks of the country have taken their first steps towards large scale introduction of biometric ATMs, especially for rural banking. The high costs involved largely accounting for the delay in adoption.
- **Electronic Clearing Service :** The Electronic Clearing Service (ECS) introduced by the RBI in 1995, is akin to the Automated Clearing House system that is operational in certain other countries like the US. ECS has two variants- ECS debit clearing and ECS credit clearing service. ECS credit clearing operates on the principle of 'single debit multiple credits' and is used for transactions like payment of salary, dividend, pension, interest etc. ECS debit clearing service operates on the principle of 'single credit multiple debits' and is used by utility service providers for collection of electricity bills, telephone bills and other charges and also by banks for collections of principal and interest repayments
- **Electronic Funds Transfer Systems :** The launch of the electronic funds transfer mechanisms began with the Electronic Funds Transfer (EFT) System. The EFT System was operationalised in 1995 covering 15 centres where the Reserve Bank managed the clearing houses.A new variant of the EFT called the National EFT (NEFT) was decided to implemented (November 2005) so as to broad base the facilities of EFT. This was a nationwide retail electronic funds transfer mechanism between the networked branches of banks.
- **RTGS-Real Time Gross Settlement :** This is a system where the processing of funds transfer instructions takes place at the time they are received (real time). Also the settlement of funds transfer instructions occurs individually on an instruction by instruction basis (gross settlement). RTGS is the fastest possible interbank money transfer facility available through secure banking channels in India. The introduction of RTGS in 2004 was instrumental in the development of infrastructure for Systemically Important Payment Systems (SIPS).
- **NEFT- National Electronic Fund Transfer :** This system of fund transfer operates on a Deferred Net Settlement basis. Fund transfer transactions are settled in batches as opposed to the continuous, individual settlement in RTGS. Presently,

NEFT operates in hourly batches from 9 am to 7 pm on week days and 9 am to 1 pm on Saturdays.

- **Cheque Truncation System (CTS) :** Truncation is the process of stopping the movement of the physical cheque which is to be truncated at some point en-route to the drawee branch and an electronic image of the cheque would be sent to the drawee branch along with the relevant information like the MICR fields, date of presentation, presenting banks etc. Thus, the CTS reduce the probability of frauds, reconciliation problems, logistics problems and the cost of collection.
- **ASBA :** To make the existing public issue process more efficient, SEBI has introduced a supplementary process of applying in public issues, viz. the "Applications Supported by Blocked Amount (ASBA)". An ASBA investor shall submit a physical ASBA to the Bank. The Bank shall then block the application money in the bank account specified in the ASBA, on the basis of an authorization to this effect given by the account holder in the ASBA. The application money shall remain blocked in the bank account till finalization of the basis of allotment in the issue or till withdrawal / failure of the issue or till withdrawal / rejection of the application, as the case may be. The application data shall thereafter be uploaded by the Bank in the electronic bidding system through a web enabled interface provided by the Stock Exchanges. Once the basis of allotment is finalized, the Registrar to the issue shall send an appropriate request to the CB of Bank for unblocking the relevant bank accounts and for transferring the requisite amount to the issuer's account designated for this purpose. In case of withdrawal / failure of the issue, the amount shall be unblocked by the Bank on receipt of information from the pre-issue merchant bankers through the concerned Registrar to the Issue.



INNOVATIVE PRACTICES IN BANKING SECTOR:

- **Strengthening the Brand Value :** this is done by HDFC bank where in they have strengthened the image of the bank so much so that most of the people are aware of the bank and are do love to associate themselves with the bank.
- **Relationship Management:** this was first introduced by the private sector banks and later copied on by other banks. Here, there is an exclusive person who caters to the needs of his clients or customers.
- **Wealth Management Services :** this is yet another indigenous way designed by



the private sector banks for giving service to its customers. Here the customers are advised as to where to invest and how to increase your money by giving the right advice.

- **Cash Back facility :** This is done by Indusind Bank ,where the customers of the bank can get cash back into their savings account on the Debit card usage done during a month. This is popularly known as 'INDUS MONEY'
- **Copy of your issued cheques :** this practice is followed in Indusind Bank, wherein every quarter when the bank statement goes to the customers it is accompanied with the copies of the cheques issued by the customers for the quarter. This facility is called 'CHECK-IN-CHEQUE'
- **Open an account with your favourite number :** This is practiced and done in some of the private sector banks. Since core banking has evolved remembering the account numbers have been a difficult task as usually they are more than eight digits. So here the accounts are opened with the customers' favourite numbers such as mobile numbers or date of birth etc.
- **Interest on Savings account :** Since RBI has removed the ceiling or cap on the maximum interest payable to savings account the private banks have introduced increased rates for its customers Ex: Yes Bank gives 7% ; Kotak Mahindra gives 6% to its customers as against 4% by the nationalised banks .
- **Portfolio Management/ Services :** This is a practice of managing the different investments of your customers profitably coupled with good sound advise.
- **DD drawing arrangement :** The major advantage of private sector bank is that they have DD drawing arrangements with the corresponding banks. That is, if they do not have a branch where the customer wants to take a DD they will have a tie up with another bank which has a branch there & will issue a DD called correspondent bank DD at that place. Ex: HDFC bank has a tie up with corporation & Axis Bank
- **Free Insurance scheme :** Some private sector banks have a practice of providing free insurance on the life of the account holder if they maintain a particular amount of money in their account. Some banks also cover free insurance on baggage or on shopping based on their debit card usage.

The Major Reasons for Banks to go for financial innovations and innovative practices are

- Diffused Customer Loyalty
- To attract more customers
- To retain customers
- To enhance the reputation of the Bank
- To gain an upper hand over the rival Banks
- To make it a preferred bank
- To make it more customer friendly Bank
- To increase the customer base

- To increase the asset base of the company
- To offer better quality of products and services
- To provide better customer satisfaction
- To increase the book size of the Bank

Conclusion

This paper explored into the financial innovations and innovative practices followed by the Banking sector. We saw practices such as increased rate of interest on savings account to wealth management services, which helps the banks to enhance the customer base as well as attract more customers. We also saw the reasons as to why the banks go for these practices. The main reasons highlighted in this study are ranging from retaining customers to increasing the book size of the bank.

Hence we conclude this study by saying that all the innovative practices followed by the banks have helped them to cope with the changes and the challenges in the environment.

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Review on Brain Tumour Detection

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Abstract

Brain tumors are created by abnormal and uncontrolled cell division in brain itself. If the growth becomes more than 50%, then the patient is not able to recover. So the detection of brain tumor needs to be fast and accurate. Efficient algorithms for detecting the brain tumor are provided. The first step starts with the acquisition of MRI scan of brain and then digital imaging techniques are applied for getting the exact location and size of tumor. MRI images consist of gray and white matter and the region containing tumor has more intensity. So, first noise filters are used for noise removal and then enhancement techniques are applied to the given MRI scan of brain. After that the basic morphological operations are applied for extracting the region suffering from tumor. And then verification of region detected is done by using watershed segmentation. Hence the efforts are taken to present the comparative study of various types of techniques to detect Brain tumour such as below.

Keywords : *Morphological Operators, watershed segmentation, edge detection.*

INTRODUCTION

Brain Tumour Detection and its Different Techniques:

So the detection of brain needs to be fast and accurate. There are in general three basic techniques for Brain Tumour Detection which are Edge Detection, By using segmentation, using Neural Network[1].

Edge Detection Based Identification

Images are obtained by MRI scan of brain and the output of MRI provides gray level images. For applying different techniques, the digital images obtained from MRI are stored in matrix form in MATLAB. The objective of the algorithm is to detect the exact the location and size of this high intensity region. MRI images can involve some noise also. So the next step is to remove this noise and get enhance image for better detection The following flowchart shows the various steps involved in this algorithm. Also watershed function can be applied for verifying the output.

Images are obtained by MRI scan of brain and the output of MRI provides gray level images. So the next step is to remove this noise and get enhance image for better detection. There are various kinds of filters available in image processing for removing

noise and each filter is having different characteristic. Mean filters like arithmetic mean filter, geometric mean filter, harmonic mean filter, contra harmonic mean filter etc. are linear filters. The geometric filters do not blur the image as much as arithmetic filters. Arithmetic and geometric filters are suited well for random noise like Gaussian. The contra harmonic filter is well suited for impulse noise. The median, max and min filters are non linear, order statistic filters. Usage of median filter again and again on processed image provides much better result. After noise removal, the next step is to enhance the MRI image. Enhancement will result in more prominent edges and sharpened image is obtained, noise will be reduced thus reducing the blurring effect from the image. Sharpening filters are based on spatial differentiation.

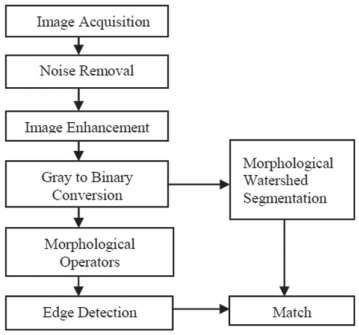


Fig.2.1

Laplacian filter is a sharpening filter. After applying Laplacian filter to the image, a new image is obtained highlighting edges and other discontinuities. After getting the enhanced image, the process of detection of exact location and size of tumor begins. For achieving this aim, first of all, the gray image has to be converted to binary image. binary A binary image is a logical array of 0's (black) and 1' s (white). For conversion of gray scale image to image, toolbox function im2bw is used. It scales the entire range of the input values to the range [0 1]. Thresholding concept has been used in this algorithm. The threshold concept works by choosing a threshold value, T, automatically and then extract (or separate) object from background. The threshold function of binary image g(x, y) is defined as:

$$G(x,y) = \begin{cases} a & \text{, if } F(x,y) > T \\ b & \text{, if } f(x,y) < T \end{cases}$$

After this process, the next step is to apply different morphological operator for finding exact size. There are two fundamental morphological operations:

(a) dilation, (b) erosion.

These are defined in terms of union and intersection of an image with translated shape called a structuring element. Erosion "shrinks" or "thins" object in binary image. As in dilation, the manner and extent of shrinking is controlled by structuring element. The last step is the detection of the edges of tumor. One may also skip this step because tumor gets detected after applying morphological operators. But by detection of edges the exact result is obtained. This method gives the better results within less efforts. For edge

detection various edge detectors are used like;

(1) Sobel Edge detector, (2) Perwitt's edge detector, (3) Robert's edge detector, (4) Canny edge detector

This Edge detection gives the exact size and location of the Brain Tumor [1].

Segmentation Based Identification

Image segmentation is based on the division of the image into regions. Division is done on the basis of similar attributes. Similarities are separated out into groups. Basic purpose of segmentation is the extraction of important features from the image, from which information can easily be perceived. Brain tumor segmentation from MRI images is an interesting but challenging task in the field of medical imaging. Fig 2.3 shows the flowchart of segmentation process. Threshold segmentation is one of the simplest segmentation methods. The input gray scale image is converted into a binary format. The method is based on a threshold value which will convert gray scale image into a binary image format. The main logic is the selection of a threshold value. Some common methods used under this segmentation include maximum entropy method and k- means clustering method for segmentation [2].Watershed Segmentation is one of the best methods to group pixels of an image on the basis of their intensities. Pixels falling under similar intensities are grouped together. It is a good segmentation technique for dividing an image to separate a tumor from the image Watershed is a mathematical morphological operating tool. Watershed is normally used for checking output rather than using as an input segmentation technique because it usually suffers from over segmentation and under segmentation[2]. For using watershed segmentation different methods are used. Two basic principle methods are given below:

1) The computed local minima of the image gradient are chosen as a marker. In this method an over segmentation occurs. After choosing marker region merging is done as a second step;

2) Watershed transformation using markers utilizes the specifically defined marker positions. These positions are either defined explicitly by a user or they can be determined automatically by using morphological tools.

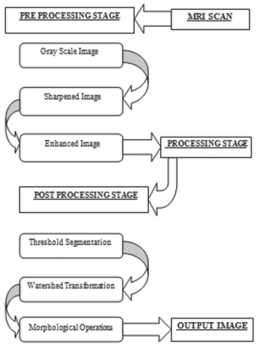


FIG:2.2

Watershed transform is often applied to this problem. The watershed transform finds "catchment basins" and "watershed ridge lines" in an image by treating it as a surface where light pixels are high and dark pixels are low[3].Segmentation using the watershed transforms works well if you can identify, or "mark," foreground objects and background locations. Marker-controlled watershed segmentation follows this basic procedure:

1. Compute a segmentation function.
2. Compute foreground markers.
3. Compute background markers.
4. Modify the segmentation function so that it only has minima at the foreground and background marker locations.
5. Compute the watershed transform of the modified segmentation function.
6. Visualize the Result

The above watershed algorithm was not suitable for all the images. so we go for texture based segmentation. Texture segmentation is to identify regions based on their texture. The goal is to segment two kinds of fabric in an image using texture filters.

1. Read Image
2. Create Texture Image
3. Create Rough Mask for the Bottom Texture
4. Use Rough Mask to Segment the Top Texture
5. Display Segmentation Results

Water shed segmentation is done on the intensity bases. As every pixel has different intensities compared to each other. Different watershed algorithms have been proposed. One of the most commonly used algorithms was introduced by F.Meyer. Here the pixels are grouped based on their intensities. This forms a better way to separate the tumor from image. After segmentation some of the morphological operations are performed to separate the tumor region from the image. Morphological techniques probe an image with a small shape called structuring element which is placed at all possible regions of the image to compare with the corresponding pixels. Brain tumour identification by using segmentation also gives the exact size and location of the tumour in brain but it is a time consuming task.

Neural network based tumour identification

The proposed system is a modified version of the conventional PNN. The modification is based on automatic utilization of specified regions of interest (ROIs) within the tumor area in the MRI images. Form each ROI, set of extracted features include tumor shape and intensity characteristics are extracted and normalized. Each ROI is then given a weight to estimate the PDF of each brain tumor in the MR image. These weights are used as a modeling process to modify the conventional PNN. This method is based on learning vector quantization (LVQ) which is a supervised competitive learning technique that obtains decision boundaries in input space based on training sets to reduce the size of

the hidden layer. It defines class boundaries prototypes, a nearest-neighbour rule and a winner-takes-it-all paradigm. There are four major steps in the proposed approach for brain tumor classification. The first step is ROI segmentation in which the boundary of the tumor (ROI) in an MR image is identified; the second step is the feature extraction of the meaningful features of the ROI; the third step is the feature selection; the last step is the classification process in which learning a classification model using the features. The proposed algorithm starts by reading the input image, converting it to grey scale image then applying image segmentation techniques for extracting the Region of Interest (ROI). A set of reference MRIs is taken as the training database. Feature vectors are extracted for each image in the training set during the training phase. In the testing phase, the feature vector of the test image is computed. Figure 2.3 illustrates the sequence of the proposed approach. The proposed approach is evaluated on real images, and the results are compared with other algorithms, in particular conventional PNN algorithm presented by [5]. During the segmentation process, each image region confined by a rectangular window is represented by a feature vector of length R. These vectors computed for Q selected regions are organized in the pattern matrix PR,Q and form clusters in the R-dimensional space. The Q pattern vectors in P are fed into the input NN layer, while the number C of the output layer elements represents the desired number of segmentation classes [4].

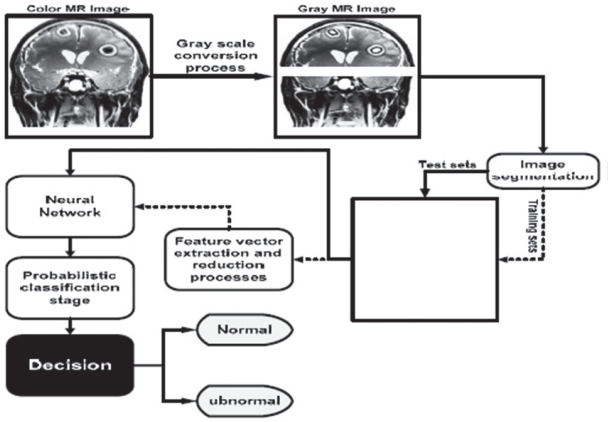


Fig 2.3

The algorithm comprises of the following successive steps:

1. Feature vectors computation to create the feature matrix P using the sliding window.
2. Initialization of the learning process coefficients and the network weights matrix W.
3. Iterative application of the competitive process and the Kohonen learning rule [4] for all feature vectors during the learning stage.
4. NN simulation to assign class numbers to individual feature vectors.
5. Evaluation of the regions classification results.

Acknowledgement

The author would like to thank Prof. S. M. Handore M'am (Trinity C. O. E. Pune), for their time to time and valuable guidance as well as useful suggestions and to all the others who helped for project.

