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REVISITING TRAINING EVALUATION

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ABSTRACT

In 21st century when there is enormous pressure on organisations to justify every business process, training department has the onus to quantify training results and assert their strategic importance by laying down an objective and effective evaluation system. Organisations should clearly articulate the need for training evaluation and take every stakeholder and participant of training evaluation process into confidence. Although there are many effective evaluation models employed by organisations but even the most sophisticated and objective evaluation model will fail unless training needs are identified and training evaluation outcomes are judiciously selected and deployed. Another key point to remember is the selection of training design which lends credibility to the finding. This article stresses on the fact that evaluation is no more a desirable activity but an imperative which every organisation has to carry out to stay alive and competitive.

KEYWORDS

Training evaluation, Return on Investment, Training Needs Analysis, Training outcomes.

INTRODUCTION

In order to keep pace with the changing business world, organisations need to redefine and reprioritise their learning needs to gain sustainable advantage (Quinn et al., 1996) over competitors. Training in 21st century has come out of its traditional supportive role of basic skills development and taken up the strategic mantle of creating intellectual capital. Many organisations have adopted a philosophy of high leverage training which is linked to strategic business goals and objectives, thereby creating wealth for various stakeholders. The importance of training can be gauged by the fact that training is more than \$100 Billion industry in US (Carnevale, 1990).

Now, with so much investment, the emphasis is clearly on finding the effectiveness of training programs and validating it by quantifying the results. Evaluating training programs has now become imperative than just being desirable. This categorical stress on calculating the benefits of training programs can be for various reasons starting from, justifying the increase in annual training budget to demonstrate it to the clients and prospective clients to garner further contracts (Kirkpatrick et al, 1994).

Training evaluation refers to the process of collecting the outcomes needed to determine whether training is effective or not. Training evaluation answers various fundamental questions like, whether and how the competency level of participants has improved after the training intervention; and what is the monetary value of training outcome against the cost incurred for conducting the said training programme.

Training evaluation brings rationality, objectivity, accountability and credibility to HRD by insisting on tangible and verifiable outcomes. While training has too often been viewed as trivial by both employers and employees, today's stakeholders are demanding better linkage to business needs.

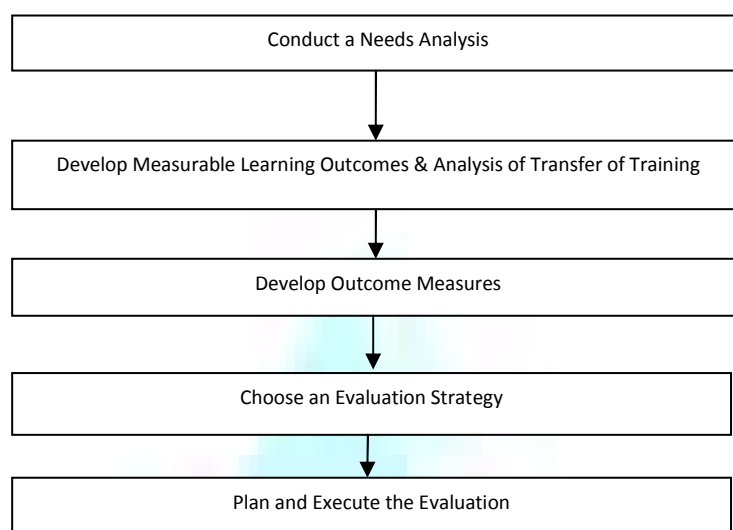
Many training professionals agree that evaluation is essential to successful training, but few conduct complete and thorough evaluations. Despite its importance, there is evidence that evaluations of training programmes are often inconsistent or totally missing. Possible explanations for inadequate evaluations include: insufficient budget allocated; paucity of time; lack of expertise; blind trust in training solutions; or lack of methods and tools (McEvoy & Buller, 1990).

On the basis of the purpose training evaluation can be categorised into formative and summative evaluation (Wart et al., 1993). **Formative evaluation** refers to the evaluation of training that takes place during program design and development. It ensures that the training program is well organised, smoothly conducted and achieves learning objectives. Formative evaluation provides information about how to make the program better; it usually involves collecting qualitative data like opinions, beliefs, and feelings about the program. The formative evaluation is conducted either individually or in the groups before the program is administered in rest of the company. As a result of the formative evaluation, training content may be changed to be more accurate, easier to understand, or more appealing. The training method can be adjusted to improve learning.

Summative evaluation refers to evaluation conducted to determine the extent to which trainees have changed as a result of participating in the training program. It assesses their newly acquired knowledge, skills, attitudes, behaviour, as identified in the training objectives. Summative evaluation may also include measuring the monetary benefits (ROI) that the company benefits from the program. It generally involves collecting quantitative data through tests, ratings of behaviour, or objective measures of performance such as volume of sales, accident rate, or number of patents etc.

TRAINING EVALUATION PROCESS

The evaluation process begins with setting realistic and relevant training needs. Needs assessment helps an organisation in not just identifying and bridging the current competency (Knowledge, skills and attitude) gap, but also in building future HR capabilities.



Source: Grove and Ostroff, 1991

Identifying specific, measurable training objectives follows as the next logical step. The more specific and measurable these objectives are, the easier it is to identify relevant outcomes for the evaluation. A screening of work environment to facilitate smooth transfer of training will greatly help in achieving the set objectives. Based on the learning objectives and analysis of transfer of training, outcome measures are designed to assess the extent to which learning has happened and transfer of the same has occurred.

Once the outcomes are identified, the next step will be to chalk out an effective training design. The selection of training design is based on several factors such as expertise, ease and speed of accessing information, change potential, and the organisational culture. Planning and executing the evaluation involves previewing the program as well as collecting training outcomes according to evaluation design.

CONDUCT A NEEDS ANALYSIS

Training needs analysis is the process of identification and prioritization of training needs. It is the first step in the instructional systems design process, which determines the necessity of training in an organisation.

Needs analysis can further be divided into three components: organisational analysis, task analysis and person analysis (Goldstein et al, 1991). *Organisational analysis* or strategic analysis determines whether training supports the organisation's strategic direction, it has the support of top management and necessary resources allocated for training activities or not. It must take into consideration the product and market diversification, growth plans in terms of volumes and geographical spreads, modernisation and computerisation plans, outsourcing and contracting issues, quality improvement and cost cutting and profit maximization proposals.

Task analysis (Schneier et al, 1988) is a systematic collection of data about a specific job or job family to determine job specific competency (KSA) standard desired for optimal performance. Job analysis, skills inventory can yield valuable information about tasks and their significance. Task analysis should be carried out only after organisational analysis is over, since the commitment of top management is crucial in achieving the training objectives.

Person analysis (McGehee & Thayer, 1961) intends to find out who needs to be trained and what kind of training they need. Person analysis is aimed at finding out the individual competency in terms of knowledge, skills and attitude against the requirements for successful performance of a given job role. Performance appraisals, observations of immediate supervisors and self-perception needs of the employees are the important sources of data for person analysis.

DEVELOP MEASURABLE LEARNING OUTCOMES

To evaluate the training programs, it's imperative to develop measurable (quantifiable) learning outcomes. Although there are various evaluation models proposing various learning outcomes or criteria, two models stand out from the rest because of its popularity and acceptability among the training fraternity.

The first model was postulated by Kirkpatrick in 1967 for categorizing training outcomes. It is a four level framework consisting of reaction, learning, behaviour and results.

Level	Criteria	Focus
1	Reaction	Trainee Satisfaction
2	Learning	Acquisition of knowledge, skills and attitudes
3	Behaviour	Improvement of behaviour on the job
4	Results	Business results achieved by trainees

Source: Kirkpatrick, 1996

LEVEL 1: REACTION

Evaluation at this level measures the learner's perception or reaction to the programmes. Interest, attention and motivation of participants are critical to the success of any training programme. People learn better when they react positively to the training programme. The most common method of reaction evaluation is the questionnaire completed at the end of the training. Other methods are surveys, interviews, and focus groups.

LEVEL 2: LEARNING

The second level of Kirk Patrick measures the learning of the participants from the training programmes. This level seeks to find answers to following questions like, what knowledge was acquired. What skills were developed or enhanced? What attitudes were enhanced? Learning measurements are administered after the training programme is over to ensure that the performance objectives are achieved. Methods used in this level are verbal questions and answers, paper test, observation etc (Phillips, 1983).

LEVEL 3: BEHAVIOURS

At this level evaluation is designed to determine whether there is any behavioural change on the job because of newly acquired knowledge, skills and attitude. Such evaluation is generally done once the participants have returned to the workplace. The methods employed are, work sample review, interviews with learners, supervisors, observations, questionnaires.

LEVEL 4: RESULTS

The fourth and final level determines the business results the training has helped in achieving. The key performance indicators are volumes, values, percentages, time scales, and other quantifiable aspects of organisational performance. Since this level is very objective, the information is difficult to collect and quite time consuming. Although, Kirkpatrick's model is one of the most famous and credible model of training evaluation, it has its share of criticisms too. First, there is little evidence that validates that each level is the result of the preceding one. Second, there is quite insignificant proof that levels differ in importance. Third, outcomes should be collected according to a given sequence like reaction should be followed by learning, behaviour and results but, realistically, learning measures should be collected at the same time as reaction measures that is at the end of the programme (Kraiger et al., 1993).

As a result of severe criticisms, both academic researchers and training practitioners advocated for outcomes beyond the results. This search led Jack Philips to state the fifth level, ROI (Return on Investment). Measuring ROI is quite complicated because of the presence of many business variables and isolating the training intervention from multitude of business variables is quite a challenge. For example, the increase in sales turnover of a company can be attributed to one of the many reasons like either closure of rival business firm, new product line, tax concessions by the government, new and better technology or, due to market expansion. Therefore, it is imperative on the part of an organisation to identify critical competencies which contribute directly towards the result. But, such a causal relationship is not that easy to establish because of which Philips and Stone (2002) recommended an inclusion of confidence level to the previous model.

Any method to measure ROI should be robust, acceptable and scientifically valid, in this regard Philips and Whalen (2000), have suggested certain criteria for effective ROI process they are:

- The ROI process should be simple, easy to understand and execute.
- It must be economical.
- It should be theoretically sound and based on generally accepted practices.
- It must be applicable to all types of data including hard data (output, quality, cost and time) and soft data (employee satisfaction, customer satisfaction and complaints).
- It must have a flexibility to be applied on a pre-programme basis as well as post-programme basis.

DETERMINING WHETHER OUTCOMES ARE GOOD

The effectiveness of training programme can be determined by the goodness of the outcomes. Good training outcomes need to be relevant, reliable, discriminate and practical (Holton & Naquin, 2004).

Relevance: Criteria relevance refers to the extent to which training outcomes are related to the learning capabilities as mentioned in the training programme. There are two ways by which training outcomes might lose relevance and they are criterion contamination and criterion deficiency. Criterion contamination means when training outcomes measures inappropriate capabilities or is affected by extraneous conditions. Criteria may also be contaminated if the training environment is different from the conditions under which the outcomes are measured. Criterion deficiency refers to the failure to measure training outcomes that were emphasized in the training objectives.

Reliability: Reliability refers to the extent to which the outcomes are consistently measured over time. A reliable test is one for which the meaning or interpretation does not change over time.

Discrimination: Discrimination refers to the degree to which trainees performances on the outcome actually reflect true differences in performance.

Practicality: Practicality refers to the ease with which the outcomes measures can be collected. Collecting data that too relevant data is very time consuming and cumbersome exercise, hence the practicality aspect is very vital for determining good outcomes.

EVALUATION DESIGNS

The design of the training evaluation determines the confidence that can be placed in the results i.e. whether the changes are because of the training or any extraneous factors. The validity of evaluation design faces threats in the form of a) lack of believability of the training result, b) failure to generalise the study result on a greater population (Cook et al., 1990).

The first kind is called threat to *internal validity*, which can happen because of any of the following reasons, faulty needs identification, flawed training design and faulty delivery. This can lead to lack of trust on the training outcomes. The second type is known as threat to *external validity*, which states that the training outcomes can be extended to other groups and situations. This determines whether a particular training program can be imparted in future to other groups and that too under different learning conditions.

There are three ways to minimize threats to the validity: the use of *pretest and posttest in evaluation designs, comparison groups, and random assignment*.

On the basis of who is involved, when measures are collected, the costs incurred, the time it takes to conduct evaluation and the strength of the design for excluding alternative explanations for the results, evaluation designs are of various types. Some of the popular kinds are *Posttest Only, Pretest/Posttest, Posttest Only with Comparison group, Pretest/Posttest with Comparison group, Time series, Time series with Comparison group* and *Solomon four groups* (Bretz & Thompson, 1992).

There are several factors to keep in mind while selecting evaluation design; few of the important ones are given below.

Factor	Factor's influence on the evaluation design selection
Change Potential	Scope for program modification.
Importance	Will ineffective training affect customer service, product development, or relationships among employees?
Scale	Number of trainees involved
Purpose of Training	Final purpose of training learning, results or both.
Organisation Culture	Is demonstrating results part of company norms and expectations?
Expertise	Do we have the expertise to study a complex process?
Cost	What are financials involved?
Time Frame	When is information needed?

IMPLEMENTATION OF TRAINING EVALUATION

The final step is the implementation of the training evaluation. The actual effectiveness of training evaluation process lies in the actual deployment of training evaluation process. Since we can't have a total error free process we should always have a system of feedback which will guide our future designs.

SUMMARY

In today's environment of increased accountability, the training evaluation process is a vital component of any organization's training program. The training evaluation process is instrumental to provide useful information to multiple stakeholders. An effective training evaluation process, can obtain business critical information needed to improve both training program delivery and business performance, creating opportunities for continuous organizational improvement. Organisations should be clear of the reason for evaluation (Formative/Summative). The training needs analysis is very significant in the training evaluation process as it helps in zeroing on the business critical training needs. Utmost caution should be maintained while evaluating the training programs, since wrong training outcomes or a faulty training design can cause irreparable damage. While traditional training evaluation methods (Kirk Patrick's four levels of training evaluation) focus on using the assessment process to improve training delivery, information should also be collected to determine whether training is assisting

the organization to improve its business performance. Readers of this paper will find it more enriching in terms of information with critical analysis gathered through various sources which will help them to better understand and appreciate training evaluation for creating a learning organisation.

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THE INFLUENCE OF AGE ON CONSUMER ACTIVISM**DR. ANTHONY. A. IJEWERE****SR. LECTURER****DEPARTMENT OF BUSINESS ADMINISTRATION****UNIVERSITY OF BENIN****BENIN CITY****ABSTRACT**

The aim of this paper is to 'investigate if there is a relationship between age and consumer activism in Nigeria. To achieve this objective, some related literature were reviewed, while stratified sampling, and t-statistic were use for analyzing the data, The result of the study revealed that apart from willingness to uphold the decisions taken at meetings, age has no significant relationship with other aspects of consumer activism such as willingness to join, finance, serve, attend meetings and solicit for members for consumer associations. Based on these findings, it is therefore recommended that companies should design their marketing strategy in such a way that their products will accommodate the different age groups in the market place. This action will increase sales volume as many age groups are being serviced as against selling their products to a particular age group.

KEYWORDS

Influence, Age, Consumer and Activism.

INTRODUCTION

It is the aim of this paper to find out if there is a relationship between age and the level of consumer activism. In otherwords, does age influence the level of consumer activism in Nigeria?

Generally, age influences the buying behaviour of consumers and by extension, their level of consumer activism. The interests and needs of consumers differ from one age group to another. Children (under thirteen years of age), teenager (13-19 years old), young adults (20-35 years) and older people differ substantially in needs, interests, preference and purchases (Agbonifoh, Ogwo and Nnolim 2006) Changes in need with age are in certain cases biological while others are acquired (Agbonifoh, Ogwo and Nnolim, 2006). The young adults and older consumers are in the working class group and are therefore more likely to make purchase decisions. By implications, they are in a position to express or voice their satisfaction or dissatisfaction about a product and this in turn also influences their level of consumer activism.

It is therefore the aim of this paper to examine the influence of age on consumer's level of activism. To achieve this objective, the paper has been sectionalized into five parts to include introduction (already stated), review of related literature, methodology, data presentation and discussion of findings and conclusion.

REVIEW OF RELATED LITERATURE

Before discussing age as it relates to consumer activism, it is important to examine the concept consumer activism.

THE CONCEPT CONSUMER ACTIVISM

Consumer activism is the concerted efforts, actions and collective reaction of consumers to protect their perceived interest in the market place (Ijewere, 2005). It is intended to reduce, limit or control the over-bearing excesses of manufacturers and/or vendors such as high prices, poor quality and artificial scarcity of goods. The basic concept behind consumer activism vis-a-vis the manufacturer, can be likened to two main forces that are exerting pressure on one another, with the possibility of the stronger force gaining an upper hand over the weaker one. The situation is that, while the manufacturer is out to maximise profit, consumers, on the other hand, through their collective efforts are willing to fight for their rights. They complain in order to maximise their satisfaction. The end result of these actions is consumer activism and protection that exist all over the world including Nigeria.

Over the years, the Nigerian consumer has been bombarded with all sorts of low quality products in the market place, especially in the area of drugs, food, petroleum products, motor spare parts, cosmetics, chemicals and services. According to the Standard Organisation of Nigeria (SON) (1997), about 60% of the goods produced in Nigeria are sub-standard, while about 25% are fake. Durojaiye (2000), also supported this position by saying that the Nigerian view, sub-standard goods, especially automobile spare parts are imported into Nigeria from countries such as Taiwan, while expired drugs come in from Europe and Asia and are passed on to unsuspecting consumers.

It is therefore not surprising that some consumer Associations have emerged in some parts of Nigeria. They include the tenants Association of Lagos, the Consumer Association of Lagos, the Enugu Consumer Movement and the Consumer Club of Agwu in Anambra State (Onah, 1997). However, these associations did not have a national spread as their activities were mainly restricted to the cities where they were established. Consequently, they could not tackle the problems of helpless consumers from a national perspective.

As a result of the perceived non-performance of these consumer associations and the yearning of Nigerian consumers for protection, the government responded by establishing some regulatory agencies and enacting some legislation to protect the Nigerian consumers. The legislations include the Price Control Act of 1970, Standards Organization of Nigeria Decree of 1971 and National Agency for Food and Drug Administration and Control (NAFDAC) Decree of 1973. Others include the Weights and Measures Act of 1990 and Hire Purchases Act of 1990.

Although these legal remedies have been put in place by the Nigerian Government, consumers do not seem to take full advantage of them to seek redress and may not even be aware of their existence (Agbonifoh and Edoren, 1985). It is also the view of Cranston (2004:45) that "Legal remedies may be available to consumers in the event of business proving Obstreperous, but the evidence demonstrates that many consumers are ignorant of their legal rights".

THE RELATIONSHIP BETWEEN AGE AND CONSUMER ACTIVISM

Consumers who are young adults (i.e. 20-35years) and older adults (i.e. 35 and above) tend to control the purchasing power in the market place. This is in view of the fact that most of them fall into the working-class group. This implies that age can influence the purchasing behaviours of consumers. It therefore follow that since these group of consumers command the purchasing power in the market place, they are also in a better position to express their satisfaction and dissatisfaction about the performance of a product and this in turn influences their level of consumer activism. The aim of this study therefore, is to investigate if there is a relationship between age and the level of consumer activism.

METHODOLOGY

The methodology adopted in this study, was a survey of 858 adults in six major towns of Edo and Delta States. The six towns chosen are Benin, Auchi, Ekpoma, Warri, Asaba and Sapele. These cities were selected based on their high population and literacy rate and they therefore have a high probability of being reasonably representative of the urban population of the two states.

