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SAARANSH

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Vol. 2 No. 2 JANUARY 2011

Contents

An International Bi-annual Refereed Research Journal

Founder
(Late) Sri Raj Kumar Goel

Commandment

from the Founder

*We are building our institute as an ideal family , the **RKGIT PARIWAR** where members strive for the development, well being and promotion of each other.*

अज्ञानेनावृतं ज्ञानं।

श्रीमद भगवत गीता अध्याय 5, श्लोक.15

Aims and Scope

Saaransh is an international bi-annual refereed research journal published by RKGIT (MBA), Ghaziabad. The objective of the Journal is to provide a forum for discussion of advancement in the area of management. The Journal publishes research papers, articles, book reviews and case studies. The Journal invites manuscripts on all aspects of management and business environment.

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From the Desk of the Chief Editor....

India is considered the world's largest democracy. We are such a big democracy that the prices of a single vegetable can result into sleepless nights for the government in power. What can be the probable reason? Is there a fault with our economic system? Our economic system, not so long ago was lauded for its inherent strength. When the whole world was bearing the brunt of recession, we smooth sailed through it. The problem is that, there is a huge gap between those affected and people who can make a difference i.e. the general masses and the government. There is a need for the government to work at the grass roots level and try to understand the problems of the common man.

The common man on his side should also understand that the agricultural output in India fluctuates due to too much dependence on rain and natural methods of farming. Hence he should exercise restraint and should not panic so easily.

The present issue of SAARANSH emphasizes the humane side of management. It includes an article on the importance and effectiveness of training in improving the organizational performance.

From the view point of marketers, it is important not only to understand the psyche of the decision maker but also to understand the psyche of the decision influencer. In a household, the woman plays the pivotal role in influencing the buying decision. Hence understanding her personality is crucial for the success of any organization. The present issue includes an article titled "Personality and purchase influence of women".

Management science has given us such effective scientific tools that planning and execution has become very easy. Operation research and specifically Linear Programming go a long way in helping organizations plan their profits. It aids in finding out whether the resources available are being optimally used or not and thereby helping in profit maximization. The journal includes an article on use of Linear Programming for profit planning and maximization.

I would also take the opportunity to wish our esteemed readers a very happy and prosperous 2011. May the New Year bring lots of success and happiness to you and your family.

Dr. Arvind Singh

A warm welcome to ourVice Chancellor Prof S. K. Kak …..

Prof. S. K. Kak has been appointed as founder Vice Chancellor of Mahamaya Technical University, Noida. He was born on April 18, 1947 at Srinagar, Kashmir, J&K State. He holds a B.Sc in Electrical Engineering and has done his M. Tech in Microwave Engineering from ITBHU, Varanasi. He did his Ph. D. in Digital Communication from BHU, Varanasi in 1985. Prior to his current appointment as the VC, Mahamaya Technical University, Noida in 2010, he was Professor, Electronics, Institute of Technology, Banaras Hindu University since 1985 and Vice Chancellor of Chaudhary Charan Singh University, Meerut, UP since 2008. He has over 40 years of experience in research (Communication Engineering, Communication Systems, Optical and Fibre Optic Communication, Data Networks, Signal processing and AI Engineering & Expert Systems), industrial, administrative and consultancy to several national and international organizations.

He has been the member of the PDR and Apex Committee of "SAMYUKHTA" the Indigenous EW solution for the Army by DRDO, 1994 - 1997 and Member of Draft Certification Council (DCC) for the Telecommunication Engineering Center :– "RFCs in Switching Systems", and "RFC's in Network Device Interface" for introducing National Standards for DOT Type approval, since1994.

He has taught a wide spectrum of courses related to Electronics Engineering at ITBHU, Varanasi. He has guided 4 Ph.D. theses, 54 M.Tech. and 37 B.Tech. level major projects on Electrical and Electronics Engineering. He has published more than 20 research papers in reputed journals and more than 35 publications in national as well as international refereed conferences proceedings. He has participated in more than 36 workshops, refresher courses, CEP, and national & international seminars as guest speaker, invited speaker, plenary speaker, session chair or co- chair and paper presentations.

He holds the credit of one National and one US Patent for CPPM Technique in collaboration with Dr Shubhra Verma. Under his supervision and guidance six products, which include - Electronic Teleprinter, PC - LAN Card Using Intel LAN Co-Processor, Hand Held Optical Power Meter, Speech Transliteration Software and Synthesizer, Optical Fiber based Surface roughness tester. CPPM Modem for Optical Fiber Transmission, has been developed.

Prof. S. K. Kak has received a number of prizes and awards including best model prizes in 1965, 1967, 1968 in Technical Models Exhibition during undergradute studentship in BENCO. He has delivered more than 100 invited talks, lectures, keynote addresses and radio talks to ISRO, DRDO, ITI, CSIR, ASC and other organizations, scientists and engineers.

We welcome and wish you continued success on behalf of the RKG Group of Institutions.

Research Cell, RKGIT

MODELS AND RELEVANCE OF TRAINING NEEDS ANALYSIS FOR EFFECTIVE DESIGN, DELIVERY AND EVALUATION OF TRAINING ACTIVITIES AND IMPROVEMENT OF ORGANIZATIONAL PERFORMANCE

Prafulla Chandra Mishra*

ABSTRACT

The objective of this paper is to study and analyze different models of Training Needs Analysis (TNA) and their relevance to effective design, delivery and evaluation of training activities and improvement of organizational performance. An attempt has also been made for the associated implications of TNA for an organization's stakeholders, managers and individuals. The new approaches to the training - learning and development have also been reviewed from the literature and Western countries' practices which suggest that the TNA should be adapted to such developments for transforming an organization into a learning organization.

Key Words: *Training Needs Analysis, Learning Styles, Learning Cycles, Organizational Performance, e-learning, Organizational Learning and Learning Organization*

INTRODUCTION

'In today's volatile business environment, staff training and development is generally accepted as an investment in the future both for companies and individuals (Hayward, 2002). Training and development is essential for maximum effectiveness of the staff, not only for their current duties but also on a continuing basis for the future. Training will enable the organization to derive maximum benefit from the potential of its people through strategic optimization of limited resources. Geoff Armstrong, Director General of the Chartered Institute of Personnel and Development (CIPD), warns 'those employers that don't invest in training and learning and make that an integral part of what they do, can't survive' (Manocha, 2003). Continuous training and development of employees through creation of a learning culture is not only desirable but also essential to assure life-long employability and gain competitive advantage. To achieve wider strategic goals of the organization, the training and development strategy should be vertically integrated with corporate strategy and horizontally aligned with other human resource development strategies, such as performance management, recruitment and selection, reward management and career development. An attempt has been made in this paper to review the literature and study the different models of training needs analysis and their relevance for effective design, delivery and evaluation of training activities and the associated implications for an organization's stakeholders, managers and individuals and also on the organizational performance. The new developments, replacing training by learning and their implications for transforming an organization into a learning organization have also been reviewed from the literature and Western countries' practices that can be adapted in the Indian context.

Systematic Training Process

Understanding the concept of training and the systematic training process is a precondition to evaluate properly the relevance of training needs analysis to the effective design, delivery and evaluation of training activities. According to Reid and Barrington (1997), 'training is a planned process to modify attitude, knowledge or skill behaviour through learning experience to achieve performance in an activity or range of activities. Its purpose, in the work situation, is to develop the abilities of the individual and to satisfy the current and future needs of the organization'. Thus, training, unlike education, which is concerned more with the general improvement of knowledge and understanding, focuses on enhancing the skills of individuals to enable them to accomplish specified tasks competently. It is an intervention designed to produce behaviour from individuals that have positive organizational results. As pointed out by Taylor (1991), the training process prior to the early 1960s was characterized largely by an ad hoc approach, and training was seen as an activity suitable only for a minority of skilled employees. With the emergence of a systematic training model from the pioneering work of Boydell (1971) as a logical, structured and systematic approach to training, it was increasingly used by UK organizations. The systematic training cycle adopted by the National Standards for Training and Development (UK) in 1992 is depicted in Fig.1.

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Note : The views expressed in the paper are personal and does not necessarily reflect the views of the planning Commission or Government of India.

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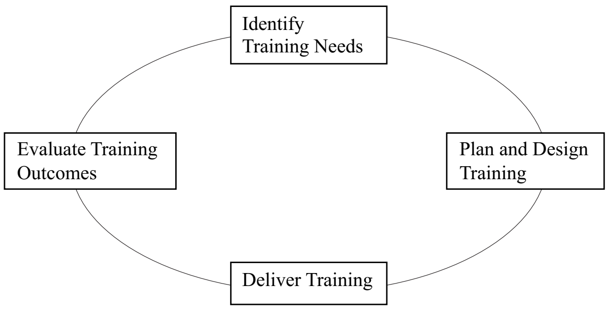
Fig.1: The Systematic Training Cycle



Source: Reid and Barrington (1997)

It can be seen that the basic aim of this model is to divide a training intervention into a series of inter-dependent sequential steps or stages. Whereas the simplicity of the model has made it attractive, its effectiveness has come under severe criticism due to the complexities that arise both within and between each stage in the cycle. Despite this, the model has been widely followed in practice, though the training literature cites a number modifications and extensions to it (e.g., Harrison, 2003). The TNA issues have been addressed in the present article within this conceptual framework of training process.

Models of Training Need Analysis

The importance of undertaking appropriate TNA as a first step in the training process is widely accepted as the basis upon which training decisions within organizations should be determined, particularly in relation to whether training can improve performance, who should receive training and what the content of such training should be (Taylor et al., 1998; Tannebaum and Yukl, 1992 and Holden, 1991). However, in actual practice, training decisions are made on an ad hoc basis without the application of more systematic approaches to training needs analysis. This is because, as pointed out by Goldstein (1993), TNA models have by and large remained relatively unchanged over the past three decades in spite of the significant progress made in the development of more sophisticated frameworks for undertaking training design, delivery and evaluation.

Two theoretical models of TNA have dominated the training literature: the organization-task-person (O-T-P) analysis framework introduced by McGehee and Thayer (1961) and the performance analysis model such as that developed by Mager and Pipe (1984). Under the O-T-P model, organizational analysis examines the organization's objectives and goals, resource needs and efficiency indices in order to determine where training is needed. Task analysis requires establishing performance standards for each task or job and the requisite knowledge and skills necessary to perform these tasks in order to determine the content of training. Finally, through person analysis the training professional identifies who in the organization should receive training to meet performance standards.

Performance analysis model focuses on identifying training needs that arise when there is a discrepancy between expected and actual performance. This approach to TNA seems to be influenced by the critical events model of Nadler (1982), who defines needs as 'the difference between a goal (or what is expected) and what actually exists'. Under this model, TNA is concerned with collecting baseline data and identifying the performance gaps that need to be bridged by effective design, delivery and evaluation of training.

While performance analysis approach links training needs more explicitly with desired work behaviour than the O-T-P model, it excludes training opportunities for continuous development of performance beyond the set expected levels to 'improved' and 'innovative' levels. It also fails to link job behaviour to the organizationally-relevant results. This has resulted in Taylor et al. (1998) proposing their integrative model of TNA and Boydell and Leary (1998) developing a 3 x 3 matrix model.

The integrative model integrates the O-T-P and performance analysis models and identifies the training needs that have a direct bearing on the 'organizationally-valued results'. Under this model, two different focuses of training have been explored – result-focused and task-focused. Inference should be drawn in the needs analysis phase regarding these two training aims so as to ensure smooth sailing of design, delivery and evaluation of the training.

A significant contribution to TNA has come from Boydell and Leary (1998) who consider organizational, group and individual needs at three different performance levels – Implementing (I1), Improving (I2) and Innovating (I3). The identification of a training need does not necessarily depend on there being gaps between expected and actual levels of performance. It is only I1 level: 'doing things well'. Needs can be defined for achievement of improved results by raising current standards. This is I2 level: 'doing things better'. Innovating (I3) level represents a much higher level of improvement – 'doing new and better things'. This can be achieved by changing objectives and strategies, working environment and encouraging creativity and innovation. Seven sequential 'modes' of learning and training have been prescribed in this model to achieve the three levels of performance, viz., adhering, adapting, relating, experiencing, experimenting, connecting and dedicating. They have presented a case study of BICC telephone cable factory in Manchester that achieved remarkable success after implementing this systematic TNA model. There are, of course, other approaches to analyzing training and development needs, such as comprehensive approach, critical incident or priority problem approach and learner-centred analysis that can be found in the popular training textbooks (Reid and Barrington, 1997 and Harrison, 2003). A detailed discussion of such approaches is not the objective of this paper due to limitations of space.

Methods and Procedures of TNA

Whichever approach to TNA is adopted, training needs arise at organisational, job and individual levels and are required to be assessed at these levels. Of course, these levels are not mutually exclusive and an effective assessment of training needs requires an integrative and diagnostic approach rather that treating each level in isolation. An organizational training need may arise when there is any change in strategy, goals, activities, technology, rules , practices and so on. For diagnosis of organizational training needs, the human resource management information report containing analysis of staff turnover, age profiles, expected retirements, training and skills, absenteeism and other organizational records containing information on productivity, efficiency, product and service quality, labour and material costs, wastage and accident rates are the essential secondary sources of information. For primary data collection many techniques have been suggested in the training literature (e.g., Reid and Barrington, 1997; Pearn and Kandola, 1993), including questionnaire surveys and interviews with employees, their colleagues and managers, and customer surveys.

Once preliminary information has been collected to suggest that a training need may exist, a deeper analysis should be carried out using advanced statistical techniques such as flow charts, control charts, Pareto charts, nominal group technique, brainstorming, fishbone diagram, etc. 'These techniques help us therefore to investigate real causes, generate possible solutions and decide our priorities for training and learning' (Boydell and Leary, 1998). They help in determining which needs are significant and thus focusing on training solutions that will be cost-effective and deliver real benefits. Sometimes a non-training intervention may be required to meet the needs, which may include changes in recruitment and selection strategy, total reward strategy, performance management system and improvement in employee relations.

At the job level, identification of training needs can be performed through job analysis or task analysis. A job analysis may involve systematic collection of data about a specific job relating to the major tasks involved in the job, standards of performance, how the tasks are to be performed to meet the standards and the skills, knowledge and abilities necessary. Careful analysis of expectations and attitudes at this stage is often the key to effective training design, delivery and evaluation. Pearn and Kandola (1993) have suggested as many as 18 methods of collating, analyzing and presenting data for job analysis.

At the individual level, training and learning needs are usually identified through performance appraisals and personal training plans. However, in order to prepare and develop the employees beyond the implementing level to improving and innovating levels of performance achievement, more advanced methods should be applied. These may include psychometric tests, self-diagnosis through incident analysis and competency framework, customer-mapping and role negotiation, group discussion and 3600 feedback. The 3600 feedback refers to getting feedback for learners' training needs from a range of sources, including their line managers, peers, subordinates, customers, clients and, most importantly, themselves.

Thus identification of training needs from a broader perspective as discussed in the foregoing paragraphs, and not just identifying the 'training gaps' that most of the popular textbooks and training professionals prescribe, is what is really important and relevant to the effective design and implementation of a training intervention aimed at achieving the organizational goals, mission and strategy.

Relevance of TNA

Identification of training needs, if done properly, provides the basis on which all other training activities can be considered. Boydell and Leary (1998) emphasize 'the importance of building a good foundation by clearly and precisely identifying and analyzing the needs that the training will address'. Training design and delivery can be effective and attractive only when the identification of training needs matches closely with the strategic goals of the organization, organizational learning culture and management style, individual learning styles and the budgetary support. It will then be possible to keep a constant check on how far this match is effectively continued through training evaluation. The relevance of TNA to effective design, delivery and evaluation of training is explained in the following paragraphs.

Design of Training

- Having established the training needs, the next logical step is to design a training programme to effectively address those training needs. At this stage, the following considerations are of paramount importance:
- Setting training/learning objectives in terms of performance standards and behavioural outcomes;
- Selecting the suitable learning/training solution: on-the-job or off-the-job, in-house course or external course, e-learning or class-room learning.
- Developing suitable learning content to achieve the set learning objectives and outcomes, keeping in view the learner profiles;
- Selecting the trainer and facilitator- professional trainer or manager;
- Determining the training schedule – duration, venue, time and coordinator;
- Determining the training methods – lecture, practical exercises, demonstration, case study, group discussion, role play or a suitable combination;
- Analyzing cost of training from all angles – infrastructure and facilities, resource persons, training consultants, working hours etc.

All parties associated the training needs analysis such as trainees, their managers and trainers should be involved in the planning and design stage of the training intervention to ensure effectiveness.

To Delivery of Training

Depending on the training needs and individual learning styles (activist, reflectionist, theorist or pragmatist) of trainees, the best suitable training methods may be chosen and training delivered accordingly. A mix of media – text, video, animation, audio, graphics, the web, Internet, intranet and extranet, may also be chosen to make the learning interesting and effective. In the words of Franklin (1999), 'effective training should create conditions for a trainee to become interested in learning'. If the scope of the lesson delivered addresses closely to the training needs and work area, it stimulates interest and motivates the trainees.

To Evaluation of Training

Even though the bottom line for most training and development programmes is an improvement in overall organizational performance, organizations often devote little time to evaluating training effectiveness. Following the recent broadcast of the BBC documentary 'The Secret Policeman', which uncovered racism among a number of trainee police officers in Greater Manchester, T. Phillips, Chairman of the Commission for Racial Equality, lamented, 'police forces have spent 137,000 days on race and diversity training. Unfortunately, nobody has taken the trouble to evaluate whether this training did any good' (as reported by Pravin Charo in daily newspaper METRO on 31 October 2003). Based on an empirical study on training evaluation in 5 UK 'best practice' organizations in their training and development activity and 77 Kuwaiti organizations, Al-Athari and Zairi (2002) find that the majority of study organizations, both in government and private sectors, only evaluate their training programmes occasionally.

The review of literature and research shows that determining training effectiveness is a complex process. Reid and Barrington (1997) admit that 'evaluation stage is arguably the most problematic part of the training process'. While the widely used Kirkpatrick (1994) model focuses solely on post-course evaluation through a prescriptive cause and effect chain of 4 levels (Reaction, Learning, Behaviour and Results), Easterby-Smith (1986) argues that any evaluation of training must take into account both pre- and post-training activities in a CAIPO (Content, Administration, Inputs, Process and Output) framework. Santos and Stuart (2003) have also expressed a strong view that training evaluation should be a continuous process starting before the training event and ending after six months of training for real assessment of benefits and transfer of learning to the workplace. It should not be limited to an immediate post-course questionnaire, with the purpose of improving the efficiency of content and delivery. Training evaluation should also be made the responsibility of all stakeholders. To quote Harrison (2003), 'trainers, top management, external consultants, the learners and their sponsors – all these parties will have particular interests in the evaluation process'.

The associated implications for the organization's stakeholders in such a training scenario have been further elaborated in the following paragraphs with particular reference to TNA.

Implications for Stakeholders

TNA is very much a social process in the sense that it involves a wide range of people and a number of inter-personal relationships, both within and outside the organization. In carrying out a successful TNA, people's roles, responsibilities, contributions, enthusiasm, commitments and dedications are vital. Everyone is dependent on one another for success which is at stake and, therefore, all are 'stakeholders' in this developmental exercise. The stakeholders include the trainees or learners themselves (individuals or groups) whose needs are being identified and addressed, senior managers/strategic decision makers, line managers, colleagues and co-workers, clients and customers, trainers and training practitioners. The implications of TNA are different for different stakeholders due to their common as well as conflicting interests and varying agendas and rationale for training and development in an organization.

Trainees/Learners

Trainees' involvement in TNA ensures a high degree of ownership, commitment and motivation for learning. They should take prime responsibility for identifying their own learning needs and optimize their learning outcomes by enlisting help and support from their line managers, senior managers, mentors, peers and trainers. The individuals' training needs should be so identified as to balance the organizational goals and their personal development. In the BICC case study (Boydell and Leary, 1998) mentioned earlier, the team leaders were invited to identify areas in which they would like further training. A competency framework was drawn by them and received training. What they achieved after training was remarkable, but more important was their feeling of involvement and high level of motivation.

Senior Managers/ Strategic Decision Makers

They have to provide the overall direction and strategy within which TNA and other training and development activities are carried out. The chief executives should play a key role in shaping organizational learning culture by emphasizing a positive training climate, ensuring management commitment to staff training and development, promoting 'training champions' especially among line managers and allocating sufficient training budget. 'Unless individuals are convinced that senior management value and practice skills and attitudes being advocated in such activities, they will exhibit instrumental commitment at best' (Mabey et al, 1999).

Managers at all levels should provide opportunities to the trainees to transfer their learning to the workplace and contribute feedback on the impact of training.

Line Managers

'Line managers' commitment to training is crucial not only to maximizing the benefits of formal course training, but also a powerful factor in creating and developing a climate that expects and supports training interventions as a normal part of organizational life' (Reid and Barrington, 1997). For effective training needs analysis, they are an indispensable source of information and feedback. The line managers need to be encouraged and supported in their training activities by the senior management, trainers and training practitioners. Line managers should be relieved of budgetary and time constraints by the senior and top management. Drawing on research evidence from 6 case studies in the public sector, Rainbird and Munro (2003) appreciate that 'getting line managers to release staff from work is the archetypal problem for HR and training managers because it interferes with the day-to-day running of the service'. As noted by Santos and Stuart (2003), 'reinforcing the value of training and staff development to line managers is thus of crucial importance' and training practitioners can have a win-win situation by changing their 'mental models'.

Colleagues and Co-workers

By providing valuable information either informally or formally through 3600 feedback, colleagues and co-workers can enhance the effectiveness of training needs analysis as well as evaluation of training programmes. They are instrumental in creating and sustaining a learning culture within the organization.

Clients and Customers

In today's customer-oriented business environment, any training activity without considering the expectations and opinions of clients and customers may not lead to achievement of organizational goals and business strategy. So they need to be associated with the TNA.

Trainers

Although trainers have very little role to play in TNA as compared to their role in design and delivery of the training process, their involvement at this stage can facilitate establishing clear linkages between the stages. In addition to cognisance of managers' expectations and employees needs when offering training, they need to understand important insights into how people learn, their learning style preferences and should be flexible in their training design and delivery to accommodate them. They should also support the trainees in identifying their training needs.

Training Practitioners

It is very important to understand the relationship between the managers and the training practitioners (specialists or consultants) with reference to their roles and responsibilities in training needs analysis in an organization. Making the relationship between manager and training consultant appropriate to the situation facilitates establishing learning objectives, training design, implementation and evaluation. Besides the expertise and a clear view of the organizational development, the training practitioners should have the attribute of eliciting correct information from the management staff, employees and trade unions, and should be aware of 'organizational politics'. Based on a case study of TNA in a UK Social Services Department, Clarke (2003) finds that organizational politics as a result of self-respect, conflict and power relations can influence the validity of data provided by managers, subordinates and individuals during a TNA. He presents a framework to assist training practitioners in recognizing when and how organizational politics may affect TNA and consequently impact on training decisions. In view of this, they should look beyond what managers or individuals have stated as training needs, question the assumption of managers and employees about the cause of performance problems and may even identify the need for non-training solutions. Failure to carry out such investigations and simply presenting attractive reports on TNA may ultimately lead to training having little or no impact on organizational performance and their own credibility at stake.

New approaches to Training - Learning

Much of the recent debate and discussion in literature has emphasized the primacy of learning over training. The job of HRD is to encourage learning as if training is a thing of the past. The trainers have been re-designated as 'learning managers', HR consultants as 'learning practitioners', and trainees as 'learners'. Even the titles of the books have been changed, replacing the word 'training' for 'learning'. As Sloman (2001) comments, 'despite the fact that it is no longer fashionable, training (as opposed to learning) is still a useful concept'. In his opinion, the distinction between learning and training is of value and should be maintained. Learning lies in the domain of the individual and training lies in the domain of the organization. Thus the focus on learning is the learner.

Training needs analysis cannot remain isolated from such new trends in training and development. It has to adapt to the changed circumstances. The training system should instil the culture of continuous learning through various motivational and infrastructure supports to achieve employee development which, in turn, improves organizational performance. According to Jacobs and Washington (2003), there is a positive correlation between employee development and organizational performance.

Learning Cycle and Learning Styles

Learning can best be seen as a continuous process. Kolb (1984) introduced the concept of a learning cycle to describe this process in four stages. At stage one a person starts off with an experience. Stage two of the cycle is to observe and reflect on that experience. At stage three, the person develops certain principles and concepts from that reflection. Stage four is to test these principles and concepts in new situations. This will produce a new experience (stage one again) and the cycle continues. Honey and Mumford (1992) has extended this significant innovation by associating four main types of individual learning styles with key stages of the learning cycle, as illustrated in Fig.2. The lower-case letters in Fig.2 describe the learning cycle in a slightly modified form. The upper-case letters are descriptions of four learning styles:

ACTIVIST: Learns best from practical experience by doing things.

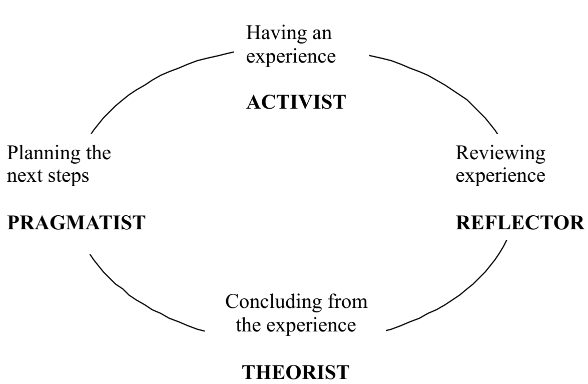
REFLECTOR: Learns best by reflecting on own past experience and by observing others. Thinks first and acts later.

THEORIST: Learns best by seeing how things fit into a pattern. Analytical, objective and a perfectionist.

PRAGMATIST: Learns best by seeing how things work in practice. Plans new ideas and faces new challenges.

The individual's experience of learning cycle could also be paralleled in the organization. Through proper management system the organization should ensure that there is adequate opportunity for stages two and three of the cycle. Learners who are aware of their learning style preferences can select learning opportunities that match their styles. The personal development plans need to strengthen the underutilized preferences. Those who are in charge of performance management should use learning style preferences to encourage group learning activity. They should 'manage everyday work situations in ways that foster in individuals and teams learning styles and skills that can be applied to an over-widening range of job-related problems and organizational issues. This will lead to the enhancement of organizational as well as individual performance' (Harrison, 2003).

Fig.2: A model of the learning cycle and learning styles



Source: Adapted from Honey and Mumford (1992)

Self-directed learning

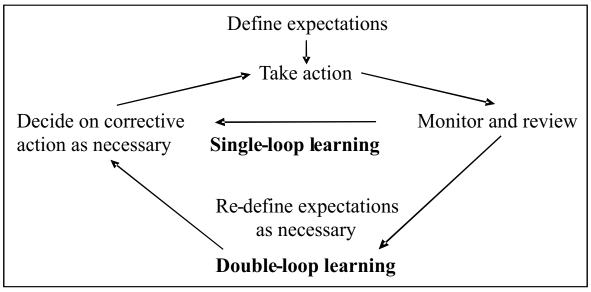
Self-directed or self-managed learning (SML) has also emerged as a new approach to learning and development. It is furthered by self-assessment and self-evaluation. Studies indicate that self-evaluation improves performance standards and self-satisfaction. In her thought provoking paper, 'Performance: Self as the principal evaluator', Vaughan (2003) argues, 'when performance is primarily evaluated by someone other than "self", this robs individuals of a sense of responsibility for their own work performance and reduces the quality of both process and output'. Learning Events Outdoors (LDO) have to encourage, which can give the learners the practical opportunities to 'learning how to learn', 'learning through conversations' and 'collaborative learning'. The performance at individual and team levels in each event undertaken would increase from zero to positive in the face of unknown, uncertainty and adversity of nature. Organizations should encourage such events and SML for better performance management and employee development.

Organizational Learning

Much of the early impetus of organizational learning came from the American organizational psychologist Chris Argyris (1993). According to her, organizational learning takes two forms: single-loop learning and double-loop learning. As illustrated in Fig.3, single-loop learning takes place when the organizations define expectations in terms of targets and standards, take action, monitor and review achievements, and take corrective action as necessary, thus completing the loop. Double-loop learning occurs when monitoring and review activities modify and change fundamental behaviour and redefine expectations as necessary in the changed circumstances. Single-loop learning is best suited for routine kind of jobs and double-loop learning is appropriate for complex and challenging tasks.

Organizations learn through the agency of individuals. The benefits of individual learning will never become organizational benefits unless the organizations itself provides the culture and environment to translate individual learning into organizational thought and practice. Drawing evidence from extensive research on organizational learning in China, Germany and Israel, Antal et al (1999) concludes, 'an effective organizational learning form requires a harmonious combination of structure, culture, leadership and human resource perspective'. Therefore, performance management system should be so designed as to create and maintain a learning culture that encourages and supports individuals to learn as members of teams, by interaction with their managers, co-workers and people outside the organization. In the words of Kerr (2003), 'effective performance management begins with clear two-way communication to ensure goals are understood and

Fig.3: Single- and Double-loop learning



Source: Armstrong and Baron (2003)

Learning Organization

The concept of the learning organization has been prominent in management theory and practice for the past decade. The popularity of the concept was triggered by the publication of the famous work of Senge (1990), The Fifth Discipline-The art and practice of the learning organization. Senge differentiates learning organization from traditional authoritarian 'controlling organization'. He defines a learning organization as one 'where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together'. Kandola and Fullerton (1994, as cited in Armstrong, 2003) describes learning organization as a model with six factors:

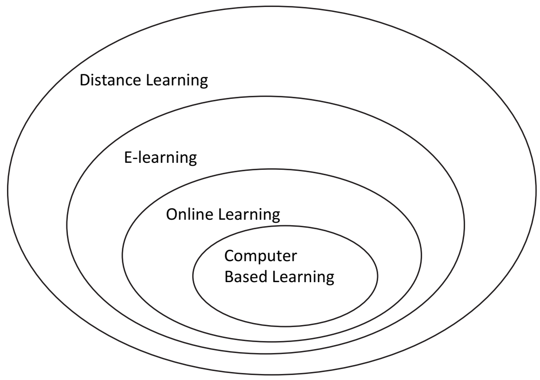
- Shared vision;
- Enabling structure;
- Supporting culture;
- Empowering management;
- Motivated workforce; and
- Enhanced learning.

Performance management system can develop a learning organization by promoting these factors and encouraging continual learning of all members of the organization. In order to survive and gain competitive advantage by becoming more knowledgeable, flexible and adaptable, employers in both the private and public sectors should embrace the concept of learning organization in their performance management strategies. To allay the fears of Symon (2002) on the 'rhetoric' of the learning organizations, leaders of the organizations should come down from mere aspirations to ground 'reality' and harness the vast potentiality of learning organization for organizational effectiveness.

E-learning

Like any other concept, electronic learning (e-leaning) also eludes a ready-made definition. Urdan and Weggen (2000) define e-learning as 'the delivery of learning materials, packages or opportunities (i.e. content) through various forms of electronic media, including the Internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV, and CD-ROM'. The scope of e-learning is depicted in Fig.4.

Fig.4: Subsets of Distance Learning



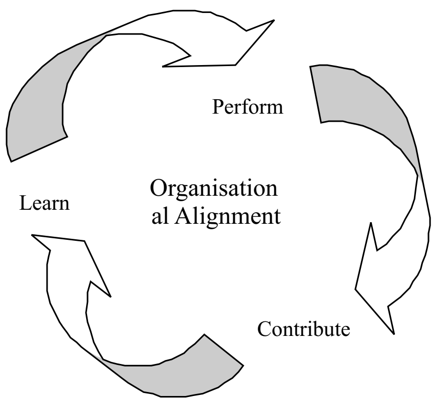
Source: Urdan and Weggen (2000)

E-learning has emerged as a relatively new training and learning facility for creation and distribution of knowledge through the online delivery of information, communication and education in a very accessible and immediate way to enhance individual performance and development. It is a natural corollary to the advances in information and communication technologies in general, and the World Wide Web (or simply, the Web or www) in particular. Both private and public sector organizations should adapt to the demands of new knowledge economy to stay ahead in an increasingly competitive world marketplace. The skills and knowledge of the workforce need constant refreshing to keep up with new technologies and trends. 'E-learning has many advantages: scalability, broad geographic reach and unmatched delivery speed - just to name a few' (Weaver, 2002). E-learning leads to greater productivity, increased profitability, reduced costs and enhanced employee loyalty. As a result, 'a diverse range of organizations are appraising and integrating e-learning in their training and learning strategies with corporate organizations in the finance and technology sectors setting the trend' (Beamish et al 2002). The 'best practice' organizations recognize e-learning as a means to provide high quality work-related learning experiences that impact competitive advantage. A number of case studies are available in the literature on successful implementation of e-learning solutions by organizations for improvement of performance. For example, Gold (2003) describes how PNC Bank made use of its learning management system (LMS) to up-skill employees through a competence manager application. Rabideau (2003) shares his experience in Prudential Financial on impact of e-learning on performance improvement when focused on job-related tasks and processes.

To obtain significant performance improvement in the workplace and maximize the return of investment, the training and development department should embrace e-learning as an advantageous approach to personal development. The organizations should create a learning environment and integrate e-learning with their corporate strategy. To increase workforce productivity, organizations may also explore novel and creative ways to mix and match delivery methods in the form of 'blended learning' (Oakes and Green, 2003) depending on the learners' needs, preferences, learning styles and environment.

From the above discussion it is now clear that learning is the key to performance improvement, both organizational and personal. Although learning is necessary for performance development, it is not sufficient. Whatever is learnt needs to be transferred to the workplace. Cheese (2003) suggests a 'spectrum of learning continuum' that is driven by three fundamental behaviours at the heart of workplace performance, viz., learn-perform-contribute/innovate. As illustrated in Fig.5, the performance management process should align the organizational goals and objectives with the three learner-centric behaviours to optimize performance.

Fig.5: Learn-Perform-Contribute Continuum



Source: Peter Cheese (2003)

Concluding Remarks

From the foregoing discussions it can be concluded that training needs analysis lays the foundation on which the entire training structure from design and delivery to evaluation is built. To have a bottom line impact of training on organizational functioning and performance, training needs analysis has to be aligned with organizational mission and strategy. Although it may not be easy to measure the impact of training, an organization can maximize its return on investment in training by ensuring correct needs are identified and addressed through effective training design, delivery and evaluation. Ensuring top management commitment to all training and development activities and involvement of all stakeholders in the entire training process is also crucial to the training effectiveness. It encourages individuals to take ownership of their own development and management to take responsibility for organizational performance and staff development.

Training needs analysis has to be adapted to the new models in the world of learning and development. The personal development plan and assessment have to be re-defined and re-oriented with a shift in focus from training to learning, controlling organisation to learning organisation, organisational target achievement to employee development, top-down bureaucratic environment to participative and flexible environment, and personnel department-pushed annual appraisal ritual to continual self- and line manager-assessed developmental exercise.

As advised by Vaughan (2003), employees should not be treated as 'providers' to an organisation by imposing performance and quality standards on them, thus restricting their role. An ideal performance management approach is to treat employees as 'contributors' to the organisation. In such an environment they take responsibility for their actions contributing to the strategic goals of the organisation. Research has shown that 'employees frequently set higher performance goals than management when they possess the requisite level of autonomy, authority and resource support' (Roberts, 2003).

In the new performance management system, managers should be trained on how to avoid common appraisal pitfalls such as personal bias, halo effect, central tendency error and lenience error that may make the entire process ineffective and hurt employee morale. They should also attend some learning sessions to impact change in their attitude towards learning, particularly, e-learning. They need to be trained on how to facilitate organizational learning and how to develop learning communities and facilitate learning conversations. 'Managers should also be taught the value of reinforcing good work habits with praise and proper method to giving constructive criticism' (Woodford and Maes, 2002). The only way an organization can be transformed to a true learning organization and the organizational performance will improve drastically.

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BALANCED SCORECARD IN HUMAN RESOURCES CONTEXT

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ABSTRACT

To reach companies' goals, the evaluation of their financial performance is not enough; it's likely there are intangible and non-financial reasons that assure the competitive sustainability of those organizations. I believe that the most beneficial results shall be obtained by converging the interests of both leaders and workers; the more members of a group, more skills and available knowledge, more resources aimed for completion of their tasks according to the will and challenges posed by their leaders. The major question is to underline that the balanced scorecard (BSC) indexes might enhance the performance of the organization, through assertive communication, social responsibility and exemplary behaviour of the workers, that fosters productivity. In order to evidence these premises a case study was created. A quiz was used in a 44 year old company, to check whether there were grounds for the hypothesis, or not. That every worker needs and wants wages that fulfils his needs, is one of the conclusions; nevertheless this is not the distinctive key factor in organizations. Those key factors, that keep the workers for long within a given organization, are feelings of security, stability, team spirit, collective achievements and the willingness to take new challenges, and a strict righteousness in completion of their tasks, driving the organization to success.

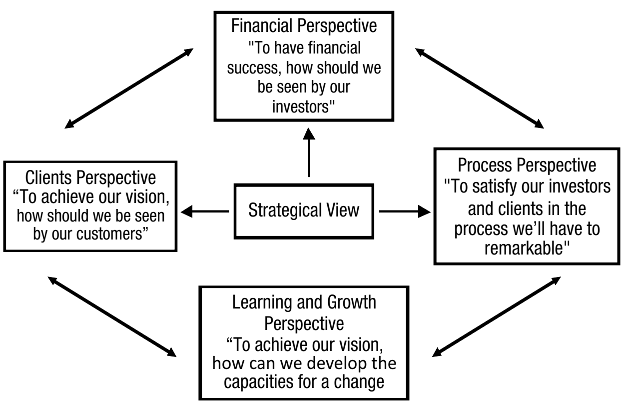
Keywords : *Balanced scorecard; Human capital; Motivation; Human factor; Welfare at work; Corporate productivity*

INTRODUCTION

To reach companies' goals, the evaluation of their financial performance is not enough;

Companies are made of people, hardware and IT, the first driving the other two. No system thrives without people. Human factor is thus the most needed resource, in a way distinct from all others. Its creativity, aptitude, quality and linking/blending ability are the core of competitive advantage. BSC gives a meaning to peoples' work in companies, its main purpose being the link between economical and financial outputs to market performance, with customers and through technology, innovation and people – creating values that distinguish the demand of each company's needs and will. BSC evaluates corporate performance through four viewpoints: Financial, Customer, Internal, Learning and Growth (see figure 1)

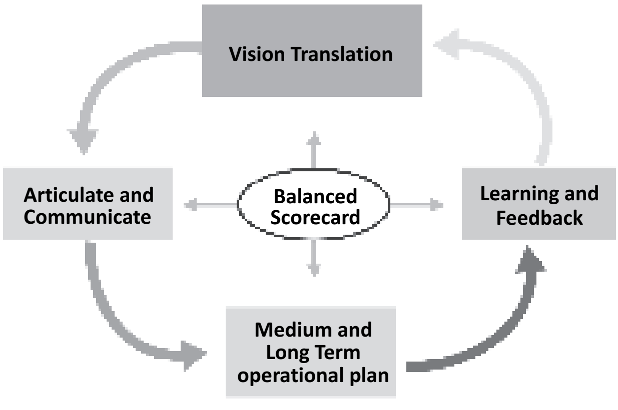
Figure 1: Strategic View



Source: Francisco Pinto

One of the vectors to consider within companies is the divergence between workers and management, that shall be reduced, and if such happens, workers would have more capacity to innovate at technical and administrative levels, thus acting faster and more appropriately to every request; Workers would respond in a quicker and more efficient way, assuring customer satisfaction; The organization's rising investment in workers' education enhances capacity to develop new products and services; If customer' needs are fulfilled they would be likely buy more and so sales volume grows. A properly assembled BSC (see figure 2) describes clearly the goals to reach, including performance level goals to reach the strategy (Niven, 2002, pp 20-1)

Figure 2 : Balanced Scorecard flowchart



Source:ABMS (Auto Business Management Systems), 2004, adapted.

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According to Kaplan and Norton (1996), organizations use the BSC method to clarify, update and communicate the strategy throughout the organization. The use of this method allows the realignment of individual goals with the organization strategy and linking strategic goals to long-term visions and yearly budgets. Moreover, the method can be used to identify and realign strategic initiatives, and periodical and systematic strategy reviews towards continuous learning and strategy upgrade. To these authors organizations also use the BSC as an opportunity to learn and adapt strategies to further advance knowledge and financial performance, and to be receptive to new ideas from within. We may therefore say, according to these premises, that the BSC starts with the question "What is strategy?" (Kocakülâh and Austill, 2007), To "turn strategy into each worker's function" Kaplan and Norton argue that every worker must know that strategy, driving his/her tasks to accomplishment of such strategy in a daily basis. Still to Kaplan and Norton (2004) managers believe that strategy changes require workers to develop new attitudes and new behaviour, in other words, to change their organizational/corporate culture. A way to evaluate this dimension is the use of frequent questionnaires to workers. If the organizations change their strategies, workers would have to do the same tasks in a different way. It is the managers' role (at every hierarchic level) to help workers identify and understand the necessary changes, motivating and leading workers to new ways to work. When workers do not understand the organization strategy, they are likely to accommodate what is demanded without questioning. This attitude leads workers to believe the best way to do a given task is the current practice in the organization. Niven (2002: pp 10) claims this attitude slows down change in organizations, and could be seen as a barrier to BSC implementation.

Importance of this subject

Motivation is a highly considered instrument. Both managers and workers below have needs, which, when fulfilled, induce full motivation, within the culture in which they live. Essentially organizations must keep high satisfaction levels among people, in order to achieve an effective compromise to organizational goals. It is believed that motivation is a key factor to individual behaviour and to understand the intertwining of its related aspects, to cooperate in planning and implementation of HR management activities. The time and context/background of each individual must however be evaluated. This work aims at knowing and diagnosing the human being's reality within the organizational environment. In practical terms this study is needed for:

I) Leaders to redefine and educate their human assets, to further their productivity to remarkable levels;

ii) Reduce the gap between interests/goals of management and workers;

iii) To demonstrate how the human component is the key variable in a organizational system.

Defining the Research Problem scope

Without a concern for workers' welfare, one cannot expect them to be concerned about the technical and strategic capacity of their organization. Valuing each worker is a prime factor to achieve success in the modernization and enhancement, because integration, fair wages, fair infrastructure, incentives and satisfaction are essential for every other goal. In spite of some previous studies on motivation, productivity and workers' welfare, the truth is that narrowing the gap between leaders' and workers' interests still falls short through research.

Study goals

This work analyzes the gap between the desired attitude of management and workers under the selected indicators – Receptiveness and Integration, Human Factor, Individual Behaviour, Role of Assertiveness, Social Responsibility and Productivity.

Due to behavioural reasons, we shall underline that if organizations do not change their locked/closed policy/philosophy we will maintain the lowest productivity results within the EU. However, the regulator/fiscal role of the government is implicit to this line of thinking. The major change in management shall be a focus in organizing and directing its attention to activities and relation to society and workers' welfare. This difference is based in HR, that is, people that make viable the adopted internal policies.

Key points:

I) To which level wages are a distinctive factor within companies;

ii) To which level the different methods currently used in the organizations motivate and reflect the generated productivity.