Conclusion

This paper suggests different methods for Brain Tumour identification. The tumors can be found precisely according to the length, breadth and the exact position of the infected area, these project can help the doctors for the analysis of the tumor and also the damage to the brain in stages i.e in which stage the patient is. Results got with edge detection are good but couldn't extract the detail parameters of the brain tumour. And the results with Image segmentation are better than that of Edge Detection.

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Green Logistics

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ABSTRACT

Logistics are at the heart of the operation of modern transport systems and implies a degree organization and control over freight movements that only modern technology could have brought into being. It has become one of the most important developments in the transportation industry. Greenness has become a code word for a range of environmental concerns, and is usually considered positively. It is employed to suggest compatibility with the environment, and thus, like logistics is something that is perceived as beneficial. When put together the two words suggest an environmentally friendly and efficient transport and distribution system.

INTRODUCTION

Logistics is the integrated management of all the activities required to move products through the supply chain. For a typical product this supply chain extends from a raw material source through the production and distribution system to the point of consumption and the associated reverse logistics. The logistical activities comprise freight transport, storage, inventory management, materials handling and all the related information processing.

The main objective of logistics is to co-ordinate these activities in a way that meets customer requirements at minimum cost. In the past this cost has been defined in purely monetary terms.

As concern for the environment rises, companies must take more account of the external costs of logistics associated mainly with climate change, air pollution, noise, vibration and accidents.

This paper is examining ways of reducing these externalities and achieving a more sustainable balance between economic, environmental and social objectives.

THEORETICAL BACKGROUND

Green Logistics - Supply chain management practices and strategies that reduce the environmental and energy footprint of freight distribution. It focuses on material handling, waste management, packaging and transport.

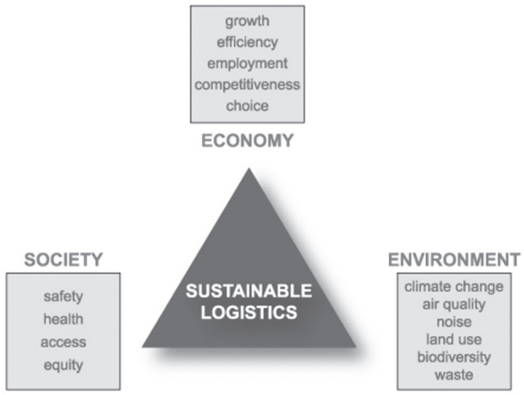
In common with many other areas of human endeavor, greenness became a catchword in the transportation industry in the late 1980s and early 1990s. It grew out of the emerging awareness of environmental problems, and in particular with well-publicized issues

such as acid rain, CFCs, waste disposal and climate change. Environmental concepts, such as material flows or the carbon cycle, became readily applicable to supply chain management.

Even if the term reverse logistics is widely used, other names have been applied, such as reverse distribution, reverse-flow logistics, and even green logistics. Inserting logistics into recycling and the disposal of waste materials of all kinds, including toxic and hazardous goods, has become a major new market but is does not reflect the full extent of green logistic which is the greening of both the forward reserve segment of supply chains.

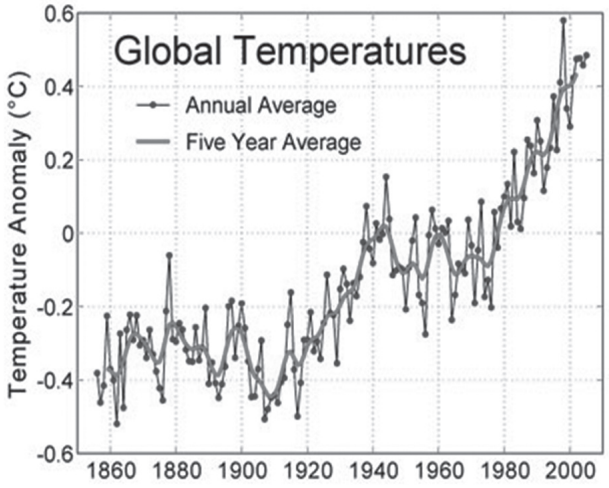
Research Methodology

Logistics is the integrated management of all the activities required to move products through the supply chain. For a typical product this supply chain extends from a raw material source through the production and distribution system to the point of consumption and the associated reverse logistics. The logistical activities comprise freight transport, storage, inventory management, materials handling and all the related information processing.



The main objective of logistics is to co-ordinate these activities in a way that meets customer requirements at minimum cost. In the past this cost has been defined in purely monetary terms. As concern for the environment rises, companies must take more account of the external costs of logistics associated mainly with climate change, air pollution, noise, vibration and accidents. This is examining ways of reducing these externalities and achieving a more sustainable balance between economic, environmental and social objectives

Carbon Emissions – a Global Challenge



With global warming being recognised as one of the largest challenges of this century, carbon emissions are increasingly becoming the centre of attention.

- Global warming is the result of increasing CO2 concentration in the atmosphere
- Global warming is and will be one of the largest challenges of this century
- Transportation activities are one of the main contributors to global warming

Green Logistics and its Paradoxes

An overview of the standard characteristics of logistical systems reveals several inconsistencies with regards to the mitigation of environmental externalities. They take the form of five basic paradoxes:

Cost

The purpose of logistics is to reduce costs, notably transport costs. Corporations involved in the physical distribution of freight are highly supportive of strategies that enable them to cut transport costs in a competitive setting.

Example A salient example concerns food supply chains that have been impacted by lower transport costs, enabling a diversification of the suppliers and longer transport chains.

Time

In logistics, time is often the essence. By reducing the time of flows, the velocity of the distribution system is increased, and consequently, its efficiency. This is achieved in the main by using the most polluting and least energy efficient transportation modes. The

significant increase of air freight and trucking is partially the result of time constraints imposed by logistical activities.

Reliability

At the heart of logistics is the overriding importance of service reliability. Its success is based upon the ability to deliver freight on time with the least breakage or damage. Logistics providers often realize these objectives by utilizing the modes that are perceived as being most reliable. The least polluting modes are generally regarded as being the least reliable in terms of on-time delivery, lack of breakage and safety. Ships and railways have inherited a reputation for poor customer satisfaction. For instance, the schedule reliability of container shipping is around 50%, implying that about half the time a container ship will not arrive at a port terminal at the scheduled day.

Warehousing

A reduction in warehousing demands is one of the advantages of logistics. This means however, that inventories have been transferred to a certain degree to the transport system, especially to roads but also to terminals. Inventories are actually in transit, contributing still further to congestion and pollution

Information Technology

Information technologies have led to new dimensions in retailing. One of the most dynamic markets is e-commerce. Even if for the online customers there is an appearance of a movement-free transaction, the distribution online transactions create may consume more energy than other retail activities. The distribution activities that have benefited the most from e-commerce are parcel-shipping companies such as UPS, Federal Express or DHL rely solely on trucking and air transportation.

Ecological concern

The "ecological concern" in logistics determines how far the logistics or the supply chain of a company is faced with the issue of environmental protection and resource conservation. Basically, a supply chain is affected of various influencing factors in this context. The main influencing factors are the stakeholders of the organization and the rising costs of energy and commodity.

Some of the key stakeholders in this context are:

- The state with growing international and national regulations
- Customers and consumer with increasing awareness and demand for eco-friendly products and (logistics) services
- Employees who want to work in an environmentally and socially responsible

company

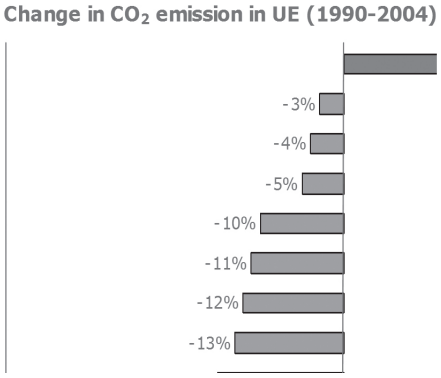
- Society with increasing claims for more corporate social responsibility (CSR)
- Companies themselves; dealing with their own motivation

There is also the pressure of lenders, investors, insurers and investors. Indications of this are new forms of investment in the capital market, such as the Dow Jones Sustainability Index, that tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria.

The dimension of ecological concern of a company is the product of these complex and varying factors.

Transportation - An important source of CO_2

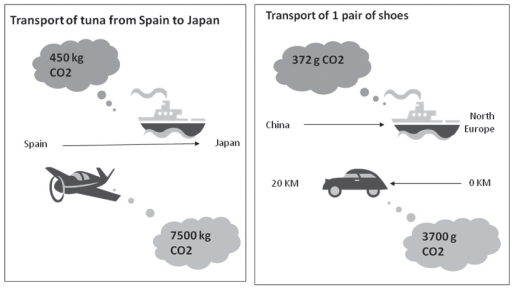
Due to globalization and increased outsourced trends, transportation is the only sector that has increased CO2 emissions in the last two decades



Green Logistics. Because the Future Can't Wait

- Climate change is one of the greatest challenges facing our generation.
- Increasingly authorities and consumers expect business to calculate, account for and reduce their carbon emissions. CO2 accounting is a new science and there is no single way of doing it.

Some examples of the carbon footprints when transporting goods



Approaches

Logistics has a whole range of measures to protect the environment and resources. Some are new, others long-known. These actions can be assigned to different levels – maturity, range, scope, capital expenditure and resource requirements.

Corresponding to the holistic approach of green logistics, logistics has five starting points to implement measures for environmental protection and resource conservation:

- customer, market and product (level 1)
- structures and planning (level 2)
- processes, control and measurement (level 3)
- technologies and resources (level 4)
- employees, suppliers and service providers (level 5)

Examples

- More efficient packing
- Route optimization
- Load optimization
- Formation of corporate networks, which are connected by logistics service
- Optimizing physical logistics processes by providing a sophisticated IT support

The first four levels form a hierarchy and influence each other sequentially. Decisions on one level define the scope for further decisions on the following levels. Decisions at higher levels reduce the freedom for the following levels. Example: The determination of the packing mass of a product on the Level one defines the volume and weight of a product and therefore the maximum number of items per carrier (e.g., container). Thus, the decision made on level one influences the maximum capacity of a container. The impacts on the environment – as carbon-dioxide (CO_2) emissions per transported product – therefore are strongly influenced by the decisions made on level one. But also decisions made on levels two and three, such as route optimization have an impact on carbon-dioxide emissions.

Reverse logistics

A critical area of the supply chain is reverse logistics. Traditionally defined as the process of moving product from its point of consumption through channel members to the point of origin to recapture value or ensure proper disposal, this chapter uses a more holistic definition. Reverse logistics includes activities to avoid returns, to reduce materials in the forward system so that fewer materials flow back, and to ensure the possible reuse and recycling of materials. Returns can affect every channel member from consumers, retailers and wholesalers to manufacturers. Returns are caused for different reasons depending on who initiates them – end consumer, wholesaler or retailer and manufacturer – and on the nature of the materials involved – packaging or products. Reusable packaging is becoming



more and more common, especially in Europe where manufacturers are required to take back packaging materials.

The size of reverse logistics is considerable. According to Stock et al (2001), reverse logistics costs are as high as 4 per cent of total logistics costs, which amounts to an estimated $35 billion in 2001 for the US alone. Consumers cause most product returns. According to a survey of 311 logistics managers in the US in 1998, average consumer returns across retailers are 6 per cent.

Characteristics of reverse logistics

The reasons for returning products can be distinguished by where the returns initiated. Listed below are the main return reasons for each supply chain partner

- Customer not satisfied
- Installation or usage problems
- Warranty claims
- Faulty order processing
- Retail overstock
- End of product life cycle or product replacement
- Manufacture recall programs

Case study 1

In this study, we have analyzed the environmental impact of alternative transportation modes

The Project

> An electronics company exporting goods from Barcelona to Denmark
> Environmental impact analysis of two scenarios: Truck vs. Multimodal Results
> The analysis reveals that trucking alternative represents more than 3 times more CO2 emissions compared to multimodal transportation

	Total CO2 (KGs)
Truck	197.120
Multimodal	65.224
Savings	131.896

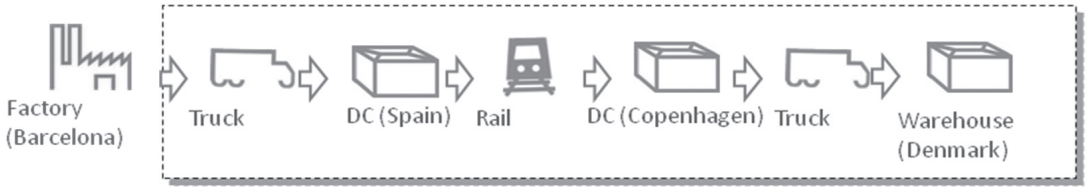
Alternative 1 – Truck

Total CO_2 emissions: 197.120 KGs



Alternative 2 – Multimodal

Total CO_2 emissions: 65.244 KGs



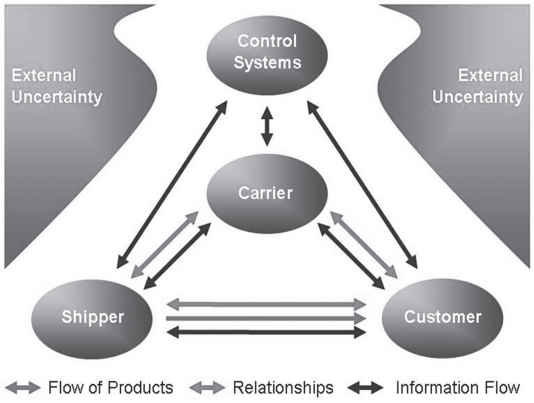
Uncertainty in supply chains

Objectives

- To review the significant amount of research into the sustainability of freight transport and its integration into the wider supply chain. Each academic partner will take responsibility for its own particular field of expertise, coordinated by a lead institution.
- To rationalize our understanding of the role of freight transport in the supply chain, given the complexity of many supply chains.
- To start the process of developing methodologies and tools this will improve our understanding of complex supply chain situations.

Framework

Uncertainty within supply chain operations leads to transport inefficiency and therefore impacts upon environmental performance. In order to evaluate this more fully, a conceptual model has been developed which we have termed the Logistics Pyramid. This is an extension of models previously developed for evaluating uncertainty within a manufacturing environment.



Within logistics operations, five main sources of uncertainty are identified:

- Shipper - the organization dispatching the products (i.e. the consignor)
- Customer - the organization receiving the products (i.e. the consignee)
- Carrier - the transporter of the load. This may be a third party or an in-house transport function
- Control systems - uncertainty caused through the information flow within a supply chain
- External environment - uncertainty from outside the logistics system being studied

By using this framework, it is possible to codify the main sources of uncertainty affecting transport operations and identify the root causes of these disturbances.

Result and discussion

- Considered during initial product development and raw material purchasing stage
- Can choose local suppliers
- To use recycled materials in manufacturing and production
- Typically, lower carbon emissions come along with lower overall logistics costs and maintained or improved service levels – a win-win situation for our clients and the environment

How will logistics become greener?

- Top down government intervention
- The industry claims that one of the fastest growing cost of warehousing is compliance with governmental regulations.
- Labor and health regulations (training).
- Environmental regulations, mainly concerning dangerous substances and fuels.
- Congestion pricing, road pricing (US) 'fair pricing' (EU).

- Recent trends show an attempt by governments to internalize cots.
- Outcomes uncertain
- Policies may impact differentially on the modes.
- Contradictory policies between tiers.

How will logistics become greener?

- Bottom-up, industry action
- Technology will improve the situation (to a limit).
- Fleet management, vehicle efficiencies.
- Attitudes will change; greenness can become a marketing tool.
- Composite solutions
- Environmental management and audit systems (EMAS).
- Adoption of ISO 14000 by logistics industry
- Paradoxical situation
- Problems occur at all spatial scales, from the local through to the global, so a political response is inevitable.
- There are hopeful signs of greener attitudes in the industry.

Conclusions

As mentioned earlier, developing reverse logistics further can result in lower environmental impacts since materials and components can be reused. Applying a green logistics system to any supply will require a substantial amount of research, planning, and risk-analysis. Sometimes while performing the environmental audit we have to maintain the balance between the financial budgets and the green logistics. There are a number of issues that may affect service performance and logistics costs if a green system is implemented. However, a reduction in environmental impacts is beneficial to all consumers. The concept of green logistics should be at the source of a firms supply chain strategy.

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A Literature Review on Prospectus of Ethical Hacking in Education Field

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ABSTRACT

As we know in India, the usage of internet and networks is growing tremendously and in that same proportion the problems are also increasing too. The problems are in form of security threats, cyber crimes, cyber attacks, online baking frauds, etc. Many times these kinds of tasks are performed by professionally trained programmers; we called them 'Hacker'. To prevent them we need the team of trained programmers; we called them 'Ethical hackers' who search the vulnerabilities in the system and fix it, that a hacker could possibly exploit.