The stratified sampling method was adopted for the study. This is to ensure adequate or proportional representation of the different categories or types of elements that makes up the population in the selected sample. The relationship between age and consumer activism, was verified by testing each of the six disaggregated elements of consumer activism against age. Thus, six sub hypotheses were subjected to test, that is, one in respect of each disaggregated factor.

In the data analysis plans, the hypothesis testing method was adopted using multiple regression analysis and simple frequency distribution.

DATA PRESENTATION AND DISCUSSION OF FINDINGS

The relationship between age and consumer activism was examined by testing six sub-hypothesis which include:

- The relationship between age and willingness to join consumer association.
- The relationship between age and willingness to finance consumer association.
- The relationship between age and willingness to serve a consumer group in an official Capacity.
- The relationship between age and willingness to attend consumer association meetings.
- The relationship between age and willingness to uphold the decisions taken at meetings.
- The relationship between age and willingness to solicit for members for consumer associations.

The results and discussion of findings are hereby presented below:

RELATIONSHIP BETWEEN AGE AND CONSUMER ACTIVISM

This hypothesis verified the relationship between age and consumer activism by testing each of the six disaggregated elements of consumer activism against age. They include the willingness of consumers to join, finance, serve, attend meetings, uphold and solicit for members for consumer associations based on the data collected from fieldwork.

THE RELATIONSHIP BETWEEN AGE AND WILLINGNESS TO JOIN CONSUMER ASSOCIATIONS

In table 4.1 the coefficient of the variable age has a positive sign. The coefficient value of age is 0.00670 and thus reveals that a 10 percent change in age will not lead to a change in consumer activism in the area under study. The regression result of the t-value is 1.49. It failed the 5 percent level of significance test. However, it passes the 10 percent level of significance. The R² value is 0.003. It shows that only about 0.3 percent of the variation in willingness to join consumer association has been explained in the regression.

The value of the F-test is 2.21. At 5%, the relationship is not significant. The DW value is 1.8294. The Durbin Watson statistics tells us if there are other intervening variables interfering with the result of any of the two variables. The DW value is 1.82 and therefore not significant at 5% level, but significant at 10% level. However, the result indicates that there may be other variables in the relationship level. However, the result indicates that there may be other variables in the relationship.

In summary, table 4.1 suggests that age has no relationship with consumers' willingness to join consumer associations.

TABLE 4.1: LEAST SQUARE REGRESSION OF WILLINGNESS TO JOIN CONSUMER ASSOCIATIONS

Variable	Coefficient	T-Test
Constant	3.94712	
Age	0.00670	1.49
RL	0.0025	
F	2.21	
DW	1.8294	

Source: Author's Fieldwork, 2009

THE RELATIONSHIP BETWEEN AGE AND WILLINGNESS TO FINANCE CONSUMER ASSOCIATIONS

The table 4.2 indicates that the coefficient of the variable Age has a positive sign.

The coefficient value of Age is 0.00438. It reveals that a ten percent change in age will lead to a 4.3 percent change in consumer activism in the area under study. The t-value of the regression result is 0.99. This is not significant at 5% level. The R² value is 0.001. It shows that only 0.1 percent of the variation between age and finance have been explained in the regression. The value of the F-test is 0.97. At 5% level, the relationship is not significant. The result indicates that there is no relationship between the two variables.

The DW value is 1.8337. Although the DW value is 1.83 and thus not significant at 5% level, but significant at 10% level.

In summary, table 4.2 shows there is no significant relationship between age and willingness to finance consumer association at 5% level.

TABLE 4.2: LINEAR SQUARE REGRESSION OF WILLINGNESS TO FINANCE CONSUMER ASSOCIATIONS

Variable	Coefficient	T-Test
Constant	3.86204	
Age	0.00438	0.99
RL	0.0011	
F	0.97	
DW	1.8337	

Source: Author's Fieldwork, 2009

THE RELATIONSHIP BETWEEN AGE AND WILLINGNESS TO SERVE CONSUMER ASSOCIATIONS

Table 4.3 indicates that the coefficient of the variable age has a negative sign. The coefficient value of age is -2.066. This reveals that a ten percent increase in age will lead to a 20 percent decrease in consumer activism in the area under study. The t-value of the regression result is -0.04. This is not significant at 5% level. The value of R² is 0.000. It shows that there is no variation in the equation.

The value of the F-test is 0.00 and thus not significant at 5% level. It also means that there is no relationship between the two variables.

The DW value is 1.9101. The DW value is 1.91 and thus not significant at 5% level, but significant at 10% level.

In summary, table 4.3 suggests that age has no relationship with consumers willingness to serve as officials in consumer associations.

TABLE 4.3: LINEAR SQUARE REGRESSION OF WILLINGNESS TO SERVE IN AN OFFICIAL CAPACITY IN CONSUMER ASSOCIATIONS

Variable	Coefficient	T-Test
Constant	3.86070	
Age	-2.006	-0.04
RL	0.0000	
F	0.900	
DW	1.9101	

Source: Author's Fieldwork, 2009

THE RELATIONSHIP BETWEEN AGE, AND WILLINGNESS TO ATTEND CONSUMER ASSOCIATION MEETINGS

The table below shows that the coefficient of the variable age has a positive sign while the coefficient value of age is 9.431. This reveals that a 10 percent change in age will lead to a 93 percent change in consumer activism in the area under study. The t-value of the regression result is 0.03. This is not significant at 5% level. The R² value is 0.000. It implies that there is no variation between age and attend as explained in the regression.

The value of the F-test is 0.00. At 5% level, the relationship is not significant. The result indicates that there is no relationship between the two variables. The DW value is 1.8746. Even though the DW value is 1.87 and thus not significant at 5 % level, but it is significant at 10% level.

In summary, table 4.4 suggests that age is not a major determinant in determining if consumers will be willing to attend meetings of consumer associations.

TABLE 4.4: LINEAR SQUARE REGRESSION OF WILLINGNESS TO ATTEND CONSUMER ASSOCIATION MEETINGS

Variable	Coefficient	T-Test
Constant	4.29865	
Age	9.431	0.03
RL	0.0000	
F	0.00	
DW	1.8746	

Source: Author's Fieldwork, 2009

THE RELATIONSHIP BETWEEN AGE AND WILLINGNESS TO UPHOLD THE DECISIONS TAKEN AT CONSUMER ASSOCIATION MEETINGS

Table 4.5 indicates that the coefficient of the variable, age has a positive sign. The coefficient value of age is 0.01591. It reveals that a 10 percent change in age will lead to a percent change in consumer activism in the area under study. The t-value of the regression result is 3.40. This is significant at 5% level.

The R^2 value is 0.013. The figure shows that only about 1.3 percent of variation in willingness to uphold decision taken has been explained in the regression. The value of the F-test is 11.53. This is significant at 5% level. The result indicates the relationship between the two variables. The DW value is 1.9004. The DW value is 1.98 and therefore not significant at 5% level, but only significant at 10% level.

In summary, table 4.5 suggests that age has a positive role to play in determining if consumers will be willing to uphold the decisions taken at consumer associations meetings.

TABLE 4.5: LINEAR SQUARE REGRESSION OF WILLINGNESS TO UPHOLD THE DECISIONS TAKEN AT MEETINGS

Variable	Coefficient	T-Test
Constant	3.72254	
Age	0.01591	3.40
R^2	0.0131	
F	0.53	
DW	1.9004	

Source: Author's Fieldwork, 2009

THE RELATIONSHIP BETWEEN AGE AND WILLINGNESS TO SOLICIT FOR MEMBERS TO JOIN CONSUMER ASSOCIATIONS

Table 4.6 reveals that the coefficient of the variable, age has a positive sign. The coefficient value of age is 0.00161. This indicates that a 10 percent change in age will lead to 0.2 percent change in consumer activism in the area under study. The t-value of the regression result is 0.35. This is not significant at 5% level.

The R^2 value is 0.0001. This means that no deviation in the regression as explained by this equation. In other words, there is no substantial relationship between age and consumer's willingness to solicit for new members to join consumer associations. The DW value is 1.8926. Although the DW value is 1.89 and thus not significant at 5% level, but it is significant at 10% level.

In summary, table suggests that age has a positive role in play in determining if consumers will be willing to uphold the decisions taken at consumers associations meeting.

TABLE 4.6: LINEAR SQUARE REGRESSION OF WILLINGNESS TO UPHOLD THE DECISIONS TAKEN AT MEETING

Variable	Coefficient	T-Test
Constant	4.07178	
Age	0.00161	0.35
R^2	0.0001	
F	0.12	
DW	1.89266	

Source: Author's Fieldwork, 2009

In summary, the results of this study revealed that age has a role to play in determining if consumers will be willing to uphold the decisions taken at consumer's associations meetings. To a large extent however, it was discovered that age has no role to play in consumers' willingness to join, finance, attend, serve and solicit for members for consumers associations. This implies that ages are not a factor in determining consumer's level of activism.

CONCLUSION

The findings of this study revealed that age has no role to play in consumer activism in terms of willingness to join, finance and serve consumer associations. It also had an impact on their willingness to attend meetings and solicit for members for consumer associations. However, age only has a role to play in determining if consumers will be willing to uphold the decision taken at consumer association meetings. Based on these findings, the null hypothesis that there is no correlation between age and consumer activism is therefore accepted at 5 percent level of significance while the alternative hypothesis that there is a relationship between age and consumer activism is rejected.

Since the findings of this study has shown that the age of a consumer has no significant role to play in determining his level of activism, it is therefore advised that companies should design their marketing strategies in such a way that their products will appeal to all age groups in the market place. This will however be better achieved through the production of quality goods and services where consumers can maximise satisfaction.

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AN INVESTIGATION ON EMOTIONAL INTELLIGENCE OF STUDENTS WITH RESPECT TO STUDENT DEVELOPMENT MODEL AND ITS IMPLICATION ON EMOTIONAL LEARNING SYSTEM IN MALAYSIA

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ABSTRACT

We human beings have different personalities, different wants and needs, and different ways of showing our emotions. Navigating through this all takes tact and cleverness – especially if we hope to succeed in life. This is where emotional intelligence becomes important. Emotional intelligence is the ability to recognize your emotions, understand what they're telling you, and realize how your emotions affect people around you. Emotional intelligence also involves your perception of others: when you understand how they feel, this allows you to manage relationships more effectively. This research study presents a framework for emotional intelligence, a set of skills hypothesized to contribute to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan and achieve in one's life. This review examines the foundations of the definitions of emotional intelligence as well as existing educational research involving emotional intelligence, within the students in Malaysia. Recommendations for future research and research potential are discussed. From this study we probably also know students who are masters at managing their emotions. Regardless of their strengths, however, they're usually willing to look at themselves honestly. They take criticism well, and they know when to use it to improve their performance. People like this have a high degree of emotional intelligence, or EI. They know themselves very well, and they're also able to sense the emotional needs of others. Thus this study gives a deep insight about Emotional Intelligence among students in Malaysia.

KEYWORDS

Emotional Intelligence, Personalities, Perception, Hypothesize.

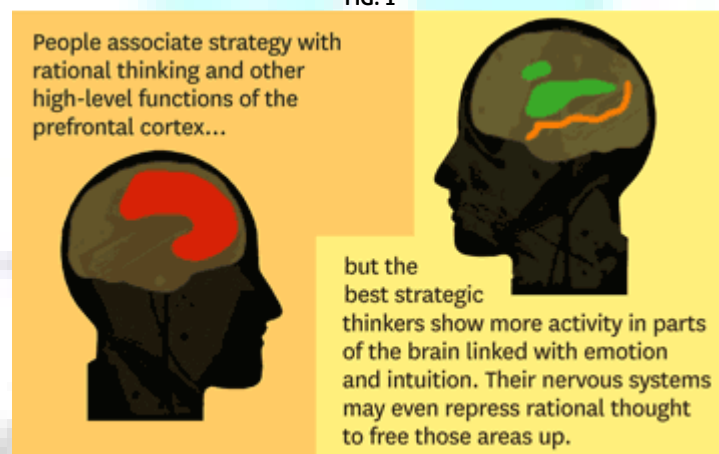
INTRODUCTION

The concept of “emotional intelligence” (EI), however, provides a useful instrument to describe the intricate configuration of interrelated factors that play a role in predicting a person's success in life. The study reported in this article attempts to establish the emotional intelligence profiles of students in a academic setting. The qualitative section of the research involves a study of the literature on certain aspects of the phenomenon “emotional intelligence”, whereas the quantitative part of the research involves the administration of Questionnaire measure to 100 students who have all been involved in the academics/universities. The research accentuates the importance of timeous and continued assessment of the ongoing functioning and well-being of students that may help improve the emotional skills and functioning of such academics.

EMOTIONAL INTELLIGENCE

Emotional intelligence (EI) refers to the ability to perceive, control, and evaluate emotions. Some researchers suggest that emotional intelligence can be learned and strengthened, while other claim it is an inborn characteristic. Since 1990, Peter Salovey and John D. Mayer have been the leading researchers on emotional intelligence. In their influential article “Emotional Intelligence,” they defined emotional intelligence as, “the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions” (1990).

FIG. 1



Source: When Emotional Reasoning Trumps IQ by Roderick Gilkey, Ricardo Caceda, and Clinton Kilts

From the above Fig 1. The area of the brain people tend to associate with strategic thought is the prefrontal cortex, known for its role in executive function. It allows humans to engage in anticipation, pattern recognition, probability assessment, risk appraisal, and abstract thinking. Those abilities do help managers solve problems. However, when we examined the best strategic performers in our sample, we found significantly less neural activity in the prefrontal cortex than in the areas associated with “gut” responses, empathy, and emotional intelligence (that is, the insula, the anterior cingulate cortex, and the superior temporal sulcus). In other words, the conscious executive function was downplayed—while regions associated with unconscious emotion processing operated more freely. IQ-based reasoning is valuable in both strategic and tactical thinking—but it's clear that managers integrate their brain processes as they become better strategists. When companies realize that, they may approach strategy and execution more holistically.

IMPORTANT ISSUES FACED BY STUDENTS

In recent years, low test scores and accountability standards have been the focus of education reform and criticism directed to education at all levels. The broader mission of education becomes clouded when effectiveness is defined solely or even primarily on the basis of performance on standardized assessment

models. Healthy education must focus on academic, career, and leadership development and emphasis on emotional learning as much as on academic or cognitive learning.

In addition to other indicators, there are several other issues that are involved in change, reform, and renewal. A major challenge for education is to provide safe campuses, healthy learning climates, and rigorous academic curricula taught by qualified teachers for interested and motivated learners. Changes in the nature of work and productivity demands of a global economy necessitate additional restructuring and reform efforts. As colleges prepare students for careers and productive employment, education will continue to modify its programs and instruction. As colleges prepare students for positions of responsibility and leadership, there will be an increased interest and recognition of the importance of the contributions of the emotional mind. In short, learning and applying emotional intelligence skills contribute to academic and career success. It is easy to discover that there are very serious issues and questions facing education which need to be addressed and answered. One of these was posed in the classic book **Excellence: Can We Be Equal and Excellent Too?** (J. Gardner, 1961).

REVIEW OF LITERATURE

P. Salovey and J. D. Mayer's (1990) definition of emotional intelligence as a type of social intelligence that involves the ability to monitor one's own and others' emotions, to discriminate among them, and to use the information to guide one's thinking, it is argued that intelligence is an appropriate metaphor for the construct. The abilities and mechanisms that underlie emotional intelligence are described. These mechanisms are (1) emotionality itself, (2) facilitation and inhibition of emotional information flow, and (3) specialized neural mechanisms. Emotionality contributes to specific abilities, and emotional management influences information channels and problem solving.

There is growing research that connects emotional intelligence and emotional skills to achievement, productivity, career success, personal health, resilience, and leadership (H. Gardner, 1983, 1993, 1997; Goleman, 1995, 1997; Sternberg, 1985, 1990; Salovey and Mayer, 1997; Epstein, 1998; Dryden and Vos, 1994; Damasio, 1994; Weisenger, 1985, 1998; Greenspan, 1997; Astin and Associates, 1993; Townsend and Gephardt, 1997; Nelson and Low, (1976-2003). A practical, education- and research-based model of emotional intelligence may provide an important key for integrating student development with the academic mission of higher education.

EMOTIONAL INTELLIGENCE AND ACADEMICS

Various investigators have engaged in research designed to examine and apply emotional intelligence constructs within academic, medical, and other learning settings. Since research in this area as it applies to education is limited, all identified studies were included in this review and the limitations identified. Levels of emotional intelligence at the end of the study period were associated with academic performance, with a greater correlation existing in the emotional intelligence group. These findings led researcher to conclude that emotional intelligence could be taught or learned and is not a fixed parameter. Additionally, greater levels of emotional intelligence can be expected to correlate with their performance even when controlling for traditional markers of intelligence.

UNIVERSITIES PERSPECTIVE

Academic and cognitive development is the primary goal of many universities. However, it may prove disastrous if the emotional and affective domain is neglected as an important and necessary role for students. A blending of academic (cognitive), behavioral (action), and affective (emotional) dimensions are needed to address the complex issues facing education. To meet the issues and challenges of public education, there is a need to develop responsible and emotionally healthy students and teachers. Emotional skill development and personal responsibility need to be embraced and in effect just as it is with the academic and behavioral dimensions.

Extensive reviews of studies at schools and organizational levels indicate that emotional intelligence skills are essential to achievement, leadership, and personal health (Goleman, 1995, 1997). Further, Goleman indicates that when high levels of leadership are required, emotional intelligence is a much greater predictor of success than traditional measures of intelligence or leadership. In studying the world's best educational practices, Dryden and Vos reported that personal and emotional development is at the very center of these programs. Their findings indicate that the emotional intelligence skills of self esteem and personal confidence are essential to all learning. They declare that education that fails to address these factors (i.e. personal/emotional domain) will fail in its other tasks as well (Dryden and Vos, 1994).

OBJECTIVES

- The main objective of the study is to assess if students are Emotionally Intelligent and to analyze various factors that influence EI of students
- To assess the skills required by students for their personal and professional growth.
- To identify various factors influencing the professional and personal growth of students

RESEARCH METHODOLOGY

Qualitative methodology is used in this study in order to observe and provide descriptions. This method is used to assess knowledge's, attitudes, behaviors, and opinions of people depending on Emotional Intelligence. The researcher used Descriptive research design where in it involves observing and describing the behavior of a subject without influencing it in any way. Probability sampling method is used in order to have a random selection method; It assures that the different units in the population have equal probabilities of being chosen. Stratified Random sampling, is used where in different departments are considered as homogeneous subgroups and then taking a simple random sample in each subgroup. The sample size is 100 and Primary and secondary data were collected using structured questionnaire. Likert scaling was used in the questionnaire in order to collect data from the respondents. Statistical techniques used in the study are chi-square, Factor analysis, ranking method, Multiple regression and Z test analysis.

INSTRUMENTATION

The Trait Emotional Intelligence Questionnaire (TEIQue) is an integral part of the scientific research program on trait emotional intelligence. All TEIQue measures are underpinned by an international scientific research programmer aiming to integrate the various non-traditional intelligences into mainstream models of personality and differential psychology. The Trait Emotional Intelligence Questionnaire (TEIQue) is an integral part of the academic research program on trait emotional intelligence. The latest version of the TEIQue is v. 1.50. The TEIQue is a scientific measurement instrument based exclusively on trait EI theory. Trait EI theory is unrelated to what lay people understand by "emotional intelligence" or "EQ".