Research questions

This study's core purpose is to answer these questions:

→ Real/true (authentic) interests of the workers

→ What stands between management needs and workers' needs

→ What may management do to enhance its indicators/outputs?

The lack of interest of organizations towards its workers inhibits them, leads to their loss of perfection and this posture/philosophy is not competitive in the work market. The core question that every organization should address, is a demand of a continuously adaptive mentality, tuned with skills and ways of thinking prone to the human component, casting internal processes to achieve proactivity, polyvalence, merit and recognition. The human component is considered to be highly unstable, fragile, due to the psychological will that keeps individuals from being satisfied and secure professionals both within and outside their organizations, and to which manifestations careful attention must be paid.

Research Methodology

The research method provides an opportunity to test ideas in a rigorous open/public way.

Basic steps shall be taken in account, like - Identify the problem; Clarify the problem; Outline the required information and how to obtain it; Organize such information; and Interpretation of the outputs/results. In this work the questionnaires used had closed, multiple-choice answers (a series of previously selected answers is given to the respondent). There are advantages and drawbacks of this method, viz (see Chart 1)

Chart 1: Advantages and drawbacks of closed multiple-choice quiz

Benefits in the application of questionnaires:	Inconveniences in the application of questionnaires:
Easy fulfilling	Process of elaboration and test of the questions very slow
Bigger fidelity, as all are subordinated to the same options	Raised fee of questions not answered
Fast information collection	Inability to add additional data
It allows to collect inquired information of one high number of at the same time	It is difficult to select if the inquired ones are to answer with sincerity

Source : The Author (2010)

The hypotheses are used for forecasts that may be tested through observation of given research outputs.

Presentation and Analysis of Outputs

The presentation of the analysis and discussion of the output data is performed below, by a quiz that unravels through BSC indicators, the motivation and satisfaction, factors that drive productivity enhancement, immediately pointing out the real reason of the gap between managers and workers' way of thinking. It is believed that both make a fair assessment of their posture on the receptiveness to a new member in the organization, their perception of the organizational background and their own productivity.

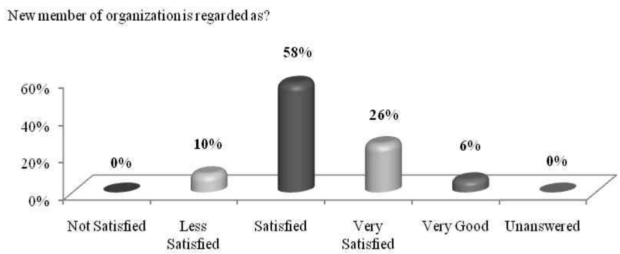
Main assumptions

The main assumption derived of this quiz relates to understating the reason why a well structured BSC with the most important indicators is not enough. That lacks understanding of the real motives that keep primordial interests of main stakeholders (both top level and workers) apart. Statistical analysis would show us the indispensable conclusions from the quiz recollection, and it is crucial to link such data to the structure of the previous dissertation developed so far in order to test the hypotheses. According to Carvalho, J.E. (2009) "the apogee of the dissertation is the synthesis of obtained outputs with the research, stating whether the goals were achieved and hypotheses confirmed or rejected". In this sense, each hypothesis matches given questions of the quiz analyzed below:

Hypothesis 1 : The organization is equally productive and attractive if workers feel receptiveness, integration and recognition of their value.

Evidence that workers feel receptiveness and well integrated is the answer shown in graph 1, revealing it about a new member in the same way it was done to them. 90% of the inquired believe good receptiveness is essential for flexible, boundless integration on arrival to a new organization.

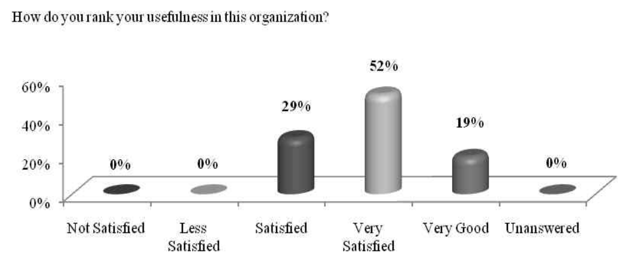
Graph 1: New member of organization is regarded as?



Source: The Authors (2010)

The importance of valuing workers' contributions is displayed on graph 2, in which 71% of the workers rank themselves useful at their workplace.

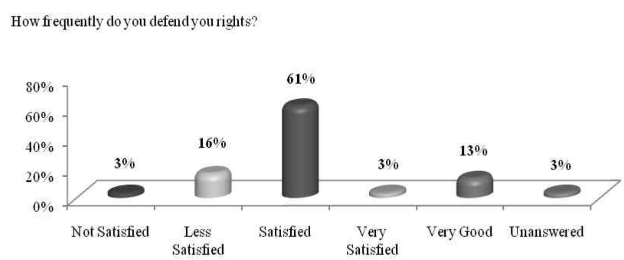
Graph 2 : How do you rank your usefulness in this organization?



Source: The Authors (2010)

Such valuation is the result of workers' actions in defense of their rights in the organization, as shown in Graph 3, in which such a posture is assumed by 77% of the workers.

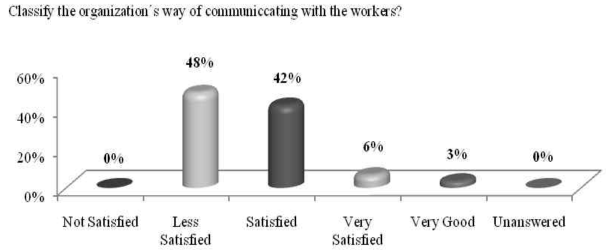
Graph 3 : How frequently do you defend you rights?



Source: The Authors (2010)

The way of communicating by the organization to its workers is also a key point of the latter to feel welcomed, valued and integrated, so the chart 4 with 51% of answers indicates that they like the way your organization communicates with workers.

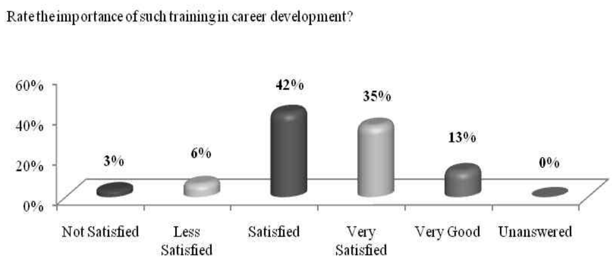
Graph 4: Classify the organization's way of communicating with the workers?



Fonte: The Authors (2010)

The training sessions promoted by the organization are also a demonstration of the will to embrace the workers and they become grateful and more productive. As shown in graph 5, with 90% of answers to offer a picture of training content given by the organization.

Graph 5: Rate the importance of such training in career development?



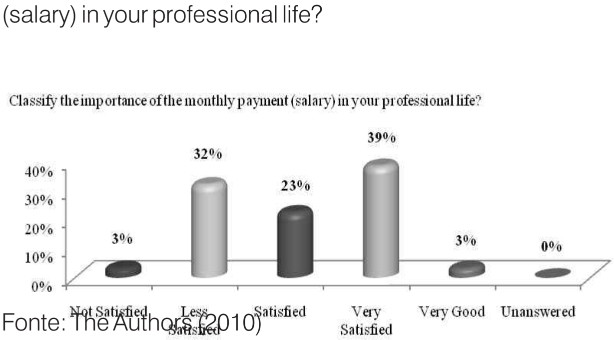
Fonte: The Authors (2010)

With these findings, the hypothesis the organization can be productive if workers feel cherished in the organizational environment is confirmed.

Hypothesis 2 : Even if the organization interests should focus on profit, delegating in the background the interests of the workers, they feel a motivation to work.

The workers, have several factors that can motivate them, one is the payment. According to graph 6, 65% of the answers show that their main motivation is the salary.

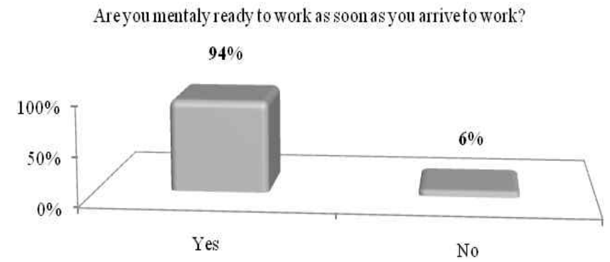
Graph 6: Classify the importance of the monthly payment (salary) in your professional life?



Fonte: The Authors (2010)

The values represented in the graph 7 show 29 answers indicating that the workers are mentally ready to work when they arrive to the organization. They are under a motivational condition that gives them spirit to perform the tasks offered to them during the working day hours.

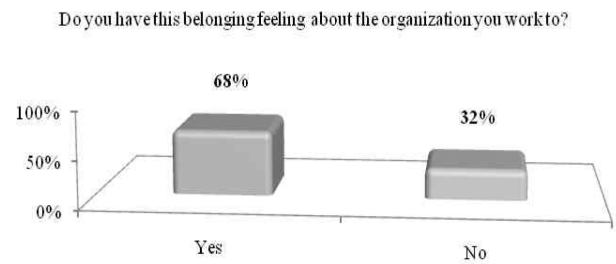
Graph 7: Are you mentaly ready to work as soon as you arrive to work?



Fonte: The Authors (2010)

If a doubt remains, about the workers motivation, graph 8 has this precise indication that 68% of the subjects have a sense of belonging to the place they pass the most time of their lives.

Graph 8: Do you have this belonging feeling about the organization you work to?



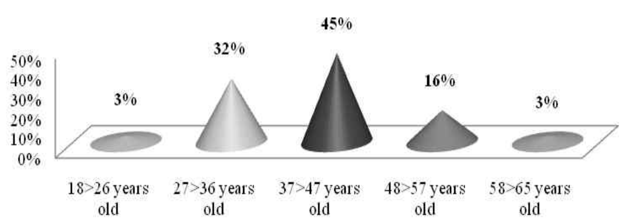
Fonte: The Authors (2010)

77% of the workers affirm, their supervisors need their help and this is an important landmark to boosting the motivation around the workers. In this way, this hypothesis is confirmed, since the workers are motivated to perform their tasks on different factors.

Hypothesis 3 : Demographic factors are a condition to productivity boost.

As shown in graph 9, the average age of the workers is between 37 and 47 years old. At this age factors such as safety and daily routine are imprinted in the human mind.

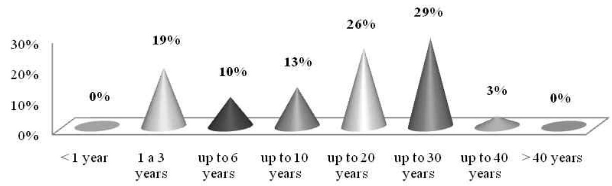
Graph 9 : Age



Fonte : The Authors (2010)

The average lifetime of the workers in the organization is about 30 years of work, as shown in the graph 10. Again, safety, daily working routine are notorious factors, do not also forget this point - doing the same in the same way is not productive.

Graph 10 : Identifying the seniority in the organization.



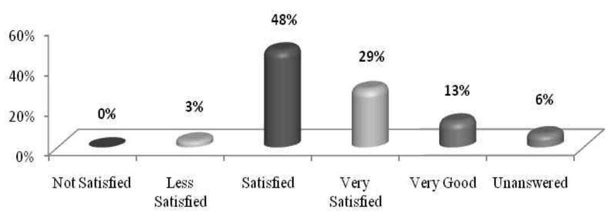
Fonte : The Authors (2010)

This hypothesis is confirmed by the analysis of the answers given by the subjects.

Hypothesis 4 : If the workers were heard and their suggestions were considered, the gap between them and the organization would became a benefit given more credibility at the clients, suppliers and competitors.

90% of the workers surveyed, expressed ideas with enough frequency, as shown by the graphic representation.

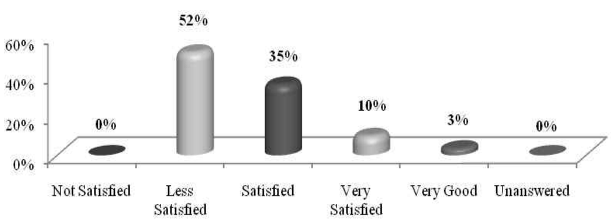
Graph 11: Express your ideas? If you do, classify how often?



Fonte : The Authors (2010)

In graph 12, test the frequency with which workers are listened to by the organization, the result is clearly unsatisfactory, since they feel they are not heard by the management. If so, the interests and objects of both would not be approached.

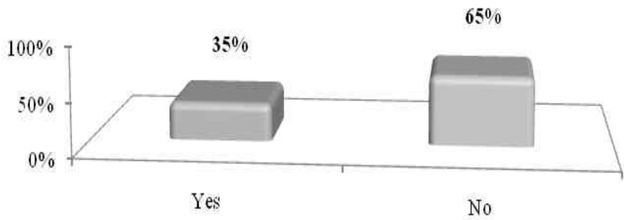
Graph 12 : Classify the degree of frequency that is heard by the organization.



Fonte : The Authors (2010)

Another factor that could improve the organization for more approximation to the workers would improve the dialogue that has to be held with them, as the graph shows that 13 workers are unsatisfied with the lack of dialogue by

Graph 13 : There is a good dialogue in the organization?



Fonte : The Authors (2010)

This hypothesis is confirmed if the organization listens to the workers, it would benefit in several ways. For example, more commitment from its workers, more productivity, a straight relation with clients, suppliers and more sense of social responsibility of both parties. In a summary, this study allows us to infer that it is possible that indicators of BSC in human resources context are an approximation of interests and objectives between workers and top managers, which may improve the rates of productivity and organizational motivation

Final remarks/conclusions

To this point, the research work is an enriching and fulfilling milestone, both in personal and professional terms. Research is a primal contribution towards recognition of human capital as an important standard, participating and active within the society.

The approach to real interests of workers in the organizational scope characterizes the usefulness of this research, which may be propitious to implementation of much needed strategies to boost Portuguese productivity. The best way of doing so is to knowledge and counselling of workers' problems. Therefore it is thought that research is essential to identify organizational measures professionals shouldl take to achieve an enhancement of welfare at work. Organizations thrive in uncertainty, changing environment and instability. Their resources must therefore meet such conditions. As evidenced in the research above, buying state-of-art hardware or better uniforms is useless without recognition of workers' value and ability to work better with such upgrades. Key motivation factors of this study were wages, stability, career expectations and the appraisal of workers' value. Workers are fundamental for delivering results and contribute to the growth of the organization; it is therefore their duty to care for them as people, not robots. The results show that independent variables like career span, average age and academic background of workers express their behaviour and interest in fostering productivity in the organization. Studying human behaviour is subject to irregularity and deviation due to personal diversity. But what motivates a given individual may not motivate another, and core interests of today are likely to be not the same tomorrow. Social awareness and responsibility must not be ignored by organizations. Workers that perceive their company as socially responsible are more motivated, fulfilled and happy at the workplace. Workers fed up with continuous despisal from their organization are a sure-fire reason for productivity decay. The organization shall assess risks and define limits so that it achieves:

- A healthy relationship among interactive teams towards company goals, since people are driven by their wish to do a good job and the possibility of acquainting with their workmates;
- The possibility to assess workers needs and fulfil them;
- Attitude change from management; non tolerant organizations prevent workers from being original and creative , pushing stakeholders to a halt/stagnation
- Reorganization of work routines due to the need to achieve goals; constant, dull routines lead to lack of motivation and less willingness to cope with everyday tasks of the organization.
- Willingness of both management and workers to promote a happy, dedicated, responsible and autonomous working environment, since such an environment is evidenced by the readiness or omission of their tasks.

There is a growing awareness of the need of exemplary behaviour; there are other people willing to take our place, and it is therefore important to understand people in both emotional and intellectual scopes, and the meaning of their words. Workers are not robots, they have feelings. Without motivation there is no effort, nor sound reason for that. That attitude leads organizations to monetary and productivity losses. Praising workers is not a current practice, since it is easier to oversee/control than expressing the importance of the individual in the organizational context.

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AN ANALYSIS OF DISINVESTMENT IN THE TELECOMMUNICATION SECTOR IN INDIA

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ABSTRACT

Public sector undertakings in India were viewed as a mechanism for structural transformation of the economy and for growth with equity and social justice. Disinvestment has supposed to be the tool in the hands of the Government to improve the functioning and profitability of public sector enterprises and also raise funds to mitigate its fiscal deficits. India has opened its telecom sector to foreign investors up to 100 percent holding in manufacturing of telecom equipment, internet services, and infrastructure providers 74 percent in radio-paging services, internet and 49 percent in national long distance, basic telephone, cellular mobile and other value added services. An attempt has been made to examine the impact of disinvestment on the financial and operating performance of selected units of telecommunication sector. The management of the telecommunication sector failed in controlling its various expenditures during the post-disinvestment period and its liquidity position has not been found satisfactory.

Keywords: *Disinvestment, Public Enterprises, Public Sector, Government Policy*

INTRODUCTION

Telecommunications is one of the fastest-growing areas of technology in the world. Because of its rapid growth, businesses and individuals can access information at electronic speed from almost anywhere in the world. The Telegraph Act of 1885 governed the telecommunications sector. Under this Act, the government was in-charge of policymaking and provision of services. Major changes in telecommunications in India began in the 1980s. Soon after, the Mahanagar Telephone Nigam Limited (MTNL) and Videsh Sanchar Nigam Limited (VSNL) were set up in 1986. The Telecom Commission was established in 1989. Disinvestment of PSUs in the telecom sector was also undertaken during the year. In February 2002, the disinvestment of VSNL was completed by bringing down the government equity to 26 per cent and the management of the company was transferred to Tata Group, a strategic partner. Disinvestment is a process whereby the Government withdraws a portion or the total of its equity in Public Sector Enterprises (PSEs). Disenchantment with the public sector started in the 1970s. It was observed in many countries that the performance of Public Sector Enterprises (PSEs) was far below expectation. By the mid-eighties, their short comings and weaknesses started manifesting the form of low capacity utilization, low efficiency, lack of motivation, over-mining, huge time and cost overruns, inability to innovate and take quick decisions, large scale political and bureaucratic interference in decision making etc. The aim of economic liberalization was to enlarge competition and allowing new firms to enter the market. Thus the emphasis shifted from PSEs to liberalization of economy and gradual disinvestment of PSEs. Huge amounts of public resources are blocked in several non-strategic PSEs giving meagre returns. The Government is forced to commit further resources for sustenance of many non-viable PSEs in the absence of an exit route. All these Government economic woes led to an obviously straightforward action of disinvestment of the Government stake in PSEs. The major objectives of disinvesting Government equity holdings in PEs can be stated as (Jagdish Prakash Rao, 1996. p. 485) follows: to raise revenue collections for bringing down the fiscal deficit as commitment Made to the IMF, to ensure greater accountability and improved efficiency, to mobilize efficient resources for Government requirements, to provide an opportunity to the general public to participate in the equity to PEs, to encourage and motivate employee ownership and to reduce bureaucratic control and to provide more autonomy to the management of PEs. The main features of Government's present policy towards the public sector are to restructure and revive potential viable PSEs, close down PSEs which cannot be revived, bring down Government equity in all non-strategic PSEs to 26% or lower, if necessary, fully protect the interests of workers. In order to expedite the process of disinvestment, the Government established a new full-fledged Ministry of Disinvestment. Disinvestment era, at the peak during NDA Government came to halt with the installation of UPA Government at the centre. Under the pressure of the left parties, the new Government closed Ministry of Disinvestment and converted it into a Department under the Ministry of Finance. Common minimum programmes of the UPA Government made it clear that no profit making PSUs wouldl be privatized, Navaratana PSUs would be kept in the public sector, proposal of privatization of loss making PSUs will go through consultation with the workers, no privatization if it created a monopoly or restrictive competition.

Need and Scope of the Study

Public sector undertakings in India were viewed as a mechanism for structural transformation of the economy and for growth with equity and social justice. The public sector

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thus it lost its original role and strategic focus, which shifted to supply of goods and services on subsidized rates and creation of employment. This led to inefficiencies, neglect of resource mobilization for modernization, increased dependence on unproductive borrowings, lack of motivation to improve efficiency and increase in fiscal deficit of the Government. The issue of public sector versus private sector assumed greater significance immediately after the attainment of independence when the country was faced with the gigantic problem of accelerating the pace of economic development and selecting a political and economic philosophy suited to needs and aspirations. Disinvestment was supposed to be a tool in the hands of the Government to improve the functioning and profitability of public sector enterprises and also to raise funds to mitigate its fiscal deficits. In the present study an attempt has been made to examine the impact of disinvestment on the performance of selected units of the telecommunication sector. This will throw light on whether the envisaged goal of improvement in performance was in fact achieved. In telecommunication sector two public sector enterprises viz.: Videsh Sanchar Nigam Limited and Mahanagar Telephone Nigam Limited have been selected for the present study.

Objectives of the Study

The following objectives have been visualized for the present study:

- To study the impact of disinvestment on the financial performance in terms of financial strength and corporate liquidity.
- To study the impact of disinvestment on the operating performance based on sales, investment, employment and asset usage.

Hypothesis

To achieve these objectives the following hypothesis has been tested:

- There is no significant impact of disinvestment on the financial and operating performance of the units.

Research Methodology

The above objectives have been studied through the use of secondary data. The secondary data has been collected from published reports of selected Indian public sector enterprises and records of the Government of India. The data drawn from various sources has been analyzed with the help of various accounting tools and techniques statistical test has also been applied in appropriate context. Ratio analysis, mean, standard deviation, co-efficient of variation and student't' tests are used to analyze the sample data. There are 16 Indian public sector enterprises in which the Government has made a disinvestment. In order to study the impact of disinvestment on public sector enterprises, only the telecommunication sector has been selected. For the present study, the two units which came under the telecommunication sector have been selected. Impact of disinvestment on the financial and operating performance of the telecommunication sector has been examined with the

Table- 1.1
Financial and Operating Performance of Videsh Sanchar Nigam Limited

Ratio	Pre-disinvestment Era			Post-disinvestment Era			t-value	P
	Mean	S.D.	C.V.	Mean	S.D.	C.V.		
OPERATING PERFORMANCE BASED ON SALES								
Gross Profit Ratio	52.46	18.18	34.65	33.41	13.96	41.78	-2.51	0.022**
Net Profit Ratio	25.74	7.09	27.54	20.69	6.96	33.64	-1.46	0.162
Operating Profit Ratio	52.64	18.58	35.30	34.32	13.25	38.61	-2.47	0.024**
Material Cost/Net Sales	0.26	0.23	88.46	26.9	37.07	137.81	1.74	0.107
Manpower Cost/Net Sales	3.83	0.64	16.71	2.69	1.03	38.29	-2.46	0.025**
R&D Expenditure/Net Sales	0.23	0.16	69.57	0.47	0.26	55.32	1.6	0.148
Excise Duty/Net Sales	0	0		0	0		0	0
OPERATING PERFORMANCE BASED ON INVESTMENT								
Return on Total Assets	27.09	7.24	26.73	18.75	6.14	32.75	-2.6	0.019**
Return on Net Capital Employed	57.04	11.17	19.58	39.04	15.33	39.27	-2.56	0.02**

OPERATING PERFORMANCE BASED ON EMPLOYMENT								
Net Profit Per Employee	267.82	64.16	23.96	2430.08	1867.57	76.85	2.79	0.015**
Gross Profit Per Employee	545.73	170.69	31.28	3815.44	2576.44	67.53	3.06	0.009*
Net Sales Per Employee	1138.39	536.72	47.15	12804.29	10775.08	84.15	2.61	0.021**
FINANCIAL STRENGTH								
Debt Equity Ratio	1.48	0.61	41.22	0.83	0.59	71.08	-2.2	0.041**
Proprietary Ratio	43.54	9.67	22.21	58.44	14.94	25.56	2.21	0.04**
Solvency Ratio	56.46	12.51	22.15	41.56	15.68	37.72	-2.64	0.017**
Fixed Assets to Net Worth	51.15	8.84	17.28	50.18	20.45	40.75	-0.11	0.914
Interest Coverage Ratio	628.35	957.76	152.42	12434.34	30328.39	243.91	0.94	0.363
CORPORATE LIQUIDITY								
Current Ratio	1.82	0.49	26.92	1.98	0.62	31.31	0.52	0.603
Liquid Ratio	1.82	0.49	26.92	1.98	0.62	31.31	0.55	0.588
ASSET USAGE								
Inventory Turnover Ratio	409.65	324.86	79.30	3483.24	3771.58	108.28	1.96	0.066
Inventory Conversion Ratio	1.35	0.96	71.11	0.18	0.12	66.67	-4.6	0*
Debtors Turnover Ratio	1.5	0.47	31.33	3.43	2.19	63.85	2.1	0.051**
Average Collection Period	261.95	76.81	29.32	171.79	125.59	73.11	-1.61	0.126
Fixed Assets Turnover Ratio	2.43	0.21	8.64	2.43	1.27	52.26	0.01	0.99
Working Capital Turnover Ratio	1.95	0.98	50.26	2.17	0.67	30.88	0.57	0.574
Capital Turnover Ratio	177.39	40.85	23.03	113.21	36.89	32.59	-0.22	0.827

* Significant at 0.01 level
** Significant at 0.05 level
Source: Public Sector Enterprises (PSEs) Survey, Various Issues

Table- 1.2
Financial and Operating Performance of Mahanagar Telephone Nigam Limited

Ratio	**Pre-disinvestment Era**			**Post-disinvestment Era**			**t-value**	**P**
	Mean	**S.D.**	**C.V.**	**Mean**	**S.D.**	**C.V.**		
OPERATING PERFORMANCE BASED ON SALES								
Gross Profit Ratio	35.57	7.37	20.72	32.75	7.26	22.17	-0.78	0.444
Net Profit Ratio	17.73	6.45	36.38	19.81	4.66	23.52	0.8	0.434
Operating Profit Ratio	32.57	7.36	22.60	32.75	7.26	22.17	-0.78	0.444
Material Cost/Net Sales	0	0		0	0		0	0
Manpower Cost/Net Sales	12.45	2.85	22.89	16.64	8.28	49.76	-1.19	0.25
R&D Expenditure/Net Sales	0	0		0	0		0	0
Excise Duty/Net Sales	0	0		0	0		0	0
OPERATING PERFORMANCE BASED ON INVESTMENT								
Return on Total Assets	10.51	2.7	25.69	9.52	2.35	24.68	-0.81	0.427
Return on Net Capital Employed	15.13	4.22	27.89	15.32	2.43	15.86	0.12	0.901

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OPERATING PERFORMANCE BASED ON EMPLOYMENT								
Net Profit Per Employee	34.41	9.74	28.31	155.58	63.12	40.57	4.61	0*
Gross Profit Per Employee	74.07	27.45	37.06	238.64	59.24	24.82	6.41	0*
Net Sales Per Employee	210.83	70.67	33.52	767.97	257.98	33.59	5.12	0*
FINANCIAL STRENGTH								
Debt Equity Ratio	2.79	0.83	29.75	2.47	1.7	68.83	-0.44	0.663
Proprietary Ratio	26.92	6.13	22.77	35.51	14.49	40.81	1.37	0.186
Solvency Ratio	73.08	4.93	6.74	64.49	15.18	23.53	-1.19	0.248
Fixed Assets to Net Worth	169.19	13.36	7.90	104.74	51.22	48.90	-2.99	0.008*
Interest Coverage Ratio	5.11	1.93	37.77	67.67	96.78	143.02	1.55	0.137
CORPORATE LIQUIDITY								
Current Ratio	2.62	0.67	25.57	2.24	0.67	29.91	-1.14	0.267
Liquid Ratio	2.45	0.67	27.35	2.18	0.64	29.36	-0.83	0.416
ASSET USAGE								
Inventory Turnover Ratio	8.52	1.76	20.66	23.01	16.82	73.10	2.07	0.054
Inventory Conversion Ratio	44.27	8.01	18.09	21.45	10.17	47.41	-4.82	0*
Debtors Turnover Ratio	9.76	3.03	31.05	6.69	1.8	26.91	-2.78	0.13
Average Collection Period	40.83	13.53	33.14	59.69	21.89	36.67	1.93	0.07**
Fixed Assets Turnover Ratio	0.64	0.09	14.06	0.96	0.13	13.54	5.26	0*
Working Capital Turnover Ratio	0.97	0.37	38.14	0.98	0.44	44.90	0.41	0.968
Capital Turnover Ratio	42.19	5.6	13.27	48.59	11.17	22.99	1.31	0.206

* Significant at 0.01 level
** Significant at 0.05 level
Source: Public Sector Enterprises (PSEs) Survey, Various Issues

Table 1.3
Financial and Operating Performance of Telecommunication Sector

Ratio	Pre-disinvestment Era			Post-disinvestment Era			t-value	P
	Mean	S.D.	C.V.	Mean	S.D.	C.V.		
OPERATING PERFORMANCE BASED ON SALES								
Gross Profit Ratio	44.02	15.9	36.12	33.08	10.91	32.98	-2.48	0.018**
Net Profit Ratio	21.74	7.7	35.42	20.25	5.83	28.79	-0.66	0.513
Operating Profit Ratio	44.11	16.15	36.61	33.54	10.51	31.34	-2.42	0.021**
Material Cost/Net Sales	0.27	0.24	88.89	26.91	37.07	137.76	1.74	0.107
Manpower Cost/Net Sales	8.14	4.91	60.32	9.67	9.17	94.83	0.53	0.593
R&D Expenditure/Net Sales	0.24	0.16	66.67	0.47	0.26	55.32	1.6	0.148
Excise Duty/Net Sales	0	0		0	0		0	0
OPERATING PERFORMANCE BASED ON INVESTMENT								
Return on Total Assets	18.81	10.11	53.75	14.14	6.55	46.32	-1.71	0.096
Return on Net Capital Employed	36.08	23.32	64.63	27.18	16.18	59.53	-1.36	0.18

OPERATING PERFORMANCE BASED ON EMPLOYMENT								
Net Profit Per Employee	151.18	129.51	85.67	1086.06	1625.15	149.64	1.97	0.057
Gross Profit Per Employee	309.9	272.5	87.93	1701.88	2402.23	141.15	1.98	0.056**
Net Sales Per Employee	674.61	606.51	89.91	5691.92	8997.56	158.08	1.91	0.064
FINANCIAL STRENGTH								
Debt Equity Ratio	2.14	0.98	45.79	1.65	1.5	90.91	-1.03	0.368
Proprietary Ratio	35.24	11.62	32.97	46.97	18.56	39.51	2.01	0.052**
Solvency Ratio	64.76	10.74	16.58	53.03	19.02	35.86	-2.28	0.028**
Fixed Assets to Net Worth	110.17	62.58	56.80	77.46	47.27	61.03	-1.79	0.082
Interest Coverage Ratio	316.73	723.12	228.31	5444.49	20385.85	374.43	0.86	0.393
CORPORATE LIQUIDITY								
Current Ratio	2.23	0.7	31.39	2.11	0.65	30.81	-0.49	0.626
Liquid Ratio	2.13	0.66	30.99	2.08	0.63	30.29	-0.25	0.807
ASSET USAGE								
Inventory Turnover Ratio	209.08	303.07	144.95	1753.12	3152.95	179.85	1.68	0.102
Inventory Conversion Ratio	22.83	23.04	100.92	10.81	12.94	119.70	-2.06	0.046**
Debtors Turnover Ratio	5.63	4.78	84.90	5.06	2.57	50.79	-0.48	0.633
Average Collection Period	151.39	126.88	83.81	115.74	105.21	90.90	-0.91	0.369
Fixed Assets Turnover Ratio	1.54	0.94	61.04	1.7	1.16	68.24	0.43	0.673
Working Capital Turnover Ratio	1.47	0.87	59.18	1.58	0.82	51.90	0.39	0.699
Capital Turnover Ratio	79.79	48.12	60.31	80.91	42.42	52.43	0.07	0.943

* Significant at 0.01 level
** Significant at 0.05 level
Source: Public Sector Enterprises (PSEs) Survey, Various Issues

Results and Discussion

It is noticed from Table 1.1 that the mean scores of gross profit, net profit and operating profit ratios have declined after disinvestment in VSNL due to various uncontrollable expenditure in the post-disinvestment period as compared to the pre-disinvestment period. It may possibly be due to the use of old methods and techniques of controlling and marketing of its products. Study of the operating performance based on investment reveals that there is a significant decline in the mean scores of return on total assets and return on net capital employed ratios during the post-disinvestment period. It indicates its inefficiency in the effective management of its assets and resources. As far as its financial strength is concerned, there is a significant decline in the mean scores of debt equity and solvency ratios during the post-disinvestment period. It shows a lower dependence on outsiders' funds as compared to the shareholders' funds. It can be beneficial for its long-term solvency position. It is also supported by the significant upward movement in the mean score of proprietary ratio. Studying the corporate liquidity of VSNL reveals that there is an insignificant increase in the mean scores of current and liquid ratios. The upward movement in these ratios indicates that the firm has been able in meeting its current obligations in time. The examination of the asset usage reveals that the firm is efficient in managing its inventory, fixed assets and working capital after disinvestment in VSNL. But the management of the firm failed in managing its debtors efficiently during the post disinvestment period. From the Table 1.2 it is revealed that the mean score of gross profit ratio of MTNL has declined in the post disinvestment period. But, as far as its net profit and operating profit ratios are concerned, there is an upward movement in the mean scores of these ratios. They are spending more on the development of its manpower in the post-disinvestment period as compared to the pre-disinvestment period. Study of the operating performance of MTNL, based on investment reveals that the management of the firm failed in the efficient management of its assets and resources entrusted to the business after disinvestment in this unit. It will adversely affect the goodwill of this firm in the global market. The examination of the financial strengths of MTNL reveals that there is an insignificant decline in the mean scores of debt equity ratio and solvency ratio. It indicates that its dependence on external funds has declined. It is also supported by the improvement in the mean score of proprietary ratio during the post-disinvestment period as compared to the pre-disinvestment period. Studying the corporate liquidity of the firm in the form of current and liquid ratios reveals that there is a decline in the mean scores of current and liquid ratios during the post-disinvestment period. It can adversely affect its liquidity position. As far as its assets usage is concerned, it is found that there is a significant decline in the mean score of debtors' turnover ratio. It shows the inefficiency of the management of this firm in the efficient management of its debtors. In other words, it can be said that they are unable to manage the timely collection of its debts. While studying the inventory turnover, fixed assets turnover and working capital turnover, fixed assets turnover and working capital turnover ratios, it is found that after disinvestment of MTNL, the management of the firm efficiently managed its assets.

Table 1.3 reveals that the operating performance of the telecommunication sector based on sales has shown a decline in the mean scores of gross profit, net profit and operating profit ratios in the post-disinvestment period as compared to the pre-disinvestment period. It shows that the profitability of the telecommunication sector has been deteriorating due to their uncontrollable expenditure post-disinvestment. The improvement in the mean score of R & D expenditure to net sales will ultimately help this sector in controlling costs and developing new methods and techniques in order to train their employees. But in the case of MTNL, there is no provision for its research and development programmes. Studying the operating performance based on investment reveals that the management of the units of telecommunication sector failed in the utilization of the resources. It has been recorded in the VSNL unit of telecommunication sector. So, in order to compete in this era of competition, the management of this sector has to improve efficiency in the utilization of resources. Studying the financial strength of the telecommunication sector reveals that there is a decline in the mean scores of debt equity and solvency ratios during the post-disinvestment period. It shows that the management of telecommunication sector has been using less outsiders' funds in the post-disinvestment period as compared to the pre-disinvestment period. For the sound long-term solvency of the telecommunication sector, the use of debt should be limited. As far as the corporate liquidity of telecommunication is concerned, it has been found that the management of this sector has failed in the efficient utilization of their working capital during the post-disinvestment period. In other words, they have been unable in meet their current obligations in time. It has been recorded in MTNL. As regards the asset usage of telecommunication sector, it has been found that there is an improvement in the mean score of inventory turnover and significant decline in the mean score of inventory conversion period ratio. It shows its improved efficiency in the effective management of their inventory and also in the conversion of stock into sales. But the management of this sector failed in the case of their debtors utilization during the post-disinvestment period.

Conclusion

Public Sector Enterprises (PSEs) occupy an important place in the national economies of most countries of the world irrespective of their political orientation. A notable revolution has occurred in the telecom sector. In the pre reforms era, this was entirely in the hands of the central government and due to lack of competition, the call charges were quite high. The service rendered by the government monopoly was also very poor. Today, there are many players in the telecom sector. The ultimate beneficiary has been the consumer. Prices of services in this sector have fallen drastically. Due to an increase in various expenditure ratios during the post-disinvestment period, its profitability has declined. The efficiency of the utilization of resources entrusted to the business has also declined. As regards the financial strength and corporate liquidity of this unit, it has been found that its dependence on the outsiders' funds has declined and the firm is able to meet its current obligations in time. But the management of VSNL failed in the timely collection of its debts. The management of MTNL failed in controlling its various expenditures in relation to sales. They also failed to utilize efficiently its assets and resources entrusted to the business. The study of the financial strengths and corporate liquidity reveals that firm is utilizing more shareholders' funds in financing its fixed assets and the management of the firm is able to meet out its current obligations in time.

The management of the telecommunication sector failed in controlling its various expenditures during the post-disinvestment period. The decline in the return on total assets and return on net capital employed again indicates their inefficiency in the efficient utilization of its resources. During the post-disinvestment period, the use of shareholders'' funds has been increasing as compared to debts. On the other hand, liquidity position of these units has not been found satisfactory. However, the improvement in the utilization of its inventory, working capital and fixed assets is good for its overall growth and development. Public sector should be continued in areas where their involvement is highly appropriate which will provide a greater degree of autonomy. Disinvestment programmes should be executed so as to encourage autonomy in management with accountability, broad based ownership and improved competition. There should be more provision for the research and development programme of these units in order to compete in this global competition and also to improve efficiency in financial control, cost control and quality control. There should be a check on the excessive use of debt/outsiders' funds and public sector enterprises should arrange the funds from their internal resources.

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LINEAR PROGRAMMING APPROACH: KEY FOR PROFIT PLANNING OF AN NGO ENTERPRISE

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ABSTRACT

In the globalized economy, use of sophisticated tools which guide more practical decisions taking into account all possible constraints is relevant and becomes more inevitable. Linear programming in OR is certainly the most suitable and useable tool in this regard, because of its simplicity and availability in the form of software packages. The present study has been carried out in a Sarvodaya Sangham situated in the southern part of Tamil Nadu state, which is actively involved in manufacturing Khadi & Village Industrial (K & VI) products. The Sangham being an organization attached to Tamil Nadu Sarvodaya Sangham an affiliate of KVIC, Mumbai, is dedicated to the welfare of society, serves with a service motive rather than profit as the primary motive. Having taken up an economic activity, the Sangham has to be prudent and it needs to make decisions to minimize the cost of production to be competitive in the market and to provide better service to consumers. This study demonstrates the use of OR, especially in solving linear programming techniques using (Linear Interactive Discrete Optimizer) LINDO software to maximize the profits of a Khadi & Village Industries Commission (KVIC) affiliated to Sarvodaya run by a non-Government Organization (NGO).

Keywords: *Operation research, linear programming, maximization, profit planning, NGO*

INTRODUCTION

Optimization techniques are applied to find out whether resources available are effectively utilized in order to achieve optimum profit from the activities of the firm. There should be consistency in the use of various resources and the mix should be such that it brings down the cost for ensuring profits. Therefore, it is the duty of the management to exercise control over the resources and to see that the resources are effectively utilized. Similarly, organizations in general are involved in manufacturing a variety of products to cater to the needs of society and to maximize the profits. While doing so, they need to be familiar with different combinations of the product mix which will maximize profits. Or alternatively, minimize the cost of production. Since, these units are managed by experienced but not by professionally trained people; they do not have the advantage of applying modern tools of management. But, in an era of globalization, these village industries mostly tiny and small scale in nature cannot neglect the use of modern scientific and proven techniques in taking decisions pertaining to production and sale of different products which would enable them not only to earn profits but also to help them provide better service to society. Application of correlation and regression techniques help ascertain whether any relationship exists between the different variables such as expenditure, income, liabilities and assets. This helps to ascertain the reason for very poor inter connection between various variables, and guide in better use of available resources. Linear programming is a mathematical technique used for determining the optimum allocation of scarce resources for obtaining a particular objective. Although allocation of resources to activities are the most common type of applications, linear programming has numerous other important applications as well. Production allocation model, blending model and product mix model are some of the most common areas of applications. In product mix selection, the decision maker wishes to determine the level for a number of production activities during the specified period of time. These levels are constrained by technological or feasibility considerations, given in the form of linear equalities or inequalities, subject to these restrictions management seeks to optimize for a particular objective function. In this paper, one of the popular resource management techniques viz., Linear Programming is applied to find out the optimum model pertaining to product mix. Four different models are constructed to arrive at the required model, the model which results in maximum profit (more than the existing profit) from the existing level of operation. The models constructed include:

- Without introducing demand for products.
- Dropping of non-moving and reducing slow-moving products.
- Assuring optimum use of production capacity
- A variant of the third model with altered proportion of product mix.

- **Objectives of the Study**

The objectives of the present study are:

- To study the existing product portfolio and resource constraints of the Sarvodaya Sangham under study,
- To analyze existing profitability of the Sangham in terms of different textile and non-textile products.
- To find out the most viable and profitable product mix.
- To formulate linear programming models and suggest the suitable model to maximize the profits of textile and non-textile products of the Sangham.

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Research Methodology

The data for the study was collected from the account books and records of the Sangham for the financial year ended on 31st March 2009. The product wise actual expenditure incurred on material, labour and overheads was obtained from the financial statements and is considered as a constraint in the model. The product-wise details on production, sales and profit earned were also obtained from the records of the Sangham. In addition, formal and informal interviews and individual level discussions were held with the employees for getting adequate clarification with regard to other variables influencing the development of various models.

Problem Formulation

The technique necessitates the formulation of the problem and fitting it into a mathematical model. This needs a comprehensive study of the components of the problem, namely, a) the decision variables; b) the objective function; c) the alternative course of action; and d) the working environment. After identifying the components of the problem, the relationship that exists among the various components should be analyzed to ensure that the model is complete in all respects. This must be done before running the model. In finance, linear programming has been applied in decision making situations such as capital budgeting, profit planning, product portfolio selection, resource allocation, inventory control, make-or-buy decisions, assets allocation and financial planning.

Formulation of LP Model for the Selected K & VI Unit

Formulation of linear programming model involves three basic steps.

a. Specifying the decision variable

b. Specifying the objective function

c. Specifying the constraints

Textile Products

a) Decision variables: for the textile products of the Sangham

- Let X1 be the number of units of cotton khadi to be produced. Where 1 Unit = INR.55.12 million worth of product.
- Let X2 be the number of units of khadi ready made to be produced. Where 1 Unit = INR.26.04 million worth of product.
- Let X3 be the number of units of silk khadi to be produced. Where 1 Unit = INR.64.11 million worth of product.

b) Objective function

- The key decision is to determine the most viable and profitable textile products and the optimum volume of production of each item of the textile product.
- Let X1, X2, and X1 represent the number of units of cotton khadi, khadi ready made and silk khadi manufactured during the given period.
- The feasible alternatives are a set of values of X1, X2, and X3, where X1, X and X3 ≥ 0
- The profit per unit of X1, X2 and X3 is INR.9.23, INR.0.2 and INR.12.85 in million respectively.