But prevention is not only the solution. Precaution is better than prevention. We can take the precaution by adding Ethical Hacking subject in academic syllabus for graduation or post graduation students. So student will knows the importance of Ethical Hacking and try to implement different strategies to stop hacking.

Key Words : *ethical hacking, hacking, prevention*

INTRODUCTION

The need for more effective information security practices is increasingly evident with each security breach reported in the media. When adopting new technologies like cloud computing, virtualization, IT outsourcing, enterprises are facing imminent security threats and must adjust their security processes, policies, and architectures accordingly. Among the many options available to help peoples to achieve this goal, organizations should consider the value of ethical hacking services, which are rapidly gaining attention as an essential security practice that should be performed on a regular basis. Have you ever thought that hacking could be ethical? It can be and is widely used. With the fast growth of the Internet technologies, computer security has become a major concern for governments and business where the possibility of being hacked is proportional to the security implemented in their infrastructure. Firstly, we have to know the difference between two terms Hacker and Ethical Hacker.

A hacker is someone who seeks and exploits weaknesses in a computer system or computer network. Hackers may be motivated by a multitude of reasons, such as greed, revenge, adventure, destruction, access to forbidden information, profit, protest, or challenge. Hacker was used for an exceptionally talented programmer. However, these

days it is largely used for people practicing unauthorized and unethical use of internet and other network resources. Hacking is considered a crime in most of the countries. It is a punishable offence.

An ethical hacker is a computer or network expert who attacks a security system on the behalf of its owners, seeking vulnerabilities that a malicious hacker could possibly exploit. Ethical hackers will use the same methods as their less malicious counterparts, but report problems to the owners instead of taking advantage of them. Ethical hacking is also known as penetration testing, intrusion testing and red teaming. However, there are times when the police or investigation teams require the help of ethical hackers to solve a case.

In the 1970's the United States government used groups of experts called "red teams" to hack its own computer systems to determine the systems vulnerabilities. Since then, ethical hacking has continued to grow, and is becoming increasingly common outside the government and technology sectors where it began. Many large companies, such as IBM, maintain employee teams of ethical hackers in order to test their company's computer system vulnerabilities.

Now we can say that, Hacking is getting unauthorized access to a computer system or a resource and Ethical hacking involves getting authorized access to resources in order to test if that resource is vulnerable against attacks.

BACKGROUND

We required different strategies to stop hacking or search vulnerability in our system so that we need many experts. There are many private institutes or courses that provide the training of ethical hacking but ethical hacking subject is not introduced in regular syllabus. So the flow/awareness of the student towards the ethical hacking is too low as compared to medical or engineering field.

If we include this subject in regular syllabus for computer science students then we will immerse the student into an interactive environment where they will be shown how to scan, test, hack and secure their own systems. The lab intensive environment gives each student in-depth knowledge and practical experience with the current essential security systems. Students will begin by understanding how perimeter defenses work and then be lead into scanning and attacking their own networks, no real network is harmed. Students then learn how intruders escalate privileges and what steps can be taken to secure a system. Students will also learn about Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation. When a student completes the course they will have hands on understanding and experience in Ethical Hacking.

Students also can generate money with the help from ethical hacking. The latest example about is : A 21 years old Indian electronics and communications engineer – Arul Kumar from Tamil Nadu state won USD $12,500 as per Facebook white-hat program where anyone reporting security flaws, bugs to Facebook Security team can get awards/ prize money where minimum award is $500 USD and maximum depends on its severity

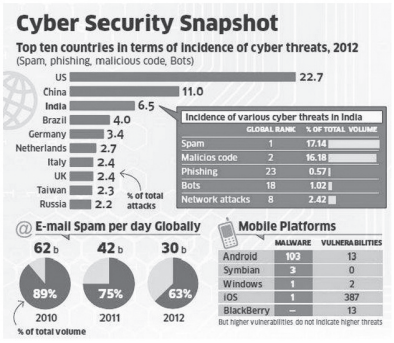
and creativity. Arul Kumar is Security Enthusiast and practice in Ethical Hacking and got facebook bounty twice in year 2013.

There are several different ways to define hacking, but the best and most used definition describes hacking as a computer system being entered through unauthorized access. Ethical hackers are network and computer experts who attack a security system to help the computer system's owners. They do this to look for any vulnerability that could be exploited by a malicious hacker.

They will use the same methods as a malicious hacker to test a security system, but instead of taking advantage of these vulnerabilities, they will report them. Ethical hacking is also referred to as intrusion testing, penetration testing and red teaming.

The figures will show the need of ethical hackers in India. India is the third largest county where the cyber attacks are executed. The cyber attacks are in the form of spam, malicious code, phishing, bots, network attacks on computer as well as mobile, tables and many more different platforms.

The second serious figures got from the report of Syma-ntec Security Threats are the mail attacks in our financial or banking sectors in India.





IMPLIMENTATION

Techniques of Ethical Hacking

One type of ethical hacking involves testing an organization's networks, both internal and external, to identify any weaknesses that outsiders could tap. Ethical hackers could also test applications to find any flaws and go through an organization's source codes. Other techniques include testing for the possibility of attacks from someone with access to the wireless network, and checking for unauthorized modems.

Advantages

One major advantage of ethical hacking is that it helps an organization better protect its systems and information. It is a way of augmenting the efforts of an organization's information technology professionals. The adoption of ethical hacking techniques must be a part of an organization's overall security efforts. However, the realities of tight budgeting mean that this additional layer of security is not always a priority for many organizations.

Protection Against Theft

If a hacker gets into an organization's systems, then the hacker could gain access to valuable information. The organization's intellectual property and sensitive client information are at risk. Hackers have been known to steal such information. If organizations want to protect against theft, they could schedule routine ethical hacking exercises to find out if any flaws exist in their systems. This makes them less vulnerable to outside hackers.

Protection from Lawsuits

The United States is a litigious society. If hackers get into a company's systems and steal customer information, then the company could face potential lawsuits. Consumers could file lawsuits against an organization for failing to safeguard their personal information. Ethical hacking could help prevent the possibility of such lawsuits. Organizations may also have to meet certain legislative and regulatory requirements relating to safety of consumer information. Ethical hacking helps them meet such mandates.

Goals of Ethical Hacking

Before an ethical hacker can begin the process they must create a plan, such as:

- Identify any and all networks they will test
- Detail the testing interval
- Detail the testing process
- Create their plan and then share it with stakeholders
- Get the plan approved

Ethical hacking has a variety of uses on the primary and secondary levels.

Benefits of ethical hacking

There are various benefits of ethical hacking.

1. To fight against terrorism: There are many terrorists and terrorist organizations that are trying to create havoc in the world with the use of computer technology. They break into various government defense systems and then use this for their terrorist activities. This can be prevented by using the services of ethical hackers who counter the terrorists by misleading them.
2. To take preventive action against hackers: Preventive action against the terrorists can be taken by the ethical hackers. This can be done because the ethical hackers use their expertise to create alternate information that is false, of the hackers to get while the real information that is necessary and important is hidden from the terrorists. Preventive action that is taken by the governments against the breaking of the networks saves money in billions of dollars as rectifying and building new systems will cost a lot and also is very time taking. So the use of ethical hackers in doing this work of preventing the real hackers from getting to the important information helps save a lot of money and also time.
3. To build a system that helps prevent penetration by hackers: The ethical hackers are



also used to try and test the existing defense systems. These people are also used to build a foolproof system that prevents the breakdown of the existing system. Using the powers of the hackers to get a proper system built helps to prevent penetration by the hackers and saves the information in the various government networks.

These are also the various benefits of having ethical hackers in a defense system.

CONCLUSION

Day by day the attacks of cyber threats are increasing. A single cyber threat can harm or badly effect on time, money, and confidential data of any company, institute or organization. To avoid this, we have to create a team of ethical hacker. For that we have to introduce this subject from college level; so students can aware about this and they will choose ethical hacking as a profession.

The hacking means performing bad things in bad ways and ethical hacking means performing bad things in good way. So the ethical hacking is a two sided sword; it will cut on both sides. That means it we trained our students for ethical hacking, so there is possibility of our students might change their mind and move towards hacking for their profit or greedy nature.

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Automatic Number Plate Recognition Using Optical Character Recognition

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ABSTRACT

Automatic number plate recognition is an image processing technology used to identify to Vehicles by their license plates. ANPR is a computerized method of matching a License plate to a database of registration numbers. Automatic vehicle identification (AVI) has many applications in security system (highly restricted area like military zones or area around top government offices e.g. Parliament, Supreme Court etc.), in traffic systems (highway electronic toll collection, red light violation enforcement, border and customs checkpoints, etc.). In the ANPR system software model the proposed algorithm consists of three major parts: Extraction of plate region, segmentation of characters and recognition of plate characters. The performance of the proposed algorithm has been tested on real images. It is obseverd form the experimental result, that ANPR system shows successes fully detect vehicle number.

Keywords : *Optical Character recognition, license plate recognition, plate region extraction, segmentation, smearing, template matching.*

Introduction

The Automatic number plate recognition (ANPR) is a mass surveillance method that uses optical character recognition on images to read the license plates on vehicles. They can use existing closed-circuit television or road-rule enforcement cameras, or ones specifically designed for the task. They are used by various police forces and as a method of electronic toll collection on pay-per-use roads and monitoring traffic activity, such as red light adherence in an intersection.

ANPR can be used to store the images captured by the cameras as well as the text from the license plate, with some configurable to store a photograph of the driver. Systems commonly use infrared lighting to allow the camera to take the picture at any time of the day. A powerful flash is included in at least one version of the inter section monitoring cameras, serving both to illuminate the picture and to make the offender aware of his or her mistake. ANPR technology tends to be region-specific, owing to plate variation from place to place.

The objective of the paper is to successfully locate standard Egyptian number plate, segment characters and recognize them given a car image. The system must deal with different angles, distances, scales, resolutions and illumination conditions.

ANPR SYSTEM

ANPR system can be subdivided into the two model.

- Software model
- Hardware model.

The section will discuss the both models in detail.

A . Stages of Software Model

The software model uses image processing techniques which are implemented in MATLAB 7.5.0.

Preprocessing :

This stage uses captured image by camera in RGB format. The RGB image is then converted into a grayscale image for easy analysis as it consists of only two color channels. Median filtering is then implemented for the effective removal noise.

License plate extraction

The purpose of this part is to extract the License Plate from a captured image. This process includes Yellow regions extraction, Dilating yellow regions, Fixing the license plate region Candidate selection, Determining the angle of the plate using the Radon transform, Improved license plate region, LP Quantization and Equalization, Normalized LP, Adjusting normalized LP horizontal contours.

Character Segmentation

ANPR by using a pixel based segmentation algorithm of the alphanumeric characters in the license plate. In process adaptive segmentation method is used. The character segmentation acts as a bridge between the number plate extraction and optical character recognition modules. Its main function is to segment the characters on the chosen candidate region (number plate) such that each character can be sent to the optical character recognition module individually for recognition.

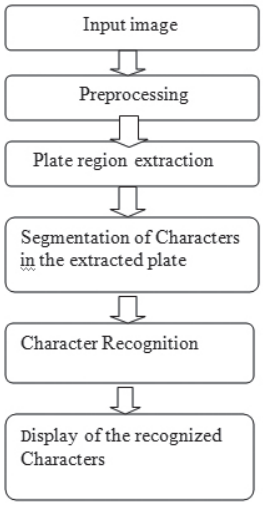
Recognition

Dilating the digit image permits to reduce noises due to poor image quality. It also exaggerates the digit width making a clear separation between the digit and the background which make the work easier for the OCR machine.

Contours adjusted and resized digit method adjusts the LP contours using similar method as in the precedent steps both in the horizontal and vertical directions. Then the digit is resized to standard dimensions, according to the neural network dataset.

The digit recognition algorithm method from the Neural Network is used and Retraining the Artificial Neural Network (ANN) by building a new sample font database.

Proposed VNPR Process



B. HARDWARE MODEL

The first step is the sensors to sense the presence of a vehicle. The camera connected to the PC through USB port capture the image of vehicle.

ANPR algorithm on PC receives the image and performs the processing, recognizes the vehicle number, confirms its validity & finally provides the signal to microcontroller to control the system hardware. If input image or plate contain the authorized number green indication light will be switched ON, otherwise red indication light will be switched ON.

Block Diagram of Hardware Model:

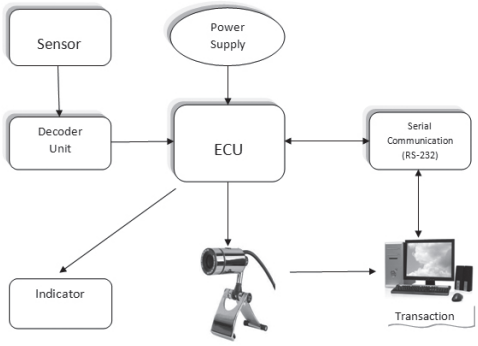


Fig2.: Complete hardware model.

RESULTS

This section presents the simulation results of the developed ANPR system.

Firstly, the camera is interfaced using Matlab with the PC. The camera is attached

using USB port. Different images of cars having different colors and structure types are taken and stored in PC. The different effects of the day lights are also considered during the processing. The images are in RGB format and the resolution is 800 x 600 pixels as shown in figure 3.

After capturing the image the next step was the yellow search algorithm. Figure 4 shows the images after the executing the yellow search algorithm. The white region represents the yellow or color closer to the yellow. It can be observed that the yellow search algorithm successfully detect the ROI that only contain vehicle number plate. The smearing algorithm used next to extract the vehicle number plate as shown in figure 5. Once the vehicle number plate is extracted, it is converted into the binary format. Figure 6 and figure 7 show the binary and inverted binary format respectively.

The row and column segmentations methods are used next to extract the individual character in the vehicle number plate. The results of the row and column segmentation are shown in figure 8 and figure 9 respectively.

Finally OCR is used for character recognition and each and every alphanumeric character is recognized as shown in figure 10.

DISCUSSION

The system start works when the sensor detects the presence of car at the entrance. The micro-controller sends the signal to PC for capturing image using USB camera attached with the PC. The PC starts the ANPR algorithm and identifies the vehicle authorization.

The ANPR algorithm is tested on large number of images with the resolution of 800 x 600 pixels. The results shows that the developed ANPR algorithm successfully detects the Sindh standard vehicle number plates in various day conditions and shows the higher detection and recognition rate. It can detect and recognize vehicle plates from various distances.

The distance affects the size of the number plate in an image. Once the vehicle number plate is detected, the individual characters are recognized using the OCR algorithm.

The OCR use correlation method for the character recognition and the probability of the recognition can also be calculated.

The system is computationally in expensive and can also be implemented for real time vehicle identification system.



Figure 3 Images taken using USB camera



Figure 4 ROI detection using yellow search algorithm

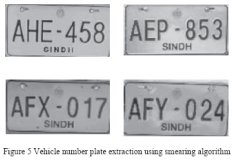


Figure 5 Vehicle number plate extraction using smearing algorithm



Figure 6 Binary image

Figure 7 Inverted binary image

Figure 8 Line separation using row segmentation

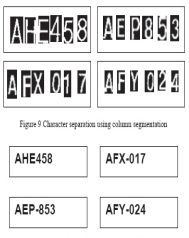


Figure 9 Character separation using column segmentation

Figure 10 Recognize character using OCR

CONCLUSION

In This paper, a new approach for the detection of vehicle number has been presented. A recognition method in which the vehicle plate image is obtained by the digital cameras and the image is processed to get the number plate information. A rear image of a vehicle is captured and processed using various algorithms.

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Applications of Data Mining in Web Data (Mining Web Data)

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ABSTRACT

In recent years we have witnessed an ever-increasing flood of written information, vulminating in the advent of massive digital libraries. The World Wide Web has become a very popular medium of publishing. Data mining is the process of non-trivial discovery from implied, previously unknown, and potentially useful information from data in large databases. Hence it is a core element in knowledge discovery, often used synonymously. The data is integrated and cleaned so that the relevant data is taken. Data mining presents discovered data that is not just clear to data mining analysts but also for domain experts who may use it to derive actionable recommendations. Successful applications of data mining include the analysis of genetic patterns, graph mining in finance, and consumer behavior in marketing. The Institute of Information Systems has developed and researched a wide spectrum of data mining applications with a focus on web applications in education, B2C retail applications, and knowledge management. One focus is on the analysis of the web as "the world's largest database."