The theory of trait emotional intelligence (trait emotional self-efficacy) emerged from the distinction between two EI constructs (ability EI and trait EI; Petrides, 2001; Petrides & Furnham, 2000, 2001; Petrides, Furnham, & Frederickson, 2004). This questionnaire is from London Psychometric Laboratory.

ANALYSIS AND INTERPRETATION

In this chapter the data collected for this study has been analyzed and interpreted. The main purpose of the study is to know if students are Emotionally Intelligent and to analyze various factors that influence EI of students, to assess the skills required by students for their personal and professional growth and To identify various factors influencing the professional and personal growth of students

To facilitate the achievement of the research goal, a number of statistical techniques were used. The hypotheses were tested using Chi square test, Analysis of Variance (ANOVA), Z test, Multiple regression analysis. All data analysis was conducted using SPSS 15.0. For the purpose of analysis, coding of the variables has been done. A description of statistical techniques employed is presented below.

Factor analysis: Factor analysis is a technique used to reduce the complexity of number of variables in a research work. In this research work, an attempt is made to find few factors that influence Emotional intelligence among students. The variable considered for the analysis were feelings, empathy, emotions, and the factors that are very important for Emotional intelligence were considered in factor analysis. The complexity of these variables were reduced and condensed.

Multiple Regression: Regression analyses were used to study the relationship between main variables and the extent of the impact of the independent variable on the dependent variable. The relationship between independent variable is significant. Independent variables such as self learning, self development, were used and regression analysis was used to check if it has impact on Emotional intelligence factors.

Chi-square: This is a test of significance that can be used to test whether the two variables are statistically associated with each other significantly. In the present study, the hypothesis was framed based on EI factors as an accelerating drive on self development, which enhance positive relationship.

Z-TEST

Z test is used to analyze the gender of the hospital if they have same opinion towards Emotional Intelligence and self development and self learning. The **Z-test** is a statistical test used in inference which determines if the difference between a sample mean and the population mean is large enough to be statistically significant, that is, if it is unlikely to have occurred by chance.

In this research work, an attempt was made to find few factors that influence the Emotional intelligence and self learning of students.

TABLE 1: FACTORS THAT RESULT IN STUDENTS CHOOSING TO SUPPORT SELF LEARNING
Rotated Component Matrix

FACTORS	COMPONENT				
	1	2	3	4	5
Make them feel valued	.831	.128	.074	-.227	-.023
Self worth	-.799	0.92	.118	-.118	.019
Learning community	.565	.495	.063	.058	-.468
Sense of belonging	.01	-.924	.049	.141	-.085
empathy	-.161	-.093	-.903	-.147	.001
Emotional aspects	-.380	-.260	.602	-.120	-.126
Respect for others feelings	.183	.387	-.146	.710	-.293
Thoughts influenced by feelings	.062	.281	-.072	-.658	-.112
Emotion progress	-.206	-.130	.417	.582	.332
Intuition	-.004	.075	-.048	.063	.984

Extraction method: Principal component analysis

Rotation method: Varimax with Kaiser normalisation

Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Make them feel valued	Sense of belonging	Empathy	Respect for others feelings	Intuition
Self worth		Emotional aspects	Thoughts influenced by feelings	

The table states that the factors which make the students valued and self worth are the first most important emotional factors that results in self development and self learning. The second factor is sense of belonging to the institute or university which they study. The respondents also give importance for empathy, respect for others feelings and thoughts which influence them.

GARELTS TABLE

The ranking table reveals the various Emotional factors that support self development and self learning. The highest score is 6277, self worth, ranks first. Feeling for others stand second, for which the score is 5993; the third highest score is for Instincts and Intuitions, scores 5111. The fourth factor is negative mood, which scores 4753. Respondents score the least for non verbal cues and disapproval, which scores 4401 and 3572 respectively.

MULTIPLE REGRESSION ANALYSIS

Multiple Regressions is used as a descriptive tool. It is used to develop a self-weighting estimating equation by which to predict values for a criterion variable from the values for several predictor variables. A descriptive application of multiple regression calls for controlling for confounding variables to better evaluate the contribution of other variables.

TABLE 2

Regression I

Objective: To study Emotional factors and possible self development methods.

Descriptive Statistics

	Mean	Std. Deviation	N
q1	2.3542	.92883	96
q2	2.5104	.79465	96
q3_a	1.6042	.55211	96
q3_b	1.8229	.69577	96
q3_c	2.2500	.68056	96
q3_d	1.9583	.78024	96
q3_e	2.3229	.85218	96

MODEL SUMMARY

	R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	.454(a)	.206	.153	.85491

a. Predictors: (Constant), q3_e, q2, q3_b, q3_c, q3_d, q3_a

ANOVA (b)

			Sum of Squares	Df	Mean Square	F	Sig.
Model	1	Regression	16.911	6	2.818	3.856	.002(a)
		Residual	65.048	89	.731		
		Total	81.958	95			

a Predictors: (Constant), q3_e, q2, q3_b, q3_c, q3_d, q3_a

b Dependent Variable: q1

COEFFICIENTS (a)

			Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Model	1	(Constant)	1.179	.493		2.391	.019
		q2	.438	.117	.375	3.754	.000
		q3_a	.196	.226	.116	.866	.389
		q3_b	.017	.168	.013	.103	.919
		q3_c	.006	.151	.004	.039	.969
		q3_d	.166	.154	.140	1.079	.283
		q3_e	-.263	.137	-.241	-1.912	.059

a Dependent Variable: q1

The concept used is multiple regression equation.

Dependent variable=Constant+B1X1+B2X2+...

X1,X2... are independent variable and are otherwise called predictors

Level of significance = 0.05

If $P \leq$ Level of significance, Reject Null Hypothesis

Self development and self learning = 1.179+0.438

Thus it is significant and the relationship between the independent variables is significant.

The above analysis says that the independent variables such as self development and self learning avoid the negative feelings, remorse, anger, disapproval, mistakes, gloomy situation and fear. The above factors were dependent on the self development and self learning strategy.

CHI – SQUARE TEST

Chi-square is a very versatile test used both as a non-parametric and parametric measure. As a non-parametric measure it is used as a test of goodness of fit as a test of independence. In this research chi-square test enables the researcher to explain whether or not two attributes are associated.

Objective: To study if students are aware of Emotional intelligence and its impact (as an accelerating drive) on self development

Null Hypothesis: The students agree that they are aware of Emotional intelligence as an accelerating drive on self development.

Alternate Hypothesis: The respondents do not agree that Emotional intelligence as an accelerating drive on self development.

TABLE 3: SELF DEVELOPMENT AS AN ACCELERATING DRIVE

Factors	Observed N	Expected N	Residual
Disagree	8	7	1.0
Neutral	40	41.0	-1.0
Agree	40	41.0	-1.0
Strong agree	8	7	1.0
Total	96		

Level of significance

$X = 0.05$

Test statistics = $X^2_0 = \sum (O_i - E_i)^2 / E_i$

Observed Value = 0.334

Expected value $X^2_E = 7.815$ for 3 degree of freedom at 5% level.

Inference

$X^2_E > X^2_0$ Thus the Null Hypothesis is accepted.

Z TEST

Objective: To analyze the gender of the hospital if they have same opinion towards the Emotional intelligence factor leads to self learning

Null Hypothesis: Male and Female have same level of opinion on various factors that leads to self learning

Alternative Hypothesis: Male and Female have different level of opinion on various factors that leads to self learning.

TABLE 4: OPINION TOWARDS CHANGE BEING PRACTICED

Gender	Mean	Calculated value Z_0	Expected value Z_e
Male	23.00	0.127	1.96
Female	23.11		

Therefore $Z_0 < Z_e$. Here the Null Hypothesis is accepted. Male and female have the same level of opinion on various factors that leads to self learning. Ten key factors are considered for the study. High opinion is calculated ($23/30=0.77$ i.e. 77%). More than 77% of the respondents favor for this.

DISCUSSION

The major value of student development is that of community. A university is viewed as a place where students grow through their involvement in meaningful relationships. Students benefit from relationships that (1) make them feel valued, (2) contribute to positive self-worth, (3) create a healthy, productive learning community, and (4) form a personal sense of belonging. Healthy relationships are important to the academic, behavioral, and emotional growth and development of students. Emotional knowledge, skills, and competencies are essential to the student development values of individualization and community. The affective or emotional learning domain is central to student development. Experiential and self-directed learning activities need to be systematic and accountable. Colleges and universities need to be able to demonstrate and show faculty, students, and the entire academic community how courses, programs, services, and resources make a difference in professional and personal development. Student development programs are positioned to meet this type of institutional accountability.

FINDINGS

This paper puts forth an effort to synthesize and integrate some of the major findings of research on emotional intelligence and personal skills, as they relate to the goals of education and human development. We also are presenting an innovative model of student development that is designed at the very heart of the academic mission of university. This model of student development is constructed using an education-based approach of emotional intelligence developed by the authors. An emotional skills development framework and emotional learning process are used to illustrate and build upon the positive contributions of the emotional mind.

The main goal of this paper is to provide a coherent and practical approach to human emotional behavior that students can learn and apply to stay healthy, increase goal achievement, and improve productivity. Highly successful students need to be able to show that they are actively involved in continuous learning

and are goal oriented achievers. Highly successful schools and colleges need to be able to show that they are providing healthy learning and work environments that challenge and support students and teachers in performing to their highest levels. There must be an acceptance and commitment to develop emotionally intelligent and healthy people in all career fields, not just recognition of the need.

Emotional intelligence skills are vital to human performance and the management of successful learning organizations. Even though the primary attention of education is academic performance, there is simply too much convincing evidence that schools and colleges should not and cannot neglect the development of emotional intelligence skills and other personal and social factors. Emerging trends necessitate new studies and applied research on the contributions of the emotional mind and the emotional domain of learning. Building healthy and productive students requires the active and intentional development of emotional intelligence skills and competencies as a normal and integral part of the process of education. To achieve this balanced perspective, the student development model of learning is reviewed and discussed. Many student development researchers and leaders have emphasized human development and affective learning as an essential component of the higher education experience.

Essential skills required by students based on the research (Student development model) are as follows:

In reviewing the student development model and blending the positive contributions of the emotional mind (affective learning), several important elements emerge. These elements need to be addressed in student development programs that strive to balance cognitive and affective learning.

1. Systemic and sustained as a normal part of the educational experience.
2. An emphasis on the understanding of meaning rather than an accumulation of knowledge facts.
3. Communal with respect to the development of individuation and community.
4. Team building and human relationship development are inherent aspects of the learning environment.
5. Cross-disciplinary, interconnected, integrated, and holistic.
6. Cognitive and affective learning given great breath, depth and width throughout the curriculum.
7. Active and collaborative learning maximized.
8. Service learning integral to the process of education and leadership development.
9. Powerful partnerships between those responsible for "in-class" and "out-of-class" learning (seamless transition from in-class to out-of-class learning environments).
10. Learning viewed as an inherent (casual) outcome of the total environment.
11. Applied institutional research used as a mechanism for improvement.

IMPLICATIONS

A number of implications have emerged from the results of the present study. Emotional and experienced-based learning is different from traditional academic content learning. The Emotional Learning System is based on this difference. Its five steps are systematic and sequential, yet fluid and interactive—the system is designed to ensure a learner-centered development process built on honest, positive self assessment.

Step 1 (Self Assessment: Explore). Requires the student to develop an intentional self assessment habit: inquiring, discovering, questioning;

Step 2 (Self Awareness: Identify). Involves the process of identifying an experience as either a thought or feeling and leading to reflection not reactivity;

Step 3 (Self Knowledge: Understand). Involves 'insight' and an understanding that allows a student to make choices about how to behave;

Step 4 (Self Development: Learn). Involves learning various ways to improve behavior; and

Step 5 (Self Improvement: Apply and Model). Requires the application and modeling of emotionally intelligent behavior to achieve academic and career goals.

The development of emotional intelligence is an intentional, active, and engaging learning process rich with personal meaning. Development is learner-centered and based on the internal frame of reference of the learner with the use of a positive assessment process. It is our belief that emotional intelligence is best understood and learned when framed around specific emotional competencies and skills. The foundation of the emotional learning process is a positive assessment of thirteen emotional skills organized around four key competencies (Nelson and Low 1999, 2003).

CONCLUSION

Emotional Intelligence is a implicit curriculum -- learning how to get along with other people, learning how to motivate yourself, learning how to persist, how to resist temptation and stay fixed on a goal, how to work together toward a common goal. Emotional intelligence -- which refers to how to handle our own feelings, how well we empathize and get along with other people -- is just a key human skill. But it also turns out those academicians who are better able to manage their emotions.

The most important goal for every institution of higher education is academic development. However, in today's diversified society, students need much more to lead healthy and productive lives concerning academic, career and personal goals. Therefore, it is crucial for institutions of higher education to develop academic advising and student learning models that embodies both the academic (cognitive) and emotional (affective) development of students. Students with a strong academic and emotional foundation will model and demonstrate behaviors that are conducive to goal attainment and overall success in life. Consequently, leaders in student development must engage in applied institutional research to begin to develop and improve models for student retention and performance. This research is vital for students and higher education personnel to study and to model continuous program improvement and effective leadership. Through the Emotional Intelligence Program, an extensive data base is being developed for a variety of teaching, learning, and research purposes. Utilizing such a rich source of institutional data, there are several important research directions that are being actively pursued.

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DETERMINANTS OF CHILD LABOUR IN AGRICULTURAL PRODUCTION IN OYO STATE-NIGERIA**AJAO, A.O****SR. LECTURER****AGRICULTURAL ECONOMICS DEPARTMENT****LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY****OGBOMOSO****ABSTRACT**

The driving force of Agricultural activities is the labour input and rural households rely heavily on their members as primary sources of labour for agricultural activities. This study therefore, examined the determinants of child labour in Oyo State using cross section data derived from a multistage sample of 600 rural respondents from different households, the data obtained was then analysed using Logit regression model. Result indicated that the age and gender of the child along with education of the parents were significantly determinants of child labour use in agricultural activities. It was discovered that male children are more involved in child labour use in agricultural activities than female children and also the education of the parent determines the type of activity option in which the child will be involved in.

KEYWORDS

Child labour, household labour, child abuse, logit.

BACKGROUND TO THE STUDY

Agriculture plays an important role in the economic development of Nigeria as it provides food for the growing population, employment for the population, raw materials and foreign exchange earnings for the development of industrial sector within a given agro ecological environment. Agricultural productivity is determined by the amount of land, capital, labour and other inputs used, also by quality of these factors, the distribution and fragmentation plot, the health and educational level of the farmers, the efficiency of the farmers, receptivity to innovations.

Labour and entrepreneurship are the most important resources next to land in traditional agriculture because it is in them that the decision making power in the production process resides (Olayide and Heady, 1982; Upton, 1997; Ojo and Ajibefun, 2000). Labour here refers to available human effort use in agricultural production. Aredo (1994) categorize labour according to source (household labour, community labour, hired labour, and collective labour) and opined that household labour is the single most important source of labour in the private sector. Obasi (1991) and Nwaru (2004) opined that household count more on their family members than hired labour as source of farm labour. It is within this context that farm households have found children highly useful in agricultural production, processing and marketing activities.

Although the existing rural labour force stations have the tendency to underestimate the contribution of women and children to agricultural production and wellbeing of the household. Most children in commercial agriculture work on seasonal basis, often full time as part of a family unit during the harvest and seeding seasons, but irregularly or on part time basis during the remainder of the year. Studies on child labour in agriculture have found several often overlapping causes and characteristics of which are generally the determinants of child labour supply. When modeling the determinant of child labour supply, the household is taken as the unit of analysis. A number of studies reported that household income is the major factor in the decision for child labour supply. Low household income serves as an incentive for child labour supply. Family size is another important factor that can cause a household to be involved in child labour. In the first place, a large household size could lead to lower per capita income and therefore the need for extra income, which may create an incentive for the parent to send their children to work. Again, a large household size generates more labour within the farm household.

The knowledge of the determinants of child labour in agricultural production would inform a better child welfare management policy in the nations. In the absence of an easily discernible framework for protecting the right of children especially in the rural areas and given the ever growing global legislation and resolutions against child labour and abuse, empirical results on the determinants of child labour would help in the formulation of appropriate child welfare schemes for the nation. The research work therefore examined the determinants of child labour in Oyo state where there is an ineffective law to enforce child rights.

MATERIALS AND METHOD

Child labour use in developing countries is a fundamental social problem with grave consequences for economic development. The participation of young children under the age of 15 years in the labour force in order to earn a living or support household income (Grooteart and Kanbur, 1995) has reportedly led to mass drop out from primary and secondary schools and child abuse as opined by Canagarajah and Coulumbe (1997).

Child abuse is a condition in a child's life when the child is ill-treated or a situation in which the child is wrongly used in undisciplined act. It can also be defined as situation in which adult utter, severe, cruel or unjust things to the children. The most common but regularly ignored form of child abuse is child labour. In the world today, the unlawful use of children in performing various labourious works is quiet alarming that the International Labour Congress felt the need to address the problem.

Literature did not agree on the benefit or otherwise of child labour, e.g. Ray (2000) notes that child labour need not necessarily be "bad", or warrant action from policy makers. Indeed some (low, common human capital affecting) levels of child labour may even stimulate the children in their personal development as well as generate a natural attachment to the labour market at an early age. Thus child labour can be beneficial, rather than harmful, as long as it is not undertaken at the expense of educational attainment.

The review of literature confirms two schools of thought. One view is that child labour is detrimental to the child, the household and even the county's human capital development. While the other showed that child labour is not necessarily harmful to the child provided that it is not undertaken at the expense of the child's schooling. In the rural sector employment where agricultural activities prevails, some children work on family farms while others are employed on farms outside of the sphere of the household. In both cases, child labour has been found to have negative consequences for the children. The heavy and intensive labour that children undergo in the fields many times lead to lack of pay, long hours on the job, physical exhaustion, physical abuse, and exposure to toxic pesticides and herbicides (Arat, 2002; Gill, 1994; International Labour Organisation, 1996; Longford, 1995; Sancho- Liao, 1994). In addition, studies that are particularly focused on child agricultural workers in Africa have recognized a high incidence of injury, inferior living conditions resulting from substandard housing, poor access to clean water and food, poor sanitation, and low wages (Anyanwu, 1993; Francavilla and Lyon, 2002; Manda *et al.*, 2003). It has also been noted that children employed in the agricultural sector experience mental and social consequences. For instance, in Latin America, child workers in agriculture have been perceived negatively and their employment has been a source of tension (Wyer, 1986). In another study conducted in Asia, child labour has been found to negatively affect the educational outcomes of the children, but these effects vary by the gender of the child (Hazarika and Bedi, 2003). Furthermore, in rural Nigeria, it has been observed that child workers engaged in farming have lower school attendance compared to their urban working peers (Robson, 2004). However, there are inconclusive results regarding the effects of agricultural work on children's leisure time (Francavilla and Lyon, 2002; Grooteart, 1999).

SAMPLING AND ANALYTICAL TECHNIQUE

The data used for this study were essentially from primary sources and were obtained with the use of a structured questionnaire to collect information that is relevant to the study. The study used a multi-stage random sampling technique by randomly selected 10 farming communities from the four agricultural zones of the state given a grand total of 40 farming communities out of which 15 households were randomly selected for interview.

This study used household utility model posits that the household chooses a particular child activity option because of utility derived from it, assuming a unitary household model as suggested by Strauss, et al., (2000), the probability that household "h" chooses alternative source of "j" is equal to the probability that the utility derived from using "j" is greater than any other use. In this case, this study assumed that schooling and working decisions of children are independent. In addition the choice decision of the household is determined by a vector of child, parent and household characteristics. The reduced form of the econometric model is explained below.

$$W_i = X_{1i}\beta_1 + \varepsilon_{1i}$$

Where,

W_i^* = the net benefit attained by the family by sending child to work.