The objective is to maximize the total profits of the Sangham through manufacture and sale of textile products.

i.e. Maximize Z = 9.23 X1+0.23X2+12.85X3

Subject to the input constraints,

$32.74 X_1 + 24.64 X_2 + 36.90 X_3 \leq 94.28$ (Raw material cost)

$7.36 X_1 + 0.68 X_2 + 7.58 X_3 \leq 15.62$ (Labour cost)

$5.79 X_1 + 0.49 X_2 + 6.78 X_3 \leq 13.06$ (Overhead cost)

and X_1, X_2, and $X_3 \geq 0$

c) Constraints

The main problem in the process of manufacturing is the shortage of resources lime raw materials, lobour and overheads. Therefore, the management imposes restriction in the usage of these resources. The restrictions may be due to the availability of resources. The restrictions in the usage of materials and resources may be expressed as follows, the inputs required for manufacturing are less than or equal to maximum availability of inputs. Inputs are normally categorized into a) materials b) labour and c) over head expenses. Hence they form the resource constraints in the model. They are:

(i) Raw materials cost constraint: The raw material cost constraint of the three textile products of the Sangham are expressed as follows. The raw material cost of producing one unit of products X_1, X_2, and X_3 are INR.32.74 million, INR.24.64 million and INR.36.90 million respectively and indicated mathematically as:

$$32.74 X1 + 24.64 X2 + 36.90 X3 \leq 94.28$$

(ii) Labour cost constraint:

The labour cost of producing one unit of products X_1, X_2, and X_3 are INR.7.36 million, INR.0.68 million, INR.7.58 million respectively, and expressed as follows:

$$7.36 X_1 + 0.68 X_2 + 7.58 X_3 \leq 15.62$$

(iii) Overhead cost constraint:

The overhead cost of producing one unit of products X_1, X_2, and X_3 are INR.5.79 million, INR.0.49 million and INR.6.78 million respectively and this constraint takes the mathematical form as:

$$5.79 X_1 + 0.49 X_2 + 6.78 X_3 \leq 13.06$$

Analysis of Optimization Models of Textile Products:

It is clear from the records and account books that the total profit earned by the Sangham from production and sale of textile products, viz., cotton khadi, khadi ready made and silk khadi was INR 22.31 million. The linear programming model suggests different feasible solutions for maximizing the profit from the present level taking into consideration all possible constraints faced by the Sangham in term of raw materials, labour availability, other material and labour overheads. Four different models have been developed and finally one suitable model is suggested for implementation. These four different models were developed by altering the demand pattern based on the factors like movement of products in the market, opportunity to provide employment to the existing workforce and optimum utilization of fixed resources.

Model 1 has been developed without forecasting demand for textile products and based on the assumption that whatever the products produced will be sold in the market. It is understood from the model that producing silk khadi alone is economically viable and profitable. So it is advisable to concentrate more on silk khadi. It is better to drop other khadi items.

Table 1 : Results of feasible optimization models of Non-Textile Products

Model-1				**Model-2**			
Demand	**Solution**	**Present Production (INR in millions)**	**Demand in Production (INR in millions)**	**Demand**	**Solution**	**Present Production (INR in million)**	**Demand in Production (INR in million)**
$X_1 \geq 0$	$X_1 = 0$	55.12	0	$X_1 \geq 1$	$X_1 = 1$	55.12	55.12
$X_2 \geq 0$	$X_2 = 0$	26.04	0	$X_2 \geq 0$	$X_2 = 0$	26.04	0
$X_3 \geq 0$	$X_3 = 1.926$	64.11	123.48	$X_3 \geq 1$	$X_3 = 1.072$	64.11	68.73
Z = INR 24.752 million				**Z = INR 23.009 million**			
Model-3				**Model-4**			
Demand	**Solution**	**Present Production (INR in millions)**	**Demand in Production (INR in millions)**	**Demand**	**Solution**	**Present Production (INR in million)**	**Demand in Production (INR in million)**
$X_1 \geq 0.5$	$X_1 = 0.5$	55.12	27.56	$X_1 \geq .75$	$X_1 = 0.75$	55.12	41.34
$X_2 \geq 0.5$	$X_2 = 0.5$	26.04	13.02	$X_2 \geq .25$	$X_2 = 0.25$	26.04	6.51
$X_3 \geq 1$	$X_3 = 1.463$	64.11	93.79	$X_3 \geq 1$	$X_3 = 1.268$	64.11	81.29
Z = INR. 23.531 million				**Z = INR 23.27 million**			

Source: Computed from the data derived from the books of the sample unit.

The model suggests doubling the quantum of production of silk khadi. That is, 1,926 times of the existing production volume would help maximize the profit to the tune of INR.24.752 million. The profit is around INR. 2.442 million higher than that of the present profit. When this model 1 is implemented, the sangham way have to face the following problems.

- It is not always possible to sell all units of silk khadi produced.
- Weavers and other workers employed for producing cotton khadi and khadi ready made item may become jobless.
- The resources lime machineries and raw materials used in the production of cotton khadi product can not be effectively utilized or they may remain underutilized.

Hence, the study has applied different models by suitability forecasting the demand for textile products based on the movement of these products in the market in the past. It is realized that introduction of different demand patterns would help generate product mix solutions. Out of these alternative models the best one with maximum profit and at the same time protects the interest of workers and enables better use one with maximum profit and at the same time protects the interest of workers and enables better use of established production capacity may be selected for implementation. Khadi readymade being the slow moving product no demand was anticipated and accordingly model 2 was run. The result suggest that production of one unit of cotton khadi 1.072 units of silk khadi leads to the maximum profit of INR.23.009 million, which is marginally higher than the current level of profit.

Model 3 was developed by decreasing the level of production of cotton khadi and khadi ready made by 50 per cent from the existing levels of production. The model suggests production of 0.5 units of cotton khadi, 0.5 units of khadi ready made and 1.463 units of silk khadi, which would maximize the total profit to the tune of INR. 23.531 million. This is around INR. 1.221 million higher than the existing profit level of the sangham.

Model 4 was developed by assuming that the demand for cotton khadi is 75 per cent; khadi ready made is 25 per cent and silk khadi is cent per cent of the existing levels of sale. The model recommended that the sangham should produce 1.268 times of silk product to be viable and at this level of production the profit will be INR. 23.27 million, which is about INR.0.96 million higher than the present level of profit.

From the above discussions, it can be concluded that the model I is considered to be the best among these various alternative models. But, it has serious limitations such as: (i) it was developed without considering the demand position of silk khadi and other related factors; (ii) it recommended the production of only silk khadi without taking into consideration the marketability. Though this model provides relatively higher return it can not blindly be recommended for implementation, because it has consequences such as: (i) the facilities created for producing cotton khadi and khadi ready made may remain unutilized and (ii) the work force engaged in the production process may lose their jobs. In view of these, model 3 is suggested for implementation, as it suggests a product mix which is better in terms of maximizing profit, while giving due care to other factors like catering the needs of different market segments, providing employment to the weavers and other workers to the maximum extent possible.

Non-Textile Products

a) Decision variables : for the Non-textile products of the sangham

- Let X1 be the number of units of Poly vastra to be produced. Where 1 Unit = INR.28.02 million worth of product.
- Let X2 be the number of units of soap powder to be produced. Where 1 Unit = INR.0.21 million worth of product.
- Let X3 be the number of units of soap to be produced. Where 1 Unit = INR.6.30 million worth of product.
- Let X4 be the number of units of foot wears to be produced. Where 1 Unit = INR.17.45 million worth of product.
- Let X5 be the number of units of furniture to be produced. Where 1 Unit = INR.14.97 million of worth of product.
- Let X6 be the number of units of Agar pathi to be produced. Where 1 Unit = INR.35.98 million of worth of product.

b) Objective function

- The key decision in to determine the most viable and profitable non-textile product and to decide the number of item to be produced in each of these products per year.
- Let X1, X2, X3, X4, X5, and X6, represents the number of units of Poly vastra, soap powder, Soap, Foot wear, furniture, and Agar pathi to be manufactured per year respectively.
- The feasible alternatives are set of values of X1, X2, X3, X4, X5 and X6. Where X1, X2, X3, X4, X5 and X6 ≥ 0
- The Profit per unit of X1, X2, X3, X4, X5 and X6 and INR.4.72, INR.0.07, INR.1.02, INR.4.41, INR.3.85 and INR.15.80 million respectively.
- The objective is to maximize the annual total profit from the sale of non-textile products, i.e. Maximize Z = 4.72 X1 + 0.07 X2 +1.02 X3 + 4.41 X4 +3.85 X3 + 15.80 X4

Subject to the constraints,

14 X1 + 0.12 X2 + 4.67 X3 +9.39 X4 + 8.87 X5 +18.47 X6 $\leq$ 55.63 (Raw material)

5.79 X1 + 0.01 X2 + 0.56 X3 +2.61 X4 + 1.31 X5 +1.65 X6 $\leq$ 11.93 (Labour)

3.40 X1 + 0.01 X2 + 0.05 X3 +1.04 X4 + 0.94 X5 +0.06 X6 $\leq$ 5.50 (Overhead)

and X1, X2, X3, X4, X5 and X6 ≤ 0

c) Constraints

(i) Raw material cost constraints

The raw material cost constraints pertaining to the six-textile products are expressed as follows. The raw material cost of producing one unit of products X1, X2, X3, X4, X5 and X6 are stated in the INR. 0.12, INR. 4.67 1s INR.9.39 INR 8.87 and INR 18.47 million respectively, and stated in the equation as follows.

14 X1 + 0.12 X2 + 4.67 X3 +9.39 X4 + 8.87 X5 +18.47 X6 $\leq$ 55.63

(ii) Labour cost constraint

The labour cost of producing one unit of products X1, X2, X3, X4, X5 and X6 are INR 5.79, INR 0.01, INR 0.2.61, INR 1.31 and INR 1.65 million respectively, as shown in the following expression.

X1 + 0.01 X2 + 0.56 X3 +2.61 X4 + 1.31 X5 +1.65 X6 $\leq$ 11.93

(iii) Overhead cost constraint

the overhead cost of producing one unit of products X1, X2, X3, X4, X5 and X6 are INR. 3.40, INR. 0.01, INR. 0.05, INR.1.104, INR.0.94 and INR. 0.06 million respectively.

This is expressed as follows:

3.40 X1 + 0.01 X2 + 0.05 X3 +1.04 X4 + 0.94 X5 +0.06 X6 $\leq$ 5.50

Analysis of Optimization Model of Non-textile Products

It is known from the records that the total annual profit earned by the sangham from production and sale of non-textile products amounted to INR.29.87 million.

Model 1 was developed without forecasting demand for non-textile products. It assumed that whatever produced was sold in the market. It is understood form his model that producing agar pathi alone would result in economic viability and profit.

Table 2 : Results of feasible optimization models of Non-Textile Products

Model-1				**Model-2**			
Demand	**Solution**	**Present Production (INR in millions)**	**Demand in Production (INR in millions)**	**Demand**	**Solution**	**Present Production (INR in million)**	**Demand in Production (INR in million)**
$X_1 \geq 0$	$X_1=0$	28.02	0	$X_1 \geq 0$	$X_1=0$	28.02	0
$X_2 \geq 0$	$X_2=0$	0.21	0	$X_2 \geq 1$	$X_2=0$	0.21	0.21
$X_3 \geq 0$	$X_3=0$	6.30	0	$X_3 \geq 0$	$X_3=0$	6.30	0
$X_4 \geq 0$	$X_4=0$	17.45	0	$X_4 \geq 1$	$X_4=0$	17.45	17.45
$X_5 \geq 0$	$X_5=0$	14.97	0	$X_5 \geq 1$	$X_5=0$	14.97	14.97
$X_6 \geq 0$	$X_6=3.012$	35.98	108.37	$X_6 \geq 1.5$	$X_6=2.017$	35.98	72.57
Z = INR 47.588 million				**Z = INR. 40.195 million**			
Model-3				**Model-4**			
Demand	**Solution**	**Present Production (INR in millions)**	**Demand in Production (INR in millions)**	**Demand**	**Solution**	**Present Production (INR in million)**	**Demand in Production (INR in million)**
$X_1 \geq 0.5$	$X_1=0.5$	28.02	14.01	$X_1 \geq 0.5$	$X_1=0.5$	28.02	14.1
$X_2 \geq 2$	$X_2=2$	0.21	0.42	$X_2 \geq 0.5$	$X_2=0.5$	0.21	0.105
$X_3 \geq 0$	$X_3=0$	6.30	0	$X_3 \geq 0.5$	$X_3=0.5$	6.30	3.15
$X_4 \geq 0.5$	$X_4=0.5$	17.45	8.725	$X_4 \geq 1$	$X_4=1$	17.45	17.45
$X_5 \geq 0.5$	$X_5=0.5$	14.97	7.485	$X_5 \geq 0.5$	$X_5=0.5$	14.97	7.485
$X_6 \geq 2$	$X_6=2.123$	35.98	76.39	$X_6 \geq 1.5$	$X_6=1.752$	35.98	63.04
Z = INR. 24.752 million				**Z = INR. 23.009 million**			

Accordingly, it is advisable to concentrate more on production of agarbathi in larger quantity and better to drop production of other non-textile products. The model suggested 3.012 times of existing level of production of agar pathi which would lead to the maximum profit of INR.47.588 million and it is INR.17.718 million higher than the present profit level.

If this suggestion of accepted and agarbathi alone is produced, the Sangham may have to face the following problems.

1. Workers employed for producing other non-textile products become jobless, while more employees may be engaged in producing agar bathi.
2. Marketing of agarbathi produced by the Sangham may become a problem.
3. The resources like machineries and skilled artisans appointed for production of other village industrial products cannot be effectively utilized.

Hence, the study has developed different models by suitability forecasting the demand for products based on the past sales performance of these products and stock position to overcome such issues/problems.

Model 2 was run dropping poly vastra and soap which are identified as slow moving items based on the average stock position and production of at least one unit of soap powder, foot wear, furniture and 1.5 units of agarbathi which is economically profitable. The model indicated that production of one unit of soap powder, foot wear, and furniture, and 2.123 units of agarbathi would lead to the maximum profit of INR. 40.195 million, which is also much higher than the current profit level by INR.10.325 million.

Model 3 was developed by decreasing the production of poly vastra, foot wear and furniture by 50 percent from the existing capacity and increasing the production of soap power and agarbathi by hundred per cent and dropping the slow moving item, soap. The model suggested production of 0.5 units of poly vastra, foot wear and furniture; two units of soap powder and 2.123 units of agarbathi, which will maximize the total profit of INR.40.168 million. This is INR.10.298 million higher than the existing profit from the non-textile products.

Model 4 was developed by keeping the production of foot wear at the existing level and reducing the production of poly vastra, soap, soap powder and furniture by half the existing level of production and increasing the production of agar bathi by 50 per cent. The model recommended that production of 0.5 units poly vastra soap powder, soap, furniture, one unit of foot wear and 1.752 units of agarbathi as a viable product mix which would lead to the total profit of INR.36.918 million, which is about INR.7.048 million higher than the present level of profit.

From the above discussion, it is concluded that model 1 is considered to be the best among the various models developed the study. But, it has serious limitations such as (i) was developed without knowing the demand position of agar bathi and other factors of the Sangham under study; (ii) it recommended production of a lone item agarbathi at a higher rate without considering the saleability. It also recommended dropping of other non-textile products. Though this model provides higher returns than other models, this model cannot be recommended for implementation because it may lead to other consequences such as reallocation of employees and under utilization of fixed assets. Finally, comparing the results of the different models, model 3 may be recommended for implementation as it yields better results in terms of maximizing profits and also gives due care to other relevant factors like catering to needs of different market segments, providing employment to the workers to the maximum extent possible and optimum utilization of machinery and other resources of the Sangham.

Conclusion

Sarvodaya Sanghams as affiliates of KVIC are engaged in the production of textile products and non-textile products. These Sanghams are labour intensive and use semi-automatic machinery wherever necessary. Their approach to production is making fuller utilization of locally available resources and provision of employment to the rural folk. Marketing is given secondary importance. Dropping of a product is not common in Sanghams even when the production of certain items is not economically viable. It is taken as the last resort. But in the present day competitive market the damage will be heavy if they go on producing products without considering the product's marketability and profitability. Making these decisions will be a difficult one especially the present approach of “rule of thumb” to decision making. Therefore, in this study, OR tool linear programming has tried to find an optimum product mix which would maximize profits, from the production and sale of textile and non-textile products, trying to demonstrate that the use of this tool is possible and beneficial to the Sanghams in non-textile products. Finally suitable models which would help maximize profits while assuring employment to the workforce, catering to the needs of all exiting market segments and proper utilization of existing resources.

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RURAL PARADIGM SHIFT - EXPLORING BRANDING STRATEGIES FOR RURAL INSURANCE INDUSTRY

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ABSTRACT

Today with the paradigmatic shift in the development strategy, the Rural Insurance sector which remained relatively untouched by reforms also become part of it and is not exempt. In this way IRDA has initiated steps in order to ensure the transition. Hence choosing a competitive strategy becomes a must for all insurers with respect to rural insurance. The present study is an attempt to introspect the level of expectations from customers of rural India with respect to insurance and thereby to compare the actual performance of insurers with the expectations of the customers. The analysis revealed what actually is lacking and where the gap arises between the two extremes of the insurer's perception and customer's expectations.

Key Words: *BRANDING, STRATEGIES, RURAL INSURANCE, LIC, IRDA, INSURERS, SERVICE PROVIDERS, SERVICE USERS.*

Rural India – The Paradigm Shift :

The fact that the census of 2001 showed that rural India comprises 72% of the population might be old. But it accounts for 12.2% of the world is new .In addition the statistics shows that every one person in eight on earth lives in rural India. This forms the very core for all companies to tap this market.

Today, rural India is far from dry land and irrigated agriculture. The high tech and low tech agriculture, new age farming practices, greenhouse cultivation, fert irrigation and hydro phonics resulted in a paradigm shift in the economics of farming. All these sharply increased the disposable income of the rural folk along with a hike in purchasing power. The proportion of the very rich has increased five-fold. The growing incomes have modified demand patterns and buyer behavior. In addition, the need for a product or service is adequately backed up with the capacity, ability and willingness to pay. This theory would be duly supplemented with some research facts and findings already available.

(Table No. 1)

Fair idea of consumers in rural india

- 46% of soft drinks
- 49% of motorcycles
- 59% of cigarettes
- 18 million TV sets
- 26% of microwave ovens
- 17% of ACs
- 15% of washing machines
- 12% of refrigerators
- 50% of 2 million BSNL mobile connections
- 53 % of FMCG products
- 59% of consumer durables are sold in rural India.
- Nearly 42000 supermarkets in rural India.
- In 2002-03 LIC sold 50% of its policies in rural India.
- Of 20 million who have signed up for rediffmail about 60% are from small towns.
- Electricity consumption increased from 17.6% in 1980 -81 to 20.2% in 1999-2000.
- Telecom sector: subscriber rate 71% is growing at a much faster rate .
- Rs. 1.76 trillion Bharat Nirman Rural Infrastructure program (05- 09) for improving electricity, Roads ,Housing and Irrigation 2.
- Rs. 300 billion wage payment under NREGA -38 million HHS in 330 districts already paid.
- More than 60% of India's income comes from rural and small towns

The above information paves the way for the future projection of rural India. In spite of these rapid advancements in the rural consumer market, service sector in rural India remains largely untouched and unexploited. These markets need to be found and even created especially for products like Insurance.

1.1 Indian Rural Insurance – A Scenario

The insurance scenario in rural India, in terms of its coverage is quite unsatisfactory. The insurable population in India is about 250 million[3] out of which LIC and postal life insurance agencies in India covered 89.36 population as on 341.3.1998.[4].LIC claims that over 51% of its new policies are sold in rural India and ensured half of LIC's agents are from rural India and above half of its branches are in mofussil areas. This is relevant from the following chart no.1 and chart no.2 .

The statistics with regard to health insurance are even more dismal and low. As per GIC's own estimates the number of health insurance policy holders amount to 2 million. All this

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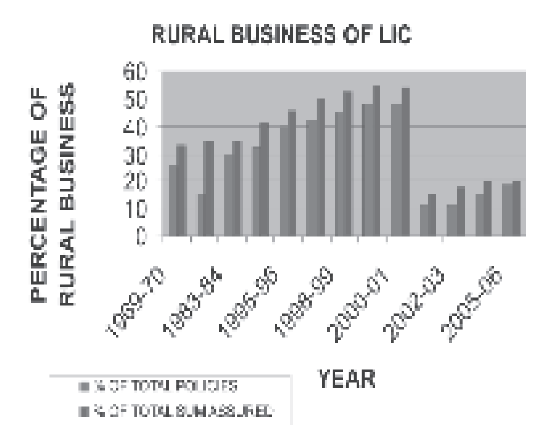
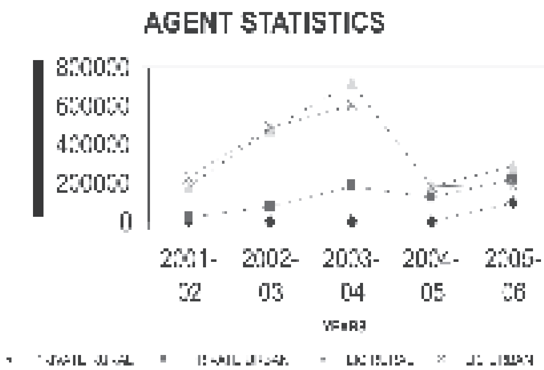
shows that the penetration is as low as 0.83% among eligible and prospective policy owners who belong to an insurable population and notably the penetration is pitifully low and inadequate.

(CHART NO. 1)



Source: IRDA Annual report -2001-06 .

CHART NO.2



Source: IRDA Annual report 2001-06 .

In furtherance , IRDA regulation compels that after five years of operation every private and public sector life insurance company has to achieve a certain proportion of their business in the rural sector. That is 15% of the business in the rural sector after 5 years for private and 18% for LIC. It further brings out the definition of the rural sector as follows:

1) A population of not more than 5000
2) A density of population of not more than 400 per square km. and
3) At least 75 % of the male main working population is engaged in agriculture.

Hence with the compulsion for the insurers with IRDA legislations on one side along with low penetration in vast untapped rural markets, on the other side, urges the insurance industry to think of revamping existing marketing strategies and identified BRANDING is the need of the hour[5].

1. Marketing White book -2006 by Business World 2E.
2. Study by RMAI along with MART, 2008. Business Line, Brandline, March 5th, 2009.
3. NCEAR Survey report
4. Insurance in India – Prospects and perspectives 1999.
5. Section 32 B, Section 32 C of IRDA legislations ,2005 Amendments – imposes an obligations on every insurer to "undertake such percentages of life insurance business & general insurance business in the rural or social sector as may be specified in the official gazette by the authority".

1.3 BRANDING - The Need of the Hour

"Brand is not a process, but a promise".This should be the key word for all insurance companies in the context of branding. Branding correlates with image building in an organization, its products or services rendered. When one thinks of life insurance, the immediate flash that appears would be the logo of Life Insurance Corporation of India(LIC). "The two hands gently circling the lamp", assuring trust and security in the minds of public. For the last five consecutive years, LIC has been the most trusted service brand in insurance industry. But the private players and General insurance companies has to travel a long path to reach LIC's destination. For today's marketing scenario Brand Management is the order of the day and hour.

Branding aids the insurance companies separating their brand with the competitors in a unique way, motivating the customers ,enhances value and makes them special among prospects and channels, shelters them from low price competition, contributes to share holders value, provides resilience in times of negative press and enables to launch new products quickly and cost effectively.

Such a brand for rural insurance has to be handled with the same concern as the artisans show in their work as it can break or make the product and its service. All the activities that are taken under this shade of a brand would add to or subtract the value of the concern. With all these base working in mind an effort was taken to conduct a study on exploring branding strategies for rural insurance industry in India.

2. Review of literature

Although previous researches on rural insurance are not directly related to exploration of branding strategies, yet a number of academics have conducted research in the related field. As early as 1989, Patki in his article "Rural Marketing", discussed the selling of life insurance in rural areas. But the intensity developed with the passing of IRDA legislation after which many academics started probing in this field of research.

Naren N.Joshi (2002) examined the Insurance and Rural market and its cost effective delivery systems, Surjan (2004), analyzed the rural insurance marketing in India, Dr. A. Amarender Reddy (2004) studied the agricultural Insurance in India and its perspectives, Tapen Sinha (2005) describes the Indian Insurance Industry – its challenges and prospects in general, Apparas Machiraju and K.Sandhyarani analyzed (2005) the role of rural post office network and economic security through life and health insurance. "Health Insurance Penetration in Rural areas" was analyzed by MD India Health care services (TPA) Private Ltd in 2005 , Samuel Kakoko Lopeyetum & P.Selvamani (2007), studied the BIK for growth and development of insurance industry in Rural India, R.Chitra, T Saraswathi and K. Devan (2007), explored customer satisfaction on the services provided by LIC in Namakkal branch in Tamil Nadu, A. Balakrishnan and P. G. Balasubramaniam (2007),analyzed the unorganized laborers and insurance industry, K. Daven and A. Shanmugasundaram (2007) studied the present trends in the Insurance industry in India. S. Mythili (2007) explored the emerging challenges in the Insurance sector, M. Karthikeyan (2007) described the trends in the Insurance sector in India, VenkataRamana Rao (2007) studied life insurance awareness in rural India, P. K. Gupta (2008) , examined the rural market for private insurance players, Ragul Mirchandani (2008) duly analyzed the evolving new marketing mix for selling FMCG products to rural Indians, Anand Prakash (2008), studied the revitalization of rural markets through insurance .

To sum up, there is no comprehensive study on analyzing the gap between expectation and perception of the customers and service providers with regard to rural insurance branding strategies; therefore there is an imperative need for an in-depth study in this area.

3. Objectives of the study

The present study is broadly divided into two main categories. The macro level market study which aims at studying the Indian Rural Insurance sector ,its issues, challenges and opportunities and the micro level study that aims at developing rural branding strategies for insurers in India. With this aim, the following key issues and facts can be found out:

1. What are the key reasons behind the attractiveness of the Indian rural market?
2. What are the opportunity areas in the market?
3. What are the key issues which need to be addressed?
4. What is the status of rural insurance in India?
5. What are the growth avenues for rural insurance and its branding strategies?
6. What are the challenges to be faced by insurance industries in the rural branding sector?
7. To develop a broad effective branding strategy for rural insurance companies .

4. Research Methodology

Keeping in view the objectives of the study at macro and micro level of the insurance sector, a detailed analysis has to be carried out both quantitatively using already published information and statistics and qualitatively, with the help of primary data collection. The latter was duly collected by schedules covering both the service providers and service users. This includes agents, employees' officers and the general public in rural Coimbatore district. The exploration of facts and figures on a wider scale is through in-depth interviews mostly non-directive in design and style. The respondents are allowed to talk freely in a wide ranging manner about their branding experiences and their choices concerning factors, which are quantified with the use of scaling techniques.

Survey results are computed on the basis of responses in which 300 service providers and 500 service users were found to be valid on the basis of consistency of responses and therefore taken fit for analysis. The collected data was duly analyzed with the help of Averages, Percentages, Standard Deviation, Likert's scaling technique, Chi-square Analysis on the basis of which findings, suggestions and conclusion were drawn out.

5. Analysis and Findings

5.1 Analysis of the Issues in Rural Branding for Service Providers and Service Users

i) By throwing light on the first objective of analyzing the issues of service providers and service users, the following table depicts the results by way of percentages, point analysis using Likert scaling technique and thereby assessing the corresponding favorableness. Table no 2 clearly indicates the factors that are analyzed,their frequencies, their percentages and the points arrived at using Likert's scaling technique . Out of which, a majority of the factors have gained favour from the responses assessed as their calculated values are more than the normal mean which is 3 , except for Adequate distribution mechanism (3.15), Nature of products – Tailor made (3.0), Training to office personnel (3.0). Hence these factors were identified to be neither favourable nor unfavourable. Specifically factors like , Range of products (2.975), Rate of productivity – quantity of sales (2.58) ,Efficiency of sales management (2.31), Agent turnover rate (2.72) were identified to be unfavourable.

Table No : 2 - Factors for studying the issues of service providers

Factors for studying the issues of service providers	SA	A	N	DA	SDA	LIKERT'S POINTS	FAVOURABILITY
Access to customers	157 (53)	68 (22)	75 (25)	0 (-)	0 (-)	4.275	√
Rural customers' knowledge	150 (50)	75 (25)	30 (10)	45 (15)	0 (-)	4.1	√
Understanding attitudes, values opinions, preferences	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Understanding the rural buyers behaviour	165 (55)	68 (23)	22 (7)	15 (5)	30 (10)	4.075	√
Demand for the right service							
- willingness	134 (45)	98 (32)	38 (13)	30 (10)	0 (-)	4.125	√
- purchasing power	120 (40)	90 (30)	75 (25)	15 (5)	0 (-)	4.05	√
- intention	75 (25)	135 (45)	53 (18)	22 (7)	15 (5)	3.775	√
Difference in perception	105 (35)	75 (25)	38 (13)	14 (5)	68 (22)	3.45	-
Maintaining relationship	128 (43)	89 (30)	60 (20)	23 (7)	0 (-)	4.075	√
Range of products	68 (23)	75 (25)	22 (7)	53 (18)	82 (27)	2.975	X
Adequate distribution mechanism	68 (23)	98 (32)	22 (7)	38 (13)	74 (25)	3.15	X
Procuring reliable, standard documents	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Nature of products							
- Tailor-made policies	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-
- Region specific	75 (25)	90 (30)	45 (15)	45 (15)	45 (15)	3.335	-
Different market structure	90 (30)	135 (45)	23 (7)	23 (7)	29 (10)	3.775	√
Value expectancy from products , services	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Training to office personnel	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-
Rate of productivity							
- Quality of sales	113 (37)	45 (15)	38 (13)	30 (10)	75 (25)	3.3	-
- Quantity of sales	60 (20)	62 (21)	22 (7)	53 (18)	103 (23)	2.58	x
Efficiency of sales management	58 (19)	45 (15)	38 (13)	30 (10)	129 (43)	2.31	x
Agent turnover rate	60 (20)	60 (20)	22 (7)	53 (18)	105 (35)	2.72	x

(Note : numbers on the top represent the frequency ,numbers in brackets represent the percentages, √ indicates the favourable, - represents the neutral, X – indicates unfavourable)

ii) For assessing the gap between the expectations of the service users and the perception of the service providers , it is essential to identify the factors corresponding to the issues of service users and hence was identified from the analysis that Supply of right product (57 %) ,Premium payment procedure (53%) ,Procedural aspects (renewal) (52%) ,Claim settlement (53 %) and physical presence (58%) were identified to be unfavourable. Again, factors like Accessing service providers (51%) ,updation of knowledge of company (50%) were neither favourable nor unfavourable. (Table no : 3)

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Table No: 3 – Factors For Studying The Issues Of Service Users

Factors for studying the Issues of Service users	Favourable			Unfavourable		
	Frequency	%		Frequency	%	
Accessing service providers	255	51	-	245	49	-
Assessing company standards	320	64	√	180	36	X
Awareness of the variety (motor, accident, cattle, tractor	285	57	√	215	43	X
property, health, crop, agriculture)						
Updation of knowledge						
- services	340	68	√	60	32	X
- companies	250	50	-	250	50	-
- brand	380	76	√	120	24	X
- strategies	420	84	√	80	16	X
- by-laws	410	82	√	90	18	X
Assistance in policy purchase	340	68	√	160	32	X
Behavior of agents	310	62	√	190	38	X
Personalized service	285	57	-	215	43	X
Supply of right product	215	43	X	285	57	-
Premium payment procedure	235	47	-	265	53	-
Complex products	320	64	√	180	36	X
Procedural aspects						
- processing	280	56	-	220	44	X
- subscription	310	62		190	38	X
- renewal	240	48	X	260	52	-
- claim settlement	235	47	X	265	53	-
Physical presence	210	42	X	290	58	-

5.2 Analysis of the opportunities of Rural Branding for Service Providers and Service users

i) In order, to identify the existing opportunities in the rural insurance market, analysis was made covering both the end ,service providers and service users , in which factors like liberalized legislation (3.3) , diversified marketing strategies (3.335) , product demand (3.0), rural household contribution to total income (3.335), savings rate to income (3.3), Query handling (3.0), distribution strategy- cooperative societies (3.0) , product features placement (3.45) were identified to be in the middle of the line of favorableness and complaint handling (2.31) , premium collection (2.72) ,distribution strategy –through NGOs (2.31) and regional rural bank (2.72),connectivity through IT (2.27) moves to the negative end of favorableness and hence need insight. (Table no : 4)

Table No: 4 – Factors for studying the opportunities of service providers

Factors for studying the issues of service providers	SA	A	N	DA	SDA	LIKERT'S POINTS	FAVOURABILITY
Wide population	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Rate of savings to income	157 (53)	68 (22)	75 (25)	0 (-)	0 (-)	4.275	√
Rising middle class	134 (45)	98 (32)	38 (13)	30 (10)	0 (-)	4.125	√
Large untapped market	120 (40)	90 (30)	75 (25)	15 (5)	0 (-)	4.05	√
Liberalized legislations	113 (37)	45 (15)	38 (13)	30 (10)	75 (25)	3.3	-
Diversified marketing strategies	75 (25)	90 (30)	45 (15)	45 (15)	45 (15)	3.335	-
Disposable income of rural folk	90 (30)	135 (45)	23 (7)	23 (7)	29 (10)	3.775	-
Product demand	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-
Rural household contribution to total income	75 (25)	90 (30)	45 (15)	45 (15)	45 (15)	3.335	-
Rural access	75 (25)	135 (45)	53 (18)	22 (7)	15 (5)	3.775	√
Savings rate to income	113 (45)	45 (15)	38 (13)	30 (10)	75 (25)	3.3	-
Complaint handling	58 (19)	45 (15)	38 (13)	30 (10)	129 (43)	2.3	X
Premium collection	60 (20)	60 (20)	22 (7)	53 (18)	105 (35)	2.72	X
Query handling	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-
Business retention	105 (35)	75 (25)	38 (13)	14 (5)	68 (22)	3.45	-
Supporting channels	134 (35)	98 (25)	38 (13)	30 (5)	0 (22)	4.125	√
Distribution and delivery strategy							
- District cooperative bank	75 (25)	135 (45)	53 (18)	22 (7)	15 (5)	3.775	√
- Cooperative societies	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-
- NGOs	58 (19)	45 (15)	38 (13)	30 (10)	129 (43)	2.31	X
- Regional Rural Bank	60 (20)	60 (20)	22 (7)	53 (18)	105 (35)	2.72	X
- Commercial Bank	120 (40)	90 (30)	0 (-)	0 (-)	0 (-)	4.475	√
- SHGs	75 (25)	135 (45)	53 (18)	22 (7)	15 (5)	3.775	√
Extensive agent network	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Connectivity through IT	35 (12)	35 (12)	46 (15)	110 (36)	74 (25)	2.27	X
Cross selling options	210 (70)	90 (30)	0 (-)	0 (-)	0 (-)	4.7	√
Product features, placement	105 (35)	75 (25)	38 (13)	14 (5)	68 (22)	3.45	-

Note : Numbers in the top represents the frequency, numbers in the brackets represents the percentages, Ö indicates the favorableness, -represents the neutral, x - indicates unfavorableness

ii) Probing into the opportunities for service users, flexibility in payment of premium (58%) ,trust and reliability (52 %) ,.easy reach (49%) fall in between the line of favorableness and factors like relationship building and management (39 %) ,operational discipline (35 %) , product innovation (27%) , convenience (38 %) , safety of funds (45 %) were negative end of the opportunity factors and hence lacking performance and need improvement . (Table no : 5)

Table No : 5 – Factors for studying the opportunities of service users

Factors for studying the opportunities of service users	**Favourable**			**Unfavourable**		
	Frequency	**%**		**Frequency**	**%**	
Creation of awareness	340	68	√	160	32	X
Security of incomes	375	75	√	125	25	X
Combination of products , services	260	52	√	240	48	X
Flexibility in payment of premiums	210	42	X	290	58	√
Bulk returns	360	72	√	140	28	X
Trust and reliability	240	48	X	260	52	-
Easy reach	255	51	-	245	49	-
Relationship building and management	195	39	X	305	61	√
Awareness programs	275	55	√	225	65	√
Operational discipline	173	35	X	327	45	X
Product innovation	134	27	X	366	73	√
Convenience	193	38	X	307	62	√
Safety of funds	223	45	X	277	55	√
Expert advice	295	59	√	205	41	X
Government regulations	395	79	√	105	21	X

5.3 Analysis of the challenges of Rural Branding for Service Providers and Service users

I) Challenges, the danger alarm, if not duly considered would drown the entire operation into the pit. Hence an in-depth analysis was made assessing the factors threatening the service providers and service users in which, physical presence (3.15), security belief (3.0), selling risky products (3.335), gaining new customers (3.335), wide dissection of area (3.15), plugging the segment with right (3.335),highly dispersed market (3.3), mass communication – promotional problems (3.44), product customization (3.0) were neither favourable nor unfavourable . Further extending product lines (2.31), redefining traditional products (2.72), training manpower (2.58), cultural gap between rural and urban (2.31), lack of trustworthy research (2.72), regional cultural security (2.975) were identified to be strongly unfavourable. (Table no : 6)

Table No : 6 – Factors for studying the challenges of service providers

Factors for studying the challenges of service providers	**SA**	**A**	**N**	**DA**	**SDA**	**LIKERT'S POINTS**	**FAVOURABLE**
Creation of awareness	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Social consideration	60 (20)	60 (20)	22 (7)	53 (18)	105 (35)	2.72	X
Regulatory framework	192 (64)	92 (27)	26 (9)	0 (-)	0 (-)	4.56	√
Cultural, social dynamics	105 (35)	75 (25)	38 (13)	14 (5)	68 (22)	3.45	-
Physical presence	68 (23)	98 (22)	22 (7)	38 (13)	74 (25)	3.15	-

Government obligations	189 (63)	60 (20)	43 (14)	8 (3)	0 (-)	4.43	√
Unpredictable market structure	75 (25)	135 (45)	53 (18)	22 (7)	15 (5)	3.775	√
Quality service	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-
Security belief	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-
Trust building	210 (70)	90 (30)	0 (-)	0 (-)	0 (-)	4.7	√
Extending product lines	58 (19)	45 (15)	38 (13)	30 (10)	129 (43)	2.31	X
Reinvention of brands	120 (40)	90 (30)	75 (25)	15 (5)	0 (-)	4.05	√
Maintaining relationship with users	75 (25)	135 (45)	53 (18)	22 (7)	15 (5)	3.775	√
Meeting customer expectations	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Selling risky products	75 (25)	90 (30)	45 (15)	45 (15)	45 (15)	3.335	-
Market positioning	134 (45)	98 (32)	38 (13)	30 (10)	0 (-)	4.125	√
Remaining competitive	138 (46)	95 (31)	35 (12)	32 (12)	0 (-)	4.13	√
Gaining new customers	75 (25)	90 (30)	45 (15)	45 (15)	45 (15)	3.335	-
Building brand equity	189 (63)	60 (20)	43 (14)	8 (3)	0 (-)	4.43	√
Redefining traditional products	60 (20)	60 (20)	22 (7)	53 (18)	105 (35)	2.72	X
Achieving credibility	112 (37)	78 (26)	60 (20)	24 (8)	26 (9)	3.75	√
Wide dissection of area	68 (23)	98 (32)	22 (7)	38 (13)	74 (25)	3.15	-
Low literacy rate	210 (70)	90 (3)	0 (-)	0 (-)	0 (-)	4.7	√
Poor infrastructure	173 (58)	60 (20)	40 (13)	10 (3)	17 (6)	4.21	√
Brand personification	164 (55)	62 (21)	50 (17)	24 (7)	0 (-)	4.22	√
Training manpower	60 (20)	62 (21)	22 (7)	53 (18)	103 (34)	2.58	X
Lack of infrastructure	128 (43)	89 (30)	60 (20)	23 (7)	0 (-)	4.075	√
Plugging the segments with right products	75 (25)	90 (30)	45 (15)	45 (15)	45 (15)	3.335	-
Value for money pricing	138 (46)	95 (31)	35 (12)	32 (11)	0 (-)	4.13	√
Appropriate channel of distribution	180 (60)	82 (27)	38 (13)	0 (-)	0 (-)	4.475	√
Highly dispersed markets	113 (37)	45 (15)	38 (13)	30 (10)	75 (25)	3.3	-
Cultural gap between rural and urban	58 (19)	45 (15)	38 (13)	30 (10)	129 (43)	2.31	X

Lack of trustworthy research	60 (20)	60 (20)	22 (7)	53 (18)	105 (35)	2.72	X
Mass communication promotional problems	93 (31)	67 (22)	38 (13)	28 (9)	74 (25)	3.44	-
High market development expenditure	138 (46)	95 (31)	35 (12)	32 (11)	0 (-)	4.13	√
Regional cultural sensitivity	68 (23)	75 (25)	22 (7)	53 (18)	82 (27)	2.975	X
Procuring right documents	189 (63)	60 (20)	43 (14)	8 (3)	0 (-)	4.43	√
Product customization	60 (20)	83 (27)	30 (10)	60 (20)	67 (23)	3.0	-

Note : Numbers in the top represents the frequency, numbers in the brackets represents the percentages, √ indicates the favorableness, - represents the neutral, x - indicates the unfavourableness

Table No : 7 – Factors for studying the challenges for service users

Factors for studying the opportunities of service users	**Favourable**			**Unfavourable**		
	Frequency	**%**		**Frequency**	**%**	
Developing trust	213	42	X	287	58	√
Safety of invested funds	430	86	√	70	14	X
Affordability	410	82	√	90	18	X
Post purchase services	216	43	X	284	57	√
Lack of knowledge						
- product	335	67	√	165	33	X
- company	367	73	√	133	27	X
- brand	417	83	√	83	17	X
Bad experiences of others	316	63	√	184	37	X
Lack of personification	350	70	√	150	30	X
Relationship management	267	53	√	233	47	X
Limited rate of literacy	420	84	√	80	16	X
Understandability of product	366	73	√	134	27	X
Hard procedures, too many mandatory papers	382	76	√	118	24	X
Perception regarding claim settlement procedures	373	75	√	127	25	X

5.4 Independent factor analysis

To get a crystal clear picture about which respondents duly fall under the categorization of favorable and unfavorable , independent factors like age, gender, nature of company, persons taken policy or not etc., were analyzed using Chi Square analyses. It was found that the service providers between 25-35 and 45- 55 years of age ,mostly male, working in nationalized Insurance companies have a favorable attitude .with respect to service users, those between the age group of 25 -35 and 35 -45 , mostly male respondents , who have taken a policy in nationalized insurance companies alone have a favorable opinion. (Table nos. 8,9,10)

Table No : 8 - Table showing the association between age and favorableness

Particulars		F	UF	TOTAL	Particulars		F	UF	TOTAL
Age of service providers	25-35	75	15	90	Age of service users	25-35	175	30	205
	35-45	45	7	52		35-45	110	60	170
	45-55	75	8	83		45-55	85	20	105
	Above 55	60	15	75		Above 55	10	10	20
	Total	255	45	300		Total	380	120	500
	TV : 7815, Df: 3, CV: 0.526				TV: 3.841,Df: 3, CV: 0.1707				

CHART : 3, 4 - Chart showing the association between age and favorableness

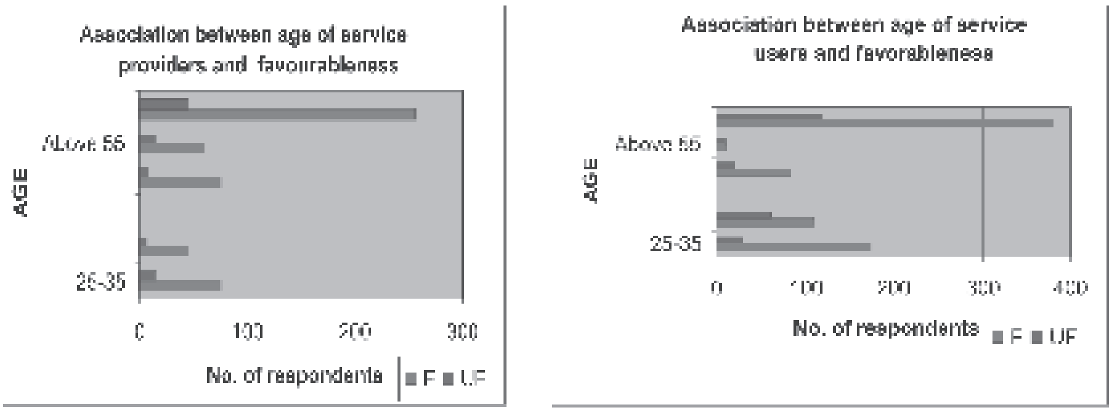

TABLE No : 9 - Table showing the association between gender and favorableness

Particulars		F	UF	TOTAL	Particulars		F	UF	TOTAL
Gender of service providers	Male	233	38	271	Gender of service users	Male	115	335	445
	Female	45	7	52		Female	10	40	50
	Total	255	45	300		Total	120	380	500
	TV : 3.841, Df: 1, CV:0.349				TV: 7.815 ,Df:1, CV:0.1481				

CHART : 5, 6 - Chart showing the association between gender and favorableness

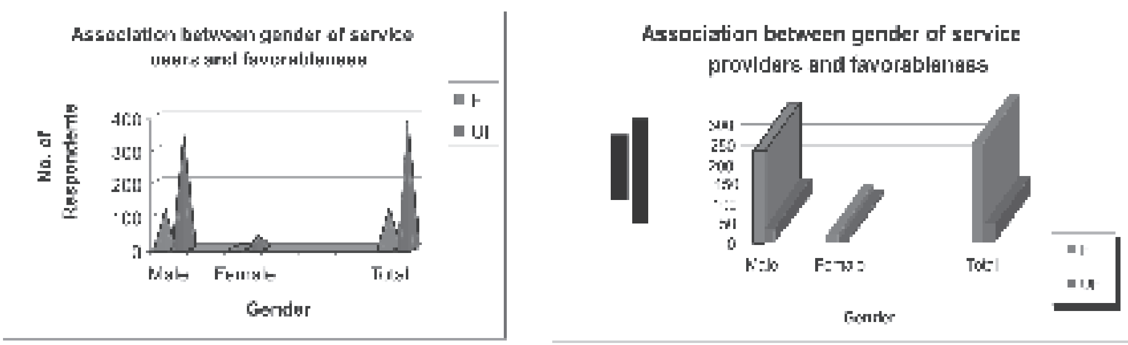

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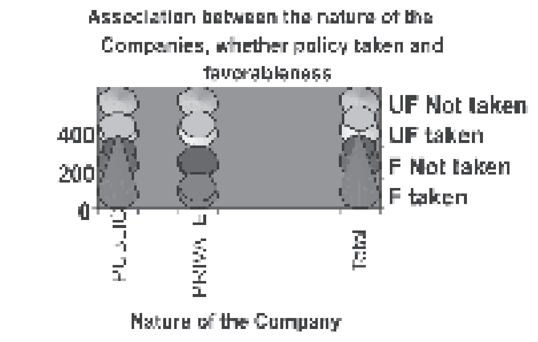
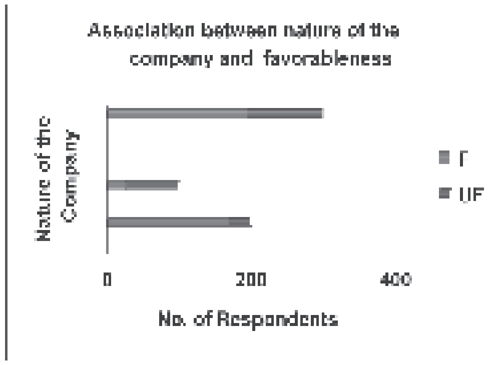
Table No : 10 - Table showing the association between nature of company and favorableness

Particulars		F	UF	TOTAL	Particulars		F		UF		TOTAL
							Taken	Not taken	Taken	Not taken	
Service provider	Public	170	30	200	Service users	Public	300	75	30	10	
	Private	27	73	100		Private	30	5	45	5	85
	Total	197	103	300		Total	330	80	75	15	500
	TV : 3.841 , Df: 1,CV:99.49				TV:7.815 ,Df: 3 , CV:101.16						

Chart : 7, 8 Chart showing the association between gender and favorableness





6. Suggestions and Conclusion

Having analyzed the two extremes of service provider' s perception and service user's expectations , it's time to pin point what actually is lacking and where the gap arises. Some critical improvements that could be made by way of branding strategies .Branding refers to the image building exercises. Today's marketing scenario makes branding the order of the day and this could be processed by the following aspects:

- The first aspect that needs to be developed very urgently is an **efficient delivery system.**

  Manage the channel issues that exist between the new model and the already existing network . Integrated marketing effort with local institutions and SHGs can be used to penetrate.