Keywords : *data mining: web data, web usage mining.*

INTRODUCTION

Data mining is the process of non-trivial discovery from implied, previously unknown, and potentially useful information from data in large databases. Hence it is a core element in knowledge discovery, often used synonymously. The data is integrated and cleaned so that the relevant data is taken. Data mining presents discovered data that is not just clear to data mining analysts but also for domain experts who may use it to derive actionable recommendations. Successful applications of data mining include the analysis of genetic patterns, graph mining in finance, and consumer behavior in marketing. The content of the raw data for web usage mining on the one hand, and the expected knowledge to be derived from it on the other, put a special challenge. While the input data are mostly web server logs and other primarily technically oriented data, the desired output is an understanding of user behavior in the domain of online information search, online shopping, online learning etc. This requires on the one hand an understanding and formal modeling of the behavior examined in the domain and on the other a picture of how the input data figures in these models. We are investigating "semantic web" approaches as

a promising avenue for the formal and computational aspects of this goal. The contents aspects of this goal require an understanding of behavioral theories in the investigated domains and a highly interdisciplinary research approach. The eventual presentation of the mining results for domain experts should consider general aspects of user interface design as well as domain-specific customs. Further, the development of visualizations as an important design element of user oriented mining systems is in the focus of our research efforts. In particular we analyze and develop methods and tools for exploratory analysis of behavioral data. Another area of interest is the transition of from temporal data analysis (still plays an important role) that implicitly assumes a stationary role for the described domains, to the analysis of the dynamic aspect of such data (these data, as a rule, are too complicated to examine using standard time series analysis techniques). Web mining describes the application of traditional data mining techniques onto the web resources and has facilitated the further development of these techniques to consider the specific structures of web data. The analyzed web resources contain (1) the actual web site (2) the hyperlinks connecting these sites and (3) the path that online users take on the web to reach a particular site. Web usage mining then refers to the derivation of useful knowledge from these data inputs

BACKGROUND

- **Web Mining Efficiently :** Web mining means to download information from websites. Now you may ask why we do not do this by hand, and the answer is very simple. To do this by hand is a waste of time and very tedious work. All this work could be done by simply using a computer with web mining software installed on it, so that the computer can use this software from 'Mozenda.com' to download the essential information that you would like. It doesn't just download everything because that would be a waste of time. Rather it is smart software that can be used to gather the exactly right and perfectly fitting information from websites that you require.
- **Copy Website Content :** Copying website content is done by using website download software. This software allows you to copy web pages to your hard drive from the internet. After you download the website pages you can view them later from your hard drive. Most of the software has an export feature that allows you to view the downloaded pages in different browsers. The export feature also allows you to copy downloaded websites to other computers in order to view them later and prepares websites for burning them to a CD or DVD. JPEG images can also be ripped with this software and stored on your hard drive to be viewed at a later date.



- **Extract Text :** It is often a inconvenience when you have to get text from documents that are in PDF, DVL or HTML format. While it is possible to copy and paste the text you want, it can be very tedious and you may even get the inaccurate text.

  Extract text is software that allows you to get the text in a much easier way. It is possible to extract the text using extract software. This software will help you extract text from any website that you are using. It also makes it possible to extract the text from multiple websites at the same time. The text that you extract will be accurate and takes a short time.
- **Website Scrapers :** Grabbing Data-The Data Grab - The Internet Through a Strainer Scouring the internet for it's one key resource Data. Performing a data grab is using a program to sift through a website or database for a specific kind of information. To data grab is to seek to quickly form enough of a base of information to be useful in studies, be they medical, financial or legal. This kind of operation is engaged in more and more frequently as data begins emerging as the most valuable of commodities.
- **Article scraper :** An article scraper, or website scraper, is a very useful tool for anybody who needs to extract tailored data from the Internet. An automated system that can weed through vast amounts of information to find exactly what is needed, an article scraper can help companies understand their customers' needs and wants, allowing them to tailor their products accordingly and to ultimately boost their profits. Researchers can gather needed information quickly and efficiently, saving them untold hours of research they would normally have to do on their own. Anyone who has a need for tailored Web-based information should consider article scraping to meet their data needs.

IMPLIMENTATION

User behavior and data availability tend to change over time. Therefore the dynamism of a domain is an important question in every mining analysis and in each presentation of

mining results for domain experts. Most data mining algorithms tend to treat the dataset being analyzed as a static unit. However a dataset may change in terms of content and/or structure over time, either due to updates or just because the data was collected over a long period of time. Regarding updates, it seems sufficient to update the patterns discovered previously from the data. Most of the "incremental mining techniques" proposed to solve this task are based on their static counterparts and re-use information from earlier mining runs, to update patterns. The data collection over a long time period creates another situation. In this case the data experiences only one form of update: insertions of data. The distribution of entities in the data set can change on account of external and/or internal factors. Due to these changes, the patterns over time may also change (pattern evolution).

There are two types of pattern change: 1. Changes in the essential make up of a pattern, for example the relationship in the data as reflected by the specific pattern.2. Changes in the statistical measurement of the pattern. Both types of changes can have a significant influence on the decision process and hence should be observed. The pattern supervision necessitates a data model that contains a temporal component to illustrate a specific pattern for the corresponding time. A second question that automatically comes in to play is: which patterns should be supervised or observed? The interesting thing is that even when examining smaller data amounts, the number of discovered patters is often very big. In these cases the analyst must choose a manageable subset of the patterns. The area is closely related to knowledge management, data protection and data security. In particular questions from knowledge management are highly relevant because the web usually implies the access to information and therefore the construction of knowledge. This raises a number of E-privacy questions. Data collection and data analysis practices are coming under increasing scrutiny from legislation and technical proposals that aim at either minimizing recording or at extending it. Web mining - is the application of data mining techniques to discover patterns from the Web. According to analysis targets, web mining can be divided into three different types, which are Web usage mining, Web content mining and Web structure mining.



A. Web usage mining : Usage mining is the process of extracting useful information from server logs. Web usage mining is the process of finding out what users are looking



for on the Internet. Some users might be looking at only textual data, whereas some others might be interested in multimedia data. Web Usage Mining is the application of data mining techniques to discover interesting usage patterns from Web data in order to understand and better serve the needs of Web-based applications. Usage data captures the identity or origin of Web users along with their browsing behavior at a Web site. Web usage mining itself can be classified further depending on the kind of usage data considered:

- Web Server Data: The user logs are collected by the Web server. Typical data includes IP address, page reference and access time.
- Application Server Data: Commercial application servers have significant features to enable e-commerce applications to be built on top of them with little effort. A key feature is the ability to track various kinds of business events and log them in application server logs.
- Application Level Data: New kinds of events can be defined in an application, and logging can be turned on for them thus generating histories of these specially defined events. It must be noted, however, that many end applications require a combination of one or more of the techniques applied in the categories above.

B. Web structure mining : Web structure mining is the process of using graph theory to analyze the node and connection structure of a web site. According to the type of web structural data, web structure mining can be divided a into two kinds:1. Extracting patterns from hyperlinks in the web: a hyperlink is a structural component that connects the web page to a different location. 2. Mining the document structure analysis of the tree-like structure of page structures to describe HTML or XML tag usage

C. Web content mining : Web content mining is the mining, extraction and integration of useful data, information and knowledge from Web page content. The heterogeneity and the lack of structure that permeates much of the ever-expanding information sources on the World Wide Web, such as hypertext documents, makes automated discovery, organization, and search and indexing tools of the Internet and the World Wide Web such as Lycos, Alta Vista, WebCrawler, ALIWEB, MetaCrawler, and others provide some comfort to users, but they do not generally provide structural information nor categorize, filter, or interpret documents. In recent years these factors have prompted researchers to develop more intelligent tools for information retrieval, such as intelligent web agents, as well as to extend database and data mining techniques to provide a higher level of organization for semi-structured data available on the web. The agent-based approach to web mining involves the development of sophisticated AI systems that can act autonomously or semi-autonomously on behalf of a particular user, to discover and organize web-based information. Web mining in foreign languages-It should be noted that the language code of Chinese words is very complicated compared to that of English. The GB code, BIG5 code and HZ code are common Chinese word codes in web documents. Before text mining, one needs to identify the code standard of the HTML documents and transform it into inner code, then use other data mining techniques to find useful knowledge and patterns. Web Usage mining Pros and Cons:-Pros-Web usage mining essentially has many advantages which makes this technology attractive to corporations including the government agencies. This technology has enabled e-commerce to do personalized marketing, which eventually

results in higher trade volumes. Government agencies are using this technology to classify threats and fight against terrorism. The predicting capability of mining applications can benefit society by identifying criminal activities. The companies can establish better customer relationship by giving them exactly what they need. Companies can understand the needs of the customer better and they can react to customer needs faster. The companies can find, attract and retain customers; they can save on production costs by utilizing the acquired insight of customer requirements. They can increase profitability by target pricing based on the profiles created. They can even find the customer who might default to a competitor the company will try to retain the customer by providing promotional offers to the specific customer, thus reducing the risk of losing a customer or customers. Cons-Web usage mining by itself does not create issues, but this technology when used on data of personal nature might cause concerns. The most criticized ethical issue involving web usage mining is the invasion of privacy. Privacy is considered lost when information concerning an individual is obtained, used, or disseminated, especially if this occurs without their knowledge or consent. The obtained data will be analyzed, and clustered to form profiles; the data will be made anonymous before clustering so that there are no personal profiles. Thus, these applications de-individualize the users by judging them by their mouse clicks. De-individualization, can be defined as a tendency of judging and treating people on the basis of group characteristics instead of on their own individual characteristics and merits.

Web Content Mining : Mining Text- Web content mining, also known as text mining, is generally the second step in web data mining. Content mining is the scanning and mining of text, pictures and graphs of a web page to determine the relevance of the content to the search query. This scanning is completed after the clustering of web pages through structure mining and provides the results based upon the level of relevance to the suggested query. With the massive amount of information that is available on the World Wide Web, content mining provides the results lists to search engines in order of highest relevance to the keywords in the query. Web text mining is very effective when used in relation to a content database dealing with specific topics. For example-Online universities use a library system to recall articles related to their general areas of study. This specific content database enables to pull only the information within those subjects, providing the how will web data mining benefit my business? If you would like to know more about your customers and when and how they make purchases, web data mining could help. What differentiates business site visitors, who read articles and move on to the next site, from site visitors who purchase your goods and services? You can search the traffic data on your company web site, or compiled in your database to find out when a person makes a purchase. Where did they come from and what pages of your site were of interest to them? These are some of the things you can mine from your data. Most specific results of search queries in search engines. This allowance of only the most relevant information being provided gives a higher quality of results. This increase of productivity is due directly to use of content mining of text and visuals. Once web information is collected it can be used to improve your marketing results. Your company can make educated decisions about what kind of contacts to make with a customer, when, and in what format. Rules can be created about what type of data to gather, how it is organized, and how it is assessed. You can decide if it is most likely that a customer will make a purchase after Web data mining tools



are plentiful. And most vendors offer a demo, freeware or both to help you determine which tool for mining are the best for your business. For a list of web data mining tools vendors, try DMOZ. Kdnuggets also has a list, that is categorized commercial or free .Two very well known industry vendors are SAS and Congo's. And never one to miss out on a hot market, Microsoft has an analytic product as well. Take advantage of free trials for data mining tools by trying out more than one before you decide.

Web Mining Software: free and open-source -

- Alter Wind Log Analyzer Lite - quickly generates all traditional reports, supporting 430+ search engines from 120 different countries.
- Analog (from Dr. Stephen Turner) - a free and fast program to analyses the web server log files (Win, Unix, more)
- Jwanalytics - a Java utility for the storage of information in a dimensional model, useful for storing Web Analytics data for Java web applications; Web real time data mining functionality being built.
- Htminer - support analysis of web logs (including unique visitors, sessions, and transactions); organizes the data in a PostgreSQL data warehouse.
- Visitator - Clustering and visual presentation of visitor groups based on access patterns.

WUM: Web Utilization Miner, an integrated, Java-based Web mining environment for log files preparation, basic reporting, discovery of sequential patterns and visualization.

CONCLUSION

For web mining there are three modes namely, webbed content mining, web structure mining and web usage mining. Needless to say, these tree approaches cannot be independent, and any efficient mining of the web would require a judicious combination of information from all the three sources. Clustering of hyperlinked documents can rely on combinations of textual and link based information. Similarly, information about the web structure would greatly enhance the capability of web usage mining. We have noted that web content mining mostly concentrates on text mining, and textual content in the web can be in an unstructured, semi-structured form or structured form. Similarly, for unstructured text such as XML, features can be extracted for mining purposes. Thus, data mining applied to the Web has the potential to be quite beneficial.

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Talent Acquisition - Retention Lifeblood of Every Organization

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ABSTRACT

In an organization, there is nothing more crucial than fitting the right employee in the right position. When people do jobs that just do not suit their liking, inclination or temperament, the results; or rather the lack of them will be disastrously obvious. Low productivity, dissatisfaction, low morale, absenteeism and other negative behavior will become typical till the employee is shown the door. Or perhaps, there is another option - Talent Management. Every organization is confronted with the continuously evolving challenges of hiring and retaining critical positions in a market place characterized by massive demand and a dearth of appropriate talent. Every organization operates in an environment where strong demand for talent and large volumes of supply, introduce the huge and intensely complex challenge of managing recruitment for their unique and specific requirements. Talent acquisition is the targeted recruitment/acquisition of high performing teams into a company from a competitor or similar type of organization.

Research methodology used for research involves the sampling technique-simple random sampling; sample size was 30 industries in Baramati region. Both primary and secondary data sources were used for research work. Findings and conclusions were purely based on data analysis and interpretation.

Key words : *Talent Management, Talent Acquisition, Recruitment, Retention*

INTRODUCTION

Talent in general terms refers to the capabilities, skills or the art, a person possess in a particular field. It also refers to those people who have high potential, scarce knowledge and skill or who can successfully bring about transformation and change in the organization. Such individuals are usually sought after in the market and their contributions to the business add direct value to its strategic or competitive positioning

Talent management, also known as human capital management, is the process of recruiting, managing, assessing, developing, and maintaining an organization's most important resource its people. Talent management initiatives must involve dialogue and engagement with business in order to hire, retain, and develop the talent that is needed to achieve the business goals.

Talent Acquisition allows us access to a pool of competitive talent that would otherwise



have been missed or even worse ignored. The focus of the process is on attracting talented workers to the organization. The process stages were typically performed as disconnected steps that made the process inefficient and ineffective.

Today, business leaders understand the strategic significance of talent acquisition. They are carefully looking at how they are going to fill the gap in skills and company knowledge left by retired persons. They are applying new uses of technology for virtual workplace options that can make them more flexible to employees, more attractive to candidates and open to talent from around the world. They are adopting advanced strategies and tactics to evolve their talent acquisition operations and they are embracing a range of emerging best practices, from workforce planning to employment branding. In short, they are recognizing the need to continue to advance their abilities not only in talent acquisition, but also to support retention and employee development.

Literature Review

It is widely recognized that human resource plays a significant role for enhancing an organization's performance and effectiveness. No wonder there are persistent efforts by organizations irrespective of their size, age, type sector, etc to attract the best talent available. (Barney and Wright 1998). Talent has become the key differentiator for performance management and for leveraging competitive advantage organizations. With better talent acquisition and development, employee engagement improves and so does productivity. Maximizing team engagement, motivation, and retention through due diligence in talent acquisition is vital in today's highly competitive environment. The 21st century has witnessed an explosive pace of technological advancement, facilitating global sourcing and the consequent global operations, which are the main drivers of change in employment patterns, leading to intense competition among employers to attract and retain talented workers (Osborn-Jones, 2001). Without doubt it can be said that today an organization's success is directly linked to the talent it can recruit and retain. Recruitment is critical not only for sustaining competitive advantage but also for basic organizational survival (Taylor and Collins, 2000). Escalating demand for highly talented and skilled employees coupled with limited supply makes the acquisition and retention of talented employees a major priority for organizations (Flegley, 2006) especially organization. Organizations invest substantially in their employees. It is a major challenge for organizations to retain skilled employees once they have been hired and trained. In addition to reasons like lack of growth opportunities, low pay packages and inability to adapt to the organization, high turnover has also been identified as a cause for higher attrition rate. The ease with which employees can now change jobs, move and change functions and industries, has reduced employees' loyalty towards organizations. The corresponding costs to the firm with regard to employees' quitting the organization and the subsequent hiring or replacement of employees can be quite significant in terms of personal, work-unit, and organizational readjustments (Thomas and Terence, 1994).

Theoretical background:

Talent acquisition is the ongoing cycle of processes related to attracting, sourcing, recruiting, and hiring (or placing) employees within an organization. This includes elements of employment branding, outreach, networking, and relationship building with potential candidate communities to continually build and enhance the talent pool for an organization.