X_{1i} = the vector of child, parent and household characteristics that determine W_i^*

ε_{1i} = the random error, with zero mean and unit variance.

However, W_i^* is not observed. What is observed is the following binary variable:

1, if the child worked in the last one week.

0, otherwise correspondingly, the decision to send a child to school is described by the following latent variable model:

$$S_i^* = X_{2i}\beta_2 + \varepsilon_{2i}$$

S_i^* = the net benefit to the family from sending the child to school

X_{2i} = the vector of child, parent and household characteristics as well as regional and community dummies that determine S_i^*

ε_{2i} = the random error with zero means and unit variance.

Again S_i is not observed, what is observed is the following binary variable:

1, if the child participated in the one week

0, otherwise

We can put these two equations into observable form, Y_i

$Y_i = 1: W_i^* > 0$, otherwise, 0 (child involve in economic activities in the last seven days), which is called logit work.

$Y_i = 1: S_i^* > 0$, otherwise, 0 (child attends school in the last one week), which is called logit school.

RESULT AND DISCUSSION

Table 1 shows that 55.8% of the children who participated in agricultural production are male, while 44.2% of the children are female. This shows that male children are more involved in agricultural production than female. The educational level of the children was also sought and it was observed that less than half of the respondents (43.33%) were in secondary school, 37.5% of them were in primary school, 19.2% of them were not in school as at the time of survey. This implies that majority of the children in child labour were making efforts to have a formal education, therefore their participation does not pronouncedly affect their schooling.

Table 1 further shows that 31.7% of the parents had no formal education, 30.8% have tertiary education, 9.2% have adult education, 8.3% have secondary education while 20% have primary education. From this we can say that majority of the parents are literate and knows the import of giving education to their children. Frequency of child participation in farming activities was also examined and it was found out that 15.8% of the children worked daily before school hours, 23.3% of them worked daily after school hours, 17.5% worked on weekends only, 12.5% worked during holidays only, 0.8% of them worked both during weekends and holidays while 30% of them worked daily even during school hours. This implies that participation of children in agricultural production activities does not hinder children from attending schools, though efforts were not made to examine its effect on their performance in academics and frequency of attendance.

Table 1 also shows the distribution of children's parent into different occupations. It shows that 39.2% of the parents are farmers, 16.7% are traders, 10.6% are civil servants, 8.3% are both farmers and traders while 25.28% accounts for artisans such as mechanics, carpenters e.t.c. it could be seeing that the household head are mostly farmers while other have farming activities as secondary occupation.

TABLE 1

Variable	percentage
Sex	
Male	55.8
Female	44.2
Education (children)	
No edu	19.2
Primary edu	37.5
Secondary edu	43.3
Education (household head)	
No edu	31.7
Adult edu	9.2
Primary edu	20
Secondary edu	8.3
Tertiary edu	30.8
Period of participation	
Daily	30
Daily before school	15.8
Daily after school	23.3
Weekends	17.5
Holidays	12.5
Weekends and holidays	0.8
Household head occupation	
Farming	39.2
Trading	16.7
Trading and farming	8.3
Civil service	10.6
artisans	25.2

Since it has been established that child labours are involved in farming activities, the study further examined the kind of activities in which they are involved in and the reasons behind their involvement. It was observed in table 2 that over half (64.1%) of the children have never been involved in land clearing, 58.3% have never been involved in making ridges, 46.67% have never been involved in fertilizer application. Meanwhile 39.2% of them are frequently involved in planting, 30.8% are often involved in packaging while 39.2% rarely participate in processing. The study did not take into consideration of age and sex categories of those involve in each of this activities.

TABLE 2: DISTRIBUTION OF CHILDREN ACCORDING TO THEIR PARTICIPATION IN AGRICULTURAL ACTIVITIES

S/N	Activities	Never	Rarely	Often	Frequently
		%		%	%
1	Land clearing	64.1	20.0	10.0	5.8
2	Making ridges	58.3	18.3	10.8	12.5
3	Planting	28.3	12.5	20.0	39.2
4	Weeding	25.0	8.3	28.3	38.3
5	Fert.application	46.67	26.7	19.2	7.5
6	Harvesting	27.5	20.0	33.3	19.2
7	Processing	33.3	39.2	10.8	16.7
8	Packaging	34.2	23.3	30.8	10.8
9	Hawking	52.5	10.8	13.3	23.3

Source: Authors compilation

The table 3 below reveals that 44.2% of the respondent participate in agricultural production activities in order to assist their parents, 12.5% participated as a means of livelihood, 9.2% participated because of personal interest, almost a third which represents about 34.1 participates for a combination of reasons earlier stated.

TABLE 3: DISTRIBUTION OF RESPONDENTS BY REASONS FOR PARTICIPATION

Reasons for participation	Percentage
Assisting parent	44.2
For livelihood	12.5
Based on interest	9.2
Others	34.1

Source: Authors compilation

The study attempts to examine the determinant of child labour using parent and child characteristics. The empirical work in child labour studies has indicated that the age and gender of the child are important determinant of child schooling. In this recent research work the ages of the children had a significant and positively related to child labour and this implies that older children are more likely than younger children to be engaged economic activities. The gender coefficient in this study was also significant and negatively signed and this implies that male participate than female in work activities.

Empirical evidence from the literature showed that education of the parent affect the child labour decision (e.g. Patrinos and Psacharopoulos, 1995). The usual assumption is that the father's education has more impact on boys while the mother's education affects girls the most. The education of the father at all levels of existence whether primary, secondary or tertiary had a positive and significant relationship with the participation of the child in economic activities. The education of the mother at all level of existence was also significant and positively related to the participation of the child in economic activities. The result reveals a pseudo R square value of 0.708 which indicated 70.8% of the explained variation in the factors that determine child labour was due to joint contribution of all the independent variables specify (i.e. child and parent characteristics) in the model.

TABLE 4: LOGIT REGRESSION RESULT

Variable	Coefficient	T-ratio
Constant	0.10	3.06
Age	0.50	6.53
Sex	-0.68	-15.24
Formal education (Father)	0.36	3.11*
Secondary education (Father)	0.46	3.47*
Primary education (Father)	0.31	2.57*
Tertiary education (Father)	0.60	7.80*
Formal education (Mother)	0.32	2.67*
Primary education (Mother)	0.31	3.09*
Log likelihood estimate (H ₀)	-8.2262	
Log likelihood estimate (H _A)	-86.2727	
Pseudo R ²	0.71	

*implies significance at 1% probability level.

CONCLUSION

The study examined the determinants of child labour in Oyo state using primary data generated from a multi stage random sample of 600 rural household and were analyzed using the Logit regression model. Result indicated that the age and gender and also the education level of the parents were statistically significant determinant of child labour in agricultural activities. It was concluded that if the education of the parent as the driver from poverty trap is not improved significantly, child labour use in agricultural activities would continue to persist irrespective of any legislations to curb the menace of child labour.

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ECONOMIC VALUE ADDED VS. ACCOUNTING RESIDUAL INCOME: WHICH ONE IS A BETTER CRITERION FOR MEASUREMENT OF CREATED SHAREHOLDERS VALUE?

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ABSTRACT

In this paper, the relationship between each independent variable including economic value added and residual income as the representatives of economic models with the shareholders' created wealth is studied. The research is inferential-inductive in terms of methodology and is cross-sectional correlation in terms of test statistical method. The studied statistical population consists of all the companies listed in Tehran Stock Exchange during 2006-2009, except for investment and holding companies. The statistical sample consists of 85 companies. Simple and multi-variable regression methods are used to test the hypothesis. The effect and importance of most independent variables are examined through Forward method. The results indicate that both economic value added and residual income have significant relationship with the shareholders' created wealth. However, the residual income criterion is more significant than the economic value added in relation with the created wealth for shareholders. The difference between the impacts of these two variables is due to accounting adjustments through which the effect of accrual accounting is eliminated, hence it is considered as a better criterion for performance evaluation and increase in shareholders' wealth.

KEYWORDS

Created Shareholders Value, Economic Value Added, Residual Income.

INTRODUCTION

At present, most financial analysts believe that companies should create a turnover higher than the capital cost (liability and equity interests) in order to create value. This concept has become operational using such models as economic value added and residual income. In 1980s, along with the changes Stewart applied to the concept of residual income, the economic value added developed as one of the new financial performance measurement tools. Stewart believed that the economic value added should be used as an internal and external performance evaluation criterion instead of profits and cash from operation (Vakilian Aghu'e M., Vadi'e M. H., and Hussieni Ma'soom M. R., 2009). Stewart's study also indicated that the common accounting criteria, such as income, income growth, cash income growth, equity interests outcome and even cash flow cannot be considered as proper criteria, since none of them has correlation with the market value variations of selected companies (Hejazi R. and Hussein A, 2006). Accordingly, in this paper the relationship of each independent variable including economic value added and residual income as representatives of evaluation economic models, with the created wealth of shareholders is analyzed.

In article 47 of statement 1 of Financial Accounting Standards Committee, it is stated that income can be used for evaluation of profitability, capacity of dividends payment, predicting future revenues as well as assessment of investment risk. Thus, accounting income is one of the most important traditional performance evaluation criteria. But this criterion has got some deficiencies. The accounting income can be manipulated through different methods for evaluating inventory, R&D costs, depreciation and supplies. Also, the capital cost is not considered in calculating the accounting income. To overcome such deficiencies, a new criterion, namely economic value added, is introduced by Joel M. Stern and J. Bent Stewart in 1989. Economic value added is equal to operational incomes minus capital costs applied to create it. In performance evaluation based on accounting traditional income, the financing cost is only applied via liability while in calculating the economic value added, the financing cost is applied through both liability and stocks (Vakilian Aghu'e M., Vadi'e M. H., and Hussieni Ma'soom M. R., 2009).

REVIEW OF LITERATURE

Hess et al (2009) investigated the discounted cash flow (DCF) and residual income (RI) valuation methods. In their research, the companies were grouped into 20 portfolios, including 69 companies listed in New York Stock Exchange (NYSE), American Exchange (AMEX), and National Association of Securities Dealers Quotations (NASDAQ) markets, and then the value of each company was evaluated using the above mentioned methods. The empirical results of the research indicate that the RI method robust than other valuation methods in most studied companies during 1988-1998.

El Mir, Seboui (2006) in their study on corporate governance and earnings management and the relationship between economic value added and shareholders' created wealth concluded that there are different case of convergence and divergence between the created wealth for shareholders and the economic value added which can be described using governance and earnings management mechanisms.

Worthington and West (2004) compared the information content of economic value added for 110 Australian companies during 1992-1998 with the information content of residual income, operational cash flow, and income before extraordinary items. In their study, income before extraordinary items and economic value added showed the highest and lowest relationship with the stock returns, respectively. Analysis showed that the economic value added had more increasing information content than RI and operational cash flow.

Lovata, Linda M., & Cochrane, Michael (2002) tried to compare companies which apply economic value added as a criterion for performance evaluation with companies which do not bring into play this criterion. In this study, 115 companies in the U.S which use this criterion were selected against 1,271 companies which do not use this criterion. The results of this study showed that companies with lower sole proprietorship percentage which most of their capital are by institutional investors try to use the economic value added criterion.

Also, Fernandes (2001) conducted a research on the relationship between economic value added and shareholders' created wealth and concluded that the economic value added is unable to measure the created wealth for shareholders.

Similarly Biddle, et al (1997) investigated the information content of economic value added, residual income and two common performance measurement criteria, i.e. income and operational cash flow, and also compared the relationship between the economic value added and accrual income with the company's stock returns. The results of analysis indicated that R² for the net income was 128%, for residual income (refined economic value added) was 7.3%, for EVA was 6.5%, and for operational cash flow was 2.8%. In fact, the annual accounting income is two times more powerful in describing the annual returns variations than the economic value added.

Besides, Biddle and Valance (1997), studied the created changes in companies through application of economic value added. They compared the performance of companies which employ economic value added criterion with the performance of a control group. This control group includes companies which do not use the economic value added criterion. The authors believe that application of economic value added criterion causes changes in decisions regarding company's finance, operation and investment. Also, the economic value added criterion increases the RI and shareholders' wealth.

Moreover, Bacidore et al (1997) tried to study the correlation and explanatory power of economic value added (EVA) and refined economic value added (REVA) in predicting and creating wealth for shareholders. They extracted their information from the database of 1,000 companies provided by Stern and Stewart Institute. Their sample included 600 companies during 1982-1992. The results of this research showed that REVA has more correlation and capability in predicting the market value compared with the EVA.

Likewise, Obyrne (1996) investigated the relationship between EVA, net operating profit after tax (NOPAT), free cash flow (FCF), and market value. In this research the data of years 1983-1992 was used. It was concluded that EVA and NOPAT usually have similar explanatory capability. Also, the changes in EVA explain 31% of changes in market value, while NOPAT explains 17% of such changes.

Stewart (1993) compared the accounting general criteria with EVA. He believed that the EVA criterion is more general than other similar criteria, such as income, dividend, equity interest output as well as cash flow. It was also shown that the changes in market value of selected companies group (especially in their market value added) have weak correlation with accounting general criteria, while the maximum correlation is between EVA and market value added.

Accordingly, Tariverdi and Daghani (2010) focused on the relationship between RI, discounted cash flow (DCF), and refined income in determining company's market value. It was concluded that the value indicated by RI method is 14% closer to the average value for the initial public offering (IPO) than DCF method. Also, the value obtained from DCF is in line with values obtained from the refined income method, but the assessments on both RI and refined income methods showed different results. Finally, the RI method significantly helps investors and analysts in determining the impartial value of a business unit.

In this context, Vakilian, Vadi'e, and Husseini Ma'ssoun (2009) investigated the relationship between EVA and RI in predicting the earnings per share for the next year and concluded that there is no significant relationship between EVA and earnings per share and it has no prediction capability and RI is effective on investors' decisions as the representative of economic model of performance evaluation.

In their research titled "comparing market added value and EVA with accounting criteria in Tehran Stock Exchange (TSE)" Hejazi and Husseini (2006) concluded that the EVA criterion is more connected to market values than other accounting criteria and it can be referred as the best internal performance evaluation criterion which is an index of external performance criteria, i.e. market value added.

Noravesh et al. (2004) studied the relationship between operating cash flows, operating income, and EVA with created wealth of shareholders. The results of research indicated that EVA is a better index for predicting the shareholders' created wealth and represents the management's capability in increasing the company's value (shareholders' wealth).

Moreover, Nazarieh (2000) investigated the relationship between earnings per share and EVA in non-metal mineral products companies listed in Tehran Stock Exchange during 1993-1998. The information analysis illustrated that there is no relationship between EVA and earnings per share, and accordingly the EVA is a better criterion in evaluating the effectiveness of non-metal mineral companies' performance than earnings per share. The factors such as inefficient capital market and higher income cost than the acquired output are the reasons for lack of relationship between EVA and earnings per share.

IMPORTANCE OF THE STUDY

The importance of execution of this research is that it has investigated the relationships of economic components with created shareholders value. Through this research, it becomes clear that value added, as an important economic measure, can show improvement and created shareholders value. In addition, meaningfulness of measure relation of residual income also is specified and explained. Therefore, given these two measures, stockholders can evaluate the level of their wealth improvement and not merely rely on accounting measures.

STATEMENT OF THE PROBLEM

The main problems of the study are that: Can economic value added, which is based on economic concepts, show created shareholders value in Tehran Stock Exchange? And how much is the intensity of their relationships? And can the measure of residual income report improved shareholders value of Tehran Stock Exchange and how much is the intensity of their relationships?

OBJECTIVES

The objectives of the research are:

The relationship between income value added with the level of created shareholders value for companies accepted in Tehran Stock Exchange is explained.

The relationship between the measure of residual income and created shareholders value for companies accepted in Tehran Stock Exchange is explained.

Moreover, meaningfulness of the relations of value added and residual income with created shareholders value is investigated.

HYPOTHESES

In order to conduct this research and to answer the proposed questions, and taking into consideration the results of other studies, the following hypotheses are defined:

First Hypothesis: there is a significant relationship between the EVA criterion and shareholders' created wealth.

Second Hypothesis: there is a significant relationship between the RI criterion and shareholders' created wealth.

Third Hypothesis: the impact of EVA is more significant than RI's in calculating the shareholders' created wealth.

RESEARCH METHODOLOGY

The research method is inferential-inductive in terms of style and is cross-sectional correlation in terms of test statistical method. The statistical samples are selected through simple random method and based on the following conditions:

1. The companies should be listed in Tehran Stock Exchange during the research period.
2. Their fiscal year must end in mid-March.
3. They should not be listed as investment and holding companies.

The statistical sample of research includes 85 companies. The data needed for research are obtained from Rahavard Novin information software, Tadbir Pardaz as well as the website of Islamic Research Development Center of Tehran Stocks and Securities Organization.

VARIABLES AND VARIABLES CALCULATION METHOD

Economic Value Added (EVA)

EVA is an independent variable which presents the residual income after covering the capital costs by operating incomes (Azad M. 2007). Some adjustments are performed on net operating profit after tax (NOPAT) and the entire used capital which go against the conservation and continuity principles in implementing the accepted accounting principles. In EVA model, we have:

$$EVA = (ROIC - WACC) \times IC \quad (\text{Equation 1})$$

Where,

EVA = Economic value added

ROIC = Return on invested capital (total capital return)

WACC = Weighted average cost of capital

IC = Investment capital

Return on Invested Capital (ROIC)

To calculate this, the operating profit after tax is divided to the invested capital. The operating profit after tax is obtained as follows:

The expenses of R&D, advertising, marketing, training as well as rental fees which are extracted from the notes of financial statements, are added to the operating profit after tax [operating profit \times (1-22.5%)] as accounting adjustments. Also, increase in supplies, bad debt receivables, decline of inventory value, and pensions extracted from notes of financial statements are added to the operating profit after tax. In order to determine and measure the weighted average cost of capital, the following equation is used:

$$WACC = W_e \times K_e + W_s \times K_s + W_d \times K_d \quad (\text{Equation 2})$$

In order to determine the company's cost of capital, it is essential to independently calculate the cost of each component of capital, and based on their ratio in the total structure, the average company's cost of capital can be obtained.

Where,

W_e = cost of capital

W_s = weight of retains and reserves earnings

W_d = cost of debt

K_e = cost of equity

K_s = retains and reserves cost of income

K_d = rate of debt

Any of the abovementioned rates are calculated as follows:

Rate of debt = (interest expense / interest debt) \times (1-tax rate)

Cost of equity = dividend per share / market value of each share

In calculating the cost of retains and reserves earnings, the dividend approach or the Gordon model was used:

$g = (\text{interest per share} / \text{market value of each share}) + (\text{undivided earning percentage})$

Undivided earning percentage = $1 - (\text{profit paid per share} / \text{profit per share})$

Residual Income (RI)

The residual income is another independent variable and is equal to the difference between the incomes of investing centers and the cost of application opportunity (Rahnama Rudposhti, F, 2008). In RI evaluation model (Robert F.Halsey, 2000), we have:

(Equation 3)

$RI = I - (r \times BV)$

$(I/BV - r \times BV/BV) \times BV = (ROE - r) \times BV$

RI = Residual income

I = net profit after tax

ROE = return on equity

r = cost of capital

BV = Book value of stock during the first period

Created Wealth for Shareholders

This variable is a dependent variable. In order to obtain the created value for shareholders, we should first define the increase in market value of equity interest, increase in market value of stockholder, and expected return on equity. These definitions are presented in the following equation:

$$CSV = \text{created shareholders value} - (\text{market value of equity} \times K_e) \quad (\text{Equation 4})$$

CSV = created shareholders' wealth

K_e = company's capital cost rate (expected return)

Increase in market value of equity = market value of equity in the first period - market value of equity at the end of period

RESULTS & DISCUSSION

According to Table 1 which shows the descriptive statistics of research, it could be observed that:

The skewness coefficient of shareholders wealth, RI, and EVA variables are 0.792, 3.395, and 2.654, respectively. Given that the shareholders' wealth variable is closer to 0.5 (proportion of symmetry), therefore its skewness coefficient is smaller than the other two variables. But these two variables are slightly skewed to the right. Also, the kurtosis coefficient of these three variables is 0.834, 17.139, and 10.022, respectively. This indicates that since the shareholders' wealth variable is closer to 0.5 (proportion of kurtosis), therefore it is less scattered and is closer to normal. The other two variables are longer than the normal distribution, that is, they are less scattered.