- A smaller bundle of **innovative products** in synchronization with rural needs and perceptions. Emphasizing more on service brands and not just the product is very important .This is because one should not only concentrate on sales but also the after sales that will create true value for the product.

- **Creation of awareness** of insurance products and the financial risk and opportunities. Make them informed about the choices – providing the facts ,data, knowledge to understand their risk exposure as well as insurance terms and concepts, through **provision of training and guidance**. Mass awareness campaigns can be organized in rural gatherings like temple festivals, melas, road shows etc.

- **Guide them where to go for help and enquiries.** This could be done with the stakeholders of insurance companies, IRDA, intermediaries, NGOs, Government and autonomous bodies, insurance and educational institutions. Regional rural banks offer a wide reach to customers.

- **Educating** the rural market about the insurance market through talk shows and interview sessions on radio as All India Radio was distributing low-cost radios in each household in the village. Regular press meets can be conducted at office of District Public relations Officer(DPRO) to present the detailed aspects of the benefits that are being provided under various insurance schemes.

- **Creating public relations** to strengthen the service brand image of the product is essential. Some ceremonies can be held at a village level along with government programmes so as to show the companies' commitment to the members of the community, thereby ensuring the availability and accessibility of the service providers and to enjoy the proximity of the customers.

- **Direct marketing** with a rural agent team handling activities like door -to- door sampling, marketing and product promotion can be exercised. An agent is a person who has to be local and trustworthy. **Word of mouth** is the primary reason for success and thereby physical presence could be ensured. The agent acts as a brand ambassador for the rural market and has to concentrate on after sales service, collection of premiums etc.

✧ **Rural marketing research** which throws insight into rural consumer behavior, values, beliefs and opinions is a must . This can be done by gathering information, analyzing them and linking the findings for promoting the product.

Now it is the need of the hour for rural insurance through branding strategies to inculcate new ideas and a new thinking approach to dominate the insurance world of tomorrow. It undergoes cultural shock since both service providers and service users have to understand and adopt themselves to handle new way responsibilities. To conclude, the largely untouched Indian rural sector holds great opportunities for both life and non life insurers. To grab these opportunities, insurance companies have to be strong enough in their marketing strategies especially in branding.

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Annexure : 1 - Countrywise insurance; penetration and density

Countries	Insurance penetration			Insurance density		
	2003	2004	2005	2003	2004	2005
United Kingdom	8.62	8.92	8.90	2617.10	3190.40	3287.10
Japan	8.61	8.26	8.32	3002.90	3044.00	2956.30
United States	4.38	4.22	4.14	1565.70	1617.20	1686.30
Australia	4.42	4.17	3.51	1129.30	1285.10	1366.70
South Korea	6.77	6.75	7.27	873.60	1006.80	1210.60
South Africa	12.96	11.43	10.84	476.50	545.50	558.30
Malaysia	3.29	3.52	3.60	139.80	167.30	188.00
Brazil	1.28	1.36	1.33	35.80	45.90	56.80
China	2.30	2.21	1.78	25.10	27.30	30.50
India	2.26	2.53	2.53	12.90	15.70	18.30

(* Source: IRDA Annual report 2005-06)

Annexure : 2 - Rural population classified by village size

Village Size (No. of persons)	No. of villages	% of villages	% of Rural population	Avg. village population
Less than 200	92541	15	1	100
200-499	127054	21	6	345
500-999	144817	24	14	724
1000-1999	129662	22	25	1410
2000-4999	80313	14	32	2974
5000-9999	18758	2	13	6630
10000 Above		1	9	16026
	5,93,154	100	100	1251

(* Source: Census 2001, Rural Population.) Total no. of villages -5.9 lakhs Total -742.5 million.17% of villages account for 50% of rural population and 60 % of rural wealth.

Annexure : 3 - Distribution of Urban, Rural Agents as on 31st March 2003.

Life Insurer	Urban	Rural	Non Life Insurer	Urban	Rural
Allianz Bajaj Life	13632	570	Royal Sundaram	201	25
ING Vysya Life	3870	44	Alliance		
AMP Sanmar Life	1282	326	Tata AIG	769	41
SBI Life	2152	72	Reliance	256	4
Tata AIG Life	15539	20	IFFCO-Tokio	343	41
HDFC Standard Life	10803	509	ICICI Lombard	580	147
ICICI Prudential Life	23619	342	Bajaj Allianz	898	92
Birla Sunlife	6233	85	HDFC Chubb	13	1
Aviva Life	1566	304	Cholamandalam	190	8
Om Kotak	3426	359			
Mahindra Life	5735	42	New India	15259	5407
Metlife	1447	17	National	14410	4834
			United India	11002	5278
LIC	468133	479432	Oriental	11502	3274
	557437	**482122**		**612860**	**19152**

(* Source : IRDA Annual report 2002-03) Grand Total – Urban : 6,12,860 , Rural : 5,01,274.

Annexure : 4 - Rural sector performance in the life sector, 2002-2003.

Insurer	New policies in rural areas	Rural in policies	Social sector lives covered
Private			
HDFC Standard Life	15352	12.3	10490
ICICI Prudential Life	29376	12.02	17964
Max New York Life	9345	12.05	15669
Om Kotak Mahindra Life	5169	15.78	32499
Birla Sunlife	10422	16.09	12033
Tata AIG Life	9137	9.99	11825
SBI Life	2700	15.21	37478
ING Vysya Life	3800	34.62	7500
Metlife	2916	25.97	851
Allianz Bajaj Life	19368	16.70	11111
AMP Sanmar Life	1510	9.24	8192
Aviva Life	96	0.56	2370
SUB TOTAL	109191	13.43	167982
Public			
LIC	**4 546 148**	**18.52**	**761752**
Grand Total	**4655 339**	**18.35**	**929734**

* Source: IRDA Journal, 2003.

Note : Private insurers are required to underwrite 7,9,12 % of the policies in the rural sector direct policies in years , I,II and III of their operations .LIC is required to underwrite rural business not less than that underwritten in the year 2001-02 financial year and has done so. Private insurers are required to underwrite 5000 ,7500 and 10000 lives in the social sector in years I,II and III of their operations. LIC is required to insure a number of lives not less than those underwritten in the 2001-02 financial year and has done so.

Annexure : 5 - Rural sector performance in the non - life sector, 2002-2003.

Insurer	New policies in rural areas	Gross premium in rural areas	% of rural sector business	No. of lives covered in social sector
Private				
Royal Sundaram	45512	709.18	3.85	10902
Reliance	3029	563.07	3.03	8797
Bajaj Allianz	53014	1697.11	5.87	14053
IFFCO-Tokio	450	1160.71	5.42	827334
Tata AIG	42203	657.62	2.82	8617
ICICI Lombard	147	475.34	2.21	16660
HDFC Chubb	-	-	-	-
Sub Total	**144356**	**5264.63**	**3.9**	**886363**
Public				
New India	1594197	23191	7.98	1648480
National	422212	9960	3.58	3619274
United India	1783445	32679	8.32	27539481
Oriental	2529057	21145	7.12	3256984
Sub Total	6328911	86975	6.7	36064219
Grand Total	**6473267**	**92239**	**6.4**	**36950582**

Source : IRDA Journal 2003

Note : Private insurers obligation in the rural sector in years I, II, III is 2, 3, 5 % of gross premium income respectively. Public sector insurers are required to exceed the performance in the previous year and have done so. Private insurers obligation in the social castor in years I, II, III is 5000, 7500 and 10,000 lives respectively . Public insurers are required to exceed the performance in the previous year and have done so.

Annexure : 6 Rural Population and Penetration

Total Population as on 2003	1. 5 billion
Rural population	72.22%
Urban population	27.78%
Penetration level in rural market	20%

(*Source : IRDA Report 2002-03)

Chart showing the share of wallet, FMCG Rural sales, Rural durables sales, Rural income, expenditure and the rural disposable surplus.

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LOCAL BRAND vs GLOBAL BRAND SYNDROME – A STUDY WITH REFERENCE TO INDIAN CAR INDUSTRY

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P. Natarajan**

ABSTRACT

Brands are at the heart of the marketing and business strategy (Doyle, 2002)

This study observes the consumer preference of global brands vs. local brands in the Indian car industry. Consumer brand perceptions have substantial implications in marketing. The customers' preference towards local and global brands is studied by administering a structured interview schedule with 150 customers in Puducherry city. The findings of the study advised that the consumers who possessed global car brands, preferred their car brands due to factors such as global presence, worldwide reputation and quality of being a foreign make. Consumers made favourable perceptions of the country, wherein they tendedto associate factors such as superior quality, technical advancements, modernization etc. to the country from which the brand had taken its origin. Consumers who owned a local brand evaluated the local brand in a favourable manner, wherein they tended to associate the brand with India's strong automobile sector that makes quality and technically efficient cars.

Key words : *Consumer Preferences, Local Brand, Global Brand, Brand Preferences, Brand Value.*

INTRODUCTION

As firms enter international markets, branding plays an important role in its marketing strategy. Many consumers use brands as clues to indicate product performances, instead of engaging themselves in a search for information when deciding between competing brands. Consumers use brands as cues to make decisions to purchase or try products (Ger et al., 1993). During the recent years, there has been a great shift from local brands to global brands due to the display of similar needs and preferences by the consumers. As the world is shrinking into a global marketplace, it is increasingly significant to understand the consumers' perception of global brands as against local brands. Studying consumer preferences towards global vs local brands has substantial implications in marketing and will also serve as a citation for future research. There would also be several reasons for consumers' perceptions and attitudes towards the brand. Thus, there is also a need to uncover the reasons for consumers' preference for global brands over local brands.

Brands and Branding

A brand is defined as a specific name, symbol or design- or, more usually some combination of these- that is used to distinguish a particular seller's product (Doyle, 2002). Branding exists from the very early times to distinguish the goods of one producer from those of another. The word 'brand' derives from the Old Norse word 'brandr' which means to burn and brands were and still are the means by which owners of livestock marked their animals. From branding the livestock, early man moved on to branding those wares- where a potter for example would identify the pots by putting a mark like a thumbprint into the wet clay on the bottom of the pot and the potter would expect customers to seek out those products which carried such a mark (Interbrand,1990). Today with a considerable change over the times, there is an increase in modern and sophisticated branding of both tangibles and intangibles.

Local Brands and Global Brands

Local brands are defined by Wolfe (1991) as brands that exist in one country or in a limited geographical area. It is also noted by Schuiling et al (2004) that local brands belong to a local, international, or global firm. Local brands provide a link between the national economy and individual well-being. Levitt (1983) defines global brands as brands that use the same marketing strategy and mix in all target markets. Johansson and Ronkainen (2004) assert that global brands benefit from the scale and scope of having presence in multiple markets. Experts and researchers define global brand as "a brand that is marketed under the same name in multiple countries with similar and centrally coordinated marketing strategies." However there are some selected global brands that don't have the same name but share some marketing program elements.

Pros and Cons of Local Brands and Global Brands

The study affirms that local brands benefit from strong brand equity and specifically, local brands benefit from higher consumer awareness than international brands do, and they enjoy a strong brand image. Local brands benefit not only from a good quality image but also from a better value and trust perception than international brands do (Holt et al, 2003). Value is linked with the fact that prices of local brands

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are usually lower than those of international brands, providing consumers a sense of better value for the money (Schuiling et al, 2004). According to the research by Schuiling et al, (2004), local brands are also perceived as more "down to earth" than international brands, meaning that local brands offer a more basic/no frills brand proposition. The study also indicates that local brands are perceived as more traditional than international brands, because local brands are linked more to local traditions and local cultures than international brands are. It was also found that trust is an important advantage for local brands, because it provides a unique relationship with consumers that takes years to develop. It also indicated that there is no significant difference between the perception of prestige for international brands and that of local brands. Another significant finding was that though consumers are attracted to international brands, in reality, they prefer to purchase local brands (Schuiling et al., 2004). In the words of Johansson and Ronkainen (2004), although global brands may have more success in high-profile, high-involvement categories, consumers may still give local brands preference in purchasing every day products. The advantages cherished by local brands can be dominated by the enormous advantages enjoyed by global brands. Eckhardt (2005) avows that local brands are not more flexible than global brands in terms of their marketing activities when they compete in a foreign product category due to cultural categories being associated with the product category. Just as global brands need to conform to international marketing dictums, local brands sometimes need to conform to deeply held preconceptions about the product category in which they operate.

Industry Overview

The car industry in India is chosen for studying consumer perception of global brands vs. local brands for the simple reason being the strong growth of the automobile sector in India. The car segment is specifically chosen as it is highly competitive with well established and flourishing global and local brands.

Indian Automobile Industry – An Overview

India is emerging as one of the most attractive automotive markets in the world, and is poised to become a key sourcing base for auto components. The Indian automotive sector has a presence across all vehicle segments and key components. In terms of volume, two wheelers dominate the sector, with nearly 80 per cent share, followed by passenger vehicles with 13 per cent. Passenger vehicles consist of passenger cars and utility vehicles. The industry had a few players and was protected from global competition till the 1990s. After the Government lifted licensing in 1993, 17 new ventures have come up. At present, there are 12 manufacturers of passenger cars, 5 manufacturers of multi utility vehicles (MUVs), 9 manufacturers of commercial vehicles, 12 of two wheelers and 4 of three wheelers, besides 5 manufacturers of engines. With the arrival of global players, the sector has become highly competitive.

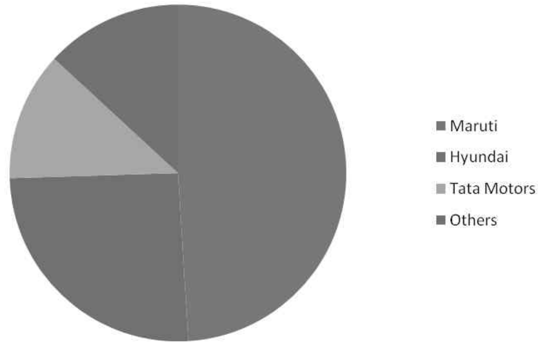
Advent of Cars in India

The advent of cars in India dates back to 1898 when the first motorcar rode down India's roads. From then till the First World War, about 4,000 cars were directly imported to India from foreign manufacturers. During 1948, the first car was manufactured in India. In 1993, with the winds of liberalization sweeping the Indian car market, many multinationals like Daewoo, Peugeot, General Motors, Mercedes-Benz and Fiat came into the Indian car market. Since the 80s, the Indian car Industry has seen a major resurgence with the opening up of Indian shores to foreign manufacturers and collaborators. The 90s became the melting point for the car industry in India. The consumer being the king, he was constantly wooed by both the Indian and foreign manufacturers. Though sales had taken a dip in the first few months of 1999, it is back to its boom time. High-end models are being launched rapidly and are flourishing. As already said, the Indian automobile industry is highly competitive with a large number of players in each industry segment. Most of the global majors are present in the passenger vehicle and two wheeler segments. The key players in the passenger vehicles segment in India are Tata Motors, Maruti Udyog, Honda Motors, Hyundai Motors, Toyota, Skoda, Daimler Chrysler, and Hindustan Motors. Mercedes, BMW, Porsche, Audi, Bentley and Rolls Royce have been effectively functioning. (IBEF, 2006).

Selection of the Corporate Brand

This study aims to focus on the Indian car Industry, specifically the four segment cars i.e. A, B, C and D segment cars. To date, there are twenty car manufacturers in the Indian car Industry. The major players of the Indian car Industry are Maruti Suzuki India Ltd, Hyundai Motors Indian Ltd, and Tata Motors. According to a survey by the Automotive Component Manufacturers Association of India (ACMA), the market share of passenger cars in India in the year 2008-09 states that Maruti has 50% market share, Hyundai has 26% market share and Tata Motors have 12.7% market share. In total, 88% market share is occupied by these three major brands. Hence, the author has decided to confine the study only to these three main brands.

Major players of passenger cars



Local Car Brands

The local car brands found in the study inclued Maruti Suzuki India Limited which is the premier car company in India. Maruti Udyog Limited (MUL) was established in Feb 1981. The Company entered into collaboration with Suzuki Motor Corporation of Japan to manufacture cars. Maruti is the highest volume car manufacturer in Asia, outside Japan and Korea. Despite there being 19 companies now in the passenger car market in India, Maruti holds about 50% of the total market share. Maruti Udyog Limited has many unique service advantages for its customers. On 17th September 2007, Maruti Udyog was renamed as Suzuki India Limited. Both in terms of volume of vehicles sold and revenue earned, the company is India's leading automobile manufacturer and the market leader in the car segment. It has bagged the First Position in JD Power Customer Satisfaction Index for the last ten years consecutively. The company has also ranked highest in the India Sales Satisfaction Study. The models of Maruti Udyog Limited cars are Maruti 800, Maruti Alto, Maruti Zen, Maruti Zen Classic, Maruti Esteem, Maruti Gypsy, Omni, Wagon R, Versa, Baleno, Swift and Grand Vitara.

Tata Motors Limited is India's largest automobile company with large revenues. It ranks first in the category of commercial vehicles and the second largest in the passenger vehicles, mid size car and utility vehicle segments. The company is the world's fifth largest medium and heavy commercial vehicle manufacturer. Over 3.5 million Tata vehicles are moving on Indian roads, since 1954. The models of the company are Tata Indigo, Tata Indica, Tata Sumo, Tata Safari and Tata Indigo Marina.

Global Car Brands

Apart from local car brands, the global car brands present in the study are Hyundai Motor India Limited (HMIL). It was established in 1996 and is a wholly owned subsidiary of the South Korean multinational, Hyundai Motor Company. HMIL is the fastest growing and the second largest car manufacturer in India and is presently selling 30 variants of passenger cars in six segments. The Company has set up more than 70 dealer workshops that are equipped with the latest technology, machinery, and international quality press, body and paint shops, across the country, thereby providing a one-stop shop for a Hyundai customer. Hyundai also has a fleet of 78 emergency road service cars that can provide emergency service to all its customers anytime, anywhere. The models of Hyundai are Santro, Getz, Accent, Elantra, Sonata, Tucson, Terracan. The awaited models of Hyundai Motors are Verna, Getz next generation and Santa Fe.

Objectives of the Study

- To identify the customers' preference of global brand vs local brand
- To highlight the factors influencing customer preference for global and local brands

Methodology of the Study

The data collection methods used in this research involve the search for both primary and secondary data. According to Malhotra (2005), primary data is originated by the researcher for the specific purpose of addressing the problem at hand. It is also a fact that obtaining primary data can be expensive and time consuming. Primary data, being the most significant is gathered through depth interviews, focus groups, observations and surveys. This particular study has used depth interviews as a means for obtaining primary data. The survey method has been adopted to elicit the views of local and global brand car owners. The customers'' preference towards local and global brands is studied by administering a structured interview schedule with 150 customers in Puducherry city. Primary data has been collected with the help of a well-structured interview schedule from 150 respondents in Puducherry city. The researcher has adopted cluster-sampling techniques for choosing sample respondents.

Secondary data is data that is collected for some purposes other than the problem at hand (Malhotra, 2005). Secondary data is usually collected from journals, existing reports and statistics by public and private authorities. The secondary data for this particular study was collected through marketing journals and other existing reports that were based on the topic. Secondary data helped the researcher to create a better comprehension of consumer perceptions. As a general rule stated by Malhotra (2005), "Examination of available secondary data is a prerequisite to the collection of primary data. Start with secondary data; proceed to primary data only when the secondary data sources have been exhausted or yield managerial returns." Thus the study conducted and analyzed primary data with the rationale of the secondary data.

Results and Discussion

Personal Characteristics of the Respondents

The personal characteristics of the selected respondents are presented in Exhibit 1 that the maximum number of the respondents falls in the age of group of 30 to 60 with the sample size of 90 constituting 60%. 40 (27%) respondents fall in the age group up to 30 years and the minimum number of the respondents is in the age group of above 60 with the sample size of 20 constituting 13%. According to a sex-wise, break up, the majority of the respondents are male with sample size of 100 constituting 67% and the remaining are female respondents. Similarly, the majority of the respondents are married with a sample size of 105 constituting 70% and the rest is unmarried. Exhibit 1 clearly indicates the educational statu;, 40% respondents are up to school level, 38% of the respondents have educational qualifications U.G./Diploma and residual 22% of the respondents have educational qualification P.G. and above. It is inferred from Exhibit 1.1 that the 40% of the respondents are running their own business, 30% of the respondents are government employees, 20% of the respondents are professionals and the rest 10% of the respondents are private employees. Out of 150 respondents, the majority of the sample 75 (50%) constituted above Rs.7 lakhs income group, 30% of the respondents are Rs. 3 lakhs to 7 lakhs income group and the rest of 20% of the respondents are below Rs. 3 lakhs income group.

Exhibit 1

Personal Characteristics of the Respondents

Particulars	Classification	No. of Respondents	Percentage
Age	Below 30 years	40	27
	30-60 years	90	60
	Above 60 years	20	13
Sex	Male	100	67
	Female	50	33
Marital Status	Married	105	70
	Unmarried	45	30
Educational Status	Upto School level	60	40
	U.G./Diploma level	57	38
	P. G. & Above	33	22
Occupation	Professional	30	20
	Govt. Employee	45	30
	Pvt. Employee	15	10
	Own Business	60	40
Income Status	Below Rs. 3 lakhs	30	20
	Rs. 3 to 7 lakhs	45	30
	Above Rs. 7 lakhs	75	50

Source: Primary Data

Analysis

In this section Chi-Square analysis was used to test whether the personal characteristics of the respondents like age, sex, marital status, educational status, occupational status, income status have significant influence over various other factors like reason for buying this brand, factors considered in buying a car and factors influencing brand preference.

The car owners respondents of various are clearly depicted in the exhibit 2 A. 60% of the respondents have Maruti car, 24% of the respondents have Hyundai cars and rest of the 16% of the respondents have Tata cars. It clearly shows that nearly 76% of the respondents have local brand cars like Maruti and Tata and the rest of the 24 % of the respondents have global brand cars like Hyundai.

Exhibit 2 A Car Mode

Car Brand	No. of Respondents	Percentage
Maruti cars	**90**	**60**
Hyundai cars	36	24
Tata cars	24	16
Total	150	100

Source: Primary Data

Analysis of relationship between car brands and reasons for buying this brand

The important reasons for buying local and global brands of the car cited by the respondents are quality, value, prestige and esteem status. It is inferred from Exhibit 2 B that 40% of the respondents prefer Quality as best, 24% of the respondents prefer Value, and remaining 20% and 16% of the respondents prefer that prestige and esteem of the brand status.

Ho – The car brands have no significance relationship between the reasons for buying this brand.

Exhibit 2 B

Car Brands and reason for buying this brand

Factors/Car Brand	Maruti	Hyundai	Tata	Total
Quality	40	12	8	60
Value	22	10	4	36
Prestige/Status	16	8	6	30
Esteem	12	6	6	24
Total	90	36	24	150

Based on the Chi-square test, the results shows clearly calculated value (45.62) is more than table value (12.6). So it is concluded that there is significant relationship between car brands and reason for buying this brand at 5% level of significance.

Analysis of relationship between personal characteristics and factors considered in buying a car

The essential factors considered in buying a car stated here is brand status, Comfortable drive and safety, comparatively cheap, easy accessibility and excellent customer services. Exhibit 3A depicts that 40 % of the respondents prefer brand status, 23.34% of the respondents considered comfortable drive and safety, 15.33% of the respondents preferred excellent customer services, 13.33 % of the respondents prefer easy accessibility and the rest, 8% preferred its comparative cheapness.

Exhibit 3 A

Factors considered in buying a car

Car Brand	No. of Respondents	Percentage
Brand Status	60	40
Comfortable drive and safety	35	23.34
Comparatively cheap	12	8
Easy accessibility	20	13.33
Excellent customer services	23	15.33

Source: Primary Data

In carrying out the Chi square test the following hypothesis was framed Ho – The personal factors like age, sex, marital status, educational status, occupational status, income status have no significant influence over the other factors considered in the category of buying a car like brand status, comfortable drive and safety, comparative cheapness, easy accessibility and excellent customer services.

Exhibit 3 B
Analysis of Chi-square Test Results

Personal Profile	Cal. value	Table Value	DOF	Ho Accepted/ Rejected
Age	46.5	15.5	8	Rejected
Sex	56.9	9.48	4	Rejected
Marital Status	22.9	9.48	4	Rejected
Education	51.5	15.5	8	Rejected
Occupation	66.7	21.02	12	Rejected
Income Status	63.8	15.5	8	Rejected

Exhibit 3 B clearly depicts that Ho is rejected and concluded that the personal factors like age, sex, marital status, educational status, occupational status, income status have significant influence over the other factors considered in the category of buying a car.

Analysis of relationship between personal characteristics and factors influencing brand preference

The main factors influencing Brand Preferences considered in the study by the respondents are price, innovative colour, brand trust, advertisement, mileage and low maintenance cost. Exhibit 4A depicts that 35.33% of the respondents preferred Price as important factor influencing Brand Preference. 18 % of the respondents preferred brand as an important factor. 14% and 14.67% of the respondents preferred advertisement and mileage, 11.33 % of the respondents preferred an innovative colour and the rest 6.67 % of the respondents preferred low maintenance cost.

Exhibit 4 A
Factors Influencing Brand Preferences

Particulars	No of Respondents	Percentage
Price	**53**	**35.33**
Innovative Colour	17	11.33
Brand Trust	27	18
Advertisement	22	14.67
Mileage	21	14
Low Maintenance Cost	10	6.67

Source: Primary Data

In carrying out the Chi square test the following hypothesis was framed Ho – The personal factors like age, sex, marital status, educational status, occupational status, income status have no significant difference over the other factors influencing brand preference like price, innovative colour, brand trust, advertisement, mileage, low maintenance cost etc.

Exhibit 4 B
Analysis of Chi-square Test Results

Personal Profile	Cal. value	Table Value	DOF	Ho Accepted/ Rejected
Age	46.5	18.3	10	Rejected
Sex	56.9	11.07	5	Rejected
Marital Status	22.9	11.07	5	Rejected
Education	51.86	18.3	10	Rejected
Occupation	66.15	24.9	15	Rejected
Income Status	83.89	18.3	10	Rejected

Exhibit 4 B clearly depicts that Ho is rejected and concluded that the personal factors like age, sex, marital status, educational status, occupational status, income status have significant weight over the other factors influencing brand preferences.

Findings and Suggestions

The aim of the study was to understand consumer perception of global brands vs. local brands in the Indian car industry. The car industry in India was undertaken for the study due to the strong growth of the automobile sector in India. Most of the respondents who were interviewed had a good knowledge about the cars in general, so it was expedient for the author thereby to obtain pragmatic and valuable facts in order to pursue the study. Among the 150 respondents interviewed, 114 individuals possessed a local brand and 36 individual possessed a global brand.

Highlighting the factors that effect consumer preference for global car brands assisted the author to relate these factors to understand consumer perception of global vs. local car brands. By attaining this objective, it was found that the respondents, who possessed global car brands, preferred their car brands due to factors such as global presence worldwide reputation and quality of being a foreign make. Prestige or status had a very little or small influence in their preference for global car brands. It was also inferred from the respondents' conversation that they trusted foreign made cars that had a worldwide presence.

Local brands were found to provide satisfaction and good value for money. The respondents, who possessed local brands, trusted the brands and felt safe with them. Quality and trust were the major influencers for possessing local brands. Moreover, prestige or status had only a passive role in the respondents, perceptions, who owned a local car brand. It was derived that global car brands appeal more then local car brands to the respondents. Global car brands were chosen by the respondents in order to gain extra benefits such as quality, worthiness and attractiveness. The respondents who possessed global car brands felt that it was worth buying global brands due superior quality, technological advancements and the reputation of being global. Apart from these, global car brands were often associated by the respondents' to 'luxury', 'comfortness' and as a 'foreign make'.

Conclusion

It was significant to note from the study that most of the respondents perceived local brand to be good in India, but not as good as the global ones in quality, technical expertise and designs of the cars.

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PERSONALITY AND PURCHASE INFLUENCE OF WOMEN

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ABSTRACT

Marketers are interested in understanding how personality influences consumption behaviour because such knowledge enables them to better understand consumers and to segment and target those consumers who are likely to respond positively to their product or service communications. This study investigated the relationship between personality and influence of women in the family purchase decision making of durable goods. Segmentation of women was done based on the factors influencing their personality. The step wise discriminating analysis reveals two independent variables viz. age and education influencing the factor formation as well as cluster classification of women. Based on the findings of the study, a model showing the impact of personality on the influence of women in family purchase decision making based has been developed.

Key words : *Personality, Women, Durables, Chennai, Clusters, Model*

INTRODUCTION

Liebert and Spiegler (1998) defined personality as the "unique, dynamic organization of characteristics of a particular person, physical and psychological, which influence behaviour and responses to the social and physical environment". It is a set of characteristics that accounts for the ways in which individuals differ from one another. According to Fiske (1971) personality can be defined as the consistency of interaction towards a person's external and internal stimuli. Personality research has been a cornerstone in psychology since the early 20th century and been used across various other disciplines outside psychology (Pervin and John, 2001; Monte, 1999). According to Baumgartner (2002), despite its growing popularity in other social science disciplines, the number of personality researches in marketing is considered very limited. It is suggested that marketers often rely to their own personality measurement scales rather than using the existing psychology construct when it comes to personality research (Baumgartner, 2002). On the other hand, management scholars use existing psychology constructs, such as the Big Five, to measure the significance of employees' personality to work behaviour (Heller, Judge and Watson, 2002). Hence, the number of personality researches in management has so far surpassed those in marketing discipline although consumer personality research has received marketing scholars' interest since the 1960s (Westfall, 1962); there has always been a problem in finding the significance of personality to consumer behaviour (Shank and Langemeyer, 1994). It seems that marketers found it difficult to trust personality as a reliable construct to predict behaviour due to the complex nature of the human personality (Blackwell, et al. 2001) and the existence of more powerful tools to predict behaviour such as price, values, product usage, and perception (Shank and Langemeyer, 1994). This resulted in the substantial research gap in marketing discipline, particularly in examining the relationship between consumer personality and purchase influence. Jacoby (1971) argued that the arguments against the significance of personality in predicting behaviour are mostly "without justification". Jacoby (1971) pointed out the fact that most marketing scholars administer a broad-range of personality scales and attempt to correlate response to product preference without any prediction on how specific personality traits might correlate with specific aspects of behaviour. A number of marketing researchers have theorized that personality characteristics predict brand or store preference and other types of buyer activity (Martineau, 1957). Almost any type of buyer decision or choice is believed to be an expression of an individual's personality, and having knowledge of personality structure is directly applicable to marketing planning. (Horton,1979). Consumer psychologists have also found that consumer personality is an effective way to segment markets (example, Engel, Kollat and Blackwell, 1969; Kassarjian, 1971; Kassarjian and Sheffet, 1991). However there has also been a problem in applying the research findings on the consumer personality, as personality-based segmentation in the past was not proved effective (Blackwell, et al. 2001).

Researchers have attempted to relate a wide variety of marketing variables to various theories of personality. For example, product usage (Cohen, 1967; Tucker and Painter, 1961), decision behaviour (Kernan, 1968; Westfall, 1962), purchase behaviour (Evans, 1959, 1961; Koponen, 1960), brand loyalty (Brody and Cunningham, 1968), innovative buying behaviour (Bruce and Witt, 1970; Donnelly, 1970), response to advertising and design features (Holbrook, 1986; Wright, 1975), and product acceptance and rejection (Dolich, 1969) have all been linked to various consumer personality measures.

Most of the research on family purchase decision making is in exploring its determinants. This exploration has covered a wide range from basic personality traits of the spouses to specific life styles of the members (Alexander, 1947; Bell, 1958; Bott, 1957; Foote and Cottrell, 1955; Heer, 1958, 1963;

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Ingersoll, 1948; Komarovsky, 1946, 1961; Lu, 1952; Oeser and Emery, 1954; Parsons and Bales, 1955; Zimmerman, 1947). Kenkel (1957) examined the reinforcing or counteracting effects of dominance, persistence and self-confidence. The latter has been researched further by other researchers in terms of specific self-confidence (Howard, 1969). Lu (1952) constructed a scale on which the spouse can be rated dominant, equalitarian or submissive in relation to the other spouse, and investigated as many as eleven background factors such as attachment or conflict with parents and home involvement prior to marriage. Marketers are interested in understanding how personality influences consumption behaviour because such knowledge enables them to better understand consumers and to segment and target those consumers who are likely to respond positively to their product or service communications.

Objectives of the Study

1. To assess the type of personality of the respondents.
2. To group the respondents into clusters based on the type of personality.
3. To study the impact of personality type on the influence of women in family purchase decisions of durable goods.
4. To develop a model showing the impact of personality on the influence of women in family purchase decision making based on the findings of the study.

Hypotheses

i) There is no significant association between demographics and personality of women.

ii) There is no significant relationship between personality and purchase influence of women.

Methodology

The study was conducted in Chennai city. The researcher has adopted Cluster Sampling procedure for the data collection. The entire population was divided into Central, North, South and West Chennai based on geographical location, using the telephone directory as the source (Table 1). From each part (cluster) of Chennai city, using postal zones all possible areas were identified. Among them, a few areas were selected using Systematic Sampling method covering 50 per cent areas from each cluster (Table 2). From each selected area, the required number of women was selected based on Judgement Sampling or Purposive Sampling by using some common criteria like reference groups, subject knowledge, occupational status and their attitude to cooperate for this study. The prepared questionnaires were distributed among the women residing in areas identified for the survey purpose. The respondents were chosen through friends, relatives and using anf updated telephone directory -2008 as a source for identification. Of the 700 respondents contacted because of incompleteness and other survey difficulties, only 616 usable questionnaires were collected.

Table 1 : Zone wise division of Chennai City

S.No	Zone	Areas
I	Central	Adyar, Anna Road, Chindadripet, Chetpet, Cathedral Road, Gopalapuram, Creams Road, Haddows Road, Ice House, Kotturpuram, Mambalam, Mylapore, Neelangarai, Perungudi, Royapettah, R.K.Nagar, Sholinganallur, Thiruvanmiyur, Thirumalai Road, Triplicane, Valluvarkottam, Vani Mahal
II	North	Agasthyar Nagar, Ambathur, Aminjikarai, Anna Nagar, Avadi, Broadway, Choolai, Ennore, Harbour, Kellys, Kolathur, Manali, Mogappair, Washermanpet, Padi, Perambur, Poonamallee, Pattabiram, Pulianthope, Purasawakkam, Red Hills, Royapuram, Sholavaram, Shenoy Nagar, Thirunindravur, Thiruverkadu, Vallalar Nagar, Villivakkam
III	South	Meenambakkam, Chromepet, Ekkaduthangal, Gowrivakkam, Guindy, Hasthinapuram, Kilkattalai, Madipakkam, Medavakkam, Mugalivakkam, Nanganallur, Perungalathur, Pallikaranai, Pammal, Pallavaram, Pozhichallur, Ramavaram, Rajakilpakkam, Selaiyur, St. Thomas Mount, Tambaram, Tidal Park, Ullagaram, Vandalur, Velachery
IV	West	Arumbakkam, Choolaimedu, Kodambakkam, Koyambedu. K.K.Nagar, Kundrathur, Porur, Maduravoyal, Nelson Manickam Road, Saligramam, Valasaravakkam, Vadapalani, Virugambakkam

(Source: Bharat Sanchar Nigam Limited Chennai Telephones Phone Book 2008)

Table 2
SAMPLING AREA BASED ON SYSTEMATIC SAMPLING

S.No	Zone	Areas
I	Central	Adyar, Chindadripet, Cathedral Road, Creams Road, Ice House, Kotturpuram, Mylapore, Perungudi, R.K.Nagar, Thiruvanmiyur, Triplicane, Vani Mahal
II	North	Ambathur, Anna Nagar, Broadway, Ennore, Kellys, Manali, Washermanpet, Perambur, Pattabiram, Purasawakkam, Royapuram, Shenoy Nagar, Thiruverkadu, Villivakkam
III	South	Chromepet, Gowrivakkam, Hasthinapuram, Madipakkam, Mugalivakkam, Perungalathur, Pammal, Pozhichallur, Rajakilpakkam, St. Thomas Mount, Tidal Park, Vandalur,
IV	West	Arumbakkam, Kodambakkam, K.K.Nagar, Porur, Nelson Manickam Road, Valasaravakkam, Virugambakkam

(Source: Bharat Sanchar Nigam Limited Chennai Telephones Phone Book 2008)

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The Questionnaire

Before the survey administration, pretest of the questionnaire with a small group of respondents was collected and the results were satisfactory. The first part of the questionnaire consisted of questions relating to consumer demographics namely- age, education, income, type of family and family life cycle stage. The second part consisted of questions relating to personality assessment. For this purpose, popular The Big Five Inventory was used. Five point Likert scale (1=Strongly disagree, 2=Disagree, 3=Not certain or undecided, 4=Agree, 5=Strongly Agree) was used to assess the personality of women. The third part related to the measurement of purchase influence of the various family members at each stage of the product purchase decision making process. Consumer durables like Television, Refrigerator and Washing Machine were chosen for this study as they are highly expensive products and also because these are the most common products used by almost every household.

Analysis & Interpretation

The analysis was carried out in two steps. In the first step, the respondent demographics and socio-economic characteristics were plotted and in the second step, the responses for Personality assessment were analyzed through Factor Analysis.