1) Recognize talent: Notice what do employees do in their free time and find out their interests. Try to discover their strengths and interests. Also, encourage them to discover their own latent talents.
2) Attracting Talent: Good companies create a strong brand identity with their customers and then deliver on that promise. Great employment brands do the same, with quantifiable and qualitative results. As a result, the right people choose to join the organization.
3) Selecting Talent: Management should implement proven talent selection systems and tools to create profiles of the right people based on the competencies of high performers. It's not simply a matter of finding the "best and the brightest," it's about creating the right fit - both for today and tomorrow.
4) Retaining Talent: In the current climate of change, it's critical to hold onto the key people. These are the people who will lead the organization to future success, and one can't afford to lose them. The cost of replacing a valued employee is enormous. Organizations need to promote diversity and design strategies to retain people, reward high performance and provide opportunities for development.
5) Managing Succession: Effective organizations anticipate the leadership and talent requirement to succeed in the future. Leaders understand that it's critical to strengthen their talent pool through succession planning, professional development, job rotation and workforce planning. They need to identify potential talent and groom it.
6) Change Organization Culture: Let us ask ourselves, "Why would a talented person choose to work here?" If the organization wishes to substantially strengthen its talent pool, it should be prepared to change things as fundamental as the business strategy, the organization structure, the culture and even the caliber of leaders in the organization.

Need of Study

These days it's getting pretty easy from the perspective of management to get fresher's inducted to its own organization. But its gets difficult to the same extent to retain them for a long run as opportunities for betterment of their career come flashing to them day by day once they acquire some knowledge on the system through training and practice at the cost of the employer. So, to cater to the need of the situation, people working at the top of management should device out certain tools and techniques to retain them. The technique used may vary from industry to industry depending on the type of job that they are in, the nature of people that they are dealing with.

Scope of Study

1. Identifying the Talent which is required
2. Right Selection of the Talent
3. Training and continual development of Competencies
5. Practicing state-of-the–art performance appraisal systems
6. Aligning the acquired Talent
7. Developing and nurturing the Talent, and
8. Retaining the Talent.

Objectives of Study

1. To study and understand the process of talent management/acquisition.
2. To study talent management, ensure that the company has the right personnel at the right time.
3. To study how organization acquires talent and takes efforts to retain them.
4. To study that talent management provides link between organizational and business strategy.

Research Methodology of the Study:

Towards the accomplishment of the mentioned objective, information is obtained from primary as well as secondary data sources; primary data is generated by meeting different executives, employees concerned. Also a survey on Talent Acquisition Process is conducted by means of a questionnaire to derive the effectiveness of the process.

Type of research:	Descriptive research
Research instrument:	Questionnaire, Interviews
Type of data:	Primary and Secondary data
Primary data:	Collected using Questionnaire
Secondary Data:	Through Magazines, HR reports, E-journals,
Sampling technique:	Simple random sampling
Sample Size:	30 Industries in Baramati Region.

Data analysis and interpretation

1. Feeling comfortable with the Recruitment process

Yes	No	Neutral
20	5	5

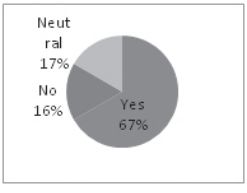


Chart no.1 Feeling comfortable with the Recruitment process

Interpretation: From above chart it has been interpreted that, 67% respondent are comfortable with the recruitment process while 16% and 17% are not comfortable and have neutral opinion about process.

Working with the company

Less tham 1 yrs	1-2 yrs	2-5 yrs	5-10 yrs	More than 10 yrs
2	5	10	12	1

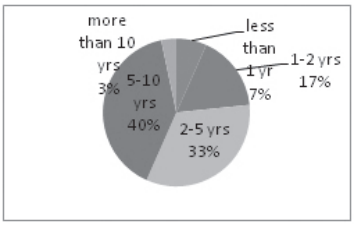


Chart no.2. Working with the company

Interpretation: From above chart it has been interpreted that, 40% of respondents are working with organization from last 5-10 yrs, 33% for 2-5 yrs, 17% for 1-2 yrs, 7% for less than 1 yr, 3% for more than 10 yrs with organization.

3. Feeling about job

Challenging	Interesting	Monotonous
15	12	3

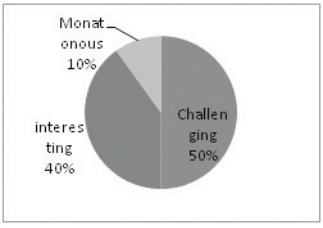


Chart no.3. Feeling about job

Interpretation: From above chart it has been interpreted that,50% respondent says job found challenging, 40% say it interesting, 10% says its Monotonous.

4. Organization identify talent

Competencies	Potential	Result
17	6	7

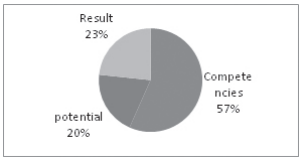


Chart no.4 organization identify talent

Interpretation: From above chart it has been interpreted that, 57% respondent says organization identifies talent through competencies, 23% says through result, 20% says through potential of employees.

5. Talent management initiatives a top priority

Yes	No	Neutral
20	4	6

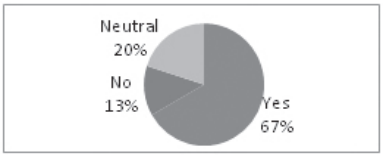


Chart no.5 Talent management initiatives a top priority

Interpretation: From above chart it has been interpreted that, 67% respondent says top management takes initiative in talent management, rest of 20% and 13% have neutral and no opinion.

6. Specific talent management initiatives

Yes	No	Neutral
18	8	4

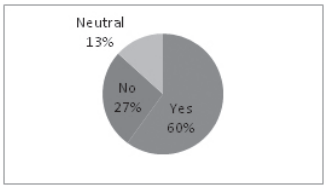


Chart no.6 Specific talent management initiatives

Interpretation: From above chart it has been interpreted that, 60% respondent says their specific initiative in talent management, rest of 13% and 27% have neutral and no opinion.

7. Degree to Which Organizations Execute and Align Talent Practices

Not at all	To Some Degree	at considerable degree	Consistently Across the Organization
0	3	3	24

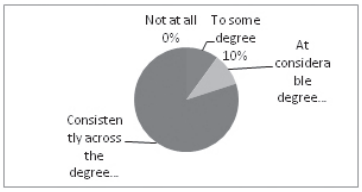


Chart no.7 Degree to Which Organizations Execute and Align Talent Practices

Interpretation: From above chart it has been interpreted that, 80% respondent says there is consistent degree in execution and alignment of talent practices, will rest of 20% respondent are not agree

8. Degree to Which Critical Roles and Capabilities are Identified

Not at all	To Some Degree	at considerable degree	Consistently Across the Organization
0	1	2	27

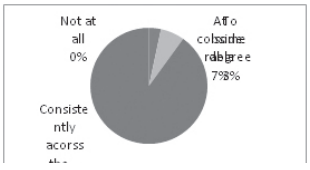


Chart no.8 Degree to Which Critical Roles and Capabilities are Identified

Interpretation: From above chart it has been interpreted that, 90% respondent says there is consistent degree in identification of critical role and capabilities, will rest of 10% respondent are not agree

9. Degree of Alignment and Integration of Workforce Strategy with Business Strategy.

Not at all	To Some Degree	at considerable degree	Consistently Across the Organization
1	2	2	25

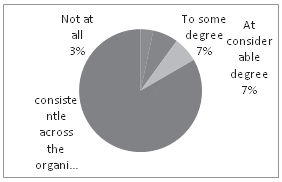


Chart no.9 Degree of Alignment and Integration of Workforce Strategy with Business Strategy.

Interpretation: From above chart it has been interpreted that, 83% respondent says there is consistent degree of alignment and integration of workforce strategy with business, 7% says to considerable degree, will rest of 10% respondent are not agree

10. Talent retention initiatives

Retaining current potential	Leveraging existing talemt	Acqiromg new talemt
15	9	6

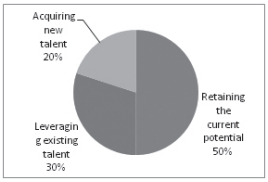


Chart no.10 Talent retention initiatives

Interpretation: From above chart it has been interpreted that, 50% respondent says talent retention is done by retaining the potential employee, 30% says by leveraging existing talent, 20% says by acquiring new talent.

11. Strategy of organization for retaining employee

Working environment	Relationship	Support	Growth	Compensation
4	3	6	12	5

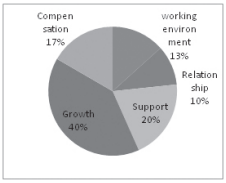


Chart no.11 Strategy of organization for retaining employee

Interpretation: From above chart it has been interpreted that, 40% respondent says organization retain employee by providing growth to them, 20% say by support, 17% says by compensation, 13% says by proper working environment, and rest 10% says by maintaining relationship.

12. Talent acquisition affects the quality of product

Yes	No	Neutral
20	5	5

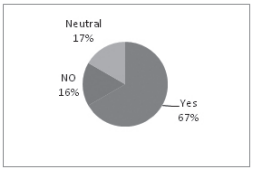


Chart no.12 Talent acquisition affects the quality of product

Interpretation: From above chart it has been interpreted that, 67% respondent says talent acquisition affects quality of product, 17% have neutral opinion, and 16% have negative opinion.

13. Change in ratio of employees to left job new candidates in organization

Not at all	To Some Degree	At considerable degree
8	7	21

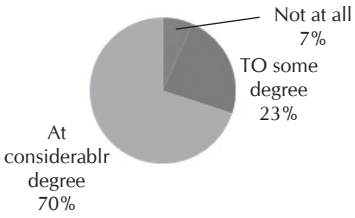


Chart no.13 Change in ratio of employees to left job new candidates in organization

Interpretation: From above chart it has been interpreted that, 70% respondent says due to talent management ratio of employees left job to joins organization has decreased to consistent degree, 23% says it decrease to considerable extent, while 7% has negative opinion.

Finding:

Findings of the research work are purely based upon the data collected and interpretation done.

- 67% respondents are comfortable with the recruitment process which organization used.
- 40% of respondents are working with organization from last 5-10 yrs, 33% for 2-5 yrs it indicates that organization takes effort in talent retention.
- 57% respondent says organization identifies talent through competencies, 23% says through results.
- 80% respondent says there is consistent degree in execution and alignment of talent practices.
- 90% respondent says there is consistent degree in identification of critical role and capabilities.
- 83% respondent says there is consistent degree of alignment and integration of workforce strategy with business.

- 50% respondent says talent retention is done by retaining the potential employee.
- 40% respondent says organization retain employee by providing growth to them.
- 67% respondent says talent acquisition affects quality of product.
- 70% respondent says due to talent management ratio of employees left job to joins organization has decreased to consistent degree.

Conclusion

Talent management practices optimized to address the future changing needs of business. So, they should be at right up at organization list. The ability to effectively hire, retain, deploy and engage talent is really the only true competitive advantage organization can have. There is clear link between better talent and better business performance. Talent management is one of the best legacies (lifeblood) that every organization has with them to sustain in competitive environment.

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Blue Eyes Technology

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ABSTRACT

Is it possible to create a computer which can interact with us as we interact each other? The basic idea behind this technology is to give the computer the human power. We all have some perceptual abilities. That is we can understand each others feelings. For example we can understand ones emotional state by analyzing his facial expression. If we add these perceptual abilities of human to computers would enable computers to work together with human beings as intimate partners. The "BLUE EYES" technology aims at creating computational machines that have perceptual and sensory ability like those of human beings.

How can we make computers "see" and "feel"? Blue Eyes uses sensing technology to identify a user's actions and to extract key information. This information is then analyzed to determine the user's physical, emotional, or informational state, which in turn can be used to help make the user more productive by performing expected actions or by providing expected information. The machine can understand what a user wants, where he is looking at, and even realize his physical or emotional states.

This paper is about the hardware, software, benefits and interconnection of various parts involved in the "blue eye" technology.

Keyword : *Study of Blue Eyes Technology.*

INTRODUCTION

Imagine yourself in a world where humans interact with computers. You are sitting in front of your personal computer that can listen, talk, or even scream aloud. It has the ability to gather information about you and interact with you through special techniques like facial recognition, speech recognition, etc. It can even understand your emotions at the touch of the mouse. Adding extraordinary perceptual abilities to computers would enable computers to work together with human beings as intimate partners. Researchers are attempting to add more capabilities to computers that will allow them to interact like humans, recognize human presents, talk, listen, or even guess their feelings. Blue eye seeks attentive computation by integrating perceptual abilities to computers wherein non-obtrusive sensing technology, such as video cameras and microphones, are used to identify and observe your action. 2. Blue Eyes aims at giving the computers the ability to sense,

recognize and respond to the human communication of emotion (such as frustration, confusion, interest, distress, anger and joy).

The basic idea behind this technology is to give the computer the human power. We all have some perceptual abilities. That is we can understand each other's feelings. For example we can understand ones emotional state by analyzing his facial expression. If we add these perceptual abilities of human to computers would enable computers to work together with human beings as intimate partners.

SYSTEM OVERVIEW

Blue eyes system monitors the status of the operator's visual attention through measurement of saccadic activity. The system checks parameters like heart beat rate and blood oxygenation against abnormal and triggers user defined alarms.

Blue Eyes system consists of a mobile measuring device and a central analytical system. The mobile device is integrated with Bluetooth module providing wireless interface between sensors worn by the operator and the central unit. ID cards assigned to each of the operators and adequate user profiles on the central unit side provide necessary data personalization so the system consists of

- Data Acquisition Unit (DAU)
- Central System Unit (CSU)

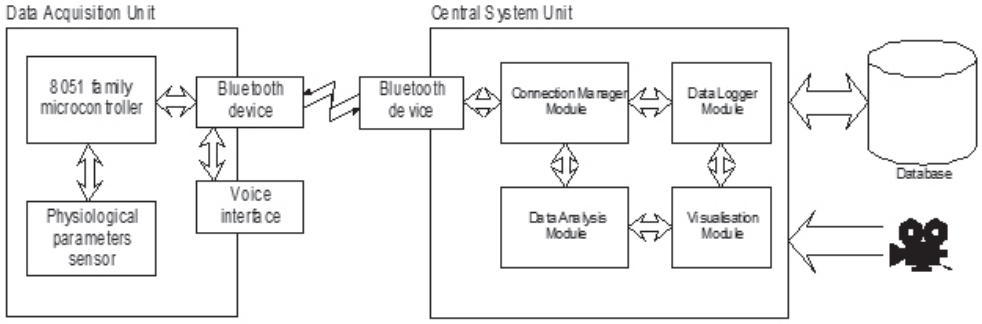


Figure 1. Overall system diagram

1. Data Acquisition Unit (DAU) : Data Acquisition Unit is a mobile part of the Blue eyes system. Its main task is to fetch the physiological data from the sensor and to send it to the central system to be processed. To accomplish the task the device must manage wireless Bluetooth connections (connection establishment, authentication and termination). Personal ID cards and PIN codes provide operator's authorization. Communication with the operator is carried on using a simple 5-key keyboard, a small LCD display and a beeper. When an exceptional situation is detected the device uses them to notify the operator. Voice data is transferred using a small headset, interfaced to the DAU with standard mini-jack plugs.

To provide the Data Acquisition Unit with necessary physiological data we decided

to purchase an off-shelf eye movement sensor – Jazz Multi sensor. It supplies raw digital data regarding eye position, the level of blood oxygenation, acceleration along horizontal and vertical axes and ambient light intensity.

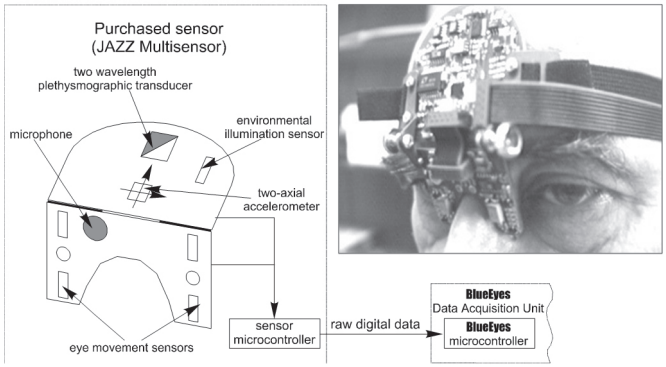


Figure 5. Jazz Multisensor

Eye movement is measured using direct infrared oculographic transducers. The eye movement is sampled at 1 kHz, the other parameters at 250 Hz. The sensor sends approximately 5,2kB of data per second.

2. Central System Unit (CSU) : Central System Unit hardware is the second peer of the wireless connection. The box contains a Bluetooth module (based on ROK101008) and a PCM codec for voice data transmission. The module is interfaced to a PC using a parallel, serial and USB cable. The audio data is accessible through standard mini-jack sockets To program operator's personal ID cards we developed a simple programming device. The programmer is interfaced to a PC using serial and PS/2 (power source) ports. Inside, there is Atmel 89C2051 microcontroller, which handles UART transmission and I2C EEPROM (ID card) programming.