TABLE 1: DESCRIPTIVE STATISTICS

Variance	Median	Kurtosis	Skewness	Variables
5.257E22	108932461480.50	10.022	2.654	Economic Value Added
4.511E21	24333580693.00	17.139	3.395	Residual Income
1.392E21	17236307199.50	.834	.792	Created Wealth for Shareholders

THE STATISTICAL RESULTS OF FIRST HYPOTHESIS

The first hypothesis states that there is a significant relationship between the EVA criterion and created shareholders' wealth. In order to test this hypothesis, Pearson's correlation coefficient and simple linear regression is used. According to the obtained relationships, it is signified that there is a correlation between

EVA and created shareholders' wealth. The coefficient of determination in this case is 0.336, i.e. about 0.336 of changes in the created shareholders' wealth variable can be determined by EVA.

SIGNIFICANCE TEST OF COEFFICIENTS

This test, in addition to determining the significance of coefficients, specifies their impact direction of those coefficients on dependent variable. The statistic related to the significance of coefficients is the t statistic, instead of which the Sig column can be used. After confirmation of coefficients significance, both direction and amount of each independent variable effect on the dependent variable can be determined using the calculated coefficients in Beta column.

$H_0: \beta = 0$ EVA has no effect on created shareholders' wealth.

$H_1: \beta \neq 0$ EVA has effect on created shareholders' wealth.

In the Sig column of Table 2, it can be observed that the amount of Sig statistic for EVA is 0.000. Given that the considered error level for this study is 5%, Sig < 0.05 and t statistic > 2, therefore the variable is significant and the first hypothesis of research is confirmed. Thus, EVA has a significant impact on created shareholders' wealth. So, the equation can be as follows:

$$\hat{y} = 8526000000 + 0.094x_1$$

Where; x_1 = EVA.

STATISTICAL RESULTS OF SECOND HYPOTHESIS

Second hypothesis: there is a significant relationship between the RI criterion and created shareholders' wealth.

The Pearson's correlation coefficient and simple linear regression are used to test this hypothesis. The squared coefficient of correlation, R^2 , or coefficient of determination, states that 0.516 of changes in the created shareholders' wealth can be determined by RI.

SIGNIFICANCE TEST OF COEFFICIENTS

$H_0: \beta = 0$ RI has no impact on created shareholders' wealth.

$H_1: \beta \neq 0$ RI has impact on created shareholders' wealth.

In Sig column in table 2, it could be observed that the amount of Sig of the t statistic for EVA is 0.000. Given that the considered error level for this research is 5%, Sig < 0.05 and t statistic > 2, therefore the variable is significant and the second hypothesis of research is confirmed. Thus, RI has a significant effect on created shareholders' wealth.

STATISTICAL RESULTS OF THIRD HYPOTHESIS

Third hypothesis: the impact of the EVA criterion is more significant than the RI's in calculating the created shareholders' wealth.

$H_0: r_1 = r_2 = 0$ the relationship between EVA and RI with created shareholders' wealth is not linear.

$H_1: r \neq 0$ at least one of the r's is not zero (linear).

Based on the above tables it can be concluded that since the Sig amount for the general hypothesis (multivariable regression) is 0.000 and lower than 5%, H_0 is rejected and H_1 is accepted. Therefore, the significance of the regression model for the general hypothesis can be confirmed, and the regression model is able to describe the changes in dependent variable (created shareholders' wealth) through independent variables (RI and EVA).

SIGNIFICANCE TEST OF COEFFICIENTS

$H_0: \beta_1 = \beta_2 = 0$ EVA and RI have no impact on created stockholders' wealth.

$H_1: \beta_1 \neq \beta_2 \neq 0$ EVA and RI have impact on created shareholders' wealth.

Given that the considered error level for this research is 5% and the values of Sig statistic < 0.05 and the t statistic > 2, therefore the RI variable is significant in the model, and based on this the third hypothesis is rejected. However, according to Sig > 0.05 for the EVA variable and t < 2, therefore it has no significant impact on shareholders' wealth. Thus, the regression model equation is as follows:

$$\hat{y} = 6060000000 + 0.332x_1 + 0.030x_2$$

x_1 : RI

x_2 : EVA

THIRD HYPOTHESIS TEST USING FORWARD METHOD

To specify the impact and significance of most independent variables are investigated through Forward method. In this research, Forward method is used to examine the control variables.

The above Table indicates that the RI variable is the first variable inputted to model and the other variable (EVA) is not inputted to model, because by adding it to the model, R^2 is not changed sufficiently. The advantage of this method is that each variable with observed significance level of lower than 5% would not be inputted to the model. The other advantage is that it is possible to determine how much the coefficient of a variable changes by adding other independent variables.

TABLE 2: STATISTICAL RESULTS

Results	Beta	Sign	F-Test	Sign	T- Test	R^2	R	Description
confirm	0.58	0.000	42.491	0.000	6.519	0.336	0.58	Hypothesis.1
confirm	0.718	0.000	89.542	0.000	9.463	0.516	0.718	Hypothesis.2
Reject	0.597	0.000	47.646	0.000	5.590	0.534	0.731	Hypothesis.3
	0.182			0.073	1.816			Residual Income Economic Value Added
Reject	0.718	0.000	89.542	0.000	9.463	0.516	0.718	Forward Method

SUMMARY OF HYPOTHESES

FINDINGS

The results of the research showed that there has been a positive and meaningful relationship between income value added and created shareholders value and this factor can explain about %33 of the changes of shareholders value. What is more, in the second hypothesis, the relationship between residual income and the level of shareholders value showed that this variable can show 45 percent of the changes in created shareholders value. In addition, it was clarified in the third hypothesis that meaningfulness of residual income is more in comparison with economic value added. In justification of this topic, it can be referred to omission of the effect of accrual accounting adjustments from residual income. The omission resulted in quality improvement of the reported income and its closeness to accounting interests. So it has shown a higher level of created shareholders value and welfare.

RECOMMENDATIONS

1. Given the results of this research, it is suggested that standard development authorities recommend companies to compute and reveal also the measure of residual income and economic value added in their annual report for stockholders.
2. In addition, independent auditors (CPA's) also in their investigations of adjustments and reserves for renewal, which companies compute at the end of the year and register in documents and ledgers, have adequate supervision and take great professional care.

CONCLUSIONS

The results indicate that the EVA and RI variables have significant relationship with created shareholders' wealth. Now it must be determined that which one is more effective. In this research it was expected (third hypothesis) that the relationship between EVA and created shareholders' wealth is more significant, but the results showed that RI is more effective on created shareholders' wealth. The applied Pearson's correlation coefficient and multivariable regression as well

as Forward method in determining the impact and significance of most independent variables (EVA and RI) on dependent variable (created shareholders' wealth) indicated that RI has more impact on created shareholders' wealth. This can be due to the fact that one of the most important components of EVA is net operating profit after tax (NOPAT). NOPAT is a net profit which is obtained through some adjustments, and the only difference between RI with EVA is in accounting adjustments applied to EVA. Therefore, this model (RI) provides a situation for accountants to analyze the company's performance in accrual accounting conditions. As shown, the correlation between RI and created shareholders' wealth is more than EVA. It is remarkable that the historical information effective on the invested equity and WACC has created deviations in the amount of EVA.

It should be noted that companies did not report any created economic value. On the other hand, EVA is not reported by companies and is not used in investors' decisions. However, considering the limitations of capital resources in Iran and given that the managers do not consider the cost of capital in their decisions, it is recommended to pay more attention to the criterion of RI in evaluating managers' performance

SCOPE FOR FURTHER RESEARCH

1. In this research, the created shareholders wealth model was used, and in using this model, the expected rate of return should be calculated. In doing so, the company's cost of equity is used here, but also the capital asset pricing model (CAPM) can be applied. It is suggested that this model (CAPM) can be used for future researches in calculating the expected rate, and the results can be compared with the results of present study.
2. Several methods as well as models are defined for the RI model. It is suggested to look into this relationship using other models.
3. In order to make this issue practical in different industries, this research can be tested separately for different industries and the results can be analyzed.

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ACTIVISM AMONG THE NIGERIA CONSUMERS

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ABSTRACT

The study is aimed at finding out the level of consumer activism among the Nigerian consumers. To achieve this objective, some related literature was reviewed. The stratified sampling, hypothesis testing and frequency distribution were adopted for analysing data. The results of the study revealed that a great number of the Nigerian consumers are willing to join consumer associations where they can be active to fight for their rights and power. Based on this findings, it is therefore recommended that government should encourage the setting up of consumer associations, consumer associations should step up their public enlightenment campaigns, manufacturers should set up consumer protection and customer service units in their organisations and finally, manufacturers should maintain a record on consumer complaints and treat these complaints to the satisfaction of the consumers.

KEYWORDS

Activism, Level, Nigeria and Consumers.

INTRODUCTION

Consumerism or consumer activism is the concerted efforts, actions, and collective reaction of consumers to protect their perceived interest in the market place. It is intended to reduce, limit or control the over-bearing excesses of manufacturers and/or vendors such as high prices, poor quality and artificial scarcity of goods.

The basic concept behind consumer activism vis-à-vis the manufacturer, can be likened to two main forces that are exerting pressure on one another, with the possibility of the stronger force gaining an upper hand over the weaker one. The situation is that, while the manufacturer is out to maximise profit, consumers, on the other hand, through their collective efforts are willing to fight for their rights. They complain in order to maximise their satisfaction. The end result of these actions is consumer activism and protection that exist all over the world including Nigeria.

Over the years, the Nigerian consumer has been bombarded with all sorts of low quality products in the market place, especially in the area of drugs, food, petroleum products, motor spare parts, cosmetics, chemicals and services. According to the Standards Organisation of Nigeria (SON) (1997), about 60% of the goods produced in Nigeria are sub-standard, while about 25% are fake. Durojaiye (1998), also supported this position by saying that the Nigerian consumer needs to be protected against the sale of substandard goods. In his view, sub-standard goods, especially automobile spare parts are imported into Nigeria from countries such as Taiwan, while expired drugs come in from Europe and are passed on to unsuspecting consumers.

As a result of these exploitative tendencies of the manufacturers and their agents against the Nigerian consumers, the government responded by establishing some regulatory agencies and enacted some legislation to protect the Nigerian consumers. The legislations include the Price Control Act of 1970, Standards Organisation of Nigeria Decree of 1971 and National Agency for Food and Drug Administration and Control (NAFDAC) Decree of 1973. Others include the Weights and Measures Act of 1990 and Hire Purchases Act of 1990.

Against the background sketched above, the aim of this study therefore is to examine the level of consumerism or activism in Nigeria. To achieve this objective, the paper has been sectionalized into five parts to include introduction which is already discussed, literature review, methodology, data presentation and discussion of findings, conclusion and recommendations.

LITERATURE REVIEW

Kotler (2002), defined consumerism as an organised movement of citizen and government agencies to improve the rights and power of buyers in relation to sellers.

Two broad, but related, interpretations have been given to the phenomenon of consumerism. One interpretation sees it in terms of power relationships between consumers and producers, while the other concerns itself with consumers and the remedies of their perceived injustices (Akerlele, 1990).

In the so-called free enterprise system, sellers have traditionally been more powerful than buyers- most of the time. Historically, human needs and wants have demanded more than what could be supplied from available sources. The economics of the market place, which are claimed to put the consumer in a rather powerful position to determine the fate of the producer and seller (Friedman, 2003), are meaningless as long as the consumer cannot have all his needs met. Another source of a possible power disequilibrium, is sheer organisation. The seller has available massive economic resources, similar to those associated with political power in most societies. He has been able to influence the dispensation of political power in a way that made the laws more favourable to himself rather than the consumer. It has been required for the buyer to be hurt before seeking redress (the famous caveat emptor) instead of being protected in the first place. The collectivity of individual buyers each without the necessary economic resources lacked political power to seek protection. In practice, the remedies provided under common law were purposely cumbersome, expensive, had uncertain results and were, therefore, of doubtful value to the individual unorganized consumer, (Watson, 2001).

A BRIEF HISTORICAL PERSPECTIVE OF CONSUMERISM

American business firms have been the target of organised consumer movements on three major occasions. The first consumer movement took place in the early 1900s. It was fueled by rising prices, Upton Sinclair's writings on conditions in the meat industry and scandals in the drug industry. The second consumer movement, in the mid-1930, was sparked off by an upturn in consumer prices during the Great Depression and another drug scandal.

The third movement began in the 1960s. Consumers had become better educated, products had become more complex and hazardous, and people were unhappy with American institutions. Ralph Nader, an American consumer advocate, forced many issues to public attention especially in the area of product safety and quality and other well-known writers accused big businesses of wasteful and unethical practices. In the same view, President John F.Kennedy declared consumers' rights as follows:

The right to safety
 The right to be informed
 The right to choose
 The right to be heard.

Similarly the U.S congress investigated certain industries and proposed consumer protection legislation. Since then, many consumer groups have been organised, and several consumer laws have been passed. The consumer movement has spread internationally and has become very strong in Europe (Kotler and Armstrong, 2000).

CONSUMERISM IN NIGERIA

The growth of vibrant consumerism in Nigeria in the past years has been rather slow and lifeless where it exists. This may be attributed to the fact that the supply of various commodities is expensive and are never enough. A case of scarcity of these commodities is therefore established as one of the primary reason for poor development of consumers in Nigeria. This is why the Nigerian consumer takes whatever is available, good or bad. Infact, in some cases, fellow consumers will intimidate others to accept a bad product. A case in point was the bad fuel supplied to petrol stations during the early part of 1997. As a result of the scarcity of the commodity, anxious consumers who were desperate to have the product, scolded those who questioned the bad smell of the product, despite the fact that the product was said to be bad to the health of the consumer. But recently, the Nigerian consumers seems to be somehow active in view of their activism against GSM Operators, Complaints to NAFDAC, Public Complaints Commission (PCC) and Standards Organisation of Nigeria (SON).

THE ACHIEVEMENTS OF THE CONSUMERIST MOVEMENT

The extent to which the consumerist ideas have been made operational naturally varies between individual Countries. In Sweden, the consumerist movement has done much to protect consumers while in France and Germany; the movement is still in its early stages and has consequently achieved comparatively less. The achievements of consumerists in the United States and Britain lie somewhere between the two extremes. However, even within their own terms of reference, the protection of consumer right in the market place, (with the possible exception of Sweden) Consumerists have decided to attain their basic objective.

Consumer organisations, associations and government protection agencies in Nigeria virtually achieved nothing in actually protecting the Nigerian consumers. Although some consumer associations have emerged and the Nigerian government has established some consumer protection and laws to protect the consumers, but they don't seem to be effective.

METHODOLOGY

The methodology adopted in this study, include a sample size of 858 questionnaires which were duly completed and returned. The questionnaires were administered to adults in six major towns of Edo and Delta States of Nigeria. The six towns chosen are Benin, Auchi, Ekpoma, Warri, Asaba and Sapele.

The stratified sampling method was adopted for the study. This is to ensure adequate or proportional representation of the different categories or types of elements that make up the population in the selected sample.

The level of an individual's consumer activism was measured by his or her willingness or unwillingness to join, finance, uphold decisions of the association, serve the association, attend meetings and solicit for members for the association. In each case, the respondent was asked to indicate on a five point scale his or her willingness to participate in consumer activism, ranging from certainly yes to certainly not.

In the data analysis plans, the hypothesis testing method was adopted using multiple regression analysis and simple frequency distribution.

DATA PRESENTATIO AND DISCUSSION OF FINDINGS

The level of consumer activism was disaggregated into SIX elements, namely, willingness to:

- join consumer associations;
- support consumer associations financially;
- serve consumer associations in an official capacity;
- participate in or attend meetings of consumer associations;
- uphold or abide by the decisions of consumer associations; and
- solicit or canvass for new members to join consumer associations.

Consumers willingness to engage in these activities was measured in terms of the following levels of likelihood:

- * Certainly Yes
- * Maybe Yes
- * Not Sure
- * Maybe Not
- * Certainly Not

The results and discussion of findings are presented below:

WILLINGNESS OF CONSUMERS TO JOIN CONSUMER ASSOCIATION AS A RESULT OF INJUSTICE

The results of the study showed that 51.7% of the respondents who constituted the highest score, are willing to join consumer associations and that 26.8% may be willing to join, while 6.3% of respondent are not willing to join. The results imply that most of the respondents are willing to join consumer associations. See table 4.1 for details:

TABLE 4.1

Responses	Frequencies No	%
Certainly Yes	444	51.7
Maybe Yes	230	26.8
Not Sure	100	11.7
Maybe Not	30	3.5
Certainly Not	54	6.3
Total	858	100

Source: Authors Fieldwork, 2010

WILLINGNESS OF CONSUMERS TO SUPPORT A CONSUMER ASSOCIATION FINANCIALLY

The results from table 4.2 below show that 41.6% of the respondents are willing to support a consumer association financially. Another 32.1 % may be willing, while 4.2% are not willing to support a consumer association financially. The results reveal that most respondents are willing to support a consumer association financially.

TABLE 4.2

Responses	Frequencies No	0/0
Certainly Yes	357	41.6
Maybe Yes	275	32.1
Not Sure	140	16.3
Maybe Not	50	5.8
Certainly Not	36	4.2
Total	858	100

Source: Authors Fieldwork, 2010

WILLINGNESS OF CONSUMERS TO SERVE IN CONSUMER ASSOCIATION AS AN OFFICIAL

The results from table 4.3 below revealed that respondents willingness to serve in consumer associations as official constituted 40.6% while 28.2% may be willing to serve. About 5.4% are not willing to serve as officials in consumer associations. The results suggest that most of the respondents are willing to serve as officials in consumer associations.

TABLE 4.3

Responses	Frequencies	No	0/0
Certainly Yes	348		40.6
Maybe Yes	242		28.2
Not Sure	150		17.5
Maybe Not	72		6.3
Certainly Not	46		5.4
Total	858		100

Source: Authors Fieldwork, 2010

WILLINGNESS OF CONSUMERS TO ATTEND A CONSUMER ASSOCIATION MEETING

The results from table 4.4 below indicate that 52.6% of respondents are willing to attend consumer association meetings and that 29.3% may be willing to attend. Only 0.9% of respondents are unwilling to attend consumer association meetings. These results mean that an overwhelming majority of the respondents are willing to attend consumer association meetings.