Table 3: Demographic Profile of the Respondents

Characteristics	Number of Respondents	Percentage of Respondents
Age:		
21 to 30 years	128	20.8
31 to 40 years	**221**	**35.9**
41 to 50 years	200	32.5
51years and above	67	10.8
Education:		
Schooling	122	19.8
Graduate	**252**	**40.9**
Post Graduate	123	20.0
Professional	103	16.7
Doctorate	16	2.6
Occupation:		
Housewives	303	49.2
Working Wives	**313**	**50.8**
Monthly Income (INR):		
Nil	303	49.2
3000-7500	43	6.9
7501-15000	**98**	**15.9**
15001-22500	89	14.4
22501-30000	58	9.5
30001and above	25	4.1
Monthly Family Income (INR):		
3500- 20000	160	26.0
20001-40000	**231**	**37.5**
40001-60000	134	21.8
60001-80000	54	8.7
80001-3,00,000	37	6.0
Tenure of marriage:		
Upto 10 years	**217**	**35.2**
11years-20years	166	27.0
21years-30years	206	33.4
31years and more	27	4.4
Number of Children:		
No children	61	9.9
One	200	32.5
Two	**300**	**48.7**
Three	48	7.8
Four	7	1.1
Type of Family:		
Nuclear family	**458**	**74.4**
Joint family	158	25.6
Family Lifecycle stage:		
Couples with no children	61	9.9
Family with the youngest child below 6 years	154	25.0
Family with the youngest child above 6 years but below 18 years	194	31.5
Family with all children above 18 years	**207**	**33.6**
Area of Residence in Chennai city:		
Central Zone	159	25.8
North Zone	**161**	**26.1**
South Zone	154	25.0
West Zone	142	23.1

The above table shows that the sample is well represented and includes women of various age groups, different income levels, different education levels and different types of occupation. The typical respondent in this study is a graduate working woman in the age group of 31 to 40 years earning monthly income of Rs. 7,501-Rs. 15,000 and a monthly family income of Rs.20,001 to Rs. 40,000 been married for ten years having a nuclear family with two children above 18 years. The table also shows an almost equal representation of the respondents from all the four zones of Chennai city hence representative of the Chennai population.

Personality Assessment

Factor Analysis by Principal Component is applied on 44 variables of personality to reduce them into meaningful predominant factors. Measures of Sample Adequacy (MSA) such as correlation matrix, Barlett's test of sphericity and KMO value (0.814) showed that data were fit for factor analysis. Principal Component Analysis was used for extracting factors and the number of factors to be retained was based on latent root criterion, variance explained and Scree Plot analysis. The solution gave eleven factors which explained 61.60% of the total variance. The results were obtained through orthogonal rotations with Varimax and all factor loadings greater than 0.40 (ignoring the sign) were retained. The names of the factors, the statement labels and factor loadings are summarized in Table 4.

Table 4: Factor Analysis Results

Factor No	Name of the factor	Label	Statement	Factor Loading
F1	**Sensitivity**	S7	Is helpful and unselfish with others.	0.696
		S31	Is considerate and kind to almost everyone.	0.672
		S3	Does a job with total involvement.	0.623
		S13	Is a reliable worker.	0.601
		S17	Has a forgiving nature.	0.527
F2	**Introversion**	S21	Tends to be quiet.	0.740
		S6	Is reserved.	0.704
		S1	Is talkative.	-0.675
		S44	Prefers to be quiet in a group of strangers.	0.576
		S26	Generally likes to be alone and does not show much emotion.	0.574
F3	**Emotional Stability**	S14	Can be tense.	-0.694
		S9	Is relaxed, handles stress well.	0.671
		S24	Is emotionally stable, not easily upset.	0.659
		S38	Gets nervous easily.	-0.533
		S19	Worries a lot.	-0.472
		S33	Remains calm in tense situations.	0.461
F4	**Negligence**	S8	Can be somewhat careless.	0.646
		S23	Tends to be lazy.	0.572
		S37	Makes plans and follows them.	-0.483
		S27	Keeps trying and does not give up until the task is finished.	-0.432
		S32	Does things efficiently.	-0.403
F5	**Openness**	S43	Has experience in social situations and knowledge about art,	0.697
			music or literature.	
		S29	Appreciates beauty and art.	0.553
		S40	Has few artistic interests.	-0.501
		S41	Likes to cooperate with others.	0.480
F6	**Dominance**	S25	Has a dominating personality.	0.699
		S12	Starts quarrels with others.	0.508
F7	**Reasoning**	S39	Is full of ideas.	0.623
		S15	Is very intelligent and a deep thinker.	0.583
		S5	Is original, comes up with new ideas.	0.579
F8	**Inquisitiveness**	S25	Generates a lot of enthusiasm.	0.497
		S10	Is curious about many different things.	0.491
		S11	Is full of energy.	0.466
F9	**Diversion**	S42	Is easily distracted.	0.536
		S30	Sometimes worries too much about	0.504
			what to say or do or what other people will think of me.	
F10	**Mundane**	S34	Prefers work that is routine.	0.700
F11	**Creativity**	S20	Has an active imagination.	0.720
		S18	Tends to make a mess of things.	0.416

Thus personality variables depend upon eleven factors namely sensitivity, introversion, emotional stability, negligence, openness, dominance, reasoning, inquisitiveness, diversion, mundane and creativity. Sensitivity relates with being helpful, considerate, kind and unselfish with others as well as having a forgiving nature. It also relates to being a reliable worker, one who does the job with total involvement. Introversion is a tendency to be directed inwards and have a greater affinity for abstract ideas and sensitivity to personal feelings. Introverts are quiet, introspective and emotionally unexpressive. Emotional stability is a tendency of an individual to be relaxed and remaining calm in tense situations. Negligence is a personality trait that exhibits the carelessness and inefficiency of an individual in doing jobs. Openness dimension assesses an individual's proactive seeking and appreciation of experience for its own sake, toleration for and exploration of the unfamiliar. Openness shows an individual has broad interests, is curious, liberal, impractical and likes novelty. Dominance deals with an individual projecting oneself as supreme and commanding over others. Reasoning means abstract thinking, high intelligence and full of ideas. Inquisitiveness reflects curiosity of a person to know things, people and situations. Diversion means the person gets distracted easily by others and their actions. Mundane reflects the tendency of an individual to do regular jobs and not liking any changes. Creativity deals with the thought processes of an individual. It reflects in the development of new ideas.

Table 5: Results of K-Means Cluster Analysis
Final Cluster Centers

Personality	Cluster		
	1	2	3
Sensitivity	3.84(III) (Moderate)	3.99 (I) (Moderate)	3.87 (II) (Moderate)
Introversion	2.99 (III) (Weak)	3.02 (II) (Moderate)	3.20 (I) (Moderate)
Emotional Stability	3.11 (III) (Moderate)	3.14 (II) (Moderate)	3.30 (I) (Moderate)
Negligence	3.33 (II) (Moderate)	3.28 (III) (Moderate)	3.52 (I) (Moderate)
Openness	3.88 (I) (Moderate)	3.84 (II) (Moderate)	3.75 (III) (Moderate)
Dominance	2.51 (II) (Weak)	2.10 (III) (Weak)	2.90 (I) (Weak)
Reasoning	2.72 (II) (Moderate)	2.73 (I) (Moderate)	2.53(III) (Moderate)
Inquisitiveness	3.47 (I) (Moderate)	3.27 (III) (Moderate)	3.43 (II) (Moderate)
Diversion	2.91 (II) (Weak)	2.44 (III) (Weak)	3.71 (I) (Moderate)
Mundane	1.84 (III) (Weak)	4.21 (I) (Strong)	4.19 (II) (Strong)
Creativity	3.14 (II) (Moderate)	2.96 (III) (Weak)	3.58 (II) (Moderate)
Average	3.15	3.27	3.54

Note: Mean values: (1-2.99): Weak; (3-3.99): Moderate; (4-5) : Strong

The Final Cluster Centers table shows the mean values for the three clusters which reflect the attributes of each cluster. For instance, the mean value of the openness and inquisitiveness for the first-cluster is 3.88 and 3.47 respectively and is ranked first for these two factors. This means that the first cluster people give high importance to openness and inquisitiveness. It is also noted from the table that no particular factor is heavily loaded on any particular cluster segment. The rank of the clusters on every factor is also given in the table. The description of all three clusters along with the label is given below.

Venturesome Women

The first cluster can be designated as venturesome women because it has secured third rank in the mean values of factors like sensitivity, introversion, emotional stability, mundane and first rank in openness and inquisitiveness. This means that women under this segment are extroverts by nature; feel comfortable in expressing their emotions frankly to others; hate mundane jobs and are curious by nature. They are basically open-minded women.

Practical Women

The mean value of factors such as sensitivity, reasoning and mundane in this segment is greater than 3.5 and is ranked first for these three factors. This segment ranks third in terms of negligence, dominance, inquisitiveness, diversion and creativity. This means that this segment of women is quite considerate; value others' view points; are logical and prefer routine jobs. These women are realistic and sensible. Hence this segment of women is aptly named as practical women.

Self-reliant Women

The third cluster has a high mean value of 3.54 and is ranked first in many factors such as introversion, emotional stability, negligence, dominance, diversion and creativity. It is ranked third in factors such as openness and reasoning. This means that women under this segment prefer to be alone; like to contemplate a lot, quite calm, composed; lazy by nature; get distracted easily; like to enforce their views on others and are highly imaginative. Hence this group can be designated as Self-reliant Women.

Table 6: ANOVA (Analysis of Variance) for the factors of Personality

Personality	Cluster Mean Square	df	Mean Square	Error df	F	Sig.
Sensitivity	3.370	2	0.278	613	8.866	0.000
Introversion	2.804	2	0.336	613	8.353	0.000
Emotional stability	2.282	2	0.222	613	10.271	0.000
Negligence	3.270	2	0.211	613	15.498	0.000
Openness	2.939	2	0.210	613	8.391	0.000
Dominance	33.334	2	0.677	613	49.258	0.000
Reasoning	3.517	2	0.350	613	9.576	0.000
Inquisitiveness	3.261	2	0.312	613	9.414	0.000
Diversion	85.303	2	0.621	613	137.321	0.000
Mundane	370.679	2	0.178	613	2079.353	0.000
Creativity	21.458	2	0.546	613	39.300	0.000

The final cluster center table shows that the three clusters differ in mean value of all the eleven factors. The ANOVA table indicates that the differences that exist among the three clusters in the mean values are significantly different. The significant value for all the eleven factors is 0.000. This means that all the eleven factors have a significant contribution in dividing women into three segments based on personality.

Table 7: Number of Cases in each Cluster

Cluster	1	195.000	32%
	2	216.000	35%
	3	205.000	33%
Total		616.000	

The number of cases in each cluster of the personality table indicates that there are around 195 women out of 616 women in cluster I of venturesome women followed by 216 women in cluster II of practical women and 205 women in cluster III of self-reliant women.

Testing Suitability of Segmentation

The next primary question is whether the identified clusters are genuine and each cluster differs from the other significantly and personality plays a role in separating women into three segments. For this purpose, reliability of the cluster classification and its stability across the samples has to be verified. Several authors have recommended the use of discriminant analysis for cross validation (Field and Schoenfeidt 1975; Rogers and Linden 1973). Following are the outcomes of discriminant analysis.

Table 8
Tests of equality of group means for the factors of personality

Personality	Wilks' Lambda	F	df1	df2	Sig.
Sensitivity	0.961	8.866	2	613	0.000
Introversion	0.973	8.353	2	613	0.000
Emotional Stability	0.968	10.271	2	613	0.000
Negligence	0.952	15.498	2	613	0.000
Openness	0.969	8.391	2	613	0.000
Dominance	0.862	49.258	2	613	0.000
Reasoning	0.936	9.576	2	613	0.000
Inquisitiveness	0.956	9.414	2	613	0.000
Diversion	0.691	137.321	2	613	0.000
Mundane	0.128	2079.353	2	613	0.000
Creativity	0.886	39.300	2	613	0.000

Table 8 contains Wilks' lambda, the F statistic, its degrees of freedom and significance level. Wilks' lambda is the ratio of the within-groups sum of squares to the total sum of squares. Wilks' lambda in this case ranges from 0.128 to 0.973. The small values of Wilks' lambda indicate that there is a strong group differences among mean values of eleven factors. The F statistic is a ratio of between-groups variability to the within-groups variability. The significance value is 0.000 for all the eleven factors which indicates that the group differences are significant.

Table 9 : Chi-square Analysis Results Demographic variables and clusters:

S. No	Variable	Chi-Square Value	Significant Value	Significant or Not
1	Age	25.884	0.000	Highly Significant
2	Education	25.039	0.002	Significant
3	Occupation	2.184	0.336	Not Significant
4	Income	17.198	0.028	Significant
5	Family Income	21.008	0.007	Significant
6	Number of years been married	23.206	0.001	Significant
7	Number of children	11.093	0.196	Not Significant
8	Type of family	1.703	0.427	Not Significant
9	Number of dependents	2.016	0.918	Not Significant
10	Family lifecycle stage	15.926	0.014	Significant
11	Area of residence	9.339	0.155	Not Significant
12	Native place	0.245	0.885	Not Significant
13	Status of the respondent as a child	1.821	0.935	Not Significant

From the above table it is clear that age, education, income, family income, number of years been married and family life cycle stage have a significant association with personality segments. The other demographic variables such as occupation, number of children, type of family, number of dependents, area of residence in Chennai, native place and status of the respondent as a child have no significant association with personality segments.

Discriminant Function

In the previous analysis, the variables which have impact on the personality of the women are decided by chi-square test. The influencing variables are age, education, income, family income, number of years been married and family life cycle stage. Now, it is necessary to find out which variable is the most significant variable in deciding the woman as a venturesome, practical and self-reliant woman. For this purpose, step wise discriminant analysis is used with personality as a grouping variable and all the variables which have influence on personality as independent variables.

Table 10
Tests of equality of group means for step wise discriminant analysis of personality

Variables	Wilks' Lambda	F	df1	df2	Sig.
Age	0.963	11.906	2	613	0.000
Education	0.970	9.550	2	613	0.000
Gross monthly income	0.982	5.754	2	613	0.003
Monthly family income	0.985	4.520	2	613	0.011
Number of years been married	0.964	11.387	2	613	0.000
Family Lifecycle stage	0.982	5.645	2	613	0.004

The test of equality of group means a table gives information about Wilk's lambda, F statistic and its significance. The variables which have high F value and low significant values are age, number of years been married, education, gross monthly income, family life cycle stage, monthly family income and these variables can be called discriminating variables.

Table 11
Variables entered/removed under the step wise discriminant analysis of personality

Step	Entered	Wilks' Lambda	df1	df2	df3	Exact F	df1	df2	Sig.
1	Age	0.963	1	2	613.000	11.906	2	613.000	0.000
2	Education	0.932	2	2	613.000	10.900	4	1224.000	0.000

The above table displays statistics for the variables entered or removed at each step. To identify all the influencing variables, two steps are taken. In the first step the most discriminating variable age is entered and in the second step, next important variable education is entered. All the other variables are removed from the analysis. The statistics for the two variables are displayed in the above table.

Table 12
Final variables under the step wise discriminant analysis of personality

Step		Tolerance	F to Remove	Wilks' Lambda
1	Age	1.000	11.906	
2	Age	0.850	12.271	0.970
	Education	0.850	9.916	0.963

The above table displays statistics for the variables that are in the analysis at each step. The step wise discriminant analysis revealed two independent variables viz age and education influencing the factor formation as well as cluster classification. The segmentation of these categorical variables possess different parameters-mean and variance to have the influence over the personality traits of women in family purchase decisions.

Table 13
Structure matrix for the step wise discriminant analysis of personality

	Function	
	1	2
Age	0.927*	-0.375
Number of years been married	0.813*	-0.462
Family life cycle stage	0.632*	-0.454
Education	-0.013	1.000*
Gross monthly income	0.086	0.565*
Monthly family income	0.047	0.329*

(*denotes largest absolute correlation between each variable and any discriminant function)

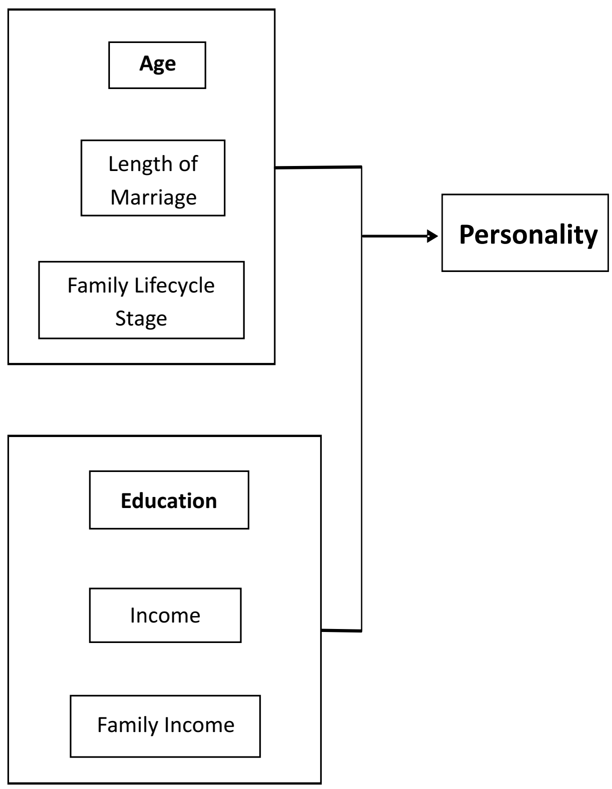
The structure matrix contains within-group correlations of each predictor variable with the canonical function. This matrix provides another way to study the usefulness of each variable in the discriminant function. The variables are ordered by the size of the correlation. There are two discriminant functions which can be used to study the personality characteristics of population. The discriminant functions are as follows:

Z1 =0.927 * Age + 0.813 * Number of years been married + 0.632 * Family Life cycle stage

and

Z2 = 1.000 * Education + 0.565 * Gross monthly income + 0.329 * Monthly family income

Fig : 1
Personality Model



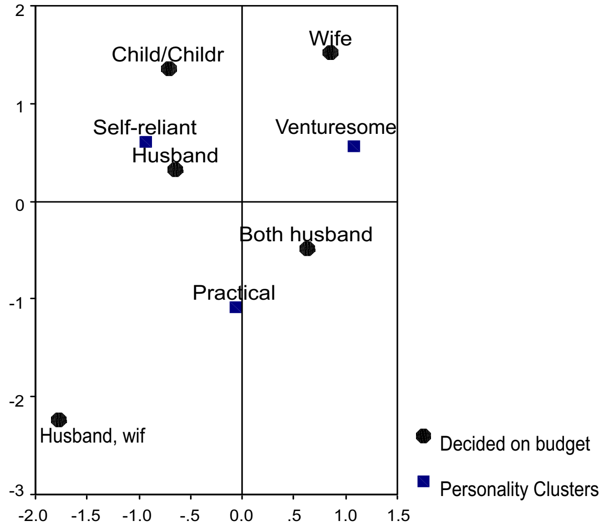
Relationship between Personality segments and Purchase decision making of durables

It is necessary to analyze the factors that determine personality based segmentation. The chi-square analysis was done to find out whether personality has impact over the influence of women at various stages of the purchase decision making process.

Table14
Chi-square value for association between personality segments and purchase decision making of television

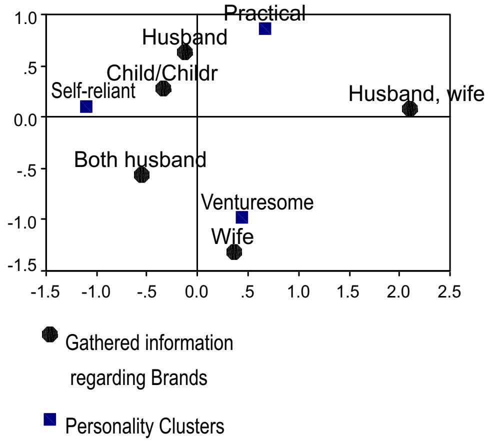
S. No	Stages	Chi-Square Value	Significant Value	Significant or Not
1	Started an idea of purchase	20.898	0.022	Significant
2	Decided how much to spend	20.348	0.026	Significant
3	Gathered information regarding Price	15.803	0.105	Not Significant
4	Gathered information regarding Brands	19.567	0.034	Significant
5	Gathered information regarding Features	10.346	0.411	Not Significant
6	Visited stores/showrooms	15.605	0.112	Not Significant
7	Decided on Style/Type	30.285	0.001	Significant
8	Decided on Size	9.393	0.495	Not Significant
9	Decided on a Specific Brand	15.554	0.113	Not Significant
10	Decided on a Specific Store/Showroom	21.017	0.021	Significant
11	Decided on when to buy	8.366	0.593	Not Significant
12	Decided on mode of payment	10.455	0.402	Not Significant
13	Actually went to the store/showroom and made the purchase	20.448	0.025	Significant

Fig: 2
Association between personality segments and decision on budget for the purchase of television



The Optimal Scaling diagram shows that venturesome women had played an active role in deciding the budget whereas in case of self-reliant families, husbands played the main role while in case of practical families, both husband and wife had more influence in fixing the budget for the purchase of television.

Fig : 3
Association between personality segments and gathering information regarding brands of television



The Optimal Scaling diagram shows that venturesome women are playing an active role in gathering information about various brands of television whereas in case of self-reliant families, children played an active role while in case of practical families, husband was more active.

Table 15

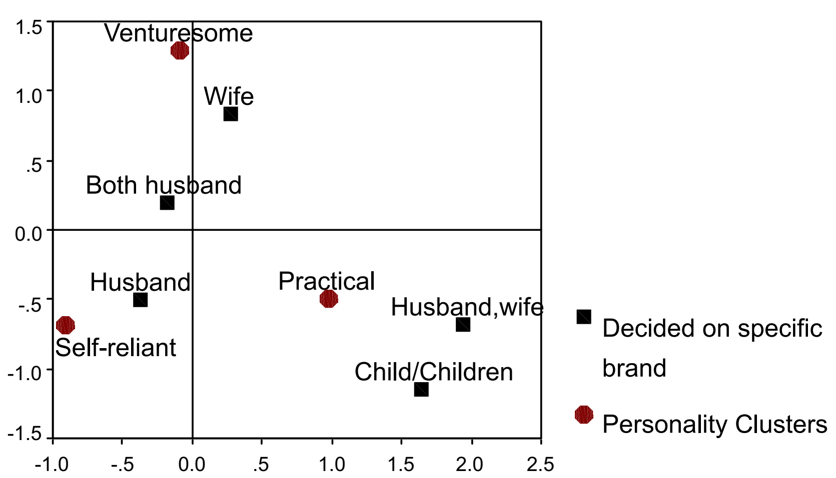
Chi-square value for association between personality segments and stages in purchase decision making of refrigerator

S. No	Stages	Chi-Square Value	Significant Value	Significant or Not
1	Started an idea of purchase	9.538	0.482	Not Significant
2	Decided how much to spend	19.293	0.037	Significant
3	Gathered information regarding Price	17.449	0.065	Not Significant
4	Gathered information regarding Brands	12.653	0.244	Not Significant
5	Gathered information regarding Features	20.192	0.027	Significant
6	Visited stores/showrooms	15.753	0.107	Not Significant
7	Decided on Style/Type	31.958	0.000	Highly Significant
8	Decided on Size	10.820	0.372	Not Significant
9	Decided on a Specific Brand	20.120	0.028	Significant
10	Decided on a Specific Store/Showroom	14.823	0.139	Not Significant
11	Decided on when to buy	12.452	0.256	Not Significant
12	Decided on mode of payment	10.577	0.391	Not Significant
13	Actually went to the store/showroom and made the purchase	11.288	0.336	Not Significant

It can be inferred that the personality segments have a significant association with stages of purchase decision making such as deciding how much to spend, gathering information regarding features of various brands, decided on style/type and decided on a specific brand of refrigerator. The other stages such as starting an idea of purchase, gathered information regarding price, brands, visited showrooms, decided on size, showroom, decided on when to buy, decided on the mode of payment and actually went to the showroom and made the purchase of refrigerator have no significant association with personality segments.

Fig: 4

Association between personality segments and decision on specific brand for the purchase of refrigerator



The Optimal scaling diagram shows that venturesome women are playing a prime role in finalizing the brand of refrigerator while in the case of self-reliant families, the husband had more influence and in the case of practical families, husband, wife and children all together had more influence in finalizing the brand of refrigerator.

Table 16
Chi-square value for association between personality segments and stages in purchase decision making of washing machine

S. No	Stages	Chi-Square Value	Significant Value	Significant or Not
1	Started an idea of purchase	11.906	0.291	Not Significant
2	Decided how much to spend	7.468	0.681	Not Significant
3	Gathered information regarding price	7.414	0.686	Not Significant
4	Gathered information regarding brands	9.543	0.481	Not Significant
5	Gathered information regarding features	16.163	0.095	Not Significant
6	Visited stores/showrooms	15.736	0.107	Not Significant
7	Decided on style/type	13.891	0.178	Not Significant
8	Decided on size	9.233	0.510	Not Significant
9	Decided on a specific brand	7.925	0.636	Not Significant
10	Decided on a specific store/showroom	11.733	0.303	Not Significant
11	Decided on when to buy	10.323	0.413	Not Significant
12	Decided on mode of payment	13.016	0.223	Not Significant
13	Actually went to the store/showroom and made the purchase	7.079	0.718	Not Significant

From the above table it is clear that all the thirteen stages of purchase decision making such as starting an idea of purchase, decided how much to spend, gathered information regarding price, brands, features, visited showrooms, decided on size, decided on style/type, decided on a specific brand, decided on a specific showroom, decided on when to buy, decided on the mode of payment and actually went to the showroom and made the purchase of washing machine have no significant association with personality segments.

Conclusion

The study has assessed the eleven key personality factors of women as sensitivity, introversion, emotional stability, negligence, openness, dominance, reasoning, inquisitiveness, diversion, mundane and creativity. Based on these key personality traits the respondents were categorized into three distinct groups called as venturesome women, practical women and self-reliant women. All the three groups showed significant association with demographic variables like age, education, income, family income, number of years been married and family lifecycle stage. Venturesome women are playing an active role in the family purchase decisions of durables when compared to practical and self-reliant women.

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BRAND POSITIONING OF MOBILE SERVICE PROVIDERS - A CASE STUDY OF DELHI AND NCR REGION

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ABSTRACT

The mobile telecom industry is experiencing tough competition amongst all the mobile service providers, each providing cheaper and innovative service. A variety of schemes and offers have been launched to attract customers. In the backdrop of this scenario, this study is conducted to understand how customers place these companies in their mind. This study tries to judge the perception of respondents by taking into account Economy, Performance and valued added Services provided by service providers with the help of Multi Dimensional Scaling with SPSS.

Keywords : *Brand, Customer, Service, Performance*

INTRODUCTION

The telecom network in India is the fifth largest network in the world meeting with global standards. Presently, the Indian telecom industry is currently slated at an estimated contribution of nearly 1% to India's GDP.

The Indian telecommunications network with 280 million connections is the fifth largest in the world and the second largest among the emerging economies of Asia. Today, it is the fastest growing market in the world and represents unique opportunities for U.S. companies in the stagnant global scenario. The total subscriber base, which has grown by 40% in 2005, has reached 280 million in 2008. Continuing the growth story of India's telecom sector, the last 12 months have seen one of the 11 telecom service operators, BSNL alone placing an order for 45 million mobile phone lines with two equipment providers Ericsson and Nokia-Siemens. Close on the heels of this, BSNL is set to place another order for 108 million lines to be installed in the next three years starting 2008. The largest private sector operator Bharti Airtel is adding 125 million lines and the new entrant Vodafone which bought the existing operator Hutch has ambitious plans for expansion in the Indian market. The other operators have their own expansion plans. In the mobile domain both GSM and CDMA platforms are competing. The focus now is to reach out to the 600 million Indians in rural areas even as big retailers are setting up supply chains connecting farms to stores in the US 340 billion dollar Indian retail industry. This is part of the Indian telecom expansion completing 250 million connections in 2007, going on to install 500 million lines by 2010 and 600 million by 2012. Part of this expansion will be in Third Generation and the New Generation Networks (NGN) will constitute a major part of this expansion.

The market opportunities

India is the fastest growing telecom network in the world today and second largest in Asia. Year 2006-07 witnessed 66 per cent growth in networks. Mobile handset sales were nearly 100 million a year and PCs six million plus.

In the next three years, the plans are :

- 500 million telephone connections.
- Of these, at least 150 million will be in rural areas where farmer-entrepreneurs are changing the countryside.
- 40 million high speed Internet subscribers.
- 20 million broadband subscribers with 2MBPS bandwidth.
- 100,000 common service centers in villages.
- Wide area data networks in 23 states.
- US $ 5.8 billion e-Governance programme.
- Millions of citizenship cards to be issued with biometric identification.
- Several networks in healthcare, education, research, videoconferencing facilities across the country, VoIP, VPN and IN.

Table 1 : Telecom Stats : (Till January 2008)
Total telephone subscriber base: 281.62 million
New Subscriber Additions in January: 8.74 million
Over all Tele-density: 24.63 %
Fixed-line user base: 39.22 million (down from Dec figure of 39.25)
Wireless user base (GSM, CDMA and WLL (F)): 242.40 million
Total broadband subscriber base: 3.24 million
Source : http://www.telecomindiaonline.com/indian_telecom_stats.html

Review of Literature

Pakola et. al. (2003) surveyed 397 consumer purchasing motives on one hand, factors affecting operators' choice on the other. The results indicated that while price and properties were the most influential factors affecting the purchase of

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a new mobile phone, whereas audibility, price and friends operators were regarded as the most important in choice of mobile service operator.

Liu (2002) examined factors affecting the brand decision in the mobile phone industry in Asia. It is concluded that the choice of mobile phone is characterized by two distinct attributes of brands: attitude towards the mobile phone brand on one hand and attitude towards the mobile phone network on the other. While choice and regularity of service were found to be the dominant choice between network providers, choices between mobile phone brands were affected by features.

Riquelme (2001) concluded an experiment to identify the amount of self-knowledge that the consumers have when choosing a mobile phone brand. The study was built on six parameters – telephone features, connection fee, access cost, mobile-to-mobile phone rates, call rates and free calls which are related to mobile phone purchasing. The research shows that consumers with prior experience about the product can predict their choices relatively well but tend to overestimate the importance of features and overestimate the connection and monthly fees.

Objectives and Research Methodology of the Study

This section defines the objectives of the study and presents the research methodology.

Objective of the Study

The study was undertaken to determine the perception of consumers in Delhi and NCR region about different mobile service providers. A statistical; approach, 'Multi Dimensional Scaling' has been used for the study.

Research Methodology

The study is based on primary data collected from the adopters of mobile phones in Delhi and NCR region with the help of a well drafted , pre-tested and structured questionnaire. The data was collected on a combination of simple random and judgment sample of 120 consumers. Six mobile service providers present in the region have been considered for this study. The different service providers considered are : (1) Airtel (2) Idea (3) Vodafone (4) MTNL (5) Reliance (6) Tata Indicom. These service providers are measured on 12 attributes namely : Call Charges, SMS Rates, Talk-Time, Roaming Charges, Network Coverage, Voice Clarity, Timely SMS Delivery, Customer Care, SMS Offers, Ring Tones and Downloads, New Updates, Horoscopes and other services.. In the set of questionnaires, these 12 attributes are asked from different respondents on the likert scale (usually on a scale of 5), where 1- Strongly Disagree, 2- Disagree 3- Neutral, 4- Agree, 5- Strongly Agree ,revealing the perceptions about the given brands. Further we have divided these 12 attributes to three major headings such as economy, performance and value added services (Natarajan, 2006).

Finally the data collected was fed into the data analysis software- SPSS, to be analyzed using statistical techniques like: frequencies, Chi square distribution, cross tabs and Multi Dimensional Scaling.

Data Analysis

The total number of responses were 120. Out of 120 respondents 60 (50%) were males and 60 (50%) were females. Income - wise, 46 (38.3%) were in the income group of Rs.6000 – Rs.10, 000 monthly, 11 (9.2%) were in the monthly income group of Rs.11, 000 - Rs.15,000, 33 (27.5) were in the monthly income group of Rs.16,000 to Rs. 20,000, 18 (15%) were in the monthly income group of Rs.21, 000 - Rs.25, 000 and 12 (10%) were in the monthly income group of Rs.26, 000 and above. Age-wise 25(20.8 %) of respondents were in an age group of 16-20 years, 27(22.5 %) of respondents were in an age group of 21-25 years, 22(18.3 %) of respondents were in an age group of 26-30 years, 22(20%) of respondents were in an age group of 31-35 years and 22(18.3 %) of respondents were in an age group of 36 years and above. Profession–wise, 37(30.8 %) of respondents were in services, 14(11.7 %) of respondents were in business, 55(45.8 %) of respondents were students, 7(5.8 %) of respondents were non-working and 7(5.8 %) of respondents were in others

Table 2 : Demographic Characteristics of Sampled Respondents

		Frequency	Percent	Cumulative Percent
Gender	Male	60	50.0	50.0
	Female	60	50.0	100.0
	Total	120	100.0	
Income	6-10	46	38.3	38.3
	11-15	11	9.2	47.5
	16-20	33	27.5	75.0
	21-25	18	15.0	90.0
	26 & above	12	10.0	100.0
	Total	120	100.0	
Age Group	16-20	25	20.8	20.8
	21-25	27	22.5	43.3
	26-30	22	18.3	61.7
	31-35	24	20.0	81.7
	36 & above	22	18.3	100.0
	Total	120	100.0	
Profession	Services	37	30.8	30.8
	Business	14	11.7	42.5
	Student	55	45.8	88.3
	Not Working	7	5.8	94.2
	Others	7	5.8	100.0
	Total	120	100.0	

Current Mobile Service User Group

It is found from (Table 3) that the current market leader in mobile service provider is Airtel with a market share of 30%, followed by Reliance with 27.50% of market share and Vodafone is in third place with 20.83% of market share, Where idea has 10.83% of market share, MTNL and Tata Indicom are equally competitive , having 5.83% and 5.00% of market share respectively.

Table 3 : Current Mobile Service User Group

	Frequency	Percent	Cumulative Percent
Service Providers			
Vodafone	25	20.8	20.8
Airtel	36	30.0	50.8
Idea	13	10.8	61.7
MTNL	7	5.8	67.5
Reliance	33	27.5	95.0
Tata Indicom	6	5.0	100.0
Total	120	100.0	

Service Using

It is found from (Table 4) that maximum no of respondents who are using mobile phones are basically using prepaid services with 56.67% of the total users whereas rest of the people are using postpaid services.

Table 4 : Service Using

	Frequency	Percent	Cumulative percent
Service Using			
Pre paid	68	56.7	56.7
Post Paid	52	43.3	100.0
Total	120	100.0	

Most Preferred Usage of Mobile Phone

It is found from (Table 5) that 57.50% of respondents preferred local calls, 14.2% of respondents preferred STD calls and 11.7% of respondents preferred local SMS.

Table 5 : Most Preferred Usage of Mobile Phone

	Frequency	Percent	Cumulative Percent
Mobile Usage			
Local SMS	14	11.7	11.7
National SMS	7	5.8	17.5
International SMS	8	6.7	24.2
Local Calls	69	57.5	81.7
STD Calls	17	14.2	95.8
International calls	5	4.2	100.0
Total	120	100.0	

Gender and Service Using

Gender of respondents influence the using of service.. The role of gender of respondents with respect to service using was analyzed and the relevant particulars are presented in Table 6 and 7

Table 6: Service using

		Pre paid	Post Paid	Total
Gender	Male	28	32	60
	Female	40	20	60
	Total	68	52	120

H0: the use of kind of service by the users is independent of gender.

H1: the use of kind of service by the users is dependent on gender.

Table 7 : Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.887	1	.027		
Continuity Correction	4.106	1	.043		
Likelihood Ratio	4.923	1	.026		
Fisher's Exact Test				.042	.021
Linear-by-Linear Association	4.846	1	.028		
N of Valid Cases	120				

Chi-square test is applied to find whether there is any significant difference among the gender and service usage. The result shows that the calculated Chi-square value is 4.887 and significance is .042, which is smaller than the p-value of 0.05, so the hypothesis is rejected. Hence there is a significant difference among the use of kind of service by the users and gender. Hence, from Table 6 it is found that males are using Postpaid Service more while females were using prepaid services.

Profession and Service Using

Profession of respondents influence the using of service.. The role of profession of respondents with respect to service using was analyzed and the relevant particulars are presented in Tables 8 and 9

Table 8 :Service current using

		Pre paid	Post paid	Total
Profession	Services	12	25	37
	Business	0	14	14
	Student	45	10	55
	Not Working	6	1	7
	Others	5	2	7
	Total	68	52	120

H0: The use of kind of service by the users is independent of profession.
H1: The use of kind of service by the users is dependent on profession

Table 9 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.353	4	.000
Likelihood Ratio	51.317	4	.000
Linear-by-Linear Association	22.724	1	.000
No of Valid Cases	120		

Chi-square test is applied to find whether there is any significance difference among the Profession and Service usage. The result shows that the calculated Chi-square value is 44.353 and significance is .000, which is smaller than the p-value of 0.05, so the hypothesis is rejected. Hence there is a significant difference among the use of kind of service by the users and professions. Hence, from Table 8 respondents in service and business (42.5%) are using postpaid services while students (45.8 %) are using prepaid services.

Perceptual Mapping of Mobile Service Providers

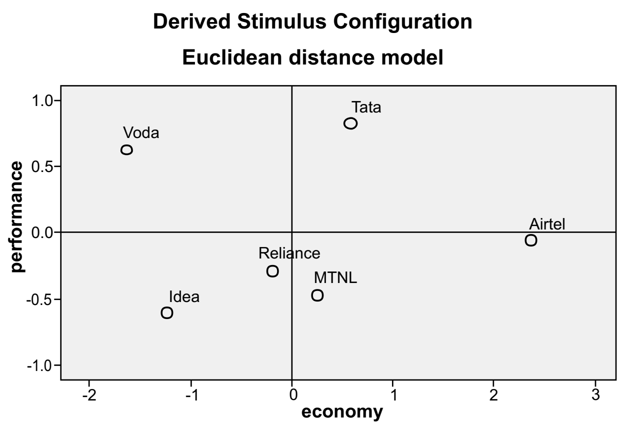
The data collected from the respondents in respect of each attribute and for each and every selected brand was averaged to get the mean rating for each brand on different attributes. These are shown in Table 10 to obtain MDS perceptual map, these average ratings so arrived at were subjected to a predetermined format for MDS analysis using SPSS .The plots of different attributes in Factor 1 and 2 are shown in Figure 1 and Factor 1 and 3 in Figure 2.. The plot of features by combining performance and value added services, and economy is shown in Figure 3 to know the overall rating for each brand..

Table 10 : Average Rating

Factor		Airtel	Vodafone	MTNL	Idea	Reliance	Tata
Economy	A	2.05	1.97	2.1	2	2.43	2.13
	B	2.78	2.26	2.2	2.38	2.07	2.13
	C	2.68	2.8	2.8	2.46	2.92	2.67
	D	2.36	3.08	2.88	3.22	2.59	3.06
Performance	E	1.78	1.98	2.58	2.44	1.84	2.3
	F	2.55	2.68	2.57	2.55	2.56	2.59
	G	2.8	2.53	2.24	2.26	2.43	2.45
	H	2.9	2.82	2.52	2.83	3.1	2.69
Value Added Services	I	1.86	1.95	2.3	2.21	2.03	2.08
	J	2.5	2.33	2.66	2.51	2.48	2.42
	K	2.39	2.73	2.5	2.86	2.56	2.49
	L	3.18	2.97	2.54	2.46	2.93	2.93

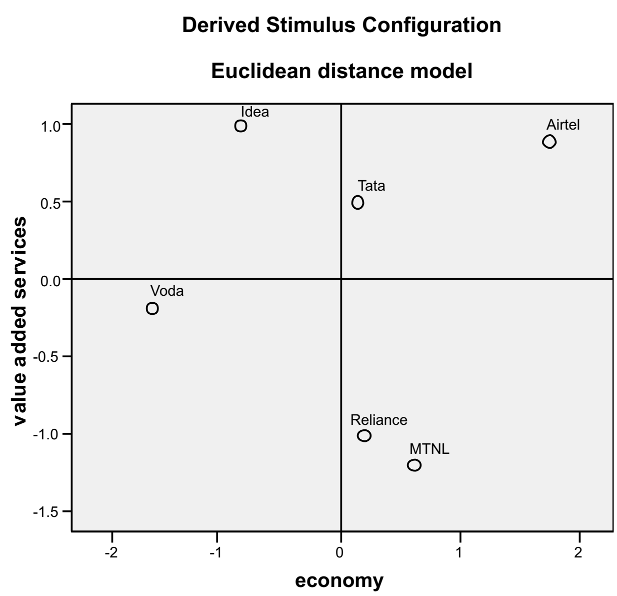
Note: A:Call Charges, B: SMS Rates, C:Talk-Time, D:Roaming Charges, E:Network Coverage, F:Voice Clarity, G:Timely Delivery, H:Customer Care, I:SMS offers, J:Ring tones and Downloads, K:New Updates and L: Horoscope and other services.

Figure 1: Plots of attributes in Dimension 1 (Economy) and Dimension 2 (Performance)



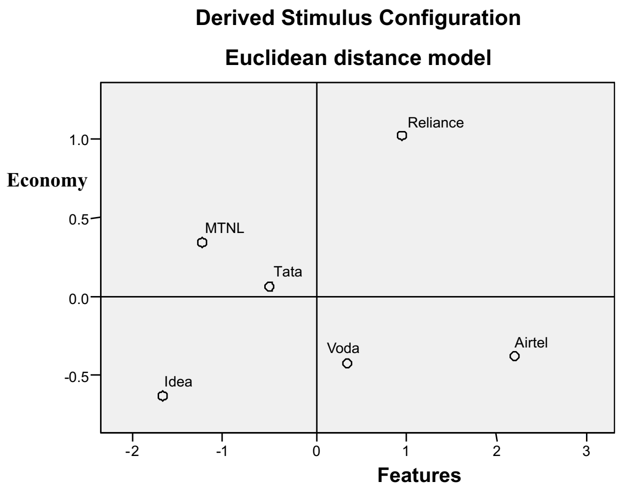
On comparing the service providers on two bases that is economy and performance from (figure 1) it is found that Airtel is leading the race among all and is high on economy but is an average on performance, Vodafone, is good in performance but is not very economical , MTNL is following a mediocre path and is same in economy and performance., Idea is far behind every one and is lacking both in performance and economy, Reliance, is average in both economy and performance and Tata, is leading the chart on performance basis but was behind Airtel in economy.

Figure 2: Plots of attributes in Dimension 1 (Economy) and Dimension 3 (Value Added Services)



On comparing the service providers on two bases, that is economy and value added services, from figure 2 it is found that Airtel, is high on value added services and economy. Vodafone, is low in economy as well as value added services MTNL, is found to be economical but is not filled with value added services, Idea, is high on value added services but is low on economy, Reliance, is good in economy but is not up to the mark when we talk about value added services and Tata, is found to be an average player on both value added services and economy.