CSU software is located on the delivered Toshiba laptop, in case of larger resource demands the processing can be distributed among a number of nodes. In this section we describe the four main CSU modules like Connection Manager, Data Analysis, Data Logger and Visualization.

CONNECTION MANAGER

Connection Manager is responsible for managing the wireless communication between the mobile Data Acquisition Units and the central system. The Connection Manager handles:

- communication with the CSU hardware
- searching for new devices in the covered range
- establishing Bluetooth connections
- connection authentication

- incoming data buffering
- sending alerts

DATA ANALYSIS MODULE

Data Analysis module performs the analysis of the raw sensor data in order to obtain information about the operator's physiological condition. The separately running Data Analysis module supervises each of the working operators. The module consists of a number of smaller analyzers extracting different type of information. Each of the analyzers registers at the appropriate Operator Manager or another analyzer as a data consumer and, acting as a producer, provides the results of the analysis. The most important analyzers are:

- Saccade detector - monitors eye movements in order to determine the level of operator's visual attention.
- Pulse rate analyzer - uses blood oxygenation signal to compute operator's pulse rate.
- Custom analyzers - recognize other behaviors than those which are built-in the system. The new modules are created using C4.5 decision tree induction algorithm.

VISUALIZATION MODULE

Visualization moduleprovides a user interface for the supervisors. It enables them to watch each of the working operator's physiological condition along with a preview of selected video source and related sound stream. All the incoming alarm messages are instantly signaled to the supervisor. The Visualization module can be set in an offline mode, where all the data is fetched from the database.

APPLICATIONS

One of the main benefits of speech recognition system is that it lets user do other works simultaneously. The user can concentrate on observation and manual operations, and still control the machinery by voice input commands. Another major application of speech processing is in military operations. Voice control of weapons is an example. With reliable speech recognition equipment, pilots can give commands and information to the computers by simply speaking into their microphones—they don't have to use their hands for this purpose. Another good example is a radiologist scanning hundreds of X-rays, ultra sonograms, CT scans and simultaneously dictating conclusions to a speech recognition system connected to word processors. The radiologist can focus his attention on the images rather than writing the text. Voice recognition could also be used on computers for making airline and hotel reservations. A user requires simply stating his needs, to make reservation, cancel a reservation, or making enquiries about schedule.

CONCLUSION

The BLUE EYES technology ensures a convenient way of simplifying the life by providing more delicate and user friendly facilities in computing devices. Now that we have proven the method, the next step is to improve the hardware. Instead of using cumbersome modules to gather information about the user, it will be better to use smaller and less intrusive units. Researchers are attempting to add more capabilities to computers that will allow them to interact like humans, recognize human presents, talk, listen, or even guess their feelings.

It avoids potential threats resulting from human errors, such as weariness, oversight, tiredness.

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Sports Management

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ABSTRACT

In Asia Pacific, sports marketing business touched 15 per cent growth this year and would touch 22 per cent next year. It has been registering a world-wide growth of five to six per cent annually. New opportunities are coming up in sports marketing, not just in cricket but other sports as well. These need to be tapped. Sport management is a field of education concerning business aspect of sport. Some examples sport of managers of managers include the front office system in professional sports, college sports managers, recreational sport managers, sports marketing, management, facility, sports economics, sport finance, and sports information. Many colleges and universities offer bachelors and masters degrees in sport management. This certain profession is slowly increasing in popularity, yet is predicted to not be able to fill positions due to the explosion in supply. Entry level persons with a degree in sports management can expect an hourly wage due to the higher level of interest and fewer available jobs.

Key words : *Sports Management, Sports marketing, opportunities.*

INTRODUCTION

The sports industry's core sources of revenue can be divided into three main categories: Broadcast and media rights, sponsorships (including licensing and merchandising), and ticketing and hospitality (such as entertainment and catering in sports venues).

Today sports marketing are the most lucrative and sought after industry with a total size of USD 38 billion. Corporate sponsorship is growing annually in sports at the rate of 12 per cent, faster than in any other field. Next year it is expected to complete 15 per cent growth. In India, which has seen an exponential growth in sports recently, the huge resources are simply waiting to be tapped!

Sports marketing comprise a whole host of disciplines. Event marketing and management, media planning, selling sponsorships, celebrity management, merchandising and managing teams are just some of the activities comprising sports management.

Opportunities are seen in areas such as market research, providing administrative services for sports federations, getting sponsorships for events and new media (Internet, m-commerce) management among others.

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would touch 22 per cent next year. It has been registering a world-wide growth of five to six per cent annually. New opportunities are coming up in sports marketing, not just in cricket but other sports as well. These need to be tapped.

Sport management is a field of education concerning business aspect of sport. Some examples of sport managers include the front office system in professional sports, college sports managers, recreational sport managers, sports marketing, management, facility, sports economics, sport finance, and sports information. Many colleges and universities offer bachelors and masters degrees in sport management.

This certain profession is slowly increasing in popularity, yet is predicted to not be able to fill positions due to the explosion in supply. Entry level persons with a degree in sports management can expect an hourly wage due to the higher level of interest and fewer available jobs.

Anyone with an interest in sports, finance, management and leadership should consider a sports management degree and career. After completing such schooling, there is a world of opportunity available. This is a chance to not only work with athletes but also see the corporate and business side of the sports world. Passionate individuals can find great opportunities in the intercollegiate or professional sports industries.

OBJECTIVES

1. To study sports management.
2. To evaluate recent practices in sports.
3. To create awareness about sports management.
4. To explore new techniques in sports management.
5. To create awareness about the benefits of sports management.
6. To find out the career opportunities in sports management

METHODOLOGY

This paper is of exploratory research type. This study is based on secondary data from various sources like web sites , sports news, journals and publications. This paper gives theoretical information about Sports degrees, related jobs and responsibilities, salary structure and advantages.

The Sports Management Degree:

While pursuing a sports management degree, students can expect to take a wide range of classes to better understand the industry. People not only need to understand sports and health but also marketing, accounting, economics, business and more. The top ranked sports management degree programs will ensure that people can understand how to make use of the latest marketing and technology techniques and better understand the ins and outs of sports marketing, law, finance and management. After all, sports is as much marketing events and refining a brand as it is about working with players and scheduling games and events.

Types of Sports Management Degrees Sports management is all about understanding how to apply business and marketing techniques to the sports world. This is a chance to manage everything from the marketing and finance of a sports group to the management of actual teams and arenas. Most of these positions require not only a bachelor's degree and experience but possible even a master's and doctoral level degree. If people want to become sports agents or lawyers, then a law degree may also be a worthwhile investment.

Sports Management Jobs

Sports management degrees can lead to a variety of jobs. For example, some people go on to lead community and after-school sports- programs. Other people will go on to work for academic services in high schools or colleges as a physical director or a physical instructor. Other options include working for professional sporting groups in the marketing, health, promotions and compliance sectors. There are even fitness- and health-focused positions for people who want to work directly with the athletes. Some people take their sports management degrees and head into retail: representing sporting goods stores and more. Interested students need to consider their interests when looking for careers in the sports world. There is something for everyone.

Sports Job Opportunities Include

Sports Agent, Player Personnel, Scout, Management, Administration, Front Office, Digital Video Editing, PR and Community Relations, Game Day Operations, Sports Marketing, Sports Management, Sports Broadcasting, Salary Cap Analyst, Account Manager, Media & Communications, Event Management, Ticket and Sponsorship, Athletic Director, Sports Information Director, Coaching, Spotter, Pit crew, Crew Chief, Race Management, MMA Events, Promotions & Management, Track & Field Management

Sports Management Internships

Students both in and out of school want to enter the door of most sports programs, businesses and teams by interning. Some of these positions are paid as a stipend whereas others are unpaid. This is a chance for people to make an impact on leaders in the sports management industry. Interns could do everything from sell goods and tickets to filing in the office of an important coach or manager. Other interns may work on marketing and website copy or could see the accounting office. Performing at a high level gets interns noticed, which could lead to a permanent position.

Responsibilities of Different Positions

Duties will vary according to the job and organization. A lot of sports happen during the weekends and evenings. Thus, anyone looking into this type of degree or industry should expect weekend hours and late evenings. The sporting world relies on tickets. Thus, no matter the position, a basic understanding of business, marketing and finance will be important. Most employees should also understand sports law, event management and how to understand the publicity world.

Salary Expectations for Sports Management Professionals

As with any career, there are different levels. Directors of marketing in the professional sports world could get a package of Rs.20,00,000 whereas an entry level position in the



academic world could begin with a package at Rs.3,00,000. Middle-level jobs like an athletic trainer, manager can earn a person around Rs.6,00,000. Some people, like sports agents and lawyers, have a set salary but earn the bulk of their money through bonuses and commission. A person's experience and the prestige of the program or organization will affect salary expectations.

Scope of Sports Management

There are many benefits to a sports management career. Not only do people get to work in a field they love but they also get to meet industry leads: everyone from talented athletes and managers to brilliant executives and marketing heads. Health and dental insurance in this industry also tend to be excellent. Most people often score discounted tickets to major sporting events, apparel and more.

The Future of Sports Management

The sports management industry may be competitive but it is also thriving. Professional sporting groups pull in billions of dollars every year. There are many sports-related careers out there: from the academic and professional to community-related, arena management and retail. Motivated students need to use their degrees to find the right benefit for them.

Whether looking for public relations, recruiting, managing, or coaching position, and motivated students need to be proactive if they want to secure their dream job. This means learning as much about the sports management world as is possible. Competition is fierce for the top management and executive positions. However, people who are willing to work their way up and get the necessary education and experience can find great positions that suit their talents. A sports management degree prepares people for the next steps.

CONCLUSION

After the study of sports management it seems that there are lots of career opportunities available in this field but there is a need to create awareness about sports management. There is a need to explore new techniques in sports management so that maximum people will get the benefits of sports management. Finally it seems that the Future of Sports Management is bright.

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E-Learning in Libraries – An Overview

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ABSTRACT

E-Learning as an advanced system for learning through ICT is an engine of innovation in education. E-learning is a process of education using computer, telecommunication, networks, and storage technology. The present paper covers, what is E-learning, technological tools used for e-learning categories of E-Learning and its role of in LIS professionals.

Keywords: - E-Learning, LIS Education, LIS Professionals.

INTRODUCTION

E-learning has got special intention in the last decades in the researchers and scientists in order to expedite the learning procedures. Because the facility of internet technology enhances the global knowledge and makes the resources available to the readers, researcher and engineers respectively. We are living in the era of IT; it has entered the library professional also. E-Learning is a gateway into a new realm of information. It is a powerful system that makes information accessible to you on computer. It is very important because it gives better use of time, accelerated learning, global search, fast pace and assessment. It reduced overburden of learners and learning provider. E-Learning is not unlike any other form of education- and it is widely accepted that E-Learning can be as rich and as valuable as the classroom experience or even more so.

THEORATICAL BACKGROUND

E-Learning

Allison Rosett (2001) defines E-Learning as: Web based learning (WBT) also known as e-learning on line learning is training that resides on a server or host computer that connected World Wide Web.

Basically, E-Learning is the online delivery of information, communication, education and training. E-learning can be in offline form like CD, DVD etc. E-learning provides new set of tools that can add valve to the entire traditional learning modes classroom experiences, textbooks study, CD-ROM and traditional computer based training. It is characterized by speed, technological transformation and mediated human interaction.

E-learning also defined in number of different ways in literature. In general learning is the expression broadly used to describe, instructional content or learning experience delivered or enabled by electronic technologies.



Types of E-Learning

There are two types of E-Learning Synchronous and Asynchronous.

Synchronous Learning means "at some time" involves interaction of participants with an instructor via the web in real time Synchronous technologies are telephone video conferencing, web conferencing etc.

Asynchronous Learning means "not the same time" allows the participant to complete the WBT at his own pace without live interaction

Why E-learning?

- Learning is self paced and gives students a chance to speed up to slow down necessary.
- Learning is self-directed, allowing students to choose content and appropriate to their differing interests, need and skills levels.
- Accommodates multiple learning styles using as verity of delivery methods geared to different learners, more effective for entrain learners.
- Geographical barriers are eliminated, opening up broader education options.
- Accessibility makes scheduling easy and allows a greater number of people to attend classes on demand access means learning can happen precisely when needed travel-time is reduced or eliminated.
- Overall students costs are frequently less (tuition, residence, food)
- Potentially lower costs for companies needing training and for the providers.
- Fasters greeters students interaction and collaboration.
- Fasters greater student/instructor contact.
- Enhance computer and internet skills.
- Draws upon hundreds of established pedagogical principles.
- Has the attention of every major university in the work, most with their own online degrees, certificate and individual course.

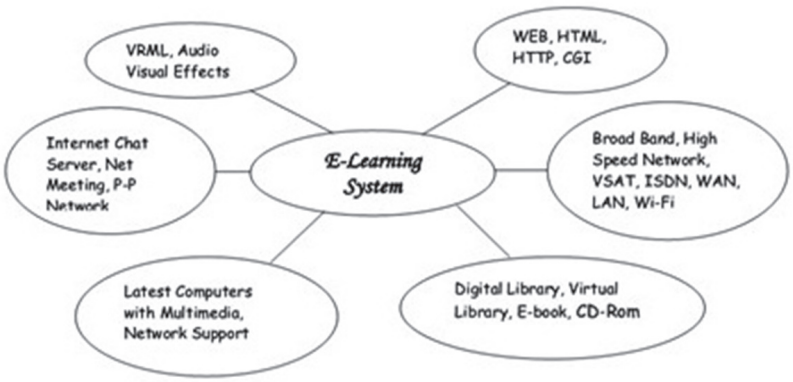
Categories E-Learning

- Courses
- Informal learning
- Blended learning
- Communities
- Knowledge Management
- Networked Learning
- Work-based Learning(EPSS)

New Trends in E-Learning:-

- Web 2.0
- Social Software
- Social Media
- Tagging
- Blogs

Figure 1



Advantages of E-Learning

- Flexibility ,Accessibility ,convenience
- Cross - Platform Support.
- It is convenient for learning provider as well as learner to access resources at anytime anywhere.
- Inexpensive Worldwide Distribution Ease of updates.
- Browsers and Internet connections are widely available.
- Savings in Travel cost and Time.
- It is learner centric.
- E-Learning course contents are cheaper than printed documents.
- Online learning does not require physical presence.
- It stimulates the learner to access variety of E-resources on the WWW.
- E-resources easily updated and learner can get quick benefit to latest development in their respective field.

Disadvantages of E-Learning

- Lake of technical trained staff.
- Lack of technical support to learning providers & learners
- Maintenance also very costly.
- Lack of face to face conversation.



- Equipment needs of learners/learning providers.
- Very difficult for learner as well as learning provider to move traditional Content Online.

Role of E-Learning in Library

LIS professional can play important role in providing effective library and information services to learner. The maximum use of information is depend upon how is LIS professionals discharged their duties and how they satisfy the needs of learners.

The world scenario of LIS education is changing fast. The change is enforced by many forces such as technology, demographic features, economic characters, etc. The LIS education is responding to these changes by making appropriate changes in its teaching-learning strategies. Adoption of e-learning in LIS is robust indicator of this response. The Indian LIS education too, is slowly but steadily making progress in this direction. Availability of proper and adequate infrastructure will add momentum to LIS e-learning in India.

The E-Learning environment provides a number of opportunities to both learning provider and learner. In this environment learner gets access to a wide range of information. E-learning also provides an opportunity to store, acquire and preserve e-resources and e-learning objects in the portal technology. E- Learning providers an opportunity to the LIS professionals to expand their vision and offer a wide range of services to their learner. LIS professionals can generate many online services by forwarding and linking with online courses.

Need for e-Learning

E-Learning is a continuous process when the learner is unable to attend the traditional methods of learning; the distance mode of learning was introduced. The student need to learn and syllabus with nearby libraries or materials sent by the course organizer. Modern Medias such as radio and television were also used in the distance mode of learning process. These Medias benefit a lot the learner, but they have their own limitations. The distance mode of learning process is further strengthened by video conference mode. The nodal centre will have studio where the experts assemble and deliver the lecture. This will reach audience through different Medias. This technique will create the environment of the classroom and enables direct interaction between the teacher and learner.

Now internet has shown new paths to learning. The educational resources are accessible to students. Learner needs are increasingly seen to be continuous throughout the working life. Education is a means of empower their lives and future within workplace, at least in the advanced market led societies. The person who acquire and apply the knowledge and skills will be sustained in the future. One should require learning for updating their knowledge, skills and competencies.