TABLE 4.4

Responses	Frequencies	No	0/0
Certainly Yes	451		52.6
Maybe Yes	251		29.3
Not Sure	133		15.5
Maybe Not	15		1.7
Certainly Not	08		0.9
Total	858		100

Source: Authors Fieldwork, 2010

WILLINGNESS OF CONSUMERS TO UPHOLD THE DECISIONS TAKEN AT CONSUMER ASSOCIATION MEETINGS

The results from table 4.5 below revealed that 56.2% of the respondents are willing to uphold the decisions taken at consumer association meetings and 23.4% of respondents may be willing to uphold the decisions taken at consumer association meetings. While 4.4% of respondents are not willing to uphold the decisions taken at the meetings. It therefore implies that respondents are not only willing to attend consumer association meetings, but also to uphold the decisions taken at such meetings.

TABLE 4.5

Responses	Frequencies	No	0/0
Certainly Yes	482		56.2
Maybe Yes	201		23.4
Not Sure	82		9.6
Maybe Not	55		6.4
Certainly Not	38		4.4
Total	858		100

Source: Authors Fieldwork, 2010

WILLINGNESS OF CONSUMERS TO HELP SOLICIT FOR MEMBERS FOR CONSUMER ASSOCIATIONS

The results from table 4.6 below, shows that respondents willing to help solicit for members for consumer associations constituted 52.7% and 25.2% of respondents may be willing to solicit for members. While 2.9% of respondents are not willing to solicit for members. The result implies that respondents are willing to help solicit for members for consumer associations.

TABLE 4.6

Responses	Frequencies	No	0/0
Certainly Yes	452		52.7
Maybe Yes	219		25.5
Not Sure	108		12.6
Maybe Not	54		6.3
Certainly Not	25		2.9
Total	858		100

Source: Authors Fieldwork, 2010

INDICES OF CONSUMER ACTIVISM

Table 4.7 below summarize the indices of consumer activism. Each index is on a scale of 5. A score of 5 indicates 100% or complete willingness while a score of one indicate the minimum level of willingness. A close look at the table shows that virtually all the indices are above four (4) indicating a very high level of consumer associations and to attend their meetings, uphold their decisions, as well as solicit for members for them. The willingness to serve the associations in an official capacity was the lowest although it was also high. The result generally indicates that respondents are willing to participate in consumer activism since all the indices are basically high.

TABLE 4.7: INDICES OF CONSUMER ACTIVISM

Components of Activism	Index of Activism *
Willingness to Join	4.14
Willingness to support financially	4.01
Willingness to serve as official	3.90
Willingness to attend meetings	4.31
Willingness to uphold decisions at meeting meeting	4.21
Willingness to help solicit for new members	4.19

Source: Author Fieldwork, 2010

*Maximum Index Value = 5

Minimum Index Value = 1 (The higher the index the higher the level of activism)

CONCLUSION AND RECOMMENDATION

Consumer activism is basically the concerted efforts, actions, and collective reaction of consumers to protect their perceived interest in the market place. The study revealed that although the Nigerian consumer is naive and shy in voicing out complaints about bad products, but it is interesting to note that a great number of them are willing to join a consumer associations as compared to a few who are not willing.

The results of the findings is expected because the Nigerian manufacturers and their middlemen as revealed in the study have been exploiting the Nigerian consumers in the form of fake products, adulterated goods, imitation products, expired products and cheating of all kinds. This bad business practice by the manufacturers may have propelled the Nigerian Consumers to be willing to join consumer associations.

In view of the above, the following recommendations will be advanced:

- i. Government should ensure that manufacturers produce quality products by making sure that they comply with the existing laws on quality control.
- ii. The setting up of consumer associations should be encouraged by government by funding them.

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AN EVALUATIVE STUDY OF USE OF HIP HOP ARTISTS IN MOBILE TELECOMMUNICATIONS ADVERTISEMENTS: A STUDY OF AIRTEL SUBSCRIBERS IN SOUTHEASTERN NIGERIA

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ABSTRACT

Endorsement is a type of advertising that focuses on using celebrity power, fame, and popularity to gain recognition for a product and promote the purchase of such products or service. It is believed that the use of celebrity in advertising gives the product an instant popularity. This work examines the responses of airtel subscribers in Nigeria, (using Anambra State University, Igbariam Campus, Anambra State Nigeria, as a study area), towards the use of hip hop artiste (2face) in airtel advert. The survey research method was adopted in the study with 378 respondents studied. Purposive sampling technique was used and the data analysed were collected through the use of questionnaire. Data were analysed using frequency distribution table, and mean statistics while t-test statistical tool was used to test the hypothesis. Among the research questions formulated for the study are: what determines the respondents' choice of a network provider? How do the respondents perceive airtel testimonial advertising involving 2face Idibia? The hypothesis for the study was that there is no significant difference between the mean scores of male and female respondents on their perception of whether the use of 2face in airtel's adverts brings about preference of airtel brand. The study found out that the respondents reacted favourably towards the advert because of the use of 2face in the advert. Thus, the study concluded that there is a relationship between the use of 2face in airtel adverts and preference of airtel brand to other networks. The study also recommended that the effectiveness of any advertising depends on how well the advert meets up with the needs of the target audience.

KEYWORDS

Advertisement, Hip Hop Artists, Personality Endorsement.

INTRODUCTION

The buzz and hype in the world of advertising since the late 20th century till date are not only inundating and overwhelming, but almost embarrassing at times. We live in a world of advertising. It is a world of our making, of course. We don't like to pay full price of things, so we allow other people to pay part of that price in exchange for letting them pass a message to us.

Advertising can rightly be defined as any persuasive form of non-personal dissemination of information about a specific idea, pinion, product or service through an appropriate medium of mass communication by an identifiable sponsor(s) for the purpose of convincing, promoting and persuading the audience to undertake a desired action. Advertising is, thus, a collective term for public announcement designed to promote the sale of specific ideas, goals or services. It is a form of mass selling employed when the use of direct person to person selling is impractical or insufficient.

Okoro (1998), observes that historical accounts credit the Babylonians as being the first to produce an advertisement. Russell and Lane (1990), in Okoro (1998), observe that a Babylonian clay tablet of about 3000 BC bears inscriptions for ointment dealer, scribe and a shoemaker. According to Turner (1952:9), in Okoro (1998), in ancient Rome, advertising flourished. Adverts messages were written on the walls during gladiatorial shows and campaigns.

The symbolic and pictorial nature of early advertising gave rise to outdoor advertising which has proved to be one of the most enduring forms of advertising.

Wilson and Wilson (2001), note that the invention of technology for distance communication began in 1830 with the development of the telegraph in England and United States of America. Another breakthrough came in 1876 when Alexander Graham Bell invented and made the first telephone call. In 1897, Guglielmo Marconi patented the wireless telegraph. Another great improvement was made in 1983 with invention of the mobile cellular phone. The global system of communication (GSM) followed in the late 1990s and by 2001, MTN Nigeria had started operation.

Presently, there are about six telecommunication companies in Nigeria which airtel-Nigeria is one of them. Airtel-Nigeria took over from zain-Nigeria on 8th June, 2010. The company is known for its intensive use of celebrities in its adverts both in the origin country, India and international.

Endorsement is a type of advertising that focuses on using celebrity power, fame, money, and popularity to gain recognition for a product and promote specific stores of products (Wikipedia, 2011). Celebrities are often involved in advertising campaigns such as television or print adverts to advertise specific or general products. The use of celebrities to endorse a brand can have its downside as one mistake by a celebrity can be detrimental to the public relations of a brand.

The use of celebrities in advertising was borne out of the need to arouse and sustain the interest of the target audience. Hip hop artistes serve as endorser of a particular new brand. If the advertisers lack ideas on how to promote a brand with products that have many competitors, they use popular hip hop artistes to optimize the brand image and to grant instant credibility or public relations coverage. This principle particularly holds true if the celebrity has ascending popularity or career. They project an attractive image with hidden message that if consumers patronize their product, they are likely to be leveled with celebrities that they can also share and live up the dream and success.

According to Stanley (1986), advertising is seen to be creative rather than a sales tool. Young people have different national attitude towards advertising and this does not prevent them from identifying with their superstars of music, television, radio, cinema and dressing or seeking to behave like them. This is among the principle of creative advertising techniques. If the ideal hip hop artiste is employed to represent the product, his strong appeal can send a brand message without further statement.

Ifedayo (2001), notes that testimonials are advertisement in which a celebrity endorses a product or service. The person appears as an average user of the product, and in the process help attracts attention to the advertisement and creates other interest in the product. Hip hop artistes are used to position a product to give it credibility. In the use of superstar, the image of the star is important to positioning of the products and services patronized because it is seen as a good image.

Modern advertising is now a persuasive force, which is also intrusive as a communication process that has invaded our homes, offices and streets. Nevertheless, advertising provides the consumers a checklist of choice of items favorably to purchase to standardize their living. Advertising in this modern time must be persuasive and appealing in order to win converts who are lured to patronize the goods and services advertised.

THE PROBLEM

Airtel-Nigeria is one of the leading telecommunication companies in the country. Bharti airtel limited acquired zain on 8th June, 2010. Airtel is the leading and the largest cellular service provider in India and fifth largest telecom operator in the world (Wikipedia, 2011). The company is known for its wide use of celebrities in its advertisement.

The company on 19th November, 2010, unveiled a Nigeria hip hop artiste 2face Idibia as a new brand face of airtel-Nigeria (nextonlineinfo.com cited in Oluwaseun, 2010). The company decided to use 2face in its advert so as to draw the attention of his fans to airtel product (Oluwaseun, 2010). 2face, alongside R.kelly and seven other international hip hop stars did a team song for airtel.

Airtel has been recording a tremendous increase in the number of subscribers worldwide. The company has over 199.6 million subscribers across 19 countries at the end of 2010 (Samuel, 2011). This increase may be as a result of using celebrities or hip hop artistes in its adverts.

An unanswered question here is whether the company will hit its expecting record in Nigeria owing to series of metamorphosis undergone by the predecessors of the company in Nigeria. Again, the use of hip hop star to endorse a brand can have its downside as one mistake by the celebrity or hip hop artiste can be detrimental to the public relations of the brand.

More so, a research has shown that people tend to listen or read those messages that meet up with their dispositions and discard those that failed to meet up. As such, there exist some who are not 2face's fan and such people are likely to discard or disregard anything he says about airtel's products. Such individual differences may give rise to opinion like "he has been paid to sell the product". This work therefore centers on ascertaining the effectiveness of the use of 2face Idibia in airtel adverts.

OBJECTIVES OF THE STUDY

The main objective of this study is to ascertain the consumers' response to the use of hip hop artistes in airtel adverts. Specifically, the work sets out to find out the following:

- Whether the use of hip hop artiste in advertising has anything to do with the respondents' choice of network provider.
- The respondents' perception on the credibility of the hip hop artiste(s) used in airtel adverts.
- The effect which the medium used by *airtel* in their adverts has on respondent's buying decision.
- If a testimony about a product given by a hip hop artiste motivates the respondents' buying habit.

These research questions guided the study:

- What determines the respondent's choice of network provider?
- How do respondents perceive the *airtel*'s testimonial advertising using 2face Idibia like "*Airtel 2good*" by 2face?
- What effect(s) does the medium used by *airtel* in its adverts have on the respondents' buying decision?
- What is the respondents' perception on whether the use of 2face in *airtel* adverts brings about preference of *airtel* brand?

RESEARCH HYPOTHESIS

H₀: there is no significant difference between the mean scores of male and female respondents on their perception of whether the use of 2face in airtel's adverts brings about preference of airtel brand.

H₁: there is a significant difference between the mean scores of male and female respondents on their perception of whether the use of 2face in airtel's adverts brings about preference of airtel brand.

THEORETICAL FRAMEWORK

Two theories of mass media effect guided this work. They are social categories theory and individual differences theory. The social categories theory states that people tend to respond to a mass media stimulus (message) based on the norms and interest of his sub-group or social category in the society. The social categories theory "assumes that there are broad collectives, aggregate or social categories in urban-industrial societies whose behaviour in the face of a given set of stimuli is more or less uniform" (Defleur, 1970 in Baran and Davis, 2006: 149). According to this theory, people with similar dispositions-age, gender, income, and educational level, will have similar patterns of media exposure and similar reactions to that exposure. While people possess individual traits that determine their susceptibility to media content, social categories theory maintains that people who share similar demographic traits will respond similarly to the mass media content. Okunna (1999): 164-165, asserts that "members of each sub-group belong to social category, and are likely to have similar interests and attributes which differ from those of member of other social categories, and which determine mass media they use and how they use them"

Individual difference theory observes that though people belong to the same social category and have group norms and values in common, each person still has trait(s) that is unique to him. Okunna (199:168-169), rightly observes that "depending on who you are and type of personal characteristics you have, a persuasive media message could fail either partially or totally to have effect which the mass communicator, and advertiser perhaps it to have on you. The same message could have the intended effect on another member of the audience with a different psychological make-up". The theory anchors on the fact that media content selectivity among the audience is as a result of their individual differences. "Individual demographics and experience shape audience perception of communicators and their transmission" (Whitaker Ramsey and Smith, 2009). Nwodu (2007; 261) asserts that "the theory therefore derives strengths from the two basic facts (1) No two individuals can be the same and as such, their reactions to mass mediated message vary and (2) No particular individual is the same all the time".

Consumer behaviour is concept that merges the two theories together. The concept is an activity people engage in when searching for, selecting purchasing, using evaluating and disposing of products and services so as to satisfy their needs and desires (Belch and Belch, 2007). An advertiser's success in influencing purchase behaviour of the audience depends largely on how well he understands his target consumers' behaviour. Selective perception determines how well the consumers will expose themselves to advertising messages and how to attend to them, understand them, and retain them for references during purchasing.

Therefore, the effectiveness of airtel adverts on its target audience depends largely on its ability to understand that "the more highly people value their membership in a group, the more closely their attitude will conform to those of the group and therefore the more resistant the person will be to change" (Baran and Davis, 2006:147). An individual's susceptibility to persuasion is not all about the person's willingness to be persuaded on a given advert issue but some personality factors like intelligence, gender, social status and age also contribute to change.

LITERATURE REVIEW

THE CONCEPT OF ADVERTISING

The element of marketing communication mix that is non-personal, paid for by an identified sponsor and disseminated through mass media or channels of communication to promote the adoption of goods, services, persons, ideas, opinions or organization is known as advertising. An advertising message is either informative or persuasive in nature. It can be in form of a reminder (outdoor ads) ringing in the heart and or eyes of the target audience about the existence of a new or old brand or products or services as in airtel adverts.

Advertising is similar to other elements or forms of marketing communication only that a thin line differentiates it from others. Advertising message must be non-personal and it is paid for by identified sponsor. These attributes, differentiates, advertising from propaganda which according to Hornby (2000:935) is

"ideas or statements that may be false or exaggerated and that are used in order to gain support for a political leader, party, etc." the import asserts that while propaganda can omit or distort something relevant or important in order to curry favour the target audience, advertising thrives on honesty, decency, legal and faithful.

However, many scholars have advanced the meaning of advertising to include "a paid form of non-personal communication through a medium aimed at promoting ideas, individuals, organization, goods or services by an identified sponsor" (Nwabueze, 2006:164). According to a marketing communications expert, Ikechukwu Nwosu (1996), in Edegoh (2009), advertising is "any paid form of non personal presentation and promotion of person, Institutions, ideas, goods and services by identifiable sponsor using appropriate media or medium of communication."

ADVERTISING STRATEGIES

Advertising strategy is a well articulated and planned line of actions through which the interest of the target audience can be aroused. It is pertinent to note here that a good advertising strategy will reflect other business considerations and objectives as well.

According to Biagi (2005:214), "Advertising campaign is a planned advertising effort, coordinated for a specific time period. A campaign could last anywhere from a month to year, and the objective is a coordinated strategy to sell a product or a service". The cardinal point here is that every advertising campaign involves strategies to sell products or services. The aim of every advertising is to stimulate sales or promote ideas or opinions.

Advertising strategy involves devising a means of ensuring that a product finds its place in the market. Obeta (2008), observes that due to cut-throat competition inherent in the marketing industry as a result of numerous producers and marketers, it is only the company with a comprehensive, coordinated, integrated and well packaged advertising programs would find space in the little market area. This competition seems to be more pronounced in telecommunication industries. This has given rise to series of promotion bonanzas lingering on in the industry.

Advertising strategy could be classified under media strategy, audience strategy, creative strategy and coordination and measurement (Jugenheimer and white, 1980). Audience strategy involves a research into the nature of the audience of an advert. The research includes both their psychological and demographic dispositions.

Media strategy "is a decision about which basic media to use, what units to recommend and what time of day, week or year to use them" (Jugenheimer and White, 1980:325). Coordination and measurement involves evaluation of his advertising campaign to determine its success or failure rate.

AIRTEL: AN OVERVIEW

Bharti airtel; limited known as airtel, is an Indian telecommunication company that operates in 19 countries across South Asia. Africa and the channel of Island (wikipedia, 2011).

Sunil Bharti Mittal founded the Bharti group of companies which airtel-Nigeria is one of them with the name Bharti airtel – Nigeria (Oluwaseun, 2010). The company is known internationally for its creative slogan the centers on freedom. Some of them are "no wall can keep us apart only if we talk to each other", "when you stand for what you believe in, you can change the world, express yourself-a theme song for airtel adverts in India done by AR Rehman" (Amit, 2010), "avoid congestions, join airtel world", "wider coverage (Oluwaseun, 2010)", among others.

Airtel Nigeria started operations as Econet-Nigeria. Econet-Nigeria was later re-branded to Vodacom. However, vodacom did not last long in Nigeria. The development prompted Nigeria's first GSM operator brand to operate in the country without an identifiable cooperate name and strategy for over two months. The circumstances created Vmobile, which was later acquired by MTC, owners of celtel. Following the acquisition, Vmobile was re-brained celtel. Two years after the success story of celtel, Zain announced take over of the celtel brand from MTC across Africa and Middle East. On August 1, 2008, celtel made the way for Zain following global acquisition of celtel international by MTC group which transferred to zain. In just another two years interval, zain was acquired by Bharti airtel and re-branded for the sixth time to airtel-Nigeria (wikipedia, 2011)

Bharti airtel change its name to airtel in 2003. Following this change, the cellular phone operations under the name Bharti group were re-branded under the single airtel brand. Today, airtel is the largest cellular service provider in India and fifth largest in the world (wikipedia, 2011).

Airtel has about 199.6 million subscribers worldwide. 152. 5 million in India, 42.1 million are in African, 3.2 million in Bangladesh and 1.8 million in Sir Lanka as the end of 2010. The numbers include mobile service subscribers in 19 countries and Indian telemedia and digital services subscribers (Samuel, 2010).

Whether the company is making success in Nigeria is yet to be ascertained after

BRIEF LOOK AT HIP HOP IN AIRTEL ADVERTS

Celebrity advertising focuses upon using celebrity power, fame, money, popularity to gain recognition for a products or service. Celebrity's are used in advertising to grab attention, sell products and build the celebrity's brand and business opportunities (Leon, 2003). Analysis believe that famous celebrities are more capable of catching the attention of consumers.

Felix.inc (2010), defines hip as an urban youth culture associated with rap music and the fashion of African-American residents of the inner city. It is a genre of African-American music of the 1980s and 1990s in which rhyming lyrics are chanted to a musical accompaniment.

Airtel after acquiring of the "Kuwait" zain group in African adopted the idea of celebrity advertising to create awareness and endorse the brand. This gave rise to the formation of one8. This superstars group, one8, released an album titled "Hands across the world, which is the brainchild of airtel limited (Hamuza, 2010).