Figure 3: Plots of attributes in Dimension 1 (Economy) and Dimension (2+3) Features



On comparing the service providers by combining performance with valued added services and economy from Figure 3, it is found that Airtel, is most economical and at the same time providing the best features compared to its competitors, Reliance, is near in features as compared to Airtel but is least economical,. Vodafone is lacking both in economy as well as in features, Tata, is low featured and averagely priced and the features of Idea and MTNL are almost same but MTNL is higher in price.

Conclusion

From this study it is found that service usage by the users is dependent on gender. Males preferred postpaid services the most where as females preferred prepaid services. It is also found that students prefer prepaid services, whereas post paid service is mostly preferred among the service class and business professionals. Multi dimensional scaling reveals that Airtel emerges as a market leader in terms of Economy and Features and is followed by Vodafone. A marketer is always interested to know how his brand is being accepted by its customers. The brand positioning analysis helps him in knowing his customers' perceptions. He is also able to know customer positioned different competing brands and where the improvement is required. Such an analysis will be helpful to companies to determine which brand to support and to which extent. It also helps the brands to reposition them by identifying the gaps in positioning.

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CAPITAL STRUCTURE ANALYSIS OF POWER INDUSTRY WITH SPECIAL REFERENCE TO POWER GRID CORPORATION OF INDIA LTD

Hashima Kakkar*

ABSTRACT

Capital structure is the mix of a company's financing. Capital structure can influence not only the return a company earns for its shareholders, but also helps in determining whether or not a firm survives will survive in recession or depression. There are two most popular and widely used methods by which a company can get finance 1) Owned Capital (Equity) 2) Borrowings (Debt). An optimal debt equity mix gives a good picture of the financial health of the company. During 1990 with the advent of LPG waves, various financial reforms of the Government were taken. The most prominent among them was the reduction in rate of interest in the organized debt market. Because of this, the economy witnessed a steep fall in interest rates. This was the main threshold of capital structure planning. Because of this many industries recognized and reorganized their capital structure. The present study aims at analyzing the capital structure of the power industry with special reference to the power grid. The study is based on the analysis of 5 years' annual reports of POWER GRID India Ltd. i.e. from 2004-05 to 2008-09. The study revealed that the company has the policy of using 'Trading on Equity'. So POWER GRID India Ltd. has more dependence on outsider funds. Adopting this policy may be the reason behind its great success in the present era.

Keywords : *Capital Structure, Corporations, Debt-equity ratio.*

INTRODUCTION

Capital may be defined as the permanent long-term financing of a company. In business term capital structure is the mix of types of debt and equity the company has on its balance sheet. Debt comes in the form of bond issues or long-term notes payable. Short-term debt such as working capital requirements is also considered to be part of the capital structure. A company's proportion of short and long-term debt is considered when analyzing capital structure. Equity includes common stock, preferred stock or retained earnings. The capital structure is how a company finances its overall operations and growth by using different sources of funds. When people refer to capital structure they are most likely referring to a firm's debt-to-equity ratio, which provides insight into how risky a company is. Usually a company more heavily financed by debt poses greater risk, as this firm is relatively highly levered. A method of analyzing the impact of alternative possible capital structure choices on a firm's credit statistics and reported financial results, especially to determine whether the firm will be able to use projected tax shield benefits fully. There are different methods of analyzing capital structure of the company are ratios, trend analysis, common size statements ,comparative statements .In this article the analysis of capital structure of POWER GRID is done through ratios.

About The Company

POWER GRID, a Navratna Public Sector Enterprise, is one of the largest transmission utilities in the world. POWER GRID wheels about 45% of the total power generated in the country on its transmission network. POWER GRID has a pan India presence with around 71,500 Circuit kms of Transmission network and 120 nos. of EHVAC and HVDC sub-stations with a total transformation capacity of 79,500 MVA. POWER GRID has also diversified into the telecom business and established a telecom network of more than 20,000 kms across the country. POWER GRID has consistently maintained the transmission system availability over 99% which is at par with international utilities. The objective of Power Grid Corporation of India Ltd is to create a strong and vibrant National Grid in the country to ensure the optimum utilization of generating resources, conservation of an eco-sensitive right of way and the flexibility to accommodate the uncertainty of generation plans.

Research Methodology

In a literal sense, Research Methodology is the art of explaining how a particular research should be conducted, as there are different ways of conducting research. Research methodology explains and chooses the best (in terms of quality and economy) way of doing it. The information and data for research can be collected through primary as well as secondary sources. This research is based on data taken from secondary sources i.e. annual reports, websites and other published journals. The Balance Sheet and Profit & Loss Account of the corporation for the last 5 years i.e. from 31 March 2004 to 31 March 2009 were studied to get a clear picture of the capital structure. The available data has been carefully analyzed, interpreted and presented by studying the capital structure of POWERGRID. Commensurate with the objectives of the study, various tools

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of analysis have been employed in order to arrive at certain conclusions regarding "Capital Structure of POWER GRID". Tabular analysis, percentages and graphs have been used for analysis of data.

Objectives of the Study

The main objective of the study is to analyze the capital structure position of POWER GRID Ltd. The above stated objective has been approached by analyzing the various ratios of the company which include Debt-Equity Ratio, Funded Debt to Total Capitalization, Solvency Ratio, Proprietary Ratio and Interest coverage ratio. Other objectives are to examine the company's policy regarding capital structure and the effect of capital structure on the profitability of the company in relation to various ratios.

Analysis of the Study

- The findings are achieved after analyzing the following capital structure ratios of POWER GRID CORPORATION OF INDIA LIMITED .These ratios are as follows:
- Five years' analysis of Debt Equity Ratio
- Five years' analysis of Funded Debt to total Capitalization Ratio
- Five years' analysis of Solvency Ratio
- Five years' analysis of Proprietary Ratio
- Five years' analysis of Interest Coverage Ratio
- Five years' analysis of Capital Gearing Ratio
- Five years analysis of Earning Per Share

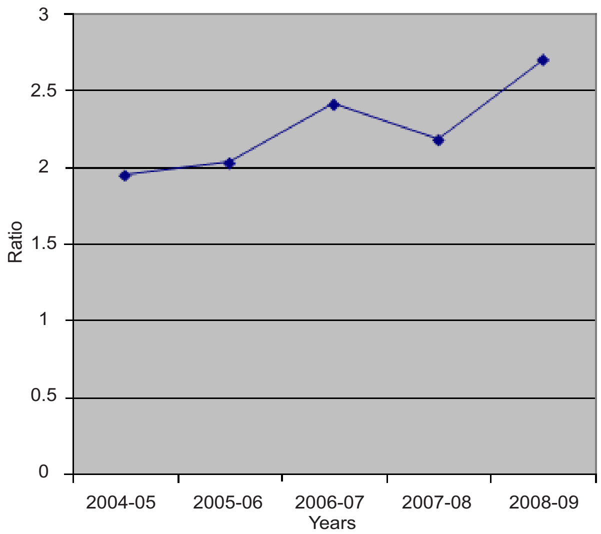
Analysis of Debt Equity Ratio

Debt equity ratio shows the relative proportion of debt and equity in financing the assets of a firm. It measures the company's financial leverage calculated by dividing its total liabilities by stakeholders' equity. It is calculated to measure the extent to which financing has been used in business. The objective is to provide a security to outsiders on liquidation of the firm. An approximate mix of debt and equity improves the value of the firm.

Table 1
Debt Equity Ratio of POWER GRID Ltd

Year	Debt (Rs) Crores	Equity (Rs) Crores	Ratio
2004-05	16812.7	8617.02	1.95
2005-06	19799.33	9708.30	2.04
2006-07	25781.16	10687.57	2.41
2007-08	29479.31	13500.18	2.18
2008-09	39476.75	14618.09	2.70
Compound Growth Rate	134.80%	69.64%	

Graph 1
Debt Equity Ratio of POWER GRID Ltd



Source: Compiled from Annual reports of POWER GRID Ltd (2005-09)

As per the table 1 Debt Equity Ratio of POWER GRID is 1.95 in the year 2004-05. In the subsequent year it is 2.04. In 2006-07 it is 2.41 and in 2007-08 it is 2.18 , and in the year 2008-09 it rose to 2.70.The analysis clearly reflects that ratio is at the increasing trend. When we analyze the compound growth rate of debt, it is 134.80% which is much higher as compare to equity whose compound growth rate is 69.64%. if we look at overall Debt Equity ratio, it is increasing year after year except in 2007-08 .It means the dependence of POWER GRID on external sources as a source of fine is more then equity That means company is adopting higher risk policy.

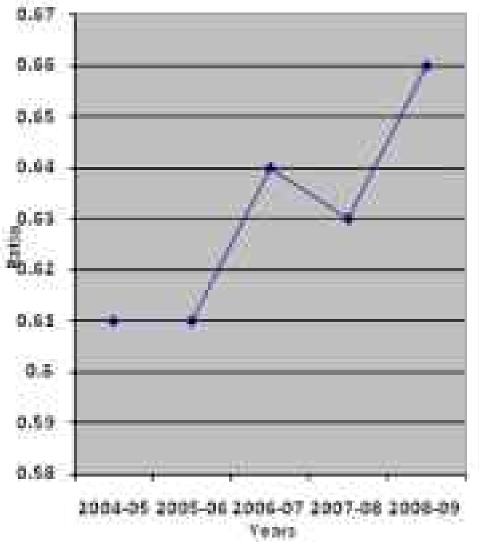
Analysis of Funded Debt to Total Capitalization Ratio

The ratio establishes the link between the long term fund raised from outsiders and total long term funds available from the owners of the business. Funded debt to total capitalization is also one of the important ratios that explain the capital structure position of the Company. There is no standard rule for the ratio but normally the smaller the ratio, the better it will be

TABLE 2
Funded Debt to total Capitalization Ratio of POWER GRID Ltd

Year	Funded Debt (Rs in crores)	Total Capitalization (Rs in crores)	Ratio
2004-05	13388.04	22005.06	.61
2005-06	15026.13	24734.43	.61
2006-07	19325.50	30013.07	.64
2007-08	22263.48	35763.66	.63
2008-09	28465.43	43083.52	.66
Compound Growth Rate	112.62%	95.78%	

Graph 2
Funded Debt to total Capitalization Ratio of POWER GRID Ltd



Source: Compiled from Annual reports of POWER GRID (2005-09)

As per the table 2, the ratio is 0.61 in 2004-05 and 2005-06. The ratio increased a little to 0.64 in the year 2006-07 and in t 2007-08 it fell down to 0.63 by a mere 0.01 percent. The ratio was .66 in the year 2008-09. Which shows that the ratio is more or less stable over the year which is good for the company itself. The dependence of POWER GRID on outsiders long term funds is stable, not so high, which reduces the financial burden . If we see the compound growth rate of funded debt, it is 112.62 % and of Total Capitalization, it is 95.78%. Which shows the funded debts rise is higher than Total Capitalization. This simply means there is more reliance of company on using debt as a source of finance.

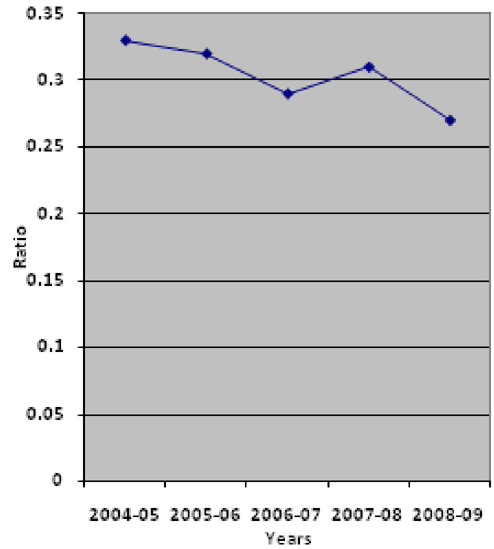
Analysis of Proprietary Ratio

Proprietary ratio establishes the relationship between shareholders' funds to the total assets of the company. It is also known as equity ratio or net worth to total assets ratio. Proprietary / equity ratio indicates the long-term or future solvency position of the business. It is generally observed that the higher the ratio i.e. shares of shareholders in the total capital of the company , the better is the long term solvency of the company.

TABLE 3
Proprietary Ratio of POWER GRID Ltd

Year	Equity (Rs in crores)	Total Assets (Rs in crores)	Ratio
2004-05	8617.02	25814.00	0.33
2005-06	9708.30	29780.59	0.32
2006-07	10687.57	36733.18	0.29
2007-08	13500.18	43226.29	0.31
2008-09	14618.09	54320.19	0.27
Compound Growth Rate	69.64%	110.42%	

GRAPH 3
Proprietary Ratio of POWER GRID Ltd



Source: Compiled from Annual Reports of POWER GRID (2005-09)

As per table 3, the ratio depicts the relationship between shareholders' funds and total assets. The above table clearly reflects the decreasing trend of proprietary ratio during the first three years of the study. The ratio is 0.33 in 2004-05, 0.32 in 2005-06 and 0.29 in the year 2006-07. Thereafter it rose to 0.31 (an increase of a mere 0.02) during 2007-08, which implies either the repayment of debt or less dependence of debt during 2004-05. After that the ratio again falls down to 0.27. This means that company is depending less on its own funds for financing its assets because the company believes in following the modern line of investment i.e. more debt and less equity and adopting the policy of trading on equity.

Analysis of Solvency Ratio

Solvency ratio is a variant of Proprietary Ratio. It shows the relationship between total liabilities to outsiders to total assets. It provides a measurement of how likely a company will be to continue meeting its debt obligations. Acceptable solvency ratios will vary from industry to industry. Generally it is observed that the lower the ratio i.e. outsiders/external liabilities in the total capital of company, the better is the long term solvency of the company.

Table 4
Solvency Ratio of POWER GRID Ltd

Year	External Liabilities (Rs in crores)	Total Assets (Rs in crores)	Ratio
2004-05	16812.7	25814.00	0.65
2005-06	19799.33	29780.59	0.66
2006-07	25781.16	36733.18	0.70
2007-08	29479.31	43226.29	0.68
2008-09	39476.75	54320.19	0.73
Compound Growth Rate	134.80%	110.42%	

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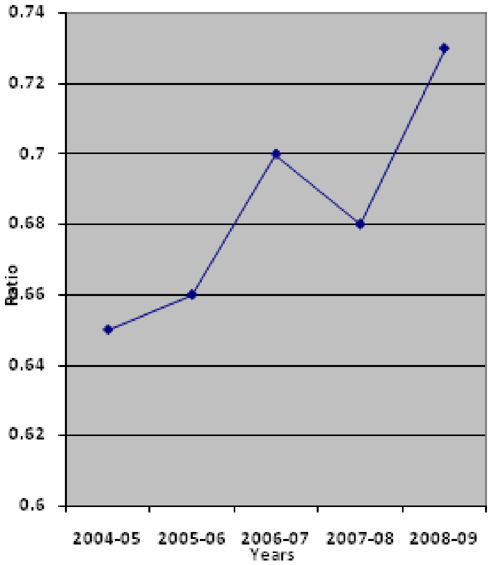
Graph 4
Solvency Ratio of POWER GRID Ltd



Source : Compiled from Annual Reports of POWER GRID (2005-09)

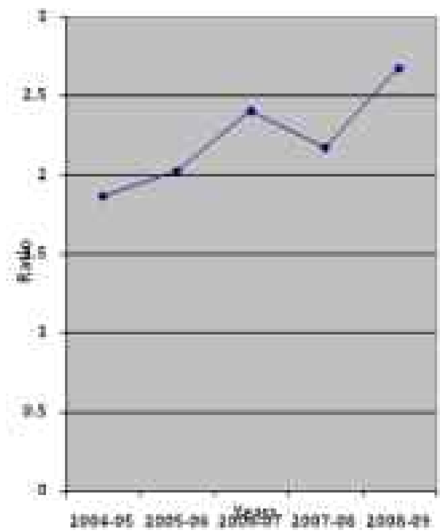
As per table 4, the solvency ratio of POWER GRID has been continuously rising except in the year 2007-08 in which it decreased to 0.68 from 0.70 in 2006-07 ,which itself is a very minor difference. In 2008-09, the ratio rose to 0.73, which is the highest during the study. It clearly indicates a greater dependence on external sources of finance thereby resorting to the favorable financial device of trading on equity.

Analysis of Interest Coverage Ratio

A ratio used to determine how easily a company can pay interest on outstanding debt. The interest coverage ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) of one period by the company's interest expenses of the same period

Table 5 Interest Coverage Ratio POWER GRID Ltd			
Year	EBIT (Rs in crores)	Fixed Interest Charges (Rs in crores)	Ratio
2004-05	2759.03	808.69	3.41
2005-06	2189.19	947.45	2.31
2006-07	2613.14	1140.42	2.29
2007-08	3252.14	1339.55	2.43
2008-09	4831.02	2532.09	1.91
Compound Growth Rate	75.09%	213.1%	

Graph 5
Interest Coverage Ratio POWER GRID Ltd



Source : Compiled from Annual reports of POWER GRID (2005-09)

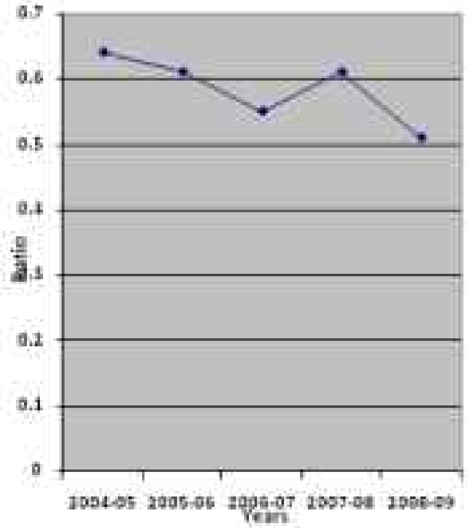
As per the above table , interest coverage ratio of POWER GRID is 3.41 in 2004-05. Thereafter it reduced to 2.31 in 2005-06 and 2.29 in 2006-07. In the year 2007-08 it rose to 2.43 thereafter it again fell to 1.91 in the year 2008-09. On the whole, the ratio is showing a decreasing trend. The situation is not so alarming because till the last year of study the ratio was approximately double. That means the company has earnings double the interest to be paid. This clearly shows that company is having balance earnings to be paid to shareholders, thereby increasing their returns.

Analysis of Capital Gearing Ratio

The term "capital gearing" or "leverage" normally refers to the proportion of relationship between equity share capital including reserves and surpluses to preference share capital and other fixed interest bearing funds or loans. In other words it is the proportion between the fixed interest and dividend bearing funds and non-fixed interest or dividend bearing funds. Equity share capital includes equity share capital and all reserves and surplus items that belong to shareholders. Fixed interest bearing funds include debentures, preference share capital and other long-term loans.

Table 6 Capital Gearing Ratio of POWER GRID Ltd			
Year	Equity (Rs in crores)	Funded Debt (Rs in crores)	Ratio
2004-05	8617.02	13388.04	0.64
2005-06	9708.30	15026.13	0.61
2006-07	10687.57	19325.50	0.55
2007-08	13500.18	22263.48	0.61
2008-09	14618.09	28465.43	0.51
Compound Growth Rate	69.64	112.62%	

TABLE 6
Capital Gearing Ratio of POWER GRID Ltd



Source : Compiled from Annual reports of POWER GRID (2005-09).

As per the above table, capital gearing ratio of the company is showing a decreasing trend but at a very slow pace. It is 0.64 in the year 2004-05 and in succeeding years , it is 0.61. In 2006-07 it is 0.55. In the year 2007-8 the ratio increased a little to 0.61. Thereafter it reduced again to 0.51 in 2008-09. Moreover compound growth rate of debt is more than that of equity. It clearly shows that the company is highly levered. For a company like POWER GRID being highly geared is not a big problem. Rather the company is taking advantage of it by increasing the returns of the shareholders.

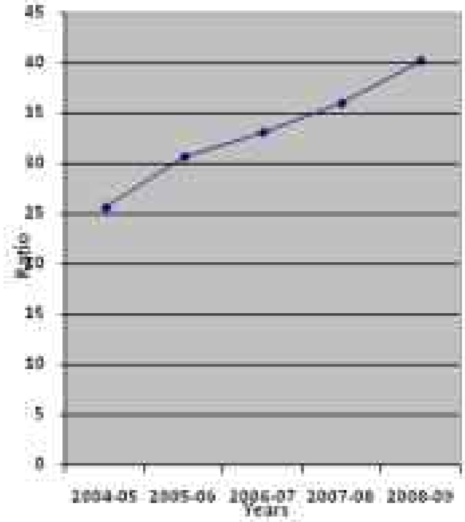
Analysis of Earnings per Share

Earnings per share shows the earning available to shareholders for each share held by him. EPS is calculated by finding the ratio of earnings available to equity shareholders and the number of equity shares. The higher the EPS, the better for the company, always because shareholders will be getting maximum earnings per share.

Table 7
Earning Per Share of POWER GRID Ltd

Year	Earning Per Share	Percentage in Proportion to Face Value
2004-05	257 (face value Rs 1000)	25.7%
2005-06	307 (face value Rs 1000)	30.7%
2006-07	3.31 (face value Rs 100)	33.15%
2007-08	3.60 (face value Rs 100)	36.01%
2008-09	4.01 (face value Rs 100)	40.16%

GRAPH 7
Earning Per Share of POWER GRID Ltd



Source: Compiled from Annual reports of POWER GRID (2005-09)

As per Table 7, EPS of POWERGRID is increasing year after year. There is a continuous rise in earnings per share. EPS was 25.75% in 2004-05, 30.7% in 2005-06, 33.15% in 2006-07, 36.01% in 2007-08 and 40.16% in 2008-09. Detailed analysis of the table clearly reflects that the EPS of the company is near double in the last year of the study as compared to 1st year i.e. 2004-05. This shows that good earnings are available to equity shareholders. High use of debt is one of the reasons behind this. Increased use of debt has reduced the overall cost of capital and improved earnings of shareholders which is a very good indicator of sound capital structure.

Findings and Conclusion

After analyzing the various capital structure ratios of POWER GRID , it is clear that the capital structure of POWER GRID consists of three main components that are share capital, reserves and loaned funds .Looking at the trend of shared capital ,it is showing an increasing trend but if compared to debt as a source of finance it is quite less. It is revealed from the above study, that the reliance of POWER GRID CORPORATION OF INDIA LTD on outsiders' funds is increasing continuously. Citing the earning per share of the shareholders, it is showing an increasing trend. In this study it can be concluded that POWER GRID has a sound financial position. The company is using more and more debt as a source of finance which is reducing its overall cost of capital and increasing its profits, which ultimately increases the return of shareholders. The company is adopting the policy of Trading on Equity in a successful manner, which is one of the reasons of the never ending success of POWERGRID.

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JOB SATISFACTION, SOCIAL SUPPORT, GENERAL TRAINING AND OTHER FACTORS MOTIVATING EMPLOYEES IN PRIVATE HOSPITALS : A PRIMARY STUDY OF NCR REGION

Soumyadeep Sinharay*

ABSTRACT

Employees in hospitals whether public or private need to be motivated to their full, all the time, for efficient delivery of health care services. There have been a lot of researches on different factors and their context in affecting the employees of a particular region. This research paper finds out the effect of Job satisfaction, General training, Social support and some other factors crucial for keeping up the motivation among employees of private hospitals in the NCR region. The research is based on primary data collected from 85 employees across various hospitals in the NCR region and uses statistical techniques to zero in on the specific areas which need improvement in this industry. Even though it is based on hospitals of the NCR region, the recommendations can be applied to all pan Indian hospitals.

Key Words : *Hospital, Job Satisfaction, Social Support, Training, NCR Region*

INTRODUCTION

The healthcare industry increasingly requires a skilled workforce due to rapid advancements in medical technology, moral attitudes and demands for more sophisticated patient-care delivery methods. Job satisfaction is critical to attracting and retaining well-qualified personnel (Mosadeghrad et al, 2009). Concerns about employee job satisfaction are just as, if not more, essential in knowledge-based sectors such as the healthcare industry as they are in other business sectors, particularly in professional and service-based organizations such as hospitals, where long-term specialist training and retention issues are highly important. Satisfied employees tend to be more productive, committed to their organization and settled in their jobs (Irvine and Evans, 1995; Currivan, 1999; Griffeth et al, 2000; Shader et al, 2001; Strachota et al, 2003; Al-Hussami, 2008). Job dissatisfaction has been found to be a strong and consistent predictor of intention to leave as well as actual turnover (Hellman, 1997; Lum et al, 1998; Ito et al, 2001; Sourdif, 2004). Employees' job satisfaction is also found to be positively related to quality of service and patient satisfaction in the healthcare setting (Kivimaki et al, 1994; McNeese-Smith, 1995; Leiter et al, 1998; Kaldenberg et al, 1999; Tzeng, 2002). Employees can directly influence customer satisfaction in a service-based industry like hospitals. Their involvement and interaction with customers plays a significant role in quality perceptions and customer satisfaction. Job satisfaction has been the most frequently investigated variable in organizational behaviour (Spector, 1997) and healthcare has not been ignored in job satisfaction research. Myriad studies have examined job satisfaction in the healthcare context (Al-Ahmadi, 2002; Bodur, 2002; Aronson et al, 2003; Chu et al, 2003; Lyons, 2003; Seo, 2004). This proliferation of research has focused attention on the need to understand job satisfaction of healthcare providers. Justification for the need to investigate employees' job satisfaction is exemplified in the relationship observed between the lower levels of job satisfaction and negative symptoms of absenteeism, grievance expression, tardiness, low morale and high turnover. Job satisfaction is important to managers because of the desire to retain a stable and skilled workforce. Researchers are interested in understanding the factors that influence an individual's decision to stay or leave an organization. Through this research, it has been studied how people feel and how much satisfied they are with their jobs. This research would analyze different factors that contribute to the job satisfaction of an employee. Like the magnitude of support people get in their work from their family, friends, supervisors and co-workers and whether it has a positive effect on their satisfaction levels towards their jobs. Apart from that, this research paper would also study what is the opinion of people about their skills and knowledge pertaining to their jobs, whether they feel that their skill sets are only useful in their current job or they can be useful for their overall growth and future endeavours. Lastly this research also aims to identify and analyze other factors that affect job satisfaction like pay, working environment etc. These factors also play an important part in determining how

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satisfied a person is with his/her current job. The research paper firstly states the objective and scope of the research. After that the research methodology clearly states the various parameters for research. In the end, conclusions have been drawn and recommendations suggested on the basis of outputs from the statistical analysis of data.

Research Objectives

1. To study how people feel and how satisfied they are with their jobs. For this, the research paper analyzes different factors that contribute to the job satisfaction of an employee.
2. To analyze the magnitude of support people get in their work from their family, friends, supervisors and co-workers and whether it has a positive effect on their satisfaction levels towards their jobs.
3. To study what is the opinion of people about their skills and knowledge pertaining to their jobs. Whether they feel that their skill sets are only useful in their current job or they can be useful for their overall growth and future endeavours.
4. To identify and analyze other factors that affect job satisfaction like pay, working environment etc. These factors also play an important part in determining how satisfied a person is with his/her current job.

Organizational Behaviour (OB) is best studied by the application of the three tier model which analyzes Ob first at the individual level, then at the group level and finally at the organization systems level. This research paper has analyzed the factors affecting Job Motivation first at the individual respondents' level and then at the group level i.e. by classifying the respondents into various categories.

Research Methodology

Research Problem

The research problem is to understand how people feel and how satisfied they are with their jobs. The research would determine the magnitude of support they get in their work from their family, friends, supervisors and co-workers. It would also study what people feel about their skills and knowledge pertaining to their jobs and if it is only useful in their current job or useful for their overall growth and also it will consider other factors that affect job satisfaction like pay, working environment etc.

Data Source : The research is based on primary data collected from participants from various private hospitals in the national capital region of India.

Research Approaches : This research uses the survey questionnaire method of collecting data. This process is best suited for descriptive research like this one.

Research Instrument : The research uses a questionnaire consisting of 37 closed ended questions designed to capture the feelings of people about their jobs. Questionnaire was divided into 4 parts namely - Job Satisfaction, Social Support, General Training and Other factors.

Sampling Plan

- Sampling Unit – Doctors and Nurses working in hospitals.
- Sample Size – The research considered a sample of around 85 respondents.
- Sample Procedure – The research used simple random sample procedure in which every member of the population has an equal chance of selection

Contact Methods: A hard copy questionnaire was used in the research.

Summation Score: The research has used a summation score so as to calculate job satisfaction and no single global rating.

Questionnaire Design

Section 1 - Variable Name : Job satisfaction

This section would tell us how people feel about their jobs. It contains l8 statements about jobs. People can indicate their response by writing one of the corresponding numbers against each statement. Strongly agree - 1, Agree - 2, Undecided - 3, Disagree - 4, Strongly disagree – 5

Scoring Code: Positive Questionnaire items: 1, 2, 5, 7, 9, 12, 13, 15, 17 ; Negative Questionnaire items: 3, 4, 6, 8, 10, 11, 14, 16, 18

The five responses will be scored from one to five. The positive questionnaire items will be scored in the following manner: strongly agree (5), agree (4), undecided (3), disagree (2), strongly disagree (1). The negative questionnaire items will be scored in reverse manner: strongly agree (1), agree (2), undecided (3), disagree (4), strongly disagree (5).The scores for the 18 items will be summed; the larger the score, the higher the satisfaction.

Section 2 - Variable Name : Social Support

This section would tell us the degree of support in the work felt by people. People can write one of the corresponding numbers against each statement. Strongly agree - 1, Agree - 2, Neither agree nor disagree - 3, Disagree - 4, Strongly disagree - 5

Scoring Code: Positive questionnaire items: 3, 4, 5, 6, 9, 10, 11 and 12; Negative questionnaire items: 1, 2, 7 and 8

The positive questionnaire items will be scored from one to five, with "strongly agree" scored as five and "strongly disagree" scored as one. Negative items will be scored in a reverse manner.

Section 3 - Variable Name : General Training

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This section would tell us how people feel about their skills and knowledge in the company. They can write one of the corresponding numbers against each statement. Strongly agree - 1, Agree - 2, neither agree nor disagree - 3, Disagree - 4, strongly disagree - 5

Scoring Code : Positive questionnaire items: 1; Negative questionnaire items 2 and 3

The positive questionnaire items will be scored from one to five, with "strongly agree" scored as five and "strongly disagree" scored as one. Negative items will be scored in a reverse manner.

Section 4 - Variable Name : Other factors

This section indicates some other factors that affect the job satisfaction of an employee. People can write one of the corresponding numbers against each statement. Strongly agree - 1, Agree - 2, neither agree nor disagree - 3, Disagree - 4, strongly disagree - 5

Scoring Code: The items will be scored from one to five, with "strongly agree" scored as five and "strongly disagree" scored as one.

The overall analysis shows that the equation for JS = 6.897+0.625*SS+1.908*GT+1.015*OF. The above regression equation represents the Job Satisfaction (JS) score of an employee given the values of the independent variables taken into consideration namely Social Support (SS), General Training (GT), and Other Factors (OF). This suggests that the more the values of SS, GT and OF the more satisfied a person is with his job. The adjusted R2 has come out to be 0.708. This value indicates that 70.8 % variations in job satisfaction can be explained by the variations in social support, general training and other factors. This shows that the independent variables significantly affect the dependent variable.

For a confidence level of 95% the threshold value for the t-stat is +/- 1.96 for rejecting the null hypothesis (which states that there is no relationship between the dependent and the independent variables) and accepting the alternative hypothesis. From the above table the research finds that the t-stat values of SS, GT and OF are 2.203, 4.023 and 3.987 respectively. Since all the values are more than the threshold value of +/- 1.96 this suggests that there is a significant relationship between the dependent variable (JS) and the independent variables (SS, GT, OF).

The correlation co-efficient for JS-SS, JS-GT, JS-OF are 0.725, 0.577, 0.414 respectively. This shows that JS varies positively with the independent variables and this variation is strong with SS and moderate for the other two. The OF includes Pay, Work conditions, Career growth opportunities and Recognition. According to past researches pay influences job satisfaction only to a certain extent. This result is also supported by our model.

Overall Statistical Findings & Analysis

		Regression Equation	**Adjusted R^2**	**-stats**	**r(JS-SS)**	**r(JS-GT)**	**R(JS-OF)**
Overall		JS = 6.897+0.625*SS+1.908*GT+1.015*OF	0.708	SS-2.203 GT- 4.023 OF-3.987	0.725	0.577	0.414
Gender	**Male**	JS = 5.584+0.547*SS+2.214*GT+1.048*OF	0.826	SS-1.996 GT- 4.863 OF-4.536	0.779	0.665	0.465
	Female	JS = 22.765+1.228*SS-0.781*GT+0.331*OF	0.201	SS-1.982 GT- -0.620 OF-0.388	0.601	-.115	0.289
Profession	**Nurses**	JS = -65.547+2.555*SS+0.872*GT+0.953*OF	0.598	SS-1.268 GT- 1.011 OF 0.656	0.798	0.535	0.231
	Doctors	JS = 19.873+0.491*SS+1.815*GT+0.650*OF	0.701	SS-0.240 GT- 0.531 OF-0.275	0.749	0.672	0.184

Gender Based Analysis – Male/Female

Table 2: Gender Based Analysis – Male/Female

Male	Female
Regression Equation: JS = 5.584+0.547*SS+2.214*GT+1.048*OF	Regression Equation: JS = 22.765+1.228*SS-0.781*GT+0.331*OF
This above equation suggests that the more the values of SS, GT and OF the more satisfied a person is with his job.	The above equation suggests that JS increases with SS and OF. A high score in GT indicates that a person feels the skills and knowledge that he/she is getting in the current organization is beneficial for him/her throughout the industry. Since women usually prefer to stay in the same organization for a longer period of time as compared to men so the impact of GT on JS is not significant for women.
Adjusted R2 = 0.826 The factors that the research has taken into consideration i.e. SS, GT and OF are significance in determining the variations in JS.	Adjusted R2 = 0.201 This shows that the factors SS, GT and OF are not much relevant in determining the JS in case of women. There might be some other factors that might have a greater relevance to the study of JS for women.
t-stat values: SS-1.996 GT- 4.863 OF-4.536	t-stat values: SS-1.982 GT- -0.620 OF-0.388
All the above values indicate a high level significance of SS, GT and OF in predicting the variations in JS.	The above values indicate that except for SS the other factors are insignificant in predicting the variations in JS.
Correlation Co-efficient for JS-SS=0.779 The above value indicates that JS and SS are highly correlated.	Correlation Co-efficient for JS-SS=0.601 The above value indicates that JS and SS are highly correlated.
Correlation Co-efficient for JS-GT=0.665 The above value indicates that JS and GT are highly correlated.	Correlation Co-efficient for JS-SGT=-0.115 The above value indicates a weak negative correlation between JS and GT. A high score in GT indicates that a person feels the skills and knowledge that he/she is getting in the current organization is beneficial for him/her throughout the industry. Since women usually prefer to stay in the same organization for a longer period of time as compared to men so the impact of GT on JS is not significant for women.
Correlation Co-efficient for JS-OF=0.465 The above value indicates that JS and OF are moderately correlated.	Correlation Co-efficient for JS-OF=0.289 The above value indicates a mild positive correlation between JS and OF.

Profession Based Analysis – Doctors/Nurses

Table 3: Profession Based Analysis – Doctors/Nurses

Doctors	Nurses
Regression Equation: JS = 19.873+0.491*SS+1.815*GT+0.650*OF This above equation suggests that the more the values of SS, GT and OF the more satisfied a person is with his job.	Regression Equation: JS=-65.547+2.555*SS+0.872*GT+0.953*OF The above equation suggests that the more the values of SS, GT and OF the more satisfied a person is with his job.
Adjusted R2 = 0.701 The factors that the research has taken into consideration i.e. SS, GT and OF are significant in determining the variations in JS.	Adjusted R2 = 0.598 The factors that the research have taken into consideration i.e. SS, GT and OF are significance in determining variations in JS.
t-stat values: SS-0.240 GT- 0.531 OF-0.275 All the above values indicate a low level of significance of SS, GT and OF in predicting the variations in JS. This may be due to the problem of multi-colinearity which means that the independent variables are highly correlated. The above problem can be solved by taking a bigger sample size.	t-stat values: SS-1.268 GT- 1.011 OF-0.656 All the above values indicate a low level of significance of SS, GT and OF in predicting the variations in JS. This may be due to the problem of multi-collinearity which means that the independent variables are highly correlated. The above problem can be solved by taking a bigger sample size.
Correlation Co-efficient for JS-SS=0.749 The above value indicates that JS and SS are highly correlated.	Correlation Co-efficient for JS-SS=0.798 The above value indicates that JS and SS are highly correlated.
Correlation Co-efficient for JS-GT=0.672 The above value indicates that JS and GT are highly correlated.	Correlation Co-efficient for JS-SGT=0.535 The above value indicates that JS and GT are moderately correlated.
Correlation Co-efficient for JS-OF=0.184 The above value indicates that JS and OF are weakly correlated.	Correlation Co-efficient for JS-OF=0.231 The above value indicates a weak correlation between JS and OF.

Conclusions and Suggestions

Based on Social Support

As the research has observed a high degree of correlation between job satisfaction and social support, it is recommended that the organizations should try to enhance the social support factors in its control. This can be done by trying to increase the harmony amongst co-workers. It can be achieved by organizing team outings, birthday celebrations and social gatherings during major festivals which give an opportunity for the employees to mingle with each other, resulting in the enhancement of the co-worker support factor of each other, in turn increasing overall job satisfaction and hence benefitting the organization. The supervisors should be supportive and should try to sort out the problems their subordinates face in performing their duties. The employees should feel free to reach out to their supervisor in case of any problem.

Based on Other Factors

The employees should be given appreciation certificates for their good work. Also they should be given responsibilities. These are the motivators according to the Hertzberg's two factor theory. Work conditions should be good and the pay should be competitive according to the industry standards. These are the hygiene factors of Hertzberg's two factor theory. The lack of these factors will lead to job dissatisfaction.

Based on General Training

As doctors and nurses give importance to general training, the organizations should provide enough training programs and certifications which are not only specific to the organization, but useful at an industry level.

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FEASIBILITY OF ACCOUNTING STANDARDS CONVERGENCE TO IFRS

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ABSTRACT

Convergence of accounting standards across the globe is gaining momentum. Most standard setting bodies have acknowledged that the ultimate goal of convergence is to have a single and globally accepted financially reporting system. One of the major parties that will be affected with the convergence will be the professionals preparing the accounts of various parties i.e. chartered accountants. This paper aims to provide an insight into the benefits that are perceived by the chartered accountants because of harmonization of accounting standards. A structured questionnaire was being filled up for fulfillment of the said objective.

***Key Words :** IFRS, Convergence, Indian GAAP, Harmonization.*

INTRODUCTION

An adequate accounting system possessing the reliability and accuracy of the financial statements of business enterprises provides the right climate of confidence for the functioning of capital markets. There is a strong need for legislation to bring about uniformity, rationalization, comparability, transparency and adaptability in financial statements. Having a multiplicity of accounting standards around the world is against the public interest. It creates confusion, encourages error and facilitates fraud. The cure for these ills is to have a single set of global standards, of the highest quality, set in the interest of the public. There are several areas of differences for accounting practices between Indian GAAP and IFRS. Based on the recommendations of IFRS Task Force, the council of ICAI decided to adopt a big bang approach and fully converge with IFRS issued by IASB, from accounting periods commencing on or after 1st April 2011. IFRS will be adopted for listed and other public interest organizations and corporate bodies including insurer and banks. Convergence of accounting standards aims at bringing down the disparities that exist in the financial reporting system practiced by different countries owing to their own sets of socio-economical, political, cultural and legal systems. The purpose of convergence is to increase the comparability of accounting practices followed by different nations across the globe. Standardization, often used as synonymous to convergence, too aims at reducing disparities in accounting practices, but with a set of rigid rules and policy guidelines as compared to convergence. Convergence allows nations to enjoy certain degrees of freedom while preparing financial reports. The globalization of economic activity has resulted in an increased demand for high quality, internationally comparable financial information i.e. it demands high-quality standards. Nowadays investors seek investment opportunities all over the world. Similarly, companies seek capital at the lowest price anywhere. Almost every day one opens a newspaper and finds a sizeable cross – border merger or investment transitions. The problem that this creates for investors, of course, is that accounting differences can completely obscure the comparisons and other analyses that they must make in order to assess various investment opportunities. This can be solved by proper convergence of accounting standards. The harmonized standards do not override the law of the land on matters of financial presentations. They concentrate only on essentials and are so designed not to be too complex to permit adaptation at the global level.

Indian Scenario

The ICAI has, so far, issued 29 Accounting Standards on various subjects. The ICAI is on the way towards convergence of its Standards with Global Standards. Divergences have been minimized to the maximum possible extent in the areas wherein full convergence is difficult. Over more than a decade, India has had a speedier process of liberalization resulting into a large presence of multinational enterprises in the country. Also, Indian companies are investing in foreign markets. This has impacted Indian GAAP. Indian accounting standards are closer to IFRS and therefore are significantly influencing global financial reporting. Indian companies would experience fewer difficulties accessing international financial markets as Indian GAAP is becoming closer to the IFRS. Indian standards are expected to converge faster than others in the future. IFRS is emerging as the primary accounting framework having widespread global acceptance, with more than 130 countries across the world adopting the IASB guidelines. This move is expected to bring almost the entire world on one single uniform accounting platform. This would provide numerous benefits to a large number of entities for doing global business. Moving from the

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Indian GAAP to IFRS is very significant, as it involves changes in accounting policies. It has significant accounting consequences with far reaching business implications. Major areas impacted due to convergence with IFRS would be business combinations, financial instruments, group accounts, fixed assets and investment proposals, presentation of financial statements and share based payments. Experts are of the opinion that there would be a major impact on the profitability and the way in which business management is looked at by various stake holders due to convergence to IFRS. Also it is expected that there would be deviations in the way major leveraging ratios are calculated after the convergence with IFRS.

Review of Literature

A number of studies have been conducted to analyze the convergence of accounting standards in India.

Audra Ong, Wan-Ying Lin and Henry Hsu (2004) studied the issue of 'Internationalization of Accounting Standards'. This paper examines those factors, which influenced the degree of success of convergence. In-depth interviews were conducted with 21 interviewees consisting of professional accountants, industrial executives and accounting regulators. They identified the national legal system as the main factor preventing convergence. Further the study provides valuable lessons for policy makers and corporate management in their pursuit of accounting convergence. The main barriers to international accounting convergence were considered as business organizations and ownership, stock exchanges, taxation, accounting profession and national culture.

Basu, A. K. (2006) undertook a study titled 'Global Financial Reporting Language'. The issue of development and maintenance of one global financial reporting language has gained increased attention in recent years. Several agencies are now actively involved in promoting measures for the creation of a high-quality financial reporting language that can be used by the companies around the world to generate comparable financial reports. The main purpose of this paper is to discuss the potential benefits of having a single, universally accepted financial reporting language and to make an assessment of the progress that has so far been made towards the establishment of such a language.

Chakrawal A.K. (2004) studied the issue of 'International accounting issues in the eyes of Indian accountants, managers and academicians'. The study emphasized what could be different International Accounting Issues, which need to be standardized i.e. awareness of IAI, sources from where one come across IAI, seriousness, role in enhancing common International practices, benefits to MNC, effect on Indian accounting practices and economy, countries benefitted most, major areas and issues. There is a wide spectrum of accounting issues and it is a difficult task to consolidate these issues. An effort has been made to know that in what ways Indian Accountants, Managers and Academicians perceive different International Accounting Issues.