Technologies used for e-learning

- Internet-Based learning;
- Interactive CD-ROM, DVD, etc;
- Audio-Based Media:

- ◊ Radio and Audiocassettes
- ◊ Telephone: Tele-conferencing and Audio-conferencing;

- Video-Based Media:
  - ◊ Television
  - ◊ Videocassette
- Video-Based Media: Television
  - ◊ Videocassette
  - ◊ Optical disc technology
  - ◊ Videotext, Tele text, and View data
- Video conferencing via Satellite and Cable;
- Computer-Based Technology.
- E-mail;
- Whiteboard;
- Asynchronous discussion;
- Synchronous discussion;
- Animations;

E-learning can be divided into content, technology and service areas. E-learning can be either synchronous or asynchronous. Synchronous connects instructors and students in different locations simultaneously over streaming audio, video or in a chat room while asynchronous allows students to access coursework on their own time and at their own pace, in the office or at home.

CONCLUSION

E-Learning has given a new path of learning to those who could not gain knowledge on regular basis. E-Learning reduces time, cost of course material and improves the quality of E-resources. With the help of academicians and IT experts, LIS professionals can generate E-resources and develop portals to integrate E-Learning information. At last we conclude that E-Learning provides an opportunity to the LIS professionals to expand their vision and offer a wide range of services to their learner.

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Branding and Brand Extensions Reasons for Success - An Empirical Study

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ABSTRACT

Every once in a while a marketer has to keep re-inventing, re-energizing and re-positioning the brands to appeal to the customers. Unless and until the customer is constantly reminded of the brands he will shift elsewhere to what is his immediate recall brand. This paper attempts to look at how one of the most well known watchmaker used the brand repositioning and extension strategy to extend its product portfolio over the years and capture customer attention, loyalty and market share.

Keywords : *branding, brand loyalty, brand extension, repositioning*

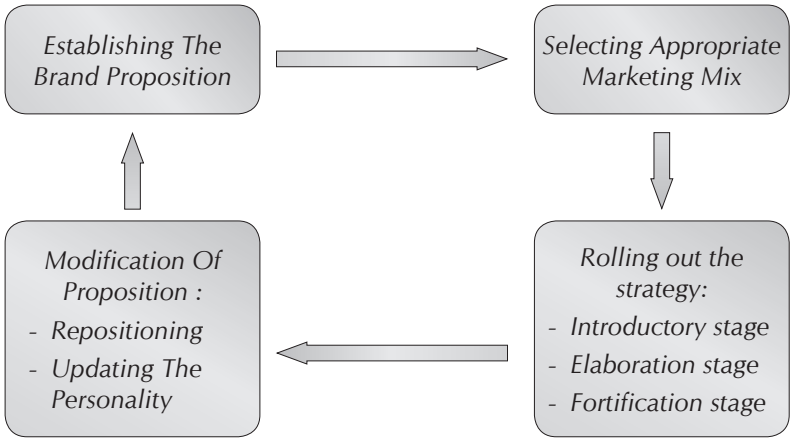
INTRODUCTION

In today's competitive world branding becomes a very critical aspect for every marketer. Brands that are successful with the radical transformations are successful for a variety of reasons (Brad VanAuken, June, 2012).

- They are forced to change direction due to their brand's declining core markets.
- They may completely reposition the brand. They do not try to extend just portions of the brand into new market segments. There are no stretched, inconsistent or multiple brand meanings. The meaning is radically and permanently altered.
- They 'bet the future of the brand' on the repositioning. That is, they carefully plan, invest heavily in and flawlessly execute the new position.
- The marketing strategies and tactics completely change to address the new target audiences.

Theoretical Background: Brands help create strong customer relationships. Lifestyle products are created by branding them likewise. Brands are not things they're emotional experiences. Creating these experiences, and the use value they offer, is the result of an integrated creative process of design. While there were important steps along the way, the thinking was that the more people you put in the front, the more would come out the back. That model, although it wasn't 100% accurate, was true enough to build the great brands of the 20th century.

Stages In Brand Strategy Development



"Repositioning is a change, principally about trigging the vision, mission and value in a new direction that is more suited for the brand in the future".

(Brand consultant)

"Principally, reposition concerns change the consumer's perception of the brand"

(PR- consultant)

Titan has been the only and the most dominant player in the watch market space since the gradual fall of HMT which was erstwhile the prominent player in India. Over the years there has been a constant effort by Titan Industries to grow the brand and rejuvcnate the brand time and again. This is what has ensured that Titan has been able to retain its position in the marketplace and more or less remain competitiorless in its space of dominance.

Research Methodology

The study is an empircal paper and the information contained herein is gathered from both secondary and primary sources.

Secondary from published reports, articles, company reports, website Primary data has been gathered through telephonic and personal discussion with company representatives, franchisee owners and customers.

"The art of marketing is the art of brand building. If you are not a brand, you are a commodity. Then price is everything and the low-cost producer is the only winner".

– Philip Kotler.

Building brands leads to building customer experiences. Most companies in India donot realise the value of branding. They simply think that a brand is a name, a logo or slogan. But a brand is much more than just that. It makes an inner connect between the company and its customers. At times it becomes the sole link for existence of certain brands.



Companies like Titan Industries Ltd., have realised the value offering and the mileage that they can get out of investing in brand building and have very successfully used this to nurture a range of variants and products under their brand umbrella.

The Indian watch market is today of 40 million units, out which 60% is in the unorganized sector in which the maximum number of watches are sold are below Rs.300. Quartz watches form two thirds of the organized sector and the rest is split between mechanical and digital watches. Even in the organized sector, three fourth of the sales by volume comes from watches that are priced below Rs.1000.

Plastic as such is not acceptable to average Indian consumers, especially those from the small towns and rural areas who regard it as cheap and flimsy. They want toughness-which translates into a good quality metal model at a reasonable price.

Watch is one of the consumer durables whose replacement rate is very high. The replacement rate of watch is 43.8% (Source: India market demographics report, 2008). This is also due to the fact that the estimated scrap rate of wrist watches is 11.8%, which is applicable after 6 years (Source: India market demographics report, 2008). So due to high scrap rate, outdated models, and the shift from the mechanical watches to the quartz watches is causing a very high replacement demand for watches. This along with the low penetration levels represents the untapped market potential for watches in India.

Major brands in the Indian watch market:

The major players in the Indian watch market include HMT, Titan and Timex. The other players include Westar, Shivaki, Maxima, SITCO. Foreign brands such as Cartier, Piaget, Omega, Tiffany's and Corrum, Gucci, Longines, Casio, Citizen, Tag Heuer and Espiritare also making an inroad into the Indian market.

Titan has been consolidating its market share over the past decade. Timex watches, which entered in India with collaboration with Titan, now independently has also gained substantial market share. Titan introduced several brands and also brought in foreign brands such as Tommy Hilfiger and Xyls.

Titan adopts a few unique strategies to ensure its market leadership position that have led to a gradual increase in its market share. The marketer has repositioned some products by following the below steps -

1. Identify - A single dominant factor and play around that factor to suit the market segment it can fit into. Titan has taken its flagship products of watches to build a strong value offering to customers.
2. Personify - Personify the space they acquire. Gradually after having grown strong in their core product segment, today they personify the watch segment in India.
3. Create a new generic – A new generic of products are created by Titan. It ranges from the company consolidating its position in the watch segment and simultaneously moving on to lucrative patches in the jewellery space and the eye wear space. All being part of the same fashion accessories segement of the consumer wallet space.

4. Change the name - Wherever necessary to create brand associations and recall they have retained the Titan brand association since it has helped the brand extensions make a niche in the market. Eg., Fast Track by Titan, Skin perfumes by Titan.
5. Reposition the category - Brand repositioning is more difficult than initially positioning a brand because marketers must in the first place help the customer "unlearn" the current brand positioning. Three actions aid in this process:
   (1) Well designed communication,
   (2) New products, packaging, etc. that emphasize the new positioning and
   (3) Associations with other brands (co-branding, co-marketing, ingredient branding, strategic alliances, etc.) that reinforce the new brand positioning. Eg., the childrens watch segment was renamed and repositioned with appropriate advertising strategy.

Conclusion:

Today, just creating brand awareness leads any marketer nowhere. If a marketer tries to solely create brand awareness (of course it is critical to existence) but continues to stay at that pint he would have spent money to build brand awareness and then he would have enriched competition more than his own company.

How? Because the customers are more aware since he has given them information so with information access at fingettips, the smart customer of today would have searched for more information and may settle for your competitor's brand rather than your own.

In the digital age, marketers must change their focus from grabbing attention to holding attention by focusing on three core business objectives: Awareness, sales and advocacy.

Simple metrics such as awareness, sales and advocacy will give a very accurate snapshot of the brand's health and how best it can be improved.

Titan Company has grown stronger by created strong brand awareness, creating brand extensions and repositioning some critical products in their suite. They realise the true potential of what is branding.

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3D - Password Service in Security

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ABSTRACT

In existing system of authentication suffer many weaknesses. There are many authentication techniques are available, such as textual password, graphical password, biometrics password, etc. textual password are used to secure data or user accounts. But the drawback of textual password is easy to break to overcome the drawbacks of previously existing authentication technique. A new improve authentication technique is used; these authentication technique is called as 3D password. 3D password authentication technique is based on a combination of multiple sets of factors. The most important part of the technique is inclusion of 3D virtual environment. The advantages of 3D password is that it can combine many existing system of authentication provide the higher degree of security. Several techniques like face recognition, fingerprint recognition, hand geometry this techniques are used. It can even be applied in the most basic level such as for a user on a home system as it is based on recall recognition and is easy to use.3D password become Morse cure and more user friendly to users of all catagaries.3D password, applications of scheme as etc. All this concepts are explained in this paper.

Key points : *Introduction, Existing system, proposed system, 3Dvirtual environment, Attacks, 3Dpasswrd application.*

INTRODUCTION

Security is the most important in today's life just like a social networking sites, net banking etc. 3D password is part of the security. The authentication scheme the user undergoes very soft or strict. Authentication is very interesting approach. The protect any system authentication must be provide so that only authorized person can have right user handle that system and data related so that system is secure.

Existing System

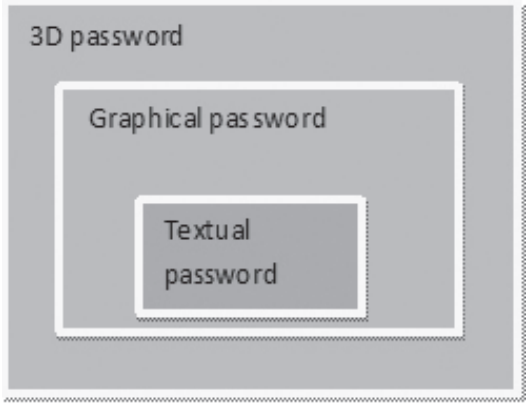
Current authentication system suffers from much weakness. Textual password is commonly used. Users to choose meaningfully words from dictionaries, which make textual passwords easy to break and vulnerable to dictionary or brute force attacks. Many available graphical passwords have a password space that is less than or equal to the textual password space. Smart cards can be many biometric authentications have been proposing however, users tend to resist using biometrics because of their intrusiveness

and the effect on their privacy. The 3D password is a multifactor authentication scheme. The design of the 3D virtual environment and the type of objects selected determine the 3D password key space user have freedom to select whether the 3D password will be solely recall, recognition, or token based or combinations of two schemes or more.

Proposed system

Previously there are many authentication technique introduced such as a graphical password, text password, biometric authentication, etc. biometrics means what you are. Include thumb impression etc. there are four techniques are available such as knowledge based, token based, biometrics based and recognition. Knowledge based means what you know textual passed is best example. Recognition based means what you recognition. Include graphical password. Token based means what you are. This is includes credit cards, ATM cards to overcome these drawbacks & limitations of previously existing authentication schemes. We have introduced a new authentication scheme which is based on previously existing schemes. This authentication scheme is based on combination of passwords called as "3D Password". Which is a multifactor scheme uses combination of above discussed scheme as well as biometric & many other schemes. All these schemes are implemented in virtual 3D environment while creating 3d Password. Where this environment contain various virtual objects through which user interacts with. The interaction with 3D environment changes as per user changes. The 3-D password is constructed by observing the actions and interactions of the user and by observing the sequences of such actions. So that 3D password is multifactor & multi password authentication scheme .i.e. it is the combination of textual password, etc. and graphical password, biometrics, etc.

Fig- 3D password

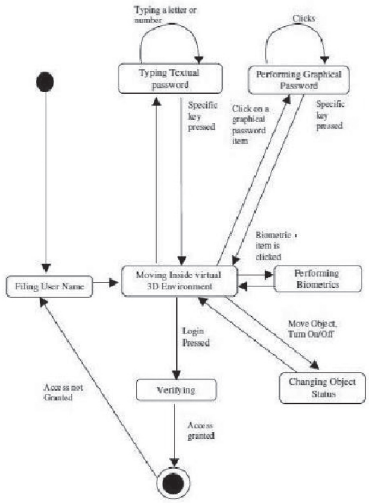


System Description

In this system, we use multiple authentication schemes for give access of data or any system for authorized user and also the security for any system or data. Following schemes are used in this system.

1) Text Authentication In this scheme, we use simple Username and Password for Authentication. When register the new user, save all detail information of that user and also save Username and Password of that user as per user's choice in System Database. This Password is stored in database in encrypted format using Message Digest 5 Algorithm. When user log's in, firstly he/she enters the Username and Password then system checks whether the new Username and Password is same or not. If incorrect then give the error and if it is correct then give permission for next authentication scheme.
2) Bio-Metrics Authentication In this scheme, we use thumbnail expression of user for Authentication. When register the new user, take the thumbnail expression of user using thumb detection device and stored in image format in System Database. When user log's in, user give the thumbnail expression using thumb detection device then system checks that image is same or not. If incorrect then give the error and if it is correct then give permission for next authentication scheme.
3) Graphical Authentication In this scheme, we use images for Authentication. When register the new user, first select the one image from given images and then click any four points that is pixel values in sequence which stored in System Database. This click points are also stored in database in encrypted format using Message Digest 5 Algorithm. When user log's in, first select the proper image and click points in same sequence then system checks that image and click points are same or not. If incorrect then give the error and if it is correct then give permission for next authentication scheme.

(fig-State diagram of a 3D password)



Architectural study This section tell about that how to create 3D password & what are different schemes used to form a complete 3d password.. 3D password is multi-factor & multi password authentication scheme. So that many password schemes like textual

password, graphical password, biometric, etc. password schemes can be used as a part of 3D password. Choosing of different schemes are based on category of user who are going to use this scheme to there system. Above Fig. shows state diagram of 3D password creation. Working of 3D password scheme

Working

- **Registration**

1. When new user register, first enter the all details which give in registration form.
2. Then select any one image from multiple images and also click the minimum 4 points at any sequence.
3. Then represent the Thumb expression of user
4. Then select any one sound clip, play and pause that clip at particular time.
5. This all interactions stored in database in encrypted format.

Authentication

1. Enter username and password.
2. Select proper image and their sequence of click points.
3. Recognize the Thumb expression of that user.
4. Select proper sound clip and their pause time.
5. All interactions fetch from database then compared one by one. Then access granted to authorize user for access applications.

Objective of proposed system

- To provide more secure authentication technique than existing one
- To design & develop more user friendly & easier authentication scheme and giving user to freedom of selecting more than one password scheme as single system
- To overcome the drawbacks & limitations of previously existing systems (textual password, graphical password .etc)
- New scheme should be combination of recall-, recognition -, biometrics-, and token based authentication schemes.

3D VIRTUAL ENVIRONMENT

The design of the 3D virtual environment affects the usability, effectiveness, acceptability of 3D password. The first step in building a 3D password system is to design a 3D environment that reflects the administration needs and the security requirements.



The design of 3D virtual environments follows these guidelines.

1) Real life similarity the prospective 3D virtual environment should reflect what people are used to seeing in real life. Objects used in virtual environments should be relatively s similar in size to real objects. Possible actins and interactions toward virtual object should reflect real life situations. Object responses should be realistic. The target should have a 3D virtual environment that users can interact
2) Object uniqueness and distinction every virtual object or item in the 3D virtual environment is different from any other virtual object. The uniqueness comes from the fact that every virtual object has its own attributes such as position. Thus, the prospective interaction with object1 is not equal to the interaction with object 2.how ever; having similar objects such as 20 computers in one place might confuse the user. Therefore, the design of the 3D virtual environment should consider that every object should be distinguishable from other objects. Similarly, in designing a 3D virtual environment, it should be easy for users to navigate through and to distinguish between objects. Therefore, it improves the system usability.
3) Three dimensional virtual environment size a 3D virtual environment can depict a city or even the world. On the other hand, it can depict a space as focused as a single room or office. A large 3D virtual environment will increase the time required by the user to perform a 3D password. Moreover, a large 3D virtual environment can contain a large number of virtual objects. Therefore, the probable 3D password space broadens. However, a small 3D virtual environment usually contains only a few objects, and thus, performing a 3D password will take less time.
4) Number of objects and there types are part of designing a 3D virtual environment is determining the types of objects and how many objects should be placed in the environment. The types of objects reflect what kind of response the object will have for simplicity, we can consider requesting a textual password or a fingerprint as an object response type. Selecting the right object response type and the number of objects affects the portable password space of a 3D password
5) System importance the 3D virtual environment should consider what systems will be protected by a 3D password the number of objects and the type of objects that have been used in the 3D virtual environment should reflect the importance of the protected system.