Airtel contracted 2face Idibia (Nigeria), Navio (Uganda), Alikiba (Tanzania), Fally Ipupa (Dr congo), 4x4 (Ghana), Movazhaleine (Gabon), JK (Zambia), and Amani (Kenya), to represent airtel African in a theme song written by R&B matters, R.Kelly. Airtel's one8 is symbolic and the power of connectivity-using networks, technology and the power of music to connect fans all over African and the world through music (Oluwaseun, 2010).

The idea of airtel Nigeria endorsing 2face as its ambassador perhaps is borne out of the zeal to project its product as living and credible. In addition to that, analysis believes that brands being established by celebrities are more likely to retain longer on consumer's memory. But the problem now is whether the idea is working for them in a socially categorized state like Nigeria.

METHODOLOGY

The method of study employed by the researchers was the survey method. Survey method is usually used when it is not generally feasible to study the entire population. This research method is considered to be the most suitable method by a researcher studying attitudes and behaviour.

The population of study for this work comprises of the regular students of Anambra state university, Igbariam campus. The population stood at 6,832 as at the time of the study. According to statistics from the office of the faculty officers, faculty of arts and social sciences has 3777 students. Faculty of management sciences has 2351 while agric-economics and law have 449 and 255 respectively.

SAMPLE SIZE AND SAMPLING TECHNIQUE

The sample size for this study is 378. The researcher arrived at the size through the application of Taro Yamane's formula for determining the sample size when the population is known or finite.

The formula is stated thus:

$$n = \frac{N}{1 + N(e^2)}$$

where:

n = sample size

N = population figure

e = error margin.

Refer to appendix 1 for the workings on sample size determination using Taro Yamane's formula. Based on the appendix 1, the sample size is 378 which represent 5.3% of the entire population.

The sample size of 378 airtel subscribers among the regular students of Anambra state university, Igbariam campus was drawn for the purpose of this study.

The sampling technique used was the purposive method which is under the non-probability sampling technique. The researcher in a bid to ensure that all components of the entire population are fairly represented engaged on proportional allocation of units to each of the population component. Subsequently, 14 students were studied from law faculty, Agric-economics faculty had 25 students studied, while arts and social sciences and management sciences had 209 and 130 students studied respectively.

The researcher adopted purposive method of sampling technique which is under non-probability sampling technique. The researcher purposively selected that are using airtel network as their mobile phone service provider. This technique enabled the researcher to elicit data much more easily and readily since non-airtel subscribers were not included in the scope of study.

TECHNIQUE OF DATA PRESENTATION AND ANALYSIS

The data collected from the field were analyzed using frequency distribution and mean statistics. The research hypothesis was tested using t-test statistics. According to Okeke, Olise, and Eze (2008:176), t-test is "the name applied to the statistical technique that allows one to deal with the significance of differences between means in small independent samples".

Furthermore, the researcher rated each response on a 5-point Likert scale of "strongly agreed" = 5, "agreed" = 4, "undecided" = 3, "disagreed" = 2, and "strongly disagreed" = 1. To determine the cut-off point, the mean of the values assigned to response categories items was calculated thus:

$$\bar{x} = \frac{\sum fx}{N}$$

where:

\bar{x} = sample mean

f = frequency

N = total number of scores

X = allotted values.

Therefore, the mean of any response that was below the calculated cut-off point (3.0), was rejected or assumed to be negative. While the one that was above the cut-off point was accepted or assumed to be positive.

FINDINGS

DEMOGRAPHIC DATA

Questionnaire was used as a data collection instrument. Out of three hundred and seventy eight (378) copies of questionnaire distributed, three hundred and seventy two (372) were returned and found useful. This shows that 98.4% of the questionnaire was valid while 6 which is 1.6% were not returned.

Similarly, female respondents constituted the majority of the respondents with 210 respondents accounting for 56.5%. Male respondents were 162 accounting for 43.5%.

The analysis of the data above shows that the majority of the respondents fall within the age bracket of 21-25 accounting for 65.1% with 242 respondents. This is followed by that fall within the age bracket of 15-20 with 79 respondents accounting for 21.2% and those that fall within the age bracket of 26-30 were 51 accounting for 13.7%. The age brackets of 31-35, 36 and above are none.

The data on the marital status shows that majority of the respondents are still single with 316 respondents accounting for 84.9% and 56 respondents accounting for 15.1% are married. None of the respondents is divorced.

The data presented on the faculty of the respondents shows that 130 respondents were from management sciences accounting for 34.9%. 204 respondents which accounted for 54.8% were from the faculty of arts and social sciences, while 14 and 24 respondents accounting for 3.8% and 6.5% were from the faculty of law and agric-economics respectively.

Also, the demographic data shows that 66 respondents representing 17.7% were year one students. 93 respondents accounting for 25% were year two students. Again, 116 respondents representing 31.2% were third year students, while 97 respondents representing 26.1% were fourth year students and nil goes for fifth year students and above.

ANSWERS TO RESEARCH QUESTIONS

RESEARCH QUESTION ONE

Assessment of what determines the respondent's choice of network provider.

To answer this research question, items 6-12 from the questionnaire were used.

TABLE 1: RESPONDENTS' RESPONSES ON WHAT DETERMINES THEIR CHOICE OF NETWORK PROVIDER

S/N	Responses	SA	A	UND	DA	SDA	Total	\bar{X}	Remark
6	The quality of the network provider's wave.	1015	464	45	76	0	1600	4.3	Positive
7	The testimonies of the active subscribers of the network about them.	930	480	42	90	7	1549	4.2	Positive
8	The benefits inherent in the network provider's tariffs.	955	444	123	58	0	1588	4.2	Positive
9	The rate of coverage of the network provider.	900	416	66	88	22	1492	4.0	Positive
10	The rate of accessibility of the network provider's product.	790	456	177	82	0	1505	4.0	Positive
11	The denominations of the network provider's recharge cards.	695	488	150	132	15	1480	4.0	positive
12	The testimonies of the hip hop artist used in the network provider's adverts.	615	380	198	102	37	1332	3.6	Positive

Source: 2011 field survey.

The results presented in the table above show that the mean responses of all the 7 items are positive that is, they are above the cut-off point (3.0). It then follows that all the responses weighted are factors that can determine the choice of a network provider. Respondents strongly agreed that the quality of the network provider's wave is the chief determining factor (4.3). They also agreed that the testimonies of the hip hop artist (s) used in the network provider's adverts (3.6) is another factor capable of determining the choice of a network provider. The respondents were also of the view that the testimonies of the active subscribers of the network about them (4.2) and the benefits inherent in the network provider's tariffs (4.2) motivated them in preferring one network to the other.

RESEARCH QUESTION TWO

Assessment of how the respondents perceive the airtel's testimonial advertising using 2face Idibia like "Airtel 2good" by 2face.

To answer this research question, items 13-18 from the questionnaire were used.

TABLE 2: RESPONDENTS PERCEPTION OF THE AIRTEL'S TESTIMONIAL ADVERTISING USING 2FACE LIKE "AIRTEL 2GOOD" BY 2FACE

S/N	Responses	SA	A	UND	DA	SDA	Total	\bar{X}	Remark
13	It makes me to like airtel and its products.	760	556	66	118	0	1500	4.0	Positive
14	I love 2face and I love his adverts.	950	384	21	118	20	1493	4.0	Positive
15	It irritates me because I hate 2face.	255	40	21	244	182	742	2.0	Negative
16	I love 2face but I don't think that can make me to like airtel.	485	436	84	144	66	1215	3.3	Positive
17	I believe that "airtel 2good" because 2face cannot lie in a situation like that.	510	288	105	178	74	1155	3.1	Positive
18	I see it as a paid form of testimony.	740	376	195	28	51	1390	3.7	Positive

Source: 2011 field survey.

The table above indicates that the respondents perceived airtel's testimonial advertising using 2face Idibia as a good one. This was justified by their agreement on the fact that it makes them to like airtel and its products (4.0). More so, they agreed on items (14, 16, 17, and 18) which were justified by their weighted means been above the cut-off point (3.0). Again, the respondents strongly disagreed that airtel's testimonial advertising using 2face Idibia irritates them because they hate 2face (2.0). This is a clear indication that they perceived the airtel's testimonial advertising using 2face Idibia as a good advert and they believed that "airtel 2good" because 2face cannot lie in a situation like that (3.1).

RESEARCH QUESTION THREE

Assessment of the effect(s) the medium used by airtel in its adverts had on the consumers' or respondents' buying decision.

To answer this question, items 19-24 from the questionnaire were used.

TABLE 3: RESPONDENTS' RESPONSES ON THE EFFECT THE MEDIUM (TV OR BILLBOARD) USED BY AIRTEL HAD ON THEIR BUYING DECISION

S/N	Responses	SA	A	UND	DA	SDA	Total	\bar{X}	Remark
19	It shows seriousness and moves me to buy	1035	336	0	162	0	1533	4.1	Positive
20	It does not move me to buy.	210	440	111	140	113	1014	2.7	Negative
21	It makes me to believe that airtel is a good network provider.	795	532	0	116	22	1465	3.9	Positive
22	Whenever I see 2face on billboard adverts of airtel, I always feel like recharging my airtel line.	545	384	105	116	74	1224	3.3	Positive
23	It shows that airtel is a good competitor in the market.	1085	580	0	0	10	1675	4.5	Positive
24	Whenever I see 2face on Tv adverts of airtel, it always irritates me.	35	148	42	182	223	630	1.7	Negative

Source: 2011 field survey.

From the table above, it is clear that the respondents strongly agreed that the effects of the medium (Tv or billboard) used by airtel in its advert had on their buying decision among other things, shows seriousness and moves them to buy (4.1). They also agreed on items (21, 22, and 23) which had their weighted means above 3.0 (cut-off point).

More so, the respondents disagreed with items (20 and 24) which had their weighted means below 3.0 (cut-off point). This means that they disagreed with the items which claim that the medium used by airtel does not move them to buy (2.7) and whenever they see 2face on Tv adverts of airtel, it always irritates them (1.7).

RESEARCH QUESTION FOUR

Assessment of the respondents' perception on whether the use of 2face in airtel adverts brings about preference of airtel brand.

To answer this research question, items 25-30 from questionnaire were used.

TABLE 4: RESPONDENTS' PERCEPTION ON WHETHER THE USE OF 2FACE IN AIRTEL ADVERTS BRINGS ABOUT PREFERENCE OF AIRTEL BRAND

S/N	Responses	SA	A	UND	DA	SDA	Total	\bar{X}	Remark
25	I prefer 2face to other artists and that makes me to prefer airtel to other network providers.	725	324	66	118	65	1298	3.5	Positive
26	I love airtel because of the use of 2face in its adverts.	540	332	66	216	51	1205	3.2	Positive
27	The use of 2face in the advert makes the advert interesting and makes me subscribe to the network	400	520	201	102	44	1267	3.4	Positive
28	I believe that the use of 2face in the advert is a positive way of projecting the airtel brand.	1090	468	0	44	15	1617	4.3	Positive
29	The use of 2face in the advert makes me see airtel as a Nigerian brand.	935	556	48	0	30	1569	4.2	Positive
30	There is no relationship between the use of 2face in airtel's advert and preference of airtel brand to other networks.	255	228	264	84	134	965	2.6	Negative

Source: 2011 field survey.

The results presented in the table above show that the mean responses of 5 items in this research question (25, 26, 27, 28, and 29) are above the cut-off point of 3.0 and the mean response of item (30) is below the cut-off point. This means that the respondents disagreed with the option that there is no relationship between the use of 2face in airtel adverts and preference of airtel brand to other networks.

The respondents agreed that the use of 2face in airtel's adverts brings about preference of airtel brand. This was justified by their agreement on the fact that they prefer 2face to other artists and that makes them to prefer airtel to other network providers (3.5). They also believed that the use of 2face in the advert is a positive way of projecting the airtel brand (4.3).

TEST OF HYPOTHESIS

H_0 : There is no significant difference between the mean scores of male and female respondents on their perception of whether the use of 2face in airtel adverts brings about preference of airtel brand.

H_1 : There is a significant difference between the mean scores of male and female respondents on their perception of whether the use of 2face in airtel adverts brings about preference of airtel brand.

To test the hypothesis, t-test statistical tool was applied using the formula

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S_{\bar{X}_1 - \bar{X}_2}}} \quad \text{where,}$$

\bar{X}_1 = mean of group 1 data

\bar{X}_2 = mean of group 2 data

$S_{\bar{X}_1 - \bar{X}_2}$ = standard error for the groups (Wimmer and Dominick, 2003).

TABLE 5: T-TEST CALCULATION ON WHETHER THERE IS A SIGNIFICANT DIFFERENCE BETWEEN THE MEAN SCORES OF MALE AND FEMALE RESPONDENTS ON THEIR PERCEPTION OF WHETHER THE USE OF 2FACE IN AIRTEL'S ADVERTS BRINGS ABOUT PREFERENCE OF AIRTEL BRAND

Variables	N	\bar{X}	STE	A	df	T _{cal}	T _{tab}	Remark
Male	6	520	5686.8	0.05	10	0.05	2.228	H ₀ is accepted and H ₁ is rejected.
Female	6	800						

t-cal = 0.05, P = 0.05, df = 10, t-tab = 2.228.

Using t-test statistical tool to test the hypothesis, the calculated t value was 0.05 while the table value was 2.228 at the 0.05 level of significance.

The decision rule is accept null hypothesis if the computed t statistical is less than the critical value if otherwise, fail to reject null hypothesis (Olise, Okeke, and Eze, 2008). In this case, t calculated value is less than t table value, thus, H₀ is accepted while H₁ is rejected. It then follows that gender is not a determining factor on whether the use of 2face in airtel adverts brings about preference of airtel brand.

DISCUSSION OF FINDINGS

From the data presented and analyzed, the findings show that the use of 2face in airtel's adverts brings about preference of airtel brand. The respondents were of the view that there is a relationship between the use of 2face in airtel's adverts and preference of airtel brand to other networks. This was upheld by their unanimous disagreement with item 30 (2.6) from questionnaire. In other to consolidate their stand, the respondents were of the opinion that they preferred 2face to other artists and that made them to prefer airtel to other network providers (3.5).

The study found out that the quality of the network provider's wave is the major determinant of the choice of a network provider. The testimonies of the active subscribers of the network about them as well as the testimonies of the hip hop artist (2face) used in the network provider's adverts also determines the choice of a network provider. The benefits inherent in the network provider's tariffs, the rate of coverage of the network provider, the rate of accessibility of the network provider's products and the denominations of the network provider's recharge cards all determine the choice of a network provider.

The study also found out that the airtel's testimonial advertising using 2face made the respondents to like airtel and its products. Also they believed that "airtel 2good" because 2face said it (3.1).

Some of the respondents saw the advert as a paid form of testimony (3.7). This is in accordance with the observations on Rediffnews (2003), that "celebrity credibility is coming under question. Consumers are getting more and more advertising savvy and are beginning to voice opinion even in small towns, like "he has been paid to sell the product"". While some were of the opinion that it was a paid form of testimony, they still unanimously disagreed that the advert irritates them because they hate 2face (2.0).

The study also found out that the respondents always feel like recharging their airtel line whenever they see 2face on billboard adverts. The respondents strongly agreed that the medium (TV or billboard) used by airtel in its adverts shows seriousness and moves them to buy or recharge their airtel line. Again, they were of the view that the use of billboard or TV by airtel in its adverts showed that airtel is a good competitor in the market (4.5) and it made them to believe that airtel is a good network provider (3.9).

In line with this finding, Godbout (2011), observes that "billboards are best and effective when photos of popular celebrities grace them. There is no need for them to speak. Their image did it, and the statement is compelling." He further asserts that "brands being established by celebrities are more likely to retain longer on consumers' memory." This is believed to be a reason why airtel used 2face in its advert.

CONCLUSION

Based on the findings of the study, the following conclusions were drawn: There is a relationship between the use of 2face (hip hop artiste) in airtel adverts and preference of airtel brand to other networks. More so, the quality of the network provider's wave, the testimonies of the active subscribers as well as those of the hip hop artistes used in the network provider's adverts, the gains in the network provider's tariffs, the rate of their coverage, the accessibility of their products, and the denominations of the network provider's recharge cards all spur the subscribers' choice of a network provider. Airtel subscribers in Anambra State University, Igbariam campus, believe that "airtel 2good" and they love the advert. Television and billboard have proved to be effective in carrying out testimonial adverts.

The use of 2face (hip hop artiste) in airtel adverts made the brand a credible one and respondents preferred it to other brands. The essence of using hip hop artistes in advertising is to make the advert interesting thereby projecting the brand in a positive way. Again, airtel subscribers see the brand as a Nigerian brand and reacted positively towards the brand because of the use of 2face (hip hop artiste) in its advert.

Based on the findings, the recommendations of this study are as follows:

- That the uses of hip hop artistes to endorse a product is a positive way of bringing a life into a lifeless product or brand.
- Advertisers should ensure that they backed up their endorsement advertising with accurate information about the product or service.
- Advertisers should strive to contract celebrities or hip hop artistes with unquestionable image because an image problem of a celebrity or hip hop artiste can be detrimental to the public relations of the brand.
- That the effectiveness of any advertising depends largely on how well the advert meets up with the needs of the target audience. This is because the audience tends to respond well to the advert that meets up with their predispositions.
- An advertiser wishing to gain a space in the market place of a particular country must strive to contract a popular artist(s) of that country to endorse his product. This will make his target audience to feel that the brand is of their nationality.

Finally, the effectiveness of using hip hop artistes in advertising has been established here yet there is a need for further studies to consolidate the findings. This study, studied only the airtel subscribers in Anambra State University, Igbariam campus and there is a need to broaden the scope of this study. The potential researchers can commence from the areas not covered in this study. Again, further researches can be conducted on the use of celebrities or hip hop artists among GSM network providers like MTN, Glo, etisalat, etc.

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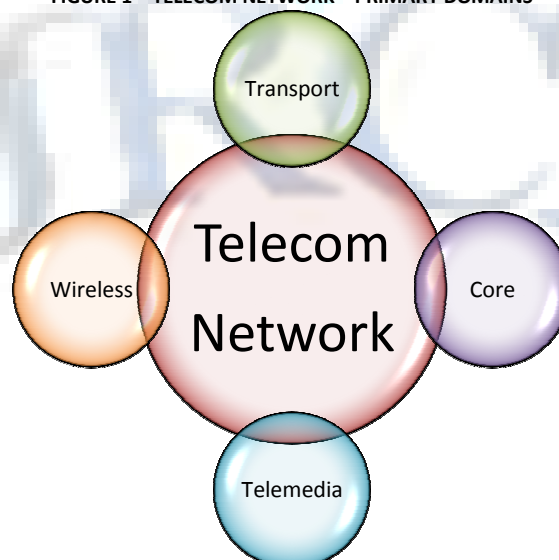
The liberalization of the telecom industry opened the doors to the state-of-the-art technologies and equipments that were deployed by the private incumbents. Major Indian telecom operators have deployed numerous cutting edge technologies like GSM, GPRS, Enhanced Data Rates for GSM Evolution (EDGE), CDMA2000 1X, Evolution for Data Only (EVDO), Universal Mobile Telecommunications System (UMTS) / High Speed Packet Access (HSPA), Long Term Evolution (LTE), WiMAX, Next Generation Network, Synchronous Digital Hierarchy, Dense Wavelength Division Multiplexing, Metro Ethernet etc on their network in order to offer a host of services ranging from basic voice telephony to video calling, gaming, m-Commerce, Internet etc. This resulted in a huge knowledge gap as the Indian educational system and industry were not ready for this intellectual influx. The Indian telecom industry, the third largest in the world, is facing a tumultuous time on account of falling revenues and non-availability of sufficiently trained technical manpower. This has been coupled with a high rate of attrition. Operators are putting efforts to make world class network. In such a scenario competency building through training has an important role to play in increasing organizational performance and hence its revenues. This paper presents a unique training model (3Ts) that can be used by telcos for meeting their current and future workforce competency requirements. This paper is based on primary research data compiled over a span of one year and attempts to unravel the co-relation between the primary variable – training, 3Ts model and its effectiveness on competency development in the telecommunication industry.