Kumar Pramod, Kulshrestha M., (2004) undertook an empirical study titled 'Global convergence of accounting standards'. There is an emerging issue International Accounting i.e. Convergence of Accounting Standards. In this paper, an attempt has been made to discuss the need and other relevant issues involved in convergence along with an empirical study of Infosys and Satyam Computers to continue the effect of USGAAP.

Need for the study

The principal objective of convergence is to bring down the disparities that exist in the financial reporting system practiced by different countries owing to their own sets of socio-economic, political, cultural and legal systems. Most of the prior studies conducted on the said topic have compared Indian GAAP with US GAAP to show the extent of convergence of accounting standards. The need for the present study arises from the unresolved and controversial doubts regarding benefits of international accounting convergence.

Objective of the Study

The development and growth of convergence may be hindered not only by differences between countries but the differences experienced within countries. In spite of this, there are strong pressures in favor of greater international convergence and global accounting standarda. The basic objectives of the study are as follows:

- To understand the perceived benefits to various concerned parties through global accounting convergence.
- To ascertain which aspects of the convergence are perceived as a major benefit by the sample respondents.

Hypothesis of the study

H_o1: There is no significant difference in the actual mean values and the hypothetical value of the population mean concerning the benefits of international accounting convergence.

H_a1: There is a significant difference in the actual mean values and the hypothetical value of the population mean concerning the benefits of international accounting convergence.

Scope of the study

The study covers the viewpoint of chartered accountants regarding the benefits of international convergence. The study is limited to northern region of the country i.e. Punjab, Haryana, Chandigarh and Himachal Pradesh

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Research Methodology

The present study employs a systematic research design that provides an overview of the benefits of convergence that are prevalent in the Indian economy.

Problem definition

The problem for present research has been clearly and precisely stated as following:

"To study various benefits of convergence of accounting standards to various related parties in the process of international accounting convergence."

Sources of Data

A structured questionnaire based study has been conducted and the data has been taken from the primary sources. Various chartered accountant firms were being approached and data was collected afresh and for the first time. Thus the data is original in character.

Sample Size and Sample Selection

A sample consisting of 100 chartered accountants is selected for the study based on convenience. Responses are received from 80 chartered accountants only. The sample is limited to four geographical areas only i.e. Punjab, Haryana, Chandigarh and Himachal Pradesh. While, selecting the units for the study, due representation is given to chartered accountants who deal in preparation and maintenance of accounts of multinational corporations as they are confronted by a convergence problem more often.

Statistical Tools of Analysis

In order to find out the importance of various benefits of convergence, a structured questionnaire based study was conducted. To arrive at certain conclusions regarding the hypothesis framed in the present investigation, the following statistical tools for the analysis of data were employed:

a.) Descriptive Analysis : Measures of central tendency such as mean and standard deviation was worked out to study the nature and distribution of scores on various variables concerning training and development.

b.) Likert Scale

Named after its developer, Rensin Likert, the Likert scale is a widely used rating scale. It is a measurement scale with five response categories ranging from "strongly disagree" to "strongly agree", which requires the respondent to indicate a degree of agreement or disagreement with each of a series of statements related to the stimulus object. The scale is normally presented as:

1= Strongly Disagree

2= Disagree

3=Neither Agree nor Disagree

4=Agree

5=Strongly Agree

c.) Frequency Tables

For each value of a variable, a frequency table displays the number of times (count) that value occurs. The frequency tables for the scores given by various respondents with regard to various benefits are being depicted to highlight the relative value assigned to each variable and show the percentage of respondents catering to the five responses of Likert scale.

d.) One sample t-test

One sample t-test is used to test the hypothesis. The one sample t-test is employed in order to test the significance of mean of a random sample. It helps in determining whether the mean of a sample drawn from a normal population deviates significantly from a stated value (the hypothetical value of the population mean) when variance of population is unknown. To calculate the statistic ,the following formula is applied:

$$t = \frac{(\bar{X} - \ )\ n}{S}$$

Where,

$\bar{X}$ = the mean of sample

= the hypothetical mean of population.

N = sample size and

S = standard deviation of the sample

A low significance value (typically below 0.05) indicates that there is a significant difference between the test value and the observed mean. The hypothetical value of the population mean is considered as 3 in the study.

Analysis of results of Likert Scale

To conduct the analysis, each statement is assigned a numerical score, ranging either from –2 to +2 or 1 to 5. In the present study, ranking of 1 to 5 has been used. The analysis is conducted on total (summated) score for each factor / statement under consideration. The mean scores are also calculated so as to get the factor with the highest mean score. When using this approach it is important to use a consistent scoring procedure so that a high score consistently reflects a favorable response. This requires that the categories assigned to the negative statements by the respondents be scored by reversing the scale. That is for a negative statement, an agreement reflects an unfavorable response, whereas for a positive statement, agreement represents a favorable response. Accordingly, a "strongly agree" response to a favorable statement and "strongly disagree" response to an unfavorable statement will both receive a score of five.

Limitations of the study

1. The study considered only the viewpoint of chartered accountants. Therefore, the results cannot be generalized as only one of the parties related to the concerned issue has been studied.

2. The study attempted to explore extensively the underlying key variables for the benefits towards convergence. The different variables were classified under 10 different statements. There may still exist the posssibility of missing key variables that may have a greater influence on the said topic.
3. For the sake of simplicity, convenience sampling has been used that has its own limitations.

Data Analysis

The data has been analyzed using various statistical tools and has been mentioned as follows:

Benefits of Accounting Standards Convergence

There are strong pressures in favor of greater international convergence. There are many interest groups that would benefit from convergence. There are many interest groups (beneficiaries) such as investors, multinational companies, large international accounting firms, regional economic groups and developing countries who would benefit from convergence and global accounting standards:

- **Easier access to foreign capital market** - Many large companies want to raise money in more than one country and in international markets, and for that they need to produce accounts, which can easily be understood by investors in many countries. Such financial reports could be provided through harmonized standards.

  The frequency table for the variable has been given below :

Easier access to Foreign Markets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	5.0	5.0	5.0
	2	10	12.5	12.5	17.5
	3	20	25.0	25.0	42.5
	4	32	40.0	40.0	82.5
	5	14	17.5	17.5	100.0
	Total	80	100.0	100.0	

The above table displays the number and percentage of cases for each value of the variable. Frequency tables are useful for summarizing categorical variables - variables with a limited number of distinct categories.

The results show that 17.5 percent of the respondents strongly agree with the statement and a majority of respondents i.e. 40 percent agree with the statement. Only 5 percent strongly disagree. This shows that the relative variable is considered a high benefit of convergence.

- **Comparability of financial data** A strong case for increased convergence can be made from the viewpoint of the users of accounting and financial information, mainly the investors who wish to invest outside their own country, that is, both transnational companies investing directly and individual investors wishing to invest part of a portfolio of funds. If comparability of accounting standards helps economic decision-making and the efficient allocation of economic resources within a nation, the same can be said about economic decision-making and economic resource allocation on a world-wide basis. Without worldwide accounting and auditing standards, it is difficult, if not impossible, to assess the relative merits of alternative investment opportunities, or to make valid comparisons of the financial performance of companies in different countries.

Comparability of financial data across borders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	6	7.5	7.5	7.5
	4	54	67.5	67.5	75.0
	5	20	25.0	25.0	100.0
	Total	80	100.0	100.0	

The above table provides for the frequency distribution of the responses regarding comparability of financial data across borders in a better manner. None of the respondents have given responses as disagree or strongly disagree as no frequencies are being assigned to 1 and 2. Highest percent of respondents i.e. 67.5 % agree with the statement.

- **Greater transparency and accountability** - Securities markets themselves are now crossing national boundaries. Euronext, for example, is a recent combination of the former Amsterdam, Brussels, Lisbon and Paris stock exchanges. NASDAQ and London shares can be bought on the stock exchange of Hong Kong. Amex shares are traded in Singapore. Merger talks continue among some of the world's largest stock exchanges. The harmonized standards would lead to greater possibility of cross border trading and securities markets that would demand greater transparency and accountability by the firms operating on such exchanges.

Greater Transperancy and Accountability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	8	10.0	10.0	10.0
	3	10	12.5	12.5	22.5
	4	44	55.0	55.0	77.5
	5	18	22.5	22.5	100.0
	Total	80	100.0	100.0	

The frequency table shown above depicts that maximum number of respondents i.e. 44 (55%) agree that convergence helps in getting greater transparency and accountability and thus regard it as one of the major benefits of convergence. However, 10 percent of the respondents also strongly disagree with the statement.

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- **One set of Books of Accounts** – A major force in the movement toward international convergence has been the economic self-interest of multinational companies. Multinational firms are preparers of financial information. With diversity in accounting standards from country to country, these firms face a myriad of accounting requirements from the countries in which they operate. The burden of this financial reporting would be lessened with increased convergence, which would simplify the process of preparing individual and group financial statements and would require only one set of books of accounts for all its financial reporting.

Keep one set of books of accounts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	12	15.0	15.0	15.0
	3	4	5.0	5.0	20.0
	4	60	75.0	75.0	95.0
	5	4	5.0	5.0	100.0
	Total	80	100.0	100.0	

The above table shows various values for the responses given by the respondents regarding the benefit that companies need to keep only one set of books of accounts due to convergence. 75 % of the respondents agree with only 5% strongly agreeing.

- **Lower susceptibility to political pressures**

Generally, the local standards in a country are affected by the political pressures that come from various interest groups in the private sector and government agencies that are interested in particular standards that affect their related industry or economy. International accounting standards would not be affected by such political biases and will thus provide transparent and unbiased treatment of the financial aspects undertaken.

Low political pressures than national standards

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	5.0	5.0	5.0
	2	28	35.0	35.0	40.0
	3	30	37.5	37.5	77.5
	4	18	22.5	22.5	100.0
	Total	80	100.0	100.0	

The frequency table shown above depicts that there is not much difference in the respondent's opinion regarding the statement that harmonized standards provide less susceptibility to political pressures than national standards. 30 respondents neither agree nor disagree with the statement and 28 respondents disagree. The table also shows that none of the respondents has given the scale of strongly agree to the statement showing that the majority of respondents do not perceive this as a benefit of convergence.

Understandability of Financial Data - The greatest benefits that would flow from convergence would be the comparability of international financial information. Such comparability would eliminate the current misunderstanding about the reliability of 'foreign' financial statements and would remove one of the most important impediments to the flow of international investment.

Understandability of financial data

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	5.0	5.0	5.0
	3	10	12.5	12.5	17.5
	4	38	47.5	47.5	65.0
	5	28	35.0	35.0	100.0
	Total	80	100.0	100.0	

The above table shows various values for the responses given by the respondents regarding the benefit that convergence of accounting standards leads to better understandability of financial data. 47.5 % of the respondents agree with the statement and 35% strongly agree. None of the respondents have strongly disagreed i.e. none of them has given a score of 1.

Portability of knowledge across borders - Another major force in the movement toward international convergence is the portability of accounting knowledge and education across national boundaries that are perceived as economic self interest of international auditing firms in such standards. With harmonized standards they can sell their services as experts in different parts of the world. It would make their work much easier if similar practices existed throughout the world. Thus it would lead to portability of knowledge and education.

Portabilty of knowledge across borders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	5.0	5.0	5.0
	3	12	15.0	15.0	20.0
	4	50	62.5	62.5	82.5
	5	14	17.5	17.5	100.0
	Total	80	100.0	100.0	

The frequency table shows that none of the respondents strongly disagree with the perceived benefit. Majority of respondents 50 (i.e.62.5%) have given a score of four to the factor highlighting that most of the respondents agree with the statement that convergence provides for the portability of accounting knowledge and education across national boundaries.

- **Lower cost of raising capital -** Cost of raising capital refers to that amount which a business pays for getting the required amount of funds for their operations. Without worldwide accounting and auditing standards, it is difficult, if not impossible, to assess the relative merits of alternative investment opportunities, or to make valid comparisons of the financial performance of companies in different countries. Thus, the harmonized accounting standards help investors to compare alternative investment opportunities and provides for lower cost of raising capital to the company.

Lower Cost of raising Capital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	5.0	5.0	5.0
	2	16	20.0	20.0	25.0
	3	36	45.0	45.0	70.0
	4	24	30.0	30.0	100.0
	Total	80	100.0	100.0	

The above frequency table shows that none of the respondents strongly agree with the statement and a majority (i.e. 45%) of the respondents neither agree nor disagree showing that the respondents do not perceive it as a greater benefit of convergence.

- **Reduces national standard setting cost –** There is an argument that countries that do not have any domestic accounting standards would benefit from international standards in that it would enable them to adopt a ready-made system. They would not have to produce their own; they could adopt (perhaps with some slight modification) the international standards. If this were possible, it would of course save them a great deal of time and expense.

Reduces national standard setting cost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	10	12.5	12.5	12.5
	3	20	25.0	25.0	37.5
	4	44	55.0	55.0	92.5
	5	6	7.5	7.5	100.0
	Total	80	100.0	100.0	

The frequency table shows that none of the respondents strongly disagree with the perceived benefit. Majority of respondents 44 (i.e.55%) have given a score of four to the factor highlighting that most of the respondents agree with the statement that convergence reduces the national standard setting cost.

- **Ease of regulation of securities market -** The Internet now enables any investor anywhere to gather corporate financial data posted by companies all over the world, and to enter into securities purchase and sale transactions online in markets and through brokers across the globe. In such an environment, a single set of global accounting and financial reporting standards makes eminent sense.

  The table below shows various values for the responses given by the respondents regarding the benefit that convergence of accounting standards leads to ease of regulation of the securities market. 50 % of the respondents agree with the statement and only 7.5% strongly agree. None of the respondents have strongly disagree i.e. none of them has given a score of 1.

Ease of regulat ion of securities market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	8	10.0	10.0	10.0
	3	26	32.5	32.5	42.5
	4	40	50.0	50.0	92.5
	5	6	7.5	7.5	100.0
	Total	80	100.0	100.0	

One group which would be benefitted from a greater degree of convergence would be the tax authorities. They would find their work less complicated when dealing with foreign income. Another advantage of convergence would be the time and money saved that is currently spent to consolidate divergent financial information when more than one set of reports is required to comply with different national laws or practices.

Descriptive Analysis Used

Descriptive analysis was done to find out the mean scores and standard deviation for the statements in the questionnaire, which corresponded to various perceived benefits of convergence taken for the purpose of study.

The table shown below depicts that mean score is found to be highest i.e.4.18 for the benefit that 'Convergence leads to comparability of financial data across borders in a better manner' followed by the fact that 'Convergence of accounting statements leads to greater understandability of financial data' with a mean score of 4.12. The minimum mean score is found for the statement that 'Harmonized standards provide for low susceptibility to political pressures than national standards'. The minimum score is 2.78. This reveals that though the need for harmonized standards is much emphasized yet those standards will not be free from political pressures from various interested groups.

The standard deviation measures the absolute dispersion. The greater the standard deviation, the greater will be the magnitude of the deviations of the values from their mean. A small standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series. The results show that standard deviation for the above analysis ranges from .55 in 'comparability of financial data abroad' to 1.09 in 'easier access to foreign capital market'. On the whole, the standard deviation is low, depicting uniformity of observations.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Easier access to foreign Market	80	1	5	3.53	1.09
Comparability of financial data across borders	80	3	5	4.18	.55
Greater transparency and accountability	80	2	5	3.90	.87
Keep one set of books of accounts	80	2	5	3.70	.79
Low political pressures than national standards	80	1	4	2.78	.86
Understandability of financial data	80	2	5	4.12	.82
Portabilty of knowledge across borders	80	2	5	3.92	.73
Lower cost of raising capital	80	1	4	3.00	.85
Reduces national standard setting cost	80	2	5	3.58	.81
Ease of regulation of securities market	80	2	5	3.55	.78
Valid N (listwise)	80				

One sample t-test

The One-Sample T Test procedure tests whether the mean of a single variable differs from a specified constant. The constant taken in the study that depicts the hypothetical value of the population mean is taken as 3. The mean value is displayed in Descriptive Statistics table, and the constant is test value displayed in the One Sample T Test table i.e.3. A low significance value (typically below 0.05) indicates that there is a significant difference between the test value and the observed mean.

One-Sample Test

	Test Value = 3	
	t	Sig. (2-tailed)
Easier access to foreign markets	3.058	.004
Comparability of financial data across borders	13.524	.000
Greater transparency and accountability	6.534	.000
Keep one set of books of accounts	5.597	.000
Low political pressures than national standards	-1.651	.107
Understandability of financial data	8.652	.000
Portabilty of knowledge across borders	8.016	.000
Lower cost of raising capital	.000	1.000
Reduces national standard setting cost	4.473	.000
Ease of regulation of securities market	4.444	.000

The table above shows the t values and the significance level of various variables analyzed that are perceived as benefits of convergence. The highest t-value i.e. 13.524 is being shown by the fact 'comparability of financial data across borders'. This variable has also the highest mean score. The benefit of 'low political pressures than national standards' has negative t-value and its mean score is also less than the hypothetical mean of population (i.e.2.78<3.00). The significance value shows that except for 'low political pressures than national standards' and 'lower cost of raising capital', all the remaining values are less than 0.05 indicating that there is a significant difference between the test value and the observed mean. Thus the null hypothesis is rejected.

Findings

- The study revealed that from the viewpoint of chartered accountants that acted as respondents in the study comparability of financial data across borders in a better manner and greater understandability of financial data are regarded as the highest and second highest perceived benefits of international accounting convergence respectively.
- The study also revealed that by studying the t values and the significance level, both the null hypothesis formed under the study are rejected showing wide variations between the test value and the observed mean.

Conclusion

In depth analysis of the data that has been collected from the respondents who are Indian professionals associated with the Accounting affairs reveals that they are very well aware of the benefits of International accounting convergence. Some of the very important issues according to the Indian professionals that require immediate attention are the attitude of and rules followed by the national accounting standard setting bodies, inadequate knowledge of local standards and role of accounting profession as a disciplinary body. There is much that still needs to be done in order to achieve the ultimate goal of international accounting convergence.

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CORPORATE GOVERNANCE IN PUBLIC SECTOR BANKS

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ABSTRACT

Corporate governance in modern expansion for an age-old concept called accountability. Corporate governance has as its backbone a set of transparently run rules. Relationships amongst an institution's management board, shareholders and other stakeholders. Corporate governance is considered a mechanism incorporating a variety of measures such as protection of shareholders rights, enhancing shareholders' value, effective balancing of the constitution of Board's proactive role of the Non- executive Directors, the efficacy of accounting practices and the control system, realistic disclosures by the Directors on aspects of compliance with prescribed accounting standing standards and a code of conduct and adherence to a sound compliance system, Basically, it is about how those assigned the task of day to day management are held accountable to the shareholders and all other providers of funds.

Keywords: *Corporate Governance, Shareholder, Employee*

INTRODUCTION

The basic objective of Corporate Governance is to maximize long-term shareholders value. Therefore, good governance should address all issues that lead to a value addition for the organization and protect the interests of all the stake and shareholders. The motto of corporate governance is that it is of the shareholders by the shareholders and for the shareholders. It is a system of structuring, operating and controlling a company with a view to achieving long-term strategic goals for the benefits of shareholders, creditors, employees, customers and suppliers complying with all the legal and regulatory requirements. Corporate governance has to become something much broader to include a fair, efficient and transparent administration to realize certain well-defined objectives with a streamlined system of operation. There is a different set of players in the system of corporate governance. They are the legal system, regulators; the Board of Directors and Executive Directors on the Board; financial intermediaries; Market and self-regulatory organizations. A dynamic balance varies from country to country depending upon the stage of institutional development and the historical context. The key pillars of Corporate Governance are transparency, accountability and merit based management. Transparency means accurate, adequate and timely disclosure of relevant information to the stakeholders. Without transparency, it is to make any stride towards better governance. There is need to move towards international standards in terms of disclosure of information by the corporate sector and thereby to develop a high level of public confidence in business. Transparency in banking business operation plays an important role in ensuring the needed market discipline. It is also an important mechanism for keeping banks prudent in their operations. Accountability is not just bottom up but in reverse order with the objective of creating shareholder value.

Objective of the paper

In order to achieve the following four objectives, the paper was undertaken:

To know the role of Corporate Governance in Public Sector Banks

To highlight RBI's Initiatives on Corporate Governance in Banks

To focus on Advisory group on Corporate Governance in Banks

To specially focus Corporate Governance through consultant group of Directors of Banks and Financial Institutions

Corporate Governance: Indian Scenario

In India, the question of corporate governance has come up mainly in the economic liberalization, deregulations of industry and business and increasing integration of the Indian economy with the rest of the world. With the opening up of the Indian economy and to be in tune with WTO requirements, Indian companies can succeed and survive admits increasing competition from multinational companies only through excellence in their working. The need to confirm international companies only through excellence in their working. The need to conform to internationally accepted norms and standards of corporate governance has become essential for the Indian Industry, as their stakeholders are no longer confined to this country alone. In the mean time, structural changes effected in the corporate sector also require special attention. Many family owned enterprises are being converted into closely held limited companies. The reorganization of the need for a code of corporate governance has also moved in line with this trend. The standing Conference of Public Enterprises (1996), New Delhi, had first recognized the need to examining the relevant

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issues of corporate governance of the public sector undertaking in India. The Confederation of Indian Industry (CII) and the Associated Chamber of Commerce and Industry of India discussed corporate governance in general. In India, the first structural initiative in thesis was initiated by the CII leading to the issue of a code governance standards in 1997. The CII issued a code of 17 recommendations titled 'Desirable Corporate Governance - A code', to be followed on a self regulatory basis by Indian Industries. It is considered as the first Indian Paper of its kind on the subject. It is recognized that the codes, which were referred to the Cadbury's and the Confederation of Indian Industries at that time were most appropriate to the ills of the private sector, its remedies, and the infirmities in the public enterprises governance, which needed a closer look. Yoga consultants prepared a report titled" Corporate Governance and Public Sector Undertaking" in Oct.1997. The report, drawn from the perspectives of several industry leaders and academicians highlighted the major issues in corporate governance and contained a number of recommendations, to enhance the quality of corporate governance in public sector undertakings. The Administrative Staff College of India, Hyderabad and Yoga consultants, Hyderabad conducted a workshop on "Corporate Governance in Banks and Financial Institution" at Mumbai on June14,1999.

Corporate Governance in Public Sector Banks

In service industries like banking, corporate governance relates to the manner in which the business and affairs of individual banks are directed management. Under corporate governance banks articulate corporate values, code of conduct and standards of appropriate behavior etc, and have a system and control to ensure compliance with them. The Board sets the strategic objectives and corporate values of banks and specific transparent lines of responsibility and accountability, which are communicated across the organization. Corporate governance in public sector banks is important in many ways:

First, the quality of corporate governance within the bank became crucial to the performance and growth of the financial sector.

Secondly, an important peculiarity of the Indian Banking system is the dominant Government ownership of banking institutions. Since these public sector banks are likely to be dominant for some more time in the future, these banks have to set a benchmark or standards for the practice of corporate governance in the public sector.

Thirdly, in the pre reform period, most decisions were arrived at externally, i.e. external to financial intermediary regarding interest rates to be paid or charged and for whom to be landed. Recently there has been a movement away from micro regulation by RBI.

Fourthly, the government is no longer the 100 percent owner of all public sector banks. The financial sector reform currently underway are aimed at enhancing efficiency and diversified ownership in the form of divestment of its holdings in government owned banks and for maintaining capital adequacy norms, issue of share to the public when some addition capital has to be raised by this institution. For the survival and existence of private shareholders, issues like enhancing and protecting shareholders, values and rights become extremely important. Such a situation did not prevail either in the public or financial sector until a few years ago. Finally, an efficient market economy presupposes effective corporate governance. Shareholders and other financial stakeholders would expect greater access to information on the banks' overall operations and functions. The government banks must be in a position to assure the market that their system of corporate governance is such that they can be entrusted with shareholders' money. Thus the corporate governance in the public sector banks needs to be improved and bettered.

RBI's Initiatives on Corporate Governance in Banks

Reserve Bank of India, as regulator of the financial sector has the responsibility to decide the nature of governance in the financial sector. The RBI has given corporate governance in the banking sector special focus, because banks are playing a very important role in the financial sector on the whole. In order to protect the interest of investors and to protect the integrity of the financial system, it is necessary that owners and managers of banks are persons of sound integrity . Keeping these considerations in mind, the Reserve Bank initiated several measures to enhance transparency and to strengthen the corporate governance practices in the financial sector in India. The Basel committee for Banking supervision: The Basel committee has mentioned in one of its 'Core Principles ' that supervisors should promote and pursue market discipline by encouraging good corporate governance (through an appropriate structure and set of responsibilities for the banks' Board of Directors and senior management), and enhancing market transparency surveillance. The paper of the Basel committee reported that basic elements of corporate governance and experienced Directors in the Board, efficient management, coherent strategy business plane, clear lines and accountability of good corporate governance in banks rests with the Board of Directors. The role of Government, Reserve Bank of India, auditors and banking industries association are equally important.

Advisory group on Corporate Governance

The advisor on Corporate Governance (Chairman: Dr. R. H. Patil) had observed that since most of the Indian companies belonged to the East Asian insider model , where the promoter dominates governance , it is essential to bring reform quickly so as to make boards of corporate/ banks/ financial institutes/ public sector enterprises more professional and truly autonomous As the statuary framework for Corporate Governance has already been provided in the Company Act suitably for enforcing good governance practices in India. According the group, one of the major factors that directly interrupted the quality of corporate governance is the government ownership in the banks. Under the present circumstances, they are acting in different capacities such as the owner, manager, quads-regulators and some times even as the super regulator. The Board of Directors and top management act merely as functionaries of the Government. In addition, the nominees of the R.B.I. and Government in the Board of Directors are treated as superior to other directors. The committee opined that it would be difficult to tone up the quality of Corporate Governance practices in the public sector banks without granting autonomy to the Board of Directors. The advisory group recommended that the public and private sectors, all banks should be brought under a common Act instead of a separate Act.

The Advisory Group recommended a major reform in the area of constitution of the bank board. The Chairman, executive directors and non-executive directors on the boards of the public sector banks should be appointed on the advice of an expert body set on the lines of Union Public Service Commission, with similar status and independence. The RBI and Ministry of Finance should set up the selection board jointly. Even if the government dilutes its holdings in the Public Sector Banks the effort to institute good governance practices would be a superficial one if the government does not seriously redefine its role afresh. The changes proposed in the composition of the board as per legislation under contemplation would result in the government directly appointing 9 out of the 15 directors including the 4 whole time directors. The right of public shareholders of SBI and PSBs are reduced considerably by making their approval not required for paying of dividend and adopting of annual accounts. Moreover, the voting right of the other shareholders will continue to be restricted, thereby negating the basic principalsl of equal rights to all the shareholders. The subsidiaries of SBI will only enjoy a very limited board autonomy because they have to obtain clearance from their parent company on most of the important matters.

Advisory group on Banking Supervision

Advisory group on Banking Supervision (Chairman M.S. Verma) put forward several proposals to improve corporate governance without necessary legislation changes. The Committee made certain other recommendations also pertaining to corporate governance in banks.

These are the following:

All banks should attain an acceptable minimum level of corporate governance. Subsequently, banks are to make sustained progress towards achieving the best international standards within a reasonable time frame.

The union and the management should arrive at a consensus on converting the present performance related remuneration structure fixed for all management levels of Public Sector banks and into a performance related remuneration structure.

A compressive risk management system should be put in all banks within two to three years. Since banks are in different stages of implementation of their risk management systems, small banks in particular, would require encouragement and technical support to take risk management practices.

The statutory provision (Sec.20 of the B.R. Act, 1949) prohibiting connected lending to directors and their connected parties needs to be extended to include large shareholders.

Banks need to develop mechanisms for ensuring percolation of corporate strategic objectives and set values all over the organization.

Since the Boards of few banks are known to enforce clear lines of responsibility and accountability for themselves, there is an urgent need to follow the best practices in respect of the constitution and functioning of the boards. While nominating individuals on the bank's Board, the practices of pre-induction briefing or post induction orientation can be put in place forthwith to develop a proper appreciation of their role in the banks' corporate governance. A ceiling needs to be imposed on the number of board and the number of Committees where the Directors are required to spend their valuable time for the governance of banks.

With a view to conducting corporate governance in a transparent manner, public disclosure with respect to details of qualifications of the directors needs to be revealed in the balance sheet. Banks also need to be encouraged to disclose the senior management structure, basic organization structure, information about incentive structure, nature and extent of transactions with affiliated and related parties.

The report of the Advisory group on Corporate Governance (Chairman: Shri R.H. Patil) and the Advisory Group on Banking Supervision (Chairman M.S.Verma) thus outlined several proposals to fine tune corporate governance without the necessary legislation framework.

Consultative Group of Directors of Banks and Financial Institutions

Following the announcement of the monitory and credit policy statement of October 2001, RBI constituted a 'consultative group of banks and financial institutions '(Chairman Dr. A.S. Ganguly) to review the supervisory role of the board of banks and financial institutions and to obtain feedback on the boards vis-à-vis compliance ,transparency, disclosures,audit committees etc. and make recommendations for making the role of the Board of Directors more effective and meaningful.

The major recommendations of the consultative group were the following:

At the time of appointment of Directors in banks whether in public or private sector, due consideration should be given to their qualifications and technical expertise.

The Committee also recommended the appointment of one more full time director on the board of large sized nationalized banks.

The appointment / nomination of independent/ non executive directors of the board of banks (both public and private sector) would be from a pool of professionals and talented people to be prepared and maintained by the RBI. Any deviation from this procedure by the bank should be only with the prior permission of RBI. Further the Government nominated directors on the board of public sector banks should be guided by certain Board." Fit and Proper" norms for the directors, based on the lines of those suggested by the Banks for Imitational Settlement (BIS)

It would be desirable to separate the office of Chairman and Managing Director in respect of large sizes PSBs. This functional separation will bring about more focus on strategy and vision as also the needed thrust in the bank. The whole time directors should have a sufficiently long tenure to enable them to leave a mark of their leadership and business acumen on the bank's performance.

The Reserve Bank of India could arrange need based training programmers /workshops/seminars/ to the directors at intervals to acquaint them, with emerging developments in and challenges facing the banking sector

The RBI may bring out an updated charter indicating clear cut and specific guidelines on the role and the responsibilities expected from individual Directors

In order to attract quality professionals, the levels of remuneration payable to the Directors should be commensurate with the same the time required to be devoted to the bank's work as well as to single the appropriateness of remuneration to the quality of inputs expected from the member.

It would be desirable to obtain an undertaking from every director to the effect that they have gone through the guidelines defining the role and responsibilities of directors, and understood what is expected of them and enter into a covenant to discharge their responsibilities to the best of their abilities individually and collectively

The information furnished to the board should be desirable wholesome, complete and adequate for meaningful decisions. The Board focus should be devoted more on strategy decisions. The Board's focus should be devoted more on strategy issues, risk profile, Internet control system, overall performance etc. The procedure followed for recording the minutes of the Board meeting in the banks and FIs should be informed and formalized.

It would be desirable if the exposure of a bank to stock brokers and markets as a group, as also exposure to other sensitive sectors, viz., real estate etc. were reported to the Board regularly. The disclosure of progress made towards establishing progressive risk management system, the risk management policy, strategy, exposures to related entities, the assets classifications of such landings / investment etc. should be in conformity with corporate governance standards etc.

Finally the bank could be asked to come up with a strategy and plan for implementation of the governance standards recommended and submit the progress of the governance standards recommended and submit progress of implementations, annually as deemed appropriate.

Besides the recommendation also focused on the role and responsibilities of independent /non-executive directors, their training and remuneration, commonality of the directors of the banks and NBFC1S, information flow to and from the Board etc.

In June, 2002 the RBI requested banks to place the report as well as the list of recommendations before their respective Board of Directors.

During the year 2003, it was proposed to synchronize the approaches suggested by the Ganguly Committee and the SBI Committee with regard to corporate governance by banks, and to extend such practices to NBFCs and other financial initiations

Reserve Bank had put a draft comprehensive policy framework for ownership and governance in private sector banks emphasizing diversified ownership on 2July,2004. Based on the feedback received on the draft policy, the Reserve Bank, in consultation with the Government of India, laid down a comprehensive policy framework on Feb.28, 2005.

Random Thoughts

The Indian experience provokes some thoughts on a few fundamental issues with regard to PSBs and corporate governance, First, is public ownership compatible with sound corporate governance as generally understood since various corporate governance structures exist in different countries, where there are no universally correct parameters of sound corporate governance. Government ownership of banks, unless the government happens to have such a stake purely as a financial investment for return, necessarily has to have the effect of altering the strategy and objectives as well as the structure of the government. Government as an owner is accountable to political institutions which may not necessarily be compatible with purely economic incentives .The mixed ownership brings into sharper focus the divergent objectives of share holding and the issues of reconciling them, especially when one of the owners is the Government. In such a situation, one can argue that as long as the private shareholder is aware of the special nature of shareholding, there should be no conflict. In other words the idea of maintaining the public sector character of a bank while government holds a minority shareholding is an intensified and modified version of the "Golden Shares" of U.K..The question could be still be as to whether such a mixed ownership is a more efficient form of organization particularly for banks which are in cash generally under intense regulation and supervision.

Second, Is corporate governance generally better in private sector, in particular, private sector banks? With the regard to private sector banks (i.e. founded in pre reforms era, almost all of them continue to be closely held and many of them resist broadening their shareholders' base and thrust to avoid deepening of corporate structures. More often then not, takeover bites have been by equally closely held groups .As regard new private sectors banks, which have been licensed after close scrutiny in the reform period, the promoters were expected to dilute their stakes to below forty percent within 3 years. In two of the cases, this is yet to happen, while in most cases the banks continue to be identified with effective control by promoters' institutions

Governor Jalan made an interesting observation on this in a recent lecture " By and large , the structure is very weak in cooperatives and NBFCs. For historical reasons , local practices and multiplicities of regulators and laws .Old private sectors also have very poor auditing and accounting systems . New private sector banks – generally good on accounting but poor on accountability. More modern and computerized, but less risk conscious .One thing which is common to all is that corporate governance is highly centralized with very little real check on the CEO,who is generally also closely linked to the largest owner groups . Boards of auditing systems are not very effective".(Jalan 2002)

Third, how do the dynamics of insider and outsider models in terms of separation between ownerships manage net work in public vis-à-vis private sector banks? One view is that there is not much difference between public and private sectors in India." The literature on the governance deals mostly with the financial disclosures and restrictions on the management that remain within the corporation. And the influence that the external stakeholders or shareholders can hold. But in developing countries, the problems is lightly the other way round. In developing countries and more particularly in India, the major corporate issue is not how outside financiers can control the actions of the managers but also how outside stakeholders including the minority shareholders can exert control over big inside shareholders and this doesn't apply only to the public sector, but it applies equally strongly or probably more strongly to the private sectors as well". (Bhide,2002).

There are however, significant elements of subjectivity. Governor Jalan feels that the private sector has greater elements of the insider model."Public sector banks/FIs, for example, are more akin to the outsider's models with separation of ownership and management. Privates sector banks/ NBFCs/Co-Ops .- much more "insider "models with families ,interconnected entities or promoters running the management ." (Jalan2002)

The dominant view backed by more recent research is that the issue in India often relates to minority shareholders. "Rather than conflict between owners and managers of firms, it is the conflict between the interest of minority shareholders and promoters (say business groups) that is more relevant to India and that needs to be addressed " (NSE2001) .In other words, if the governance structures are week, the risk of private ownership of the banks needs to be assessed before embarking on large scale privatization.

Fourth, Is the performance of PSBs vis-à-vis private sectors demonstrably better? The evidence here is not conclusive, because comparison is beset with several difficulties. Clearly, old private sector banks as a group do not perform well, while new private sector banks show good performance as a group; better than the PSBs as a group. Given the size and variety of PSBs, it is possible to find banks that could equal the good private sector banks as well as bad ones. In addition, PSBs have to reckon with the "legacy" problems, such as the non-performing assets which they as saddled with. Some PSBs operate in relatively backward areas with limited discretion for the management to pull out from such areas. The question still remains, whether there is a better payoff in enabling PSBs to improve their performance while promoting private sector banks compared to transfer of ownership and control from public to private sector? Will greater scope for merger and acquisition within and between public and private sector mean greater efficiency than treating public and private sectors in a watertight manner?

Finally, what should be the most operationally relevant approach for enhancing governance in PSBs recognizing that the extent of public ownership is determined pre dominantly by considerations of political economy while the functioning of an institution could possibly be influenced by techno economy factors. The Indian experience so far, including identified agenda for debit, seems to indicate that, clear cut demarcations of responsibilities of various institutions and participants are critical since " joint family approach " needs to be ended with friendly but amicable "portion" of assets, liabilities and activities. This needs to be accompanied by transparency in dealing with each other and proper accounting of rejection which would be significantly in the area of managerial reporting and financial accounting . Simultaneously checks and balances should be consciously put in place to replace the tradition of an all pervading bureaucratic co-ordination.

Conclusions:

In brief, Central Bank has a developmental role even in the period of reform but it is a different type of a role, viz. not directly financing development but to help develop systems, institutions and procedures to enable paradigm shift in public policy and in the process enhance corporate governance also in PSBs, in particular. While legislative changes are necessary for an enduring improvement corporate governance and such legislative changes are not easy to effect in a democratic multiparty parliamentary system, it's reassuring to observe that significant improvements in corporate governance in the Indian financial sector are being effected even within the existing legislative framework. In the regard, it is not worthy that recently, the functioning of a bank board in the private sector seems to have attracted significant adverse notice, both from the market and from the supervisor. It is concluded that the representation of the Reserve Bank on the board is not desirable. Similarly, it is also concluded that the Reserve Bank has expressed interest in divesting all its ownership functions in banks.

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Total Quality Management in Library Operation

Naved Ahmad* **Md. Sohail****

ABSTRACT

Total Quality Management (TQM) has come to be quite widely used in libraries and information services in the last two or three decades. Academic libraries are currently engaging in activities to try to define new metrics that better describe their service activities. Increased pressure from funding authorities and accreditation agencies, and greater than before demands from the users of services have encouraged academic and research institutions, and thus their libraries, to move towards more outcome-based assessment instead of relying merely on input, output or resource metrics. The purpose of this paper is to present an overview of total quality management (TQM) in the library and information sectors. TQM was initially applied as a management philosophy in the manufacturing sector. Following its enormous success, this philosophy is increasingly being applied in the service sector, including libraries

Keywords : *Total Quality Management, Library Management, Customer services quality, Customer satisfaction*

INTRODUCTION

Today, all kinds of organizations are becoming customer-oriented organizations to survive in this world. Therefore, they need to provide quality products and services to their customers. The concept of total quality management (TQM) came into practice in the late 1980s as an American response. TQM is a way to improve the effectiveness, efficiency, flexibility and competitiveness of any business and customer oriented organization as a whole. It involves the whole organization getting organized and committed to quality in each department activity and person at each level. Recent studies show the application of TQM to the provision of library and information services. It points out the difference between traditional organization and TQM organization. It also discusses the implementation of TQM in Libraries and the practice of TQM in Libraries. Now a day's most of the organizations have to study: who is our customer and how to delight and what is the demand of customer? All these questions should be taken into consideration for it is the customer, who defines quality. Customer satisfaction is the motto of any organizations and quality is becoming an essential requirement for the survival of the organization. The concept of quality management originated in Japan and later moved into the USA and the UK, initially in the manufacturing sector. Since then, the theory of quality management has been growing fast. It has become a management philosophy in its own right and has taken shape in a series of international standards in the ISO 9000 series. The philosophy is increasingly being applied in the service sector, including libraries. This paper focuses on total quality management (TQM) in the library sector. Library and information managers (LIMs) are these days deluged with advice as to how to acquire and organize learning resources and satisfy the complex and ever-increasing information needs of their users. However, to achieve their goal, the question of a resource-constrained regime has to be kept in mind without sacrificing the interests of users. The services offered, accordingly, have to be internally efficient and externally effective. It is in this context that the question of "total quality" becomes relevant in the management of library and information services. According to Sarkar, Quality of a product or service is the ability of the product or service to meet customer's requirements. Here customer is the real authority who can clearly dictate the quality of a product o service provided. TQM is a way of managing the various aspects of a business organization to active the best results for stakeholders by ensuring enhanced customer satisfaction and employee motivation at the lowest cost, through continuous improvement and defect prevention, by involving all the employees. It has been defined as the art of managing the whole to active excellence. TQM provides over all concepts that fosters continuous improvement in an organization. The TQM philosophy stresses a systematic Integrated, consistent, organization-wide perspective involving everyone and every time. It primarily focused on total satisfaction of both internal and external customers within a management environment that seeks continuous within a management environment that seeks continuous improvement of all systems and processes. TQM is a necessity. It is a journey that never ends and way to survive and succeed. It is the way to survive and succeed. It is the totally integrated effort for going competitive advantage by continuously improving every facet of an organization's activities. TQM is an effective system for integrating the quality development, maintenance and quality improvement efforts of the various functions of business to enable production and service at the most economical levels to meet full customer satisfactions. The implementation of quality improvements in the library means a change from an inner process oriented view, to a customer oriented interactive approach. It is the intersection between the public tradition

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and the service of customer in a market-oriented environment that creates a challenge for improvements of library service quality.

Review of related Literature

Meher (2009) discussed the quality approach and services in the field of library and information services. The study also describes various principals and characteristics of quality service in libraries and term SERVQUAL means being able to view services form the customer's point of view and meeting the customer's expectation for services into seven determinants. And the service offering documents and services to its users compared to the services of other service organizations.

Raw and Kanjilal (2009) discusses with the development of LIBQUALTM survey instrument the Siva Sivani Institute of Management student were offered a tool which helps to measured the user satisfaction with reference to the "Library as Place". The study explain gap theory of service quality and measured user's perceptions of service quality and gaps between minimum desired and perceived expectation of service.. This study found that the service superiority is in the negative this means the users wants are not realized by the library.

Nejati and Nejati (2008) determined how successful the library has been in meeting user's needs by providing reliable and good services. The study focused on SERVQUAL theory for the quality measurement is library, according to library users. Study shows a relatively average perception among users o university of Tehran central library. The research suggest that, university of Tehran central library has conducted several program for improving its services, because of the lack of identifying the most important aspects of service quality in their customer's ideas, the efforts for providing customer satisfaction has failed to a great extent.

Dash, Jyotirmoy (2008) focused on the significance of total quality management in libraries and view that the circumstances which were challenged in libraries of Total Quality Management were very much prevalent there. The survey indicates that the author clears that, library managers implement the necessary changes to satisfy their clients. In the face of these challenges it is now time for libraries to exhibit that they are valuable for the sustained survival and provisions of their organizations

Landrum, Hollis, et al (2009) explore the relationship between the relative importance allocated by the systems users to each of five SERVPERF dimensions. Survey investigated the service quality perceptions of professional information system users.

Ramadas (2009) elucidates the concepts, methods and implementation of parameters of NAAC and LIBQUAL in improving the quality of LIS in higher academic institutions and discussed the guidelines on quality indicators in LIS, which is given by NAAC in 2007 and highlighted the criteria of quality assessment in library and information centers of colleges and universities.