3D password applications

The 3D password can have a password have a password space that is very large compared to other authentication schemes, so the 3D password's main application domains are protecting critical systems and resources.

1. Critical server many large organizations have critical servers that are usually protected by a textual password.
2. Nuclear and military facilities such facilities should be protected by the most powerful authentication system. The 3D password has a very large probable

password space, and since it can contain token, biometrics, recognition and knowledge based authentications in a single authentication system, it is a sound choice for high level security locations.

3. Airplanes and jet fighters because of the possible threat of misusing airplanes and jet fighters for religion, political agendas, and usage of such airplanes should be protected by a powerful authentication system.

In addition, 3D passwords can be used in less critical systems because the 3D virtual environment can be designed to fit to any system needs. A small virtual environment can be used in the following system.

1) ATM
2) Personal digital assistance
3) Desktop computers and laptop logins
4) Web authentication
5) Security analysis

To analyze and study how secure a system is, we have to consider,

- How hard it is for the attacker to break such a system
- A possible measurement is based on the information content of a password space . it is important to have a scheme that has a large possible password space which increases the work required by the attacker to break the authentication system.
- Find a scheme that has no previous or existing knowledge of the most probable user password selection.

Attacks

As mentioned earlier 3D password is most secure authentication. We will see different kinds of attacks & how 3D password scheme is more secure against different attacks.

1) **Timing Attacks :** This attack is based on how much time required completing successful sign-in using 3D password scheme. Timing attacks can be very much effective while Authentication scheme is not well designed. But, as our 3D password scheme is designed more securely, these kinds of attacks are not easily possible on 3D Password & also not much effective as well.
2) **Brute force Attacks :** In this kind of attacks the attacker has to try n number of possibilities of 3D Password. As these attacks considers following two points.
   - required time to login: as in 3d password time required for successful login varies & is depend on number of actions & interactions, the size of 3d virtual environment.
   - Cost required to attack: as 3d password scheme requires 3D virtual environment & cost of creating such a environment is very high.



3) **Well-studied attacks :** In this attack attacker has to study whole password scheme. After studied about scheme the attacker tries combination of different attacks on scheme. As 3d password scheme is multi-factor & multi-password authentication scheme, attacker fail to studied whole scheme. This attacks also not much effective against 3D password.

4) **Key logger :** In this attack attacker install as software called key logger on system where authentication scheme is used. This software stores text entered through keyboard & those text are stored in text file. In this way this attacks is more effective & useful for only textual password, but as 3D password is multi password authentication scheme. So that this kind of attacks are not much effective in this case

5) **Shoulder Surfing attacks :** Attacker uses camera for capturing & recording of 3D password. This attack is more effective than any other attacks on 3D password. So that 3D password must be performed in a secure place where this attack can't be performed. Shoulder surfing attacks is still effective & easily possible against 3D password.

CONCLUSION

The 3-D password is a multifactor & multi password authentication scheme that combines these various authentication schemes. The virtual environment can contain any existing authentication scheme or even any upcoming authentication schemes. Gathering attackers from different background and attack made by them and how to overcome them is main future work. Shoulder surfing attacks are still possible to know how to overcome. That is a field of research & development. 3D password provides more secured authentication.

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A Study on 'Talent Tarnishing Phobia' in Padma Software Solution Pvt.Ltd. Belgaum

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ABSTRACT

Almighty has intrinsically gifted every single human being with a very unique characteristic and unmatched qualitative behavior which is known as "talent'. Numerous persons in different capacity like, parent, teachers, elders, society and other positive environment is quietly blossoming and shaping the talent, right from the day one of our birth. The entire life cycle has the component of three phases namely; childhood, youth and old age (nurturing, growth and downfall), the study indicates that the age brackets are up to 20 years, 40 and 60 years in general as a thumb rule.

Knowingly or unknowingly, our talent has been groomed and brought up for utility to live a healthy and happy life. But the external factors and imitations have made our wants and desires exceed beyond our earnings and so to achieve more and faster in limited time, we have become job hoppers and diversifiers. The technology, soft and white goods have made all the things very much easy to fetch and satisfy the needs of human being on day to day basis. Of late routine practice in all households and offices has become more automated and on finger tips. The economy of scale has made all the gadgets more affordable and further it is fuelled by the better purchasing power. Our good practices and salubrious habits have been victimized and created greater phobia of tarnishing the talent which is cultivated over a period of time with lot of sacrifice of energy, time and money.

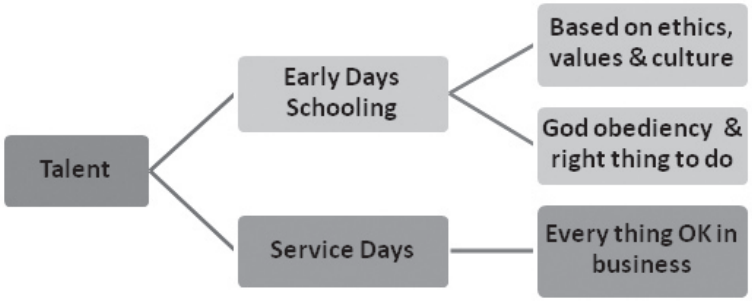
Key words : *intrinsically, unique characteristic, utility, imitations, job hoppers, sacrifice etc.*

INTRODUCTION

The very definition of 'talent' is an innate ability or aptitude for artistic accomplishment. But in the boarder sense it is defined as, "a recurring pattern of thought, feeling or behavior that can be productively applied." The meaning of talent has different perspectives but the ultimate definition is the natural agile ability to do work. The component of talent is 'recurring' the behaviors of work doing often. You have a mental filter that sifts through your world, forcing you to pay attention to some stimuli, while others slip. Your instinctive ability to remember places with names and like such lot more, is a talent. The key to excellent performance, of course, is finding the match between your talents and your role. According to the global study, carried out by Future step - a Korn/Ferry company, innovation plays a very important part in attracting and retaining top talent, but indicated that there are significant barriers to adopting 'best practice' methods in India. The grooming of talent is influenced by two major factors namely - Early Days Schooling and Service Days, as depicted below;

Figure. 1

Talent Budding Matrix



The above diagram indicates that, the talent which is an intrinsic element is being groomed in the early stage of human life; the major inputs are the ethics, values and good culture. Doing good things and healthy practices is taught arduously. Over a period of time the external factors and the fever of competition makes every person to do the penance, which is predatory to the early days nurturing of ethics, values, culture, and obedience of God and leads to talent tarnishing phobia. The adverse effect of market and environment upheavals our life style, job profile, habits and practices etc. thereby creating phobia of tarnishing.

The study reveals that, talent grooming is driven from nurturing, well defined job/ activity, training, bottom up approach, autonomy in the work and at work place etc. The tarnishing phobia of talent is because of monotonous nature of work, uncongenial working environment, informal garrulous group, time wasters and unhealthy teams. In the race of competition under the pretext of appreciation, star performance, outstanding results etc. most of the persons dissipate their basic talent and commence the act of penance to manage the life and survive.

OBJECTIVES OF THE STUDY

The core and the precise objectives of this study are as follows:

1) To study the talent grooming phases.
2) To analyze the talent tarnishing reasons.
3) To understand the talent tarnishing phobia process.
4) To examine the magnitude of talent required.
5) To find out the lead time to promulgate the talent.

METHODOLOGY

Paper presenter has undergone an extensive review of literature and did a keen and perennial observation as well as personal interaction with the persons involved in the process of talent tarnishing phobia. It is an empirical study pertaining to Padama Software Solution Pvt Ltd., Belgaum-Karnataka State. All the primary data is collected through personal interview and structured closed ended designed questionnaire. The secondary data such as review of literatures, books, journals etc. was also referred to make the study more comprehensive and fruitful. The simple mathematical and statistical tools were used

wherever required like table, average, percentage, diagram etc.

The researcher has adopted random convenient sample and the size of sample is 25. The category of sample is divided into two;

- Campus selected Students - 15 respondents.
- Employees working with company for 10+ years of service - 10 respondents.

The scope of this research is to study various aspects of talent grooming practices and the tarnishing phobia of talent among employees. The geographical scope of the study is confined to Belgaum since Padama Software Solution Pvt. Ltd., is located at Belgaum in Karnataka State. The limitation of study is that, the findings arrived in this study cannot be used in other industry and location. Always there is ample number of chances to have biased responses from the respondents, which can reduce the authenticity of the study.

STATEMENT OF THE PROBLEM

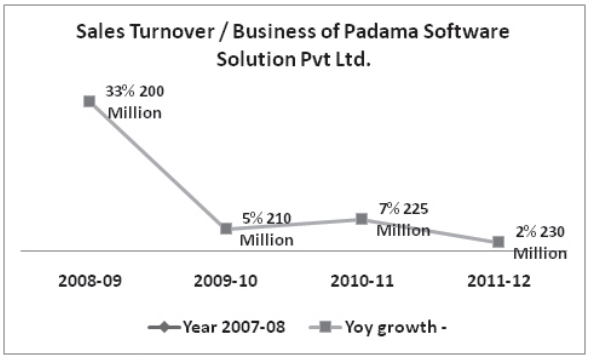
Padama Software Solution Pvt. Ltd. is geographically located in MIDC Belgaum-Karnataka State. It is a small scale Software Company providing service pertaining to the software mostly as a nozzle for the outsourcers. The company's employees are on high talent and thoroughbreds at initial stage of their services, as time passes the employees turn to be dormant even though the company is taking measures to motivate its employees by 'n' number of welfare activities like, bonus, incentives, good pay cheques, etc.

To understand the declining and sagging talent, this study is carried out. The crux and phobia is that, though the company is the best pay master and motivates the employees by a lot more number of welfare activities, but the employees have become perfunctory and procrastinate their work. Company as a whole has 100 employees on the muster and the employees' turnout is also very high, barring few.

DISCUSSION AND INTERPRETATION

Padama Software Solution Pvt Ltd., Belgaum-Karnataka State is financially sound and has a good business track/record. The performance of the Company is shown below;

Figure.2



Source: Company's Financial Statements



The business registered and growth thereon is very impressive more particularly in the year 2008-09 which shows 33 percent increase viz from 150 million in 2007-08 to 200 million and thereafter may be engulfed by recession, however it shows year on year steady growth in business. In the year 2009-10 and thereafter, the Company's performance is not so good, the Company's officials said that, due to the recession in the market the business is on hold otherwise Company is economically viable and has sufficient fund planning to tide over.

Company is hiring employees from College Campuses, since it is easy and economical said the HR Department of Padama Software Solution Pvt. Ltd. The manpower of the Company is broadly classified into two departments;

A. Administrative Staff- who are in the administrative department & office, accountable for staff function and exercise control over line staff of the company.

B. Operational Staff- these staff are the main revenue generators of the company, who work on projects.

The study reveals that the main bottle neck is the operational staff, where talent tarnishing phobia is happening and causing high employees' turnover in the company. And as per observation and interrogation with employees it is noticed that, the lead time process of talent tarnishing is around 2 to 3 years. The information obtained in primary survey is tabulated herein which further intensifies the study;

Table 1

Experience of Campus Hired Staff / Students

(Span less than 3 years of work)

Sr. No	Element	Respondents	Percentage
1	Best-learn lot	10	40%
2	Better-place of learning	06	24%
3	Good-New & different	06	24%
4	Fair- as usual	03	12%
	TOTAL	25	100%

Source: Primary survey

In the above table the respondents have expressed their experience in four areas and as per the significance and importance, Best-learn lot is more significant with 40 percentage respondents whereas other variables such as Better-place of learning, Good-New & different and Fair- as usual have 24, 24 and 12 percentage respondents respectively. Thus, Padama Software Solution Pvt. Ltd., is a best place to learn as experienced by most of the hired staff. Hence, it may be the main cause of employee turnover, because after learning they are jumping for better prospective and lucrative jobs.

Table 2

Nature of Work & Job Profile

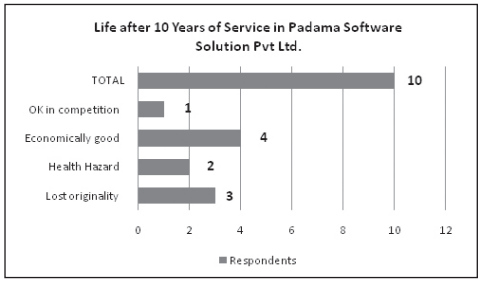
Sr. No	Element	Respondents	Percentage
1	Assimilation & working	10	40%

2	Lot of responsibility & accountability	07	28%
3	Different from study	06	24%
4	Just work for salary	02	8%
	TOTAL	25	100

Source: Primary survey

In above table No.4 the respondents have spelled out on the nature of work and job profile in Padama Software Solution Pvt Ltd., Belgaum. Among four variables, Assimilation & working is significant with the weight-age of 40 percentage respondents, followed by Lot of responsibility & accountability, Different from study and Just work for salary with the respondent percentage of 28, 24, and 8 respectively and hence these are insignificant. The significant variables are the Assimilation & working and Lot of responsibility & accountability which may be a basic cause and phobia for the talent tarnishing in Padama Software Solution Pvt Ltd., Belgaum.

Figure 3



Source: Primary survey

The above figure gives a real picture of talent tarnishing and how it creates phobia in one's life. The survey is carried out on the employees who are working with Padama Software Solution Pvt Ltd., Belgaum 10+ years of service. Among four variables such as, Lost of originality, Health Hazard, Economically good, and OK in competition are assessed. The economically good is more significant with 40 percent of respondents, followed by Lost of originality, 30 percent of respondents, Health Hazard, 20 percent of respondents and OK in competition, 10 percent of respondents. The variable component of Lost of originality and Health Hazard together is 50 percent hence it is greater than economically good variable, which creates tarnishing of talent phobia.

FINDINGS

1) It is found that, in Belgaum the practices are embedded with ethics, values and good culture and accordingly the talent is groomed for goodness. The Campus hiring system of Padama Software Solution Pvt Ltd., gets them good, sincere, honest and workaholic staff/employees.
2) Most of the students too also prefer Padama Software Solution Pvt Ltd., Belgaum



because it is a best place to learn as shown in the table No. 3, as well as best pay master in its class. Hence, students and Padama Software Solution Pvt Ltd., Belgaum has dyads relation.

3) In the initial days of work employees/staff are packed with high talent of performance but tend to get slowly perfunctory and dormant in due course of time. The study reveals that, the significant variables such as Assimilation & working and Lot of responsibility & accountability are creating phobia for talent tarnishing in Padama Software Solution Pvt Ltd., Belgaum. (See table No. 4)

4) It is found out that, talent tarnishing phobia is more in operation department rather than in administrative, barring few. The root cause is the monotonous nature of work and may be unwritten culture of the Company, which may create uncongenial environment and place for work.

5) Some employees are working with the Company for longer period of time also indicated that, though they are happy monetarily but it dissipates their sound talent originality (culture, ethics, values etc.) and good health. In diagram / chart No. 5 it is clearly indicated.

CONCLUSION

The talent grooming and tarnishing phobia are the two faces of our lives; to gain some thing we have to lose some thing. The major threat is that the talent is tenuous due to the cogent environment of the Company and working culture of meddles. The competition and life style (automated, dissipated and hideous) has a seminal role in tarnishing the talent which was groomed arduously.

RECOMMENDATION

To desist from the talent tarnishing phobia, the employees should be careful about the surreptitious modern management policies and practices. The daily chore such as exercise, household work, parenting, activities in obedience to God, need to be carried out, no matter how much busy you are and how much work load you have. Employers should have transparent spiritual practices in the Company, necessarily it should be altruism, which may create positive employees health (feel good environment) and psychological wellbeing. Also, it has been experienced that a high degree of spirituality and spiritual leadership is a driving force to retain talent.

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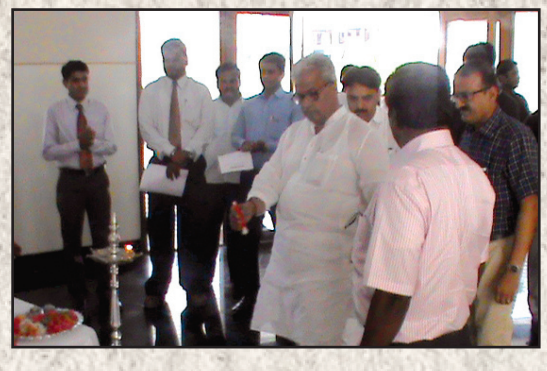
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