KEYWORDS

3Ts, Distance Learning, Network Learning Center, Self Learning Module, SLM.

1.0 INTRODUCTION

The Indian Telecommunications network is the third largest in the world and the second largest among the emerging economies of Asia. The telecom sector has been one of the fastest growing sectors in the Indian economy in the past 4 years. This has been witnessed due to strong competition that has brought down tariffs as well as simplification of policy environment that has promoted healthy competition among various players. The growth of the industry prompted the government to allow more players on the field. The liberal policies of the government and the extensive need for communication created a conducive business environment contributing to the growth of the industry. The number of telephone subscribers in India increased from 787.28 million in December 2010 to 846.32 million at the end of March 2011. The telecom technology has evolved significantly over the last decade with several path breaking innovations that have changed the face and architecture of the telecommunication network. The modern day telecom network is a convergence ready broadband network, spread over large geographical area through terrestrial, submarine and satellite links, with a scalable and restorable global NGN footprint, MPLS enabled CORE data network, certified MEN network (e.g. MEF forum), integrated BSS-OSS to support complex suite of services with end-to-end connectivity provided over fibre. The network is generally organized around four major domains as highlighted in the figure 1 below.

FIGURE 1 – TELECOM NETWORK – PRIMARY DOMAINS

The technologies deployed include Plesiochronous Digital Hierarchy (PDH), Synchronous Digital Hierarchy (SDH), Dense Wavelength Division Multiplexing (DWDM), Optical Transport Network (OTN), Microwave, VSAT and Optical Burst Switching (OBS) on the transport domain, 2G to 3G, GSM to UMTS, CDMA to HSD in the Wireless domain, Switching to Routing, IP to MPLS, TDM to NGN Soft Switch, Utilities, OSS and many more. The services provided includes POTS, PRI, Leased line, VoIP, HSD, Video Calling, Ethernet Leased Lines, L3-VPN, Mobile TV, Mobile broadband on 3G, etc.

The Reliance Communications (RCOM) Network group is tasked with planning, deployment, monitoring, operation and maintenance of overall telecom network. The primary network functions include Planning & Engineering, Installation & Commissioning, Provisioning & Fault Management, Operation, Maintenance, Administration & Performance (OMAP), Quality and other Support functions.

Network Learning & Development function is generally tasked with the responsibility of ensuring the readiness of the organizational manpower to quickly adapt to the technological advancements, in consonance with the business requirements while maintaining high learning standards. The Network Learning Center (NLC), an ISO 9001:2008 certified entity of a leading integrated telecom player, was established in the year 2002 with an expectation to build a world class learning facility that could support the technology training demands of the present and the future. Over the past nine years, NLC has trained & certified more than 56,000 employees through instructor led trainings as well as distance learning programs. In addition over 61,000 employees were certified using proprietary self learning methodologies. The NLC portfolio comprises of over 220 Instructor Led Training (ILT) courses and 92 Self Learning Modules (SLM) on cutting edge telecom equipment, technologies and services in the domains and functions listed in the previous section. The NLC lead trainers (Subject Matter Experts – SME) are functionally aligned to the domain experts. NLC takes responsibility in mentoring new recruits through comprehensive induction program, field & on the job training in the first year of their professional careers.

2.0 RESEARCH PROBLEM

India has more than 885 million telephone users¹. On an average more than 11.4 million mobile subscribers are added per month. Huge subscriber addition brings challenges not only from within but also from other network providers too, in maintaining good service quality. Operators deploy Operation Support System (OSS) and Business Support System (BSS) to automate processes and effectively manage telecom equipments, services & customers. These processes and managed technologies necessitate availability of competent and skilled professionals. The Indian telecom industry is facing a tumultuous time on account of falling revenues and non-availability of sufficiently trained technical manpower, which has been coupled with a high rate of attrition. In order to keep operating expenses under control, telcos deploy optimal number of professionals to manage huge networks while satisfying established Key Performance Indices (KPIs). Studies (NASSCOM-McKinsey report, 2005) have revealed that only about 25% of total engineering graduates passing out of colleges/universities are possessing skill sets relevant to the telecom industry. To compound matters, university engineering syllabus does not change very often to keep pace with technological advancements. Thus the quality of technical manpower available in telecom industry is not up to the mark and cannot handle current and future challenges of the modern day telecom network. With the advancement of technologies to speed up communication across the globe changing customer perceptions, telecom engineers are finding it hard to integrate, interwork and interoperate the network elements. Continuous network expansions, additions of millions of customers in the network, changing market dynamics, fierce competition, backend OSS & BSS process automation, demands highly professional, experienced, capable employees in telecom sector. Employee high level of engagement along with learning builds confidence and capability to address challenges & KPI effectively and efficiently. [1] Training on telecommunication technologies gives leverage to a corporate on doing strategic planning, data security, offering competitive B2B & B2C solutions, efficient network operation and management. [2]

New age training requirements cannot be fulfilled merely by conventional classroom training. A paradigm shift is required in training need identification, equipping trainers (SMEs) with sufficient skills and knowledge, course design & development and delivery. It is thus conclusively established that continuous learning and skill updation is mandatory to the various stakeholders in the telecom domain – the individuals as well as teams/organizations.

The following list summarizes the key problems:

1. A multi skilled workforce is required for efficient operations of the modern telecom networks and meeting all Key Performance Indices (KPIs).
2. Training on telecommunication technologies enables a telco in achieving better strategic planning, data security while offering competitive B2B & B2C solutions and resulting in efficient network operations and management.
3. Training requirements cannot be fulfilled merely by conventional classroom training. A paradigm shift is needed in training need identification, equipping trainers (SMEs) with sufficient skills and knowledge, course design & development and delivery.

3.0 LITERATURE SURVEY

Literature survey was undertaken to study the subject in hand. The key works that were highly pertinent to the research problem have been reproduced in this section. The study of literature validated the research solution.

BOOK [3]

NAIDU SOM, E-Learning - A Guidebook of Principles, Procedures and Practices, 2nd Revised Edition, CEMCA, 2006, Commonwealth Educational Media Center for Asia (CEMCA)

This guidebook systematically helps to approach employees' engagement with e-learning, irrespective of the educational sector or level within which it is applied. The content of this guidebook highlights issues in relation to e-learning. Besides the great deal of resources in this guidebook, its unique feature is the opportunity it offers us to "tell a story" about our experiences in relation to the issue or subject under discussion. Telling a story enables us to pause and reflect upon, and share our experiences or connect with others in a meaningful way. Various types or modalities of e-learning activity defined are:

1. *Individualized self-paced e-learning online* refers to situations where an individual learner is accessing learning resources such as course content online via an Intranet or the Internet. A typical example of this is a learner studying alone on the Internet or a local network.
2. *Individualized self-paced e-learning offline* refers to situations where an individual learner is using learning resources such as a computer-assisted learning package offline (i.e. accessing downloaded course content).
3. *Group-based e-learning synchronously* refers to situations where groups of learners are working together in real time via an Intranet or the Internet.
4. *Group-based e-learning asynchronously* refers to situations where groups of learners are working over an Intranet or the Internet where exchanges among participants occur includes on-line discussions via electronic mailing lists and text-based conferencing within learning managements systems.

This recommended e-learning practices mentioned in the book validates the NLC philosophy of blended learning. The NLC learning model is in consonance with the e-learning framework outlined in the book.

RESEARCH PAPER [4]

Deb Sagarmay, Effective Distance Learning in Developing Countries Using Mobile and Multimedia Technology, International Journal of Multimedia and Ubiquitous Engineering, Vol. 6, No. 2, April, 2011

This paper highlights the problems restricting the widespread use of e-Learning. These include the lack of proper management and infrastructure. This is despite the developments in the field of multimedia technologies and internet networks, which have contributed to immense improvements in the standard of learning as well as distance learning in the developed world.

The NLC model works around the common problems and succeeds in deploying modern technologies to deliver effective training interventions.

RESEARCH STUDY [5]

Barbara Means, et. al., Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies, Revised September 2010, U.S. Department of Education, Office of Planning, Evaluation, and Policy Development Policy and Program Studies Service

¹ TRAI Aug 2011

This paper presents the analysis of a systematic search of the research literature from 1996 through July 2008, identifying more than a thousand empirical studies of online learning. Analysts screened these studies to find those that (a) contrasted an online to a face-to-face condition, (b) measured student learning outcomes, (c) used a rigorous research design, and (d) provided adequate information to calculate an effect size. Paper addresses four research questions:

1. How does the effectiveness of online learning compare with that of face-to-face instruction?
2. Does supplementing face-to-face instruction with online instruction enhance learning?
3. What practices are associated with more effective online learning?
4. What conditions influence the effectiveness of online learning?

The self learning aspect of the NLC model is derived based on the findings of the above study. NLC incorporating the recommendations study of on-line/off-line chat sessions to improve the effectiveness of the training interventions.

4.0 3Ts LEARNING MODEL

Change appears to be the only constant in the field of information and communication technologies. Telcos are required to cope with such rapid changes in the field of transmission, data, laser and semiconductor technologies. Academics and educators need to adapt to the complex telecom technologies and processes while grappling with the effective educational delivery mechanism.

3Ts (Telecommunication, Technology and Training) Blended Learning Model (Figure 2) is a cost effective learning solution, developed by leveraging NLC's experience in delivering learning solutions for over a decade, as compared to conventional & virtual classroom techniques. It is tempered with a voluntary self learning and mandatory certification mechanism, thereby increasing its effectiveness and creating a learning organization. The model goes beyond traditional e-learning and is an amalgamation of online learning, virtual learning, distributed learning, networked or web-based learning techniques. 3Ts training model includes hands-on experience on live equipments in training labs that can be accessed locally as well as remotely over Intranet/Internet. Trainers provide online guidance and evaluation to individual participants during practical sessions. 3Ts model facilitates balances learning while developing proficiencies required in managing huge multi service global networks within specified quality levels. On an average 20900 trainee mandays were imparted during the period of 2002 to 2008. During the same period on an average more than 5800 employees were trained. The training delivery highlights from 2009 are graphically presented in the figure 3 below.

FIGURE 2 – 3Ts BLENDED LEARNING MODEL

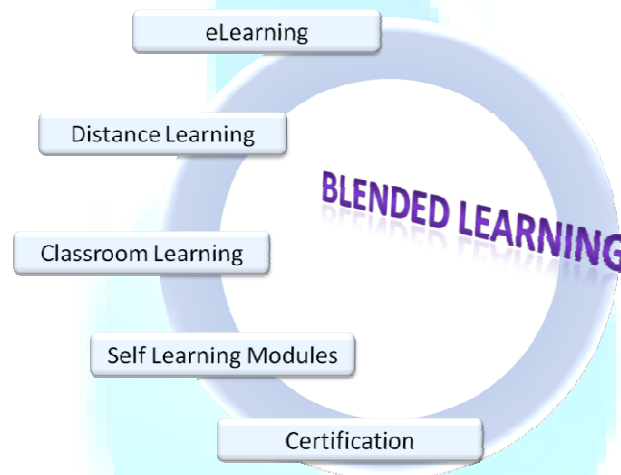


FIGURE 3 – TRAINEE MANDAYS IMPARTED BY NLC



To maintain a world class network, telecom operators must ensure the technical capabilities of its employees through suitable training interventions. There are nonstop additions of new equipments during network expansions and in the era of fast changing technology, it becomes essential to keep all employees abreast of the latest developments in their respective domains. NLC strives to fulfil this responsibility by systematically capturing training requirements and ensuring that the network employees have the required Knowledge, Skills & Attributes (KSA) essential to operate and manage network efficiently. The telecom industry requires skilled manpower and organizational learning builds them for long-term competitive advantage. Formal training helps them to relate and connect with their own learning, as they begin to form a powerful knowledge base.

SELF LEARNING MODULES

Self Learning Modules (SLMs) are learning solutions designed for participants to facilitate anywhere, anytime and on demand learning. SLMs are animated audio-video presentations that offer a flexible learning option to employees. SLM duration is typically between 30 minutes to 60 minutes and are based on generic topics ranging from technology or product overview to specialized topics including Operation & Maintenance of telecom equipments, demonstration of maintenance activities etc. An advanced version of an SLM, Interactive SLM (iSLM) offers real time experience to the learners simulating live scenarios. These modules help an employee optimizing their time spent in learning and contribute to improved productivity and operating efficiency.

SLMs were introduced in the year 2008 to provide fast track learning opportunities and 100% certification of engineers working in the field. A set of authoring tools were used to introduce required animations, relevant video clips and other documents into the presentations. Concepts and information are conveyed using simple audio visual explanation and even using vernacular languages. The benefits of these innovations were further extended to various other groups of employees of the network.

This research study indicates that the SLMs improve the understanding of core concepts while simplifying the efforts to assimilate complex topics. Self Learning provides learning control and helps them prepare for subsequent in-class discussions, improves understanding and retention. The benefit summary is as enumerated below:

1. "Must know technical know-how" is passed on as a set of procedure to follow.
2. It is available to participants before he/she attends formal training.
3. It can be referred any time after the training.
4. Fast deployment as compared to conventional classroom training, which has limited seats to accommodate at given point of time.
5. Learner gets the control over pace.
6. Interactive SLMs (iSLM) help simulate the real on-line feel of working on live telecom network elements.
7. The SLMs improves understanding and help improving network performance indices.
8. It reduces queue time (conventional classroom) for learning.

INTERACTIVE SLM (iSLM)

Online integrated interactive self learning activities designed to simulate classroom instructor lead training experience. iSLM (Interactive Self Learning Module) are a series of interactive, self-paced learning modules delivered completely online. They are a convenient, flexible and cost-effective way to train new employees, or to increase the skill levels of existing staff. It is intended for engineers working at Network Operation Center (NOC), as system operators, Network administrators, Field staff, Installation and commissioning to manage, maintain and monitor telecom network.

The acquisition of knowledge, which is the new global power, is a lifelong experience, not a collection of facts or skills. With knowledge expanding exponentially, existing technologies are becoming fast obsolete. In order to continue to gain expertise & stay ahead of competition NLC has designed iSLM. The iSLM consists of two series - Foundation and Intermediate. Each series is divided into short, objective centric and focused modules of 30 or 60 minutes each. iSLM leverages the power of multimedia technologies to overcome the limitations of time, distance and resources. iSLMs can provide convenience and control to individuals and groups at their pace enabling just-in-time solution. Integration of variety of technologies has made it possible to develop an iSLM - A highly interactive medium of pedagogy.

Engaging learners is very important for high level of information retention. A computer simulation or demo stimulates learning and interaction as in the real world while allowing participants to test their concepts prior to engaging a live network. SLMs and iSLMs enriches conventional learning interventions adding Videos, Audio clips, charts, diagrams, widgets, self assessment ensuring higher employee interaction, engagement and learning. It helps in meeting the different styles of learning basically Kinaesthetic, Auditory and Visual.

NLC measures effectiveness of SLMs through certification, which is elaborated in next section. The corporate *mantra* is Voluntary Self Learning & Mandatory Certification.

EMPLOYEE CERTIFICATION

Technology roles within the Network group require specific skill sets and qualifications. Employees acquire these skills through training when they move to the respective roles. At the end of each classroom or distance learning through audio/video conference, a validation and feedback is taken to assess the effectiveness of the program as well as evaluate the learning's of the participants. Online Certification through the administered objective questions is the preferred method to assess the acquired skills through the NLC learning model. Percentage of employees with relevant certifications is a reliable method for the capability estimation of groups. The certification increases individual & team performance as a whole, and helps in quick and reliable solutions to prevalent network operational issues.

Organizations focused on driving growth, managing complex and sophisticated telecom equipments, offering multitude of diverse technological services and solutions requires certified task-force on technology and telecom equipments. Focus on training & certification helps in improving network operation and maintenance by reducing downtime and thereby increasing network availability to its customers. This translates onto improved services quality higher network usage and hence higher revenues.

NLC has made all SLMs, course material and other reference document online. Employees are encouraged to learn and participate in Certification programs. Offering full featured distance learning methodology has eliminated the need for travel and provides work-life balance. NLC often conducts field training in areas where the network performance is poor or faults are high. A telecom network is heavily dependent on optical fibre backbone, which is often laid along main roads. In developing countries like India with a high level of infrastructure building activities, the incidence of fibre cuts are very high. This affects a multitude of services like voice, Internet, Data, IPTV, Video calls which are dependent on the optical backbone. Field engineers must be proficient in conceptual as well as practical aspects of fibre ducting, trenching and splicing techniques. Field trainings help an employee to get a real stock of the situation and learn maintenance techniques right at the site. In the month of January 2011 (an illustration), series of field trainings were conducted on fibre & utility. The effect of this training program had a highly positive co-relation with the network availability and is reproduced in the table 1 below:

TABLE 1 – CORE NETWORK AVAILABILITY

Platform	Transport-Optical	MW	RDN	DCN	Switch
Dec'10	99.998	99.753	100	100	99.999
Jan'11	99.996	99.781	100	100	99.999
Feb'11	99.998	99.766	100	100	99.9998
Mar'11	99.999	99.764	100	100	99.9997
Apr'11	99.998	99.716	100	100	99.9978
May'11	99.998	99.677	100	100	99.9829
Jun'11	99.994	99.676	100	100	99.9761
Jul'11	99.995	99.628	100	100	99.9992
Aug'11	99.995	99.678	100	100	99.9996
Sep'11	99.994	99.655	100	100	99.9999
Oct'11	99.995	99.642	100	100	99.9999
Nov'11	99.994	99.687	100	100	99.9998

5.0 RESEARCH METHODOLOGY

This section outlines the methodology adopted for this research.

5.1 RESEARCH OBJECTIVES

The broad objective of this research is to analyze the impact & effectiveness of Self Learning Modules in the telecom industry. The specific objectives include:

1. To establish the impact of SLM on Employee Competence
2. To measure the effectiveness of SLMs on telecom technology training

5.2 HYPOTHESIS

Hypothesis for this research is as below:

H1: Organizational Self Learning initiatives have a positive impact on employee competency development.

H2: Self Learning Module is an optimal solution for telcos (in terms of cost and time)

5.3 SAMPLING DESIGN

Sample data for analysis was collected from NLC database for the period 2010-2011. Over this period, NLC has logged over 13000 certifications in all four network domains. The certification drive covered over 7000 employees spread across India. The certifications held during September and October 2011 was included as a part of this study.

5.4 DATA COLLECTION

The primary data for this research is extracted from the NLC Management Information System (MIS) database. This reflects the training delivery, course development, customer feedback, employee evaluation, training needs analysis data maintained in standardized International Organization for Standardization (ISO) compliant format by the NLC. The network performance is extracted from the standardize reports collated by the operation team. The employee performance data is collected from HR MIS and SAP-HR respectively.

5.5 DATA ANALYSIS, INTERPRETATION AND HYPOTHESIS TESTING

It is observed that most of the network issues can be traced to the Fibre & Utility, Fixed Access & Transport domains. The faults in these domains have the most impact on customer satisfaction, experience and revenues. The faults also take longer to be corrected given the extent of the network size (over 1,90,000 Kms of terrestrial network). Identification of the exact location and the extent of fibre cuts is a tedious & time consuming effort. Self learning modules and certification help the employees to