TQM concepts

TQM is the art of managing the whole to achieve excellence. The golden rule is a simple but effective way to explain it. TQM is defined as both a philosophy and a set of guiding principles that represent the foundations of a continuously improving organization. It is the application of qualitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future. TQM integrates fundamental management techniques, existing improvements, and technical tools under a disciplined approach. In the other words, TQM is focused on the understanding that organizations are systems with processes that have the purpose of serving customers. TQM calls for the integration of all organizational activities to achieve the goal of serving customers. It seeks to impose standards, achieve efficiencies, define roles of individuals within processes and the organization as a whole, reduce errors and defects by applying statistical process control, and to employ teams to plan and execute processes more efficiently. It requires leaders who are willing to create a culture in which people define their roles in terms of quality outputs to customers. 13

TQM Principles

TQM is the application of a number of activities with perfect synergy. The various important elements of TQM are:

- Customer-driven quality
- Top management leadership and commitment
- Continuous improvement
- Fast response
- Actions based on facts;
- Employee participation; and
- A TQM culture

Customer-Driven Quality

TQM has a customer-first orientation. The customer, not internal activities and constraints, comes first. Customer satisfaction is seen as the organization's highest priority and the organization believes it will only be successful if customers are satisfied. The TQM organization is sensitive to customer requirements and responds rapidly to them. In the TQM context, "being sensitive to customer requirements" goes beyond defect and error reduction and merely meeting specifications or reducing customer complaints. The concept of requirements is expanded to take in not only product and service attributes that meet basic requirements, but also those that enhance and differentiate them for competitive advantage. Each part of the organization is involved in total quality, operating as a customer to some functions and as a supplier to others.

TQM Leadership from Top Management

TQM is a way of life for an organization. It has to be introduced and led by top management. This is a key point. Attempts to implement TQM often fail because top management does not lead and get committed – instead it delegates and pays lip service. Commitment and personal involvement is required from top management in creating and deploying clear quality values and goals consistent with the objectives of the company, and in creating and deploying well-defined systems, methods and performance measures for achieving those goals. These systems and methods guide all quality activities and encourage participation by all employees. The development and use of performance indicators is linked, directly or indirectly, to customer requirements and satisfaction, and to management and employee remuneration.

Continuous Improvement

Continuous improvement of all activities is at the heart of TQM. Once it is recognized that customer satisfaction can only be obtained by providing a high-quality product, continuous improvement of the quality of the product is seen as the only way to maintain a high level of customer satisfaction. As well as recognizing the link between product quality and customer satisfaction, TQM also recognizes that product quality is the result of process quality. As a result, there is a focus on continuous improvement of the organization's processes. This will lead to an improvement in process quality.

Fast Response

To achieve customer satisfaction, the organization has to respond rapidly to customer needs. This implies short product and service introduction cycles. These can be achieved with customer-driven and process-oriented product development because the resulting simplicity and efficiency greatly reduce the time involved. Simplicity is gained through concurrent product and process development. Efficiencies are realized from the elimination of non-value adding effort such as re-design. The result is a dramatic improvement in the elapsed time from product concept to first shipment.

Actions based on Facts

The statistical analysis of manufacturing facts is an important part of TQM. Facts and analysis provide the basis for planning, review and performance tracking, improvement of operations and comparison of performance with competitors. The TQM approach is based on the use of objective data, and provides a rational rather than an emotional basis for decision-making. The statistical approach to process management in manufacturing recognizes that most problems are system-related and are not caused by particular employees.

A TQM Culture

It is not easy to introduce TQM. An open, cooperative culture has to be created by management. Employees have to be made to feel that they are responsible for customer satisfaction. They are not going to feel this if they are excluded from the development of visions, strategies and plans. It is important that they participate in these activities. They are unlikely to behave in a responsible way if they see management behaving irresponsibly saying one thing and doing the opposite.

Relationship between library science and TQM

Quality, with regard to the products of industries, depends on raw materials, vendor components and different skills of performance of employees and production processes and equipment that shows different degrees of performance. Similarly, quality with regard to library and information science or with respect to the processing of information services in the library depends on

- The collection of documents and their technical processing by applying certain techniques and methods
- The skills of employees
- Equipment and processing
- The span of time of service to be rendered
- The attributes of services which are to be rendered.

From the above, it is clear that while quality in respect of industries fulfills the ultimate goal of user satisfaction, the same may be adopted in library and information centers. Quality in library services is most effective in user-oriented services.

From the above, it is clear that while quality in respect of industries fulfills the ultimate goal of user satisfaction, the same may be adopted in library and information centers. Quality in library services is most effective in user-oriented services.

Attribute	TQM	Library Sciences
Definition	Customer-oriented	User-oriented
Priorities	First among equals of service and cost	User and service
Decisions	Long-term	Long-term
Emphasis	Prevention	Prevention like anticipation of demand
Errors	System	System/techniques
Responsibility	Everyone	Library personnel
Problem solving	Teams	Professional teams
Procurement	Life cycle costs, partnership	User-centric (cost is implicit)
Manager's role	Delegate, coach, facilitate	Delegate assistance facilitate and mentor

The concept of total quality management (TQM) is now a management technique used in most disciplines and libraries and information centers are no exception. Its application in service sectors like library and information services (LISs) started in the late 1980s and is an American response aiming at customer satisfaction by way of meeting the requirements and expectations of customers. This concept has become more relevant in the current technological era, especially due to the emergence of application of information technology in libraries and changes in information consciousness among users.

TQM implementation in libraries

The use of TQM in the library sector started in the late 1980s, though early studies show that the TQM approach was not successful in some libraries. In fact, since TQM was originally developed for industrial production rather than service organizations, some of the highly statistical procedures applicable in industry are not appropriate for libraries. A study in British industry showed that although nearly two-thirds had introduced quality programs, only 8 percent of firms rated them as totally successful; this leaves a larger number that were claimed to be moderately successful, but the results are still far from impressive. Perhaps too much was expected too soon; perhaps some of the numerous critical success factors were neglected (Porter and Parker, 1993). Stella Pilling (1997) stressed that several major features of total quality management (TQM) are highly relevant for libraries, such as:

- The emphasis on customers
- The delegation of work
- The involvement of staff at all levels
- Process rather than function
- Continuous improvement.

The British Library Document Supply Centre (BLDSC) embarked on its TQM program in 1992, as greater awareness of customer needs, budget constraints and increasing competition in the document supply business made it vital that the Centre should re-examine its processes to ensure that it continued to meet customers' requirements for quality and service. Institutionalizing TQM in a library requires a quality culture among the library team that prompts customer delight through continuous improvement involving participatory and creative problem-solving approaches and a team ethos. In India, the various studies showed that none of respondents were fully satisfied with the work culture in their library. However, the majority of professional staff was highly satisfied with the librarian's leadership quality, creating and maintaining cordial relationships amongst library professionals. A key observation was that in services there was a direct interaction between a customer and the library staff and fulfilling their requirements through the service delivery process is both a challenge and an opportunity. A university library adopting total quality management in its activities and services needs to emphasize the importance of quality management to services.

Barrier factors for TQM implementation in LIS

The history of TQM in manufacturing shows that there are some barriers in TQM implementation. Some of these barriers are common in service sectors including libraries. TQM implementation failure has been attributed to two main barriers. The first is organizational context, such as a rigid organizational culture that is inflexible and a highly bureaucratic organizational structure and authoritarian management style. That is, the failures of TQM implementations are due not to external factors but to the failure of management to establish a proper system for its implementation. This perspective argues that often managers are not fully aware, or perhaps ignore what it takes to implement TQM successfully and achieve high performance. The second is the cultural barrier, because TQM implementation involves a paradigm shift in management values and attitudes and it should fit the national culture of the firm if it is to be implemented successfully. Research on the culture barrier argues that management values differ significantly across national cultures that management is culture-specific and that managerial practices, such as TQM, must be tailored to fit the local culture. TQM is about transforming an organization's culture, yet with the expectation of establishing a quality infrastructure and eliminating middle management positions through attrition. It is difficult to make a change in organizational structures as TQM requires institutions to restructure. Resistance to change and people's attitudes are primary hindrances to implementing TQM in libraries. The other barriers are the problems of finding the money and time for training while maintaining current services in the library. Miller and Stearns (1994) listed the following barriers to the implementation of TQM in libraries:

- The view that this is just another management fad of the day
- Management's fear of loss control
- Employee reluctance to recommend changes because of fear of management
- The business and industrial background of TQM might not lend itself to the non-profit sector, including libraries
- TQM requires a long-term investment of time over several years as processes are analyzed and an organization's culture is changed. This can cause resistance
- Other difficulties in these days of increasing financial and other pressures

Other research has focused on individuals within an organization. For example, Reger et al. (1994) suggest that each person's response to an idea involves the cognitive process of interpretation, attribution and inference. This means that managers who propose the idea for quality improvement are convinced that it works and assume that employees will think so too (Reger et al., 1994). Candido and Morris (2000) describe TQM failure as the expression of differing desires, wants, needs and feelings at individual levels within the organization. However, the underlying causes of failure in the implementation of TQM may go beyond individual beliefs, expectations, cognitive processes of interpretation, perceptions, feelings and desires to more deeply rooted unconscious archetypical projections on the part of each individual in the organization.

Conclusion

This paper has discussed the implementation of total quality management and its application to libraries. TQM demands time and persistence. To succeed in an organization there must be support at the very top and commitment at all levels. It is necessary that all groups of people in an organization are included in the process. TQM implementation requires patience and tolerance as it is a time-consuming process and, of course, it is not easy to change an organization. Therefore, implementation of TQM is not a guarantee of the highest quality but it is a step in the right direction. TQM implements a philosophy of strong leadership participation, increased communication among departments and the education of all employees. TQM is proven to be profitable when implemented in a successful way, but there are also problems with the implementation. In the other words, there is a need for an increased focus on the area of organizational change related to TQM. Resistance to change and people's attitudes are the primary hindrances to implementing TQM in libraries. The other barriers are the problems of finding the money and time for training while maintaining current services in the library. TQM is about transforming an organization's culture, yet with the expectation of establishing a quality infrastructure and eliminating middle management positions through attrition. It is difficult to make a change in organizational structures, yet TQM requires institutions to restructure. Successful TQM implementation requires a thorough understanding of critical success factors, barriers to achieving these factors, and managerial tools and techniques to overcome these barriers. Research in developed countries listed top management commitment to TQM, training for TQM throughout the organization, customer focus and continuous improvement and a focus on employee involvement and empowerment as the key determinants of successful TQM implementation.

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IMPACT AND SCOPE OF E-LEARNING IN EDUCATIONAL-SECTOR

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ABSTRACT

E-Learning is becoming a dominant delivery method in educational-sector. It has a great potential to bring learning closer to students in an effective manner, without the constraint of place. This paper analyses that, as e-Learning is evolving and making an important place within the arena of higher education, it is imperative that proper research should be carried out to determine the level of quality that exists and can be expected. Also there is a need for research to investigate student retention rates related to e-Learning programs. E-Learning is a term that covers a wide range of instructional material that can be delivered on a CD-ROM or DVD, over a local area network (LAN), or on the Internet. It includes Computer-Based Training (CBT), Web-Based Training (WBT), Electronic Performance Support Systems (EPSS), distance or online learning and online tutorials. For this purpose, a survey study is carried out by taking a case of College of Management and Computer Applications (CMCA), affiliated to Teerthanker Mahaveer University, Moradabad (U.P.),India where e-Learning Program (Lectures) is being delivered on regular basis using a particular tool of e-Learning which is VSAT Technology i.e. through Video Conferencing via Satellite. Results of the study are very encouraging and also show scope of the e-Learning. Majority of respondents of this survey study indicated that they had a positive outlook on the e-Learning and future of e-learning. The study also covered comparison of class-room learning with e-Learning and the survey-study indicated positive aspects for Blended-Learning.

Key Words : *e-Learning, VSAT, Educational-Sector, Blended Learning.*

INTRODUCTION

E-Learning is becoming a dominant delivery method in educational-sector. Although many institutes/organizations are recognizing the potential of e-Learning to bring learning closer to students/employees, there appears to be some issues to be addressed in delivering e-learning. E-Learning is a term that covers a wide range of instructional material that can be delivered on a CD-ROM or DVD, over a local area network (LAN), or on the Internet. It includes Computer-Based Training (CBT), Web-Based Training (WBT), Electronic Performance Support Systems (EPSS), distance or online learning and online tutorials. The major advantage to students is its easy access. There are some typical elements and a standard approach to developing or authoring e-Learning material. e-Learning provides the student or learner with information that can be accessed in a setting free from time and place constraints. The student can go through the lessons at his or her own pace. Students/Learners still face some barriers to e-learning, such as situational and technical barriers (Mungania, 2003). Moreover, there is a plethora of emerging technologies that have implications for workplace learning. Clearly, e-Learning presents both potentials and challenges, thereby creating a perfect e-storm with emerging technologies and enormous student/learner demand for training (Bonk,2004) when needed through which one has to navigate to deliver e-Learning that truly impacts students and educational-sector.

History of e-learning

E-Learning as we know it has been around for ten years or so. During that time, it has emerged from being a radical idea—the effectiveness of which was yet to be proven—to something that is widely regarded as mainstream. It's the core to numerous business plans and a service offered by most colleges and universities. The first general-purpose system for computer-assisted instruction from which e-Learning evolved, was the PLATO System developed at The University of Illinois at Urbana-Champaign. The Plato system evolved with the involvement of Control Data who created the first authoring software used to create learning content. The authoring software was called Plato. The Science Research Council then wrote the first CAI system of Math for K-6. Wicat Systems then created WISE as their authoring tool using Pascal and developed English and Math curriculum for K-6. The very first complete CAI classroom for K-6 students.

E-Learning versus Classroom-Learning

Classroom learning versus e-Learning! Is one better than the other? Can one completely replace the other? Indeed it seems that e-Learning is the way of the future. Educational institutions, corporations and government organizations alike already offer various forms of electronic teaching. Each individual/student has a form of learning that suits them best. Some individuals/students achieve amazing results in courses taught online, however some students drop out of 100% computer-led courses. Educational institutions must recognize that there is no ideal way to carry out the teaching and so must design programs that best suits the needs of the students. It is generally observed that retention power of just reading contents is less in comparison to visual retention and it is also less in comparison to audio-visual retention. People learn using multiple senses. This involves learning through both theoretical components of a course, as well as social

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interaction with both instructors and other students. Students learn from each other's mistakes and successes, not just from what they are told by instructors. Each individual student has an ideal learning pace. Instructors are therefore faced with the challenge of designing courses that move forward such that those students with a slower learning pace do not get left behind, while not moving so slowly that students with faster learning paces get bored. Various studies have shown that people absorb information most efficiently when, for example, they :-

- Are able to see some benefit, and deem the information relevant;
- Connect with other people;
- Control the pace and delivery of instruction;
- Receive feedback;
- Use methods that best suit their preferred learning style, and
- Most importantly, learn from a variety of styles.

It is difficult in a classroom environment to take advantage of several different styles of teaching, but in case of e-Learning, it is possible. Thus e-Learning technology can be a better supplement with class-room teaching.

e-Learning program

In the present case,an e-Learning program is carried out especially for developing skills of students, as various Institutes are striving to develop their students for cut-throat competition. In today's competitive world, survival and growth is dependent on a blend of theoretical and practical skills. It is not only subject knowledge, but also communication and behavioral skills that play a major role in creating talent. This program aims at bridging this gap between course curriculum and industry requirements.

It uses sophisticated VSAT (Very Small Aperture Terminal) technology for delivering interactive live lectures. Besides teaching content, the program is aided by visual aids and various other modern techniques to make learning an amazing experience. A better feature of the program is that students can also interact with industrial experts as well as experts from different areas and can learn a lot about the current requirements of the industrial-sector as well as contents regarding the course, without the constraint of place.

Delivery Mechanism

The lectures are delivered live using advanced VSAT technology and highly sophisticated software. Expert instructors from the teaching studio deliver the lecture using state of the art tools, such as digital white-board, two-way audio-video and chat. The program thus successfully combines the traditional method of teaching with the latest technology enabling students to study and ask questions as in a regular classroom. The lecture delivery is further supported by Role-plays, Power Point presentations, video clips, pictures and snapshots. All the lectures are recorded and can be accessed from the online portal also. Besides recorded lectures, the portal also acts as a platform for peer-to-peer interaction where students can post their queries, hold discussions on various topics and participate in mock-tests.

Measuring the Impact of e-Training (Research Design)

Most organizations, including the educational-sector, think of e-Learning primarily as a more efficient way to distribute training inside the organization, making it available "any time", "anywhere", reducing direct costs (instructors, printed materials, training facilities), and indirect costs (travel time, lodging and travel expenses, workforce down-time). Due to these significant and measurable advantages, organizations start to look for ways to manage and measure the utilization of new capabilities. For this intent, a survey was conducted of students in the Institute on the current status and future trends of e-learning. Being a coordinator of the program in the institute, I observed students closely during lecture sessions and therefore preferred the Structured-Interview method for the survey. These survey participants belonged to various types of courses like Management and Computer Applications. This survey was carried out on students most of whom were active in e-Learning sessions. The study is based on the inputs of 22,500 respondents.

Findings from the Survey Study

In the structured interview different questions were asked about the current status of e-Learning as well as their inclination and predictions of the future directions of e-learning. After collecting the responses of the students and analyzing the responses, results were expressed in the form of percentages. There were three options 'Yes', 'No' and 'Can't Say'. In the sections below are some findings from the study.

Interpretations

The questions formulated for the purpose of the study and are expressed in tabular form. The major interpretations from the data collected are as follows:

S. N.	Questions	Respondents (%)		
		Yes	No	Can't Say
1	e-learning increases the learning capabilities and plays an interactive role in learning environment.	80	15	5
2	e-learning is a better combination with class room teaching.	86	7	7
3	e-learning is a better tool for training programs.	92	6	2
4	e-learning methods impart more productivity.	78	12	10
5	Blended learning is an emerging technology in developing countries like India.	82	12	6
6	Sometimes e-learning sessions distract students from the real topic.	70	20	10
7	e-learning can impart human learning and performance by providing learners with more engaging learning experiences, just in time learning and performance support.	90	7	3
8	Authentic cases and scenario learning, simulations or gaming, virtual team collaboration, problem solving and problem based learning are the strategies can be used more widely in the coming time.	77	20	3
9	Effective and authentic contents must be created, then delivered and finally evaluated.	89	6	5
10	Educational institutes must focus on e-learning methods.	70	20	10

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Students' Perceptions of e-Learning

A large majority of respondents of this survey study indicated that they had a positive outlook of the future of e-learning. About 80 percent of the respondents described themselves as being supportive of or optimistic about e-learning. Also, they currently embraced e-Learning or blended learning (e.g., typically viewed as a combination of class-room learning and e-learning, though some definitions discussed the combination of technologies or instructional methodologies) to a varying degree. Interestingly, there were additional indicators for making investments in e-learning. It is an indication to organizations, particularly educational institutes to have a strategic plan for e-learning. When projecting the impact of e-Learning in the future, a majority of the respondents predicted that e-Learning would have a positive impact on learners in many ways.

Future Growth of e-Learning

Generally it is found that most educational institutes still rely on conventional class-room teaching. The current survey shows that e-Learning can be an increasingly important delivery format and can be a better supplement in all educational institutes in the coming time. In fact, most of the respondents to this survey indicated or predicted that e-Learning would become the dominant form of training. Interestingly, more than 70 percent of the respondents predicted that educational institutes would focus most on the creation of e-Learning content in the next few years.

Our survey results also project future trends in the delivery method for learning. Respondents predicted that blended learning would become the dominant delivery method in the coming times, followed by self-paced e-learning, instructor/teacher-led classroom learning and multimedia. More than half of the respondents predicted that the use of blended learning will increase in the coming times . Another interesting survey result was that not all students showed a positive inclination for e-learning, possibly suggesting the vibrance of blended learning as well as traditional classroom learning in the present and in the foreseeable future.

Quality of Future e-Learning

In order for e-Learning to thrive, there needs to be an online learning environment that builds success for learners (Hofmann, 2003). Yet, some of those surveyed responded that current e-Learning was not as engaging or motivating as class-room teaching. Similarly, almost 70 percent of the respondents said that over a long period, distraction from the topic was the most significant e-Learning issue that must be addressed. These findings illustrate the need to design more engaging e-Learning in order to create a more successful learning environment for online learners. What aspect of the learning process needs to be focused on to improve success for online learners? Those surveyed thought that online learners' achievement and satisfaction needed to be evaluated better.

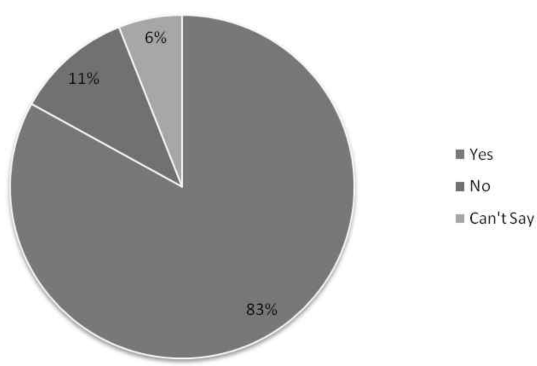
Future e-Learning Technologies and Instructional Strategies

There are various technologies that can be used in e-learning; therefore, it is important to think about what is ahead. Some of the respondents predicted that knowledge management tools, online simulations, and wireless technologies would impact the delivery of e-Learning greatly during the next few years as they were aware about the latest trends in this field. Such results seem to indicate that e-Learning can impact human learning and performance by providing learners with more engaging learning experiences, just-in-time learning, and performance support. Advancements of e-Learning technologies such as mobile, wireless and wearable technologies may further enhance such possibilities.

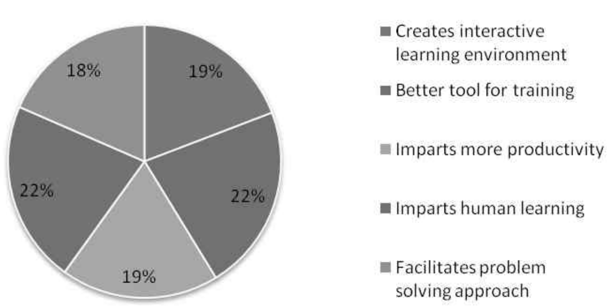
When asked about instructional approaches or strategies for e-Learning in training settings, respondents answered that authentic cases and scenario learning, simulations or gaming, virtual team collaborations, problem solving, and problem-based learning would be used more widely in the coming times . Of course, respondents felt that effective and authentic content must be created, then delivered and finally evaluated.

We can summarize the findings as follows:

E-learning - An interactive tool



E-learning: Scope



Conclusions

The educational sector is growing rapidly and also diversifying in different fields of education. Similarly e-Learning and blended forms of e-Learning are on the rise in the educational-sector. Also obvious is that there is a growing demand for more authentic learning opportunities and simulated experiences which e-Learning can provide. Fortunately, the web can bring the teaming, collaboration, problem solving, and coaching or mentoring that is required for better learning experiences. To respond promptly with the changing times, there is a need of using e-Learning technologies, at least as a supplement to class-room or conventional teaching.

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Fake Currency in Developing Indian Economy – An Assessment

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ABSTRACT

Counterfeit notes are a problem of almost every country but India has been hit really hard once and it has become a very acute problem. Fake Indian currency of Rs 50, 100, 500 and 1000 seems to have flooded the whole system and there is no proper way to deal with them for a common person. Despite the increasing use of electronic payments, currency retains an important role in the payment system of every country. There is only a legal way lodging a police complain and mention the source of the currency. The paper will focus on what actually fake currency is and its threat to society. The paper shall compare and contrast design features in bank notes issued by monetary authorities of India, to deter counterfeiting. The steps taken by RBI to control turn up of fake currency in the country. And lastly what is the effect of fake currency on the Indian economic growth. The present paper is an attempt to discuss the effect of counterfeit notes on the economy.

Keywords : *Counterfeit Notes, Fake Currency, Black Money*

INTRODUCTION

The word 'counterfeit' frequently describes both the forgeries of currency and documents, as well as the imitations of clothing, software, pharmaceuticals, watches, electronics, and company logos and brands. Fake notes are not a new phenomenon; what is new is the technological sophistication involved, the sharp rise in the amount of counterfeit currency—one estimate puts it at a scary 10-20 per cent of the total currency notes in circulation which is currently Rs 6,10,000 crores— and the size and scale of 'operation dirty money' is coordinated by Pakistan's ISI which stretches from Dubai. If the military-style raid of November 26 last year in Mumbai was an operation to undermine India's security apparatus, Pakistan has simultaneously been waging economic terrorism by corroding India's monetary system through fake currency injections. Even as the Reserve Bank of India (RBI) and banks are busy underplaying the magnitude of the problem by claiming that fake bank notes account for a small percentage of the money supply, the last one year has seen a dramatic increase in seizures of fake currency in every single state. According to the National Crime Records Bureau, 2,204 cases of counterfeiting were reported during 2007 and roughly Rs 10 crores worth of fake currency was seized. Sikkim, Uttarakhand and Himachal Pradesh have reported a 200 per cent, 178.6 per cent and 175 per cent increase respectively in counterfeiting cases over 2006. "Money supply or the quantum of currency notes in the system is determined by several factors and if money supply increases then it can have huge implications for the economy. The bigger damage is in the form of a crisis in people's confidence in the currency,"

Table – 1 Fake Currency Seizures in India

Year	Total Number of Cases	No. of Pieces seized	Amount (Rs. crores)
2001	934	2,15,992	5.3
2002	829	3,31,034	6.6
2003	1,464	3,88,843	5.7
2004	1,176	4,34,700	7
2005	1,990	3,61,700	6.9
2006	1,789	3,57,496	8.4
2007	2,204	--	10

Source: National Crime Records Bureau

India's counterfeit market value is $6.07 billion with auto parts comprising a major part of this – an astounding 37% of all auto parts sold to the public are counterfeit! (source: Havocscope Global Market Indexes). At $1.275 billion, the market value of counterfeit software in India is also high, in 2007 reflecting a loss of $2,025 million (source: 2007 Global Software Piracy Study). Globalization in India has brought the positives of increased commerce and opened the country up for direct foreign investment, which is of course very good news for the Indian economy. However, India's status as a low-cost manufacturing base also opens it up for use by counterfeiters as a prime location for the production of counterfeit goods both for domestic sale and export. Soap, shampoo, toothpaste, food, auto parts, as well as the more obvious items such as software, music and movies, have all been and continue to be counterfeited and, with consumer hunger for branded goods at an all-time high, business is booming for the Indian counterfeiters.

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The counterfeit medicines market in India is also flourishing and there have been some horror stories, such as that of 30 children dying in 1998 due to the consumption of paracetamol cough syrup prepared with diethylene glycol (a toxic chemical used in antifreeze). According to the WHO, in 2002 India's pharmaceutical companies suggested one in five medicines sold in India's major cities was fake. They claimed a loss in revenue of between 4% and 5% annually. The industry also estimated that illegal drugs had grown from 10% to 20% of the total market. India's famous 'Bollywood' film industry is also under threat with piracy and counterfeiting proving to be such a menace that the very existence of the industry is at stake.

Adding fuel to the fire is the flow of counterfeit goods from China, which are making their way into the country through the sea ports as well as from Nepal, Bangladesh and Burma. Policing the long boundaries that India shares with its neighbouring countries is a very difficult task and, unfortunately, lax border controls are encouraging the counterfeiters to extend their operations. So-called 'porous borders' are threatening the Indian economy as well as its national security. The country's global reputation is suffering. India is featured on the United States Trade Representative Priority Watch List for 2008 and there is strong international concern that India's IP protection and enforcement is inadequate and by no means meets the counterfeit issue that the country is facing today. Although there are laws in India against counterfeiting, their enforcement is tedious and lengthy legal proceedings often yield no results.

History of Counterfeit Money

Banking in India started as an activity among the European traders, chiefly the East India Company in the early 18th century. The first bank to employ the concept of paper money was a bank set up in Calcutta by Governor Warren Hastings in c. 1770 AD. However, the idea of issuing paper currency by the Government was promulgated by Sir James Wilson, the Finance Member in the Executive Council of the Viceroy, in 1859. Accordingly, an act was passed in 1861, empowering the Government of India to issue currency notes. However, world over, with the invention of a banknote, arose another problem - that of counterfeiting. The crime of counterfeiting currency is as old as money itself. Modern counterfeiting began in 1650 A.D, when paper money was first developed. Initially nations used it as a means of warfare, to overflow the enemy's economy with fake bank notes, so that the real value of the money decreases. However, in the late twentieth century, with the invention of advanced machinery such as colour copiers and other electronic devices, counterfeiting became easier and further flourished.

Indian bank note process and circulation

The Reserve Bank decides the volume and value of banknotes to be printed each year, depending on the requirement for meeting the demand for banknotes due to inflation, GDP growth, replacement of soiled bank notes and reserve stock requirements. RBI designs and prints its own bank notes at its works in Nasik. The basic raw material for making currency notes is cotton-based paper and special ink. While some quantity of paper used for currency is manufactured at the Hoshangabad Paper Mills, the rest is met through imports from four firms, Arjo Wiggins of France, Portal of the U.K., Gane of Sweden and Paper Fabric Luisantel. The Reserve Bank presently manages the currency operations through its 18 Issue offices. The issue offices of RBI send fresh banknote remittances to the designated branches of commercial banks. Once in circulation, banknotes pass many times between the public and businesses before finding their way back to RBI - because they have become soiled or damaged in the course of transfers. The total supply of banknotes during 2007-08 (July-June) was 8,488 million pieces (7,348 million pieces during 2006-07).

Table – 2 Banknotes in Circulation

Denomination	Volume End March 2005	(Million End March 2007	Pieces) End March 2007	Value End March 2005	(Rupees End March 2006	Crore) End March 2007
Rs. 2 & Rs. 5	6,484	6,217	6,008	2,548	2,431	2,334
Rs. 10	6,770	6,274	7,155	6,770	6,274	7,155
Rs. 20	1,938	2,038	2,089	3,876	4,076	4,178
Rs. 50	5,988	5,568	5,590	29,941	27,840	27,951
Rs. 100	12,328	13,464	13,544	1,23,282	1,34,640	1,35,444
Rs. 500	3,055	3,647	4,508	1,52,728	1,82,350	2,25,400
Rs. 1000	421	643	937	42,082	64,300	93,676
Total	36,984	37,851	39,831	3,61,227	4,21,911	4,96,138

Source:http://www.rbi.org.in/scripts/AnnualReport Publications.aspx?Id=902

Security Features in Indian Bank Notes

- Watermark - White side panel of note has the Mahatma Gandhi watermark.
- Security thread - All notes have a silver security band with inscriptions visible when held against light which reads "Bharat" in Hindi and RBI in English.
- Latent image - Higher denominational notes (Rupees 20 onwards) display the note's denominational value in numerals when held horizontally at eye level.
- Micro lettering - Numeral denominational value is visible under magnifying glass between security thread and latent image.
- Fluorescence - Number panels glow under ultra-violet light.
- Optically variable ink - Notes of Rs. 500 and Rs. 1000 have their numerals printed in optically variable ink. Number appears green when note is held flat but changes to blue when viewed at angle.
- Back-to-back registration - Floral design printed on front

and back of note coincides and perfectly overlap each other when viewed against light.

- Intaglio Printing: The portrait of Mahatma Gandhi, the Reserve Bank seal, guarantee and promise clause, Ashoka Pillar emblem on the left, RBI Governor's signature are printed in intaglio i.e. in raised prints, which can be felt by touch, in Rs.20, Rs.50, Rs.100, Rs.500 and Rs.1000 notes.

Major Fake Currency Hauls in India

July, 2009, Junagadh: Five complaints in counterfeiting were lodged with different police stations on June 29 alone. The complaints were lodged after recovery of 30 fake currency notes with a face value of Rs 9,400 from various branches of the State Bank of India (SBI).

15 October 2009 – Delhi, Counterfeit currency with a face value of around Rs.1 lakh was recovered from the Reserve Bank of India office here, police sources said on Wednesday.

October, 2009, Agra- Two persons were arrested for printing fake currency notes. Fake currency worth Rs 1.21 crores and fake bank drafts of Rs 2,18,029 of Central Bank, Andhra Bank, State Bank of India and Punjab National Bank were recovered from their possession.

August, 2009, Godhra, Junagadh and Rajkot: Nabbed four people and seized fake currency notes with a face value of Rs 10.25 lakhs.

August, 2009, Delhi: Fake notes amounting to seven lakh rupees were found with two men arrested by the Delhi Police crime branch

August, 2009, Ahmedabad: The Gujarat anti-terror squad (ATS) arrested a Pakistani national on Wednesday night with fake currency worth one lakh thirty-five thousand and identified him as Asghar Ali

A case was registered recently after a senior official of the RBI approached police complaining that 296 fake notes of various denominations were detected last month, the sources said.

In the years 2001, 2002 and 2003, four cases of fake currency circulation sponsored by ISI have come to notice in which 18 persons were arrested and counterfeit currency worth about Rs. 36 lakhs was recovered.

Table – 3 Counterfeit Notes Detected

Denomination	Number	Of	Pieces	Value	(Rupees)	
	2005-06	2006-07	2007-08	2005-06	2006-07	2007-08
Rs. 10	80	110	107	800	1,100	1,070
Rs. 20	340	305	343	6,800	6,100	6,860
Rs. 50	5,991	6,800	8,119	2,99,550	3,40,000	4,05,950
Rs. 100	1,04,590	68,741	1,10,273	10,459,000	6,874,100	110,237,300
Rs. 500	12,014	25,636	66,838	6,007,000	12,818,000	33,419,000
Rs. 1000	902	3,151	10,131	902,000	3,151,000	10,131,000
Total	1,23,917	1,04,743	1,95,811	17,675,150	23,190,300	1,54,201,180

Note: Data is exclusive of the counterfeit notes seized by police and other enforcement agencies.

Regulation of counterfeit notes

Counterfeit currency notes are being surreptitiously smuggled into India and are wrecking havoc with the country's financial system. With more fake notes being found everyday, the chances are growing that the money in our banks or the notes that we exchange in every day transactions could be counterfeit. Security agencies and even the Reserve Bank of India is grappling with the issue of fake currency notes which is smuggled into the country through the porous Indo-Nepal border or through Maharashtra with the help of Pakistan's ISI. All fake currency reaches Maharashtra first, according to investigators. This is because it is familiar terrain for the fugitive gangster Dawood Ibrahim. His proximity with the ISI grew after he took over the responsibility of pumping fake currency into India. IB officials say while Dawood controls most of this racket, Aftab Bhakti, originally from Mumbai, and Babu Gaithan, from Hyderabad, take care of operations in Dubai. The duo is in charge of collecting the money and then transporting it to India. This money is transported through individuals travelling between Dubai and India. Labourers, who go to Dubai in search of employment, are the usual targets. When they return to India to visit relatives, they are lured with incentives to carry the fake currency. The notes are covered in carbon paper and stashed in suitcases and covered with perfume, clothes and other goodies. IB sleuths say there have been instances where notes have been packed in photographic albums. While a large chunk of the fake currency is sent from Dubai, a sizeable amount of money also comes in through India's borders with Bangladesh and Pakistan.

Majid Bilal, Harkat-ul-Jihad-al Islami terrorist Shahid Bilal's brother, said that Pakistani agencies had made it compulsory for terrorists to carry fake currency into India each time they crossed the border. He said the points where men were based were in Uttar Pradesh, Rajasthan, Andhra Pradesh and Maharashtra. The fake money is exchanged for original notes on a 2:1 basis. The money generated is then passed onto various terror networks in India to fund operations. Majid mentioned that Rs 5 crores (Rs 50 million) was spent on Hyderabad blasts and all this money was generated through the distribution of fake currency.

Moreover, CNN-IBN tracked down an ISI agent in Nepal and sources in Nepal's law enforcement agencies arranged for a meeting with him. The man showed the CNN-IBN team fake Indian currency which he said was from a fresh consignment. The notes looked real, felt real and even had a water-mark. The Pakistan Embassy in Kathmandu is the nerve centre. The ISI agent said that Khalid Mehmood, a senior ISI officer working in the Embassy's Education Department, runs the network, with another ISI officer, Jamil Alam.

The fake notes enter Nepal through the Kathmandu Airport. The notes are printed at ISI printing facilities in Multan and Quetta, on currency paper imported from London. The ISI also uses printing facilities in Bangladesh and Thailand. The ISI transports the fake notes through the state-owned Pakistan International Airlines (PIA), or through the diplomatic routes to Dubai, Kuala Lumpur, Hong Kong, Bangkok, Colombo and Dhaka. From there ISI-backed couriers like, Azhar, bring consignments of fake currency on PIA flights to Kathmandu. From Kathmandu the notes are taken to Birganj on the Indo-Nepal border from where they are pushed into India across the porous border through a vast network of couriers.

Steps to Recognize Counterfeit Notes

- Indian currency notes come in a number of denominations like Rs. 10, 20, 50, 100, 500 and 1000. Nowadays, many anti-social elements are actively involved in printing duplicate currency, hence becoming a great threat to the Indian economy. It becomes a responsibility of each and every Indian to be aware of this fact and be knowledgeable enough to easily make the difference between authentic and duplicate. Given below are the identification details issued by RBI (Reserve Bank of India) on how to authenticate a currency note. Here are the tips on how one can identify a counterfeit currency note. Most of the clues are visible on the obverse side of the note (the side of the note where the denomination appears at the centre).
- When hold under UV (ultra violet) blue light, **The number of optical fibers** are easy and frequent on the note, where as on duplicates (fake notes) it is very less.
- Look for **'Intaglio print'** which is absent in a fake note. Intaglio print includes 1) The guarantee and the promise clause of RBI 2) Signature of RBI governor 3) Seal of RBI 4) Mahatma Gandhi's portrait 5) The Ashoka pillar emblem.
- One of the secret methods of identifying fake Indian notes worth rupees 500 and 1000 is by its colour, At a particular angle the original note **changes its colour** from green to blue.
- Always check the security thread which is visible in all original notes, This thread is 1.4 mm wide carbon black color, appears in break (on front side of note) and full straight line (back side of note). To check little, deep one can see 2 different words **'RBI'** and **'Bharat'** which are written in the Devnagri script. For the same, always confirm and identify it under UV light as the original note will glow in yellow and the fake currency does not.
- One of the major signs to identify is the **WATERMARK** on blank portion of Indian notes which shows 'Mahatma Gandhi's smiling face' and in few fake notes it seen NON smiling or absent.
- **How a visually impaired person can identify a fake currency note :** RBI has taken measures; the denominations, **A Dark Patch (intaglio print)** on the left side of the note near the Mahatma Gandhi picture can be seen and will help visually impaired (blind people) for the same. The patch differs in size in currency denominations worth Rs.20 (Vertical Rectangle), Rs.50 (Square patch), Rs.100 (Triangle), Rs. 500(circle), Rs.1000 (Diamond shape).
- Upon holding the note against light, just above the Dark Patch there is a **Floral Design** which can be seen on the front side and is filled in the back side of the note on which denomination numbers are displayed.
- One of the secret identification marks is the **'Latent Image of Denomination'** which can be seen when you hold the note horizontally with right vertical band facing you.
- Finally, one more thing to check is the **word RBI** and **Denomination amount number** which can been seen on front right side of note just next to Gandhiji's clear picture. Inside the gap of the vertical band (flower like design).

Measures by the Government to control counterfeiting :

1. The Government had taken a lot of measures to curb circulation of fake currency in the country, including stepping up of vigilance by the Border Security Force and customs authorities to prevent smuggling of fake notes. Also, a high-level committee headed by the union home secretary and comprising of officials from central agencies and other senior officials has been constituted to monitor and chalk out a strategy to check the influx of fake currency.
2. Forged Note Vigilance Cells have been incorporated in the head offices of all banks and the common man is being informed through print and electronic media. While the CBI has been appointed as a nodal agency by the government to monitor investigation of fake currency notes, the RBI has strengthened the mechanism for detection of counterfeit notes.
3. Note Sorting Machines (NSMs) have been incorporated in all banks at their currency chest branches, to facilitate examination and detection of counterfeit notes at the currency chest level itself.
4. A broad level Strategic Planning and Technology Implementation Committee has been set up to conduct research and development in security settings.
5. The RBI is also contemplating enhancing security features in Indian rupee notes since this would be the most effective measure to control the threat.
6. Recently, Government of India is keen to consider security products which have been developed and

tested in at least three major bank notes in the world, in efforts to make counterfeiting difficult.

7. It is estimated that fake Indian currency notes (FICN) worth Rs 130 million are being pumped into the country annually. This new generation terror weapon is so rampantly making its way to the Indian pockets that the Uttar Pradesh government has decided to counter it by educating young ones. So, a full chapter has been introduced in primary school text books devoted to security features of Indian currency notes. The chapter aims at helping the young ones to distinguish between the real and the fake ones.

Impact of counterfeit notes on the economy

The most visible impact of counterfeit currency is felt by the common man, the real motive is clearly to destabilize the Indian economy, fund terror and the narcotics trade.

1. Reduction in the value of real money.
2. Increase in prices (inflation) due to more money getting circulated in the economy - an unauthorized artificial increase in the money supply.
3. Decrease in the acceptability (satisfactoriness) of money - payees may demand electronic transfers of real money or payment in another currency (or even payment in a precious metal such as gold)
4. Companies are not reimbursed for counterfeits. This forces them to increase prices of commodities
5. The counterfeit currency smuggled in by air and land is handed over to local agents for distribution. These agents exchange the notes with genuine ones at discounts of up to 30 per cent. The genuine currency is then used to finance the terrorist network. This money is used to finance terror-related activities and make payments to cadres of terrorist organizations and underworld outfits close to the ISI.

Suggestions

1. Counterfeiters have a deep knowledge of the kind of special ink, paper and other ingredients that go into the making of notes. Thus, RBI need not to disclose the ingredients or any other kind of information regarding paper currency.
2. Adopt techniques, both in respect of cash handling and security to counter the growing menace of fake notes in the country.
3. Fake currency thrives as the four main nodal agencies CBI, Directorate of Revenue Intelligence, Central Economic Intelligence Bureau and the enforcement directorate look at various aspects and do not coordinate.Thus, it is recommend that these 4 agencies should coordinate.
4. More care should be taken while checking the baggage of passengers who hail from Pakistan, Dubai, Nizamabad, Karimnagar and Kadapa.
5. Reduce the quantum of currency in circulation by encouraging banking and other transactions through instruments like online payments

Conclusion

Counterfeiting can be found in almost every country of the world. Since counterfeiting operates outside the law, estimating the exact level of counterfeiting and the harm it brings is extremely challenging. Estimates of the level of counterfeiting vary from country to country. Counterfeiting certainly impacts consumers and businesses (Consumers receive poorer quality products that are unregulated and unsafe, illegitimate businesses, causing lost sales, lower profits and loss of brand trust and value) as well as government (lower tax revenues and higher spending on welfare, health services and crime prevention.)The way, we in India, can tackle this problem is to exercise vigilance, on the part of every citizen, "If men were angels, no government would be necessary." This battle against counterfeiting, is not only for the strong alone; but for the vigilant, and the active. Thus, its right to say JAGGO INDIA.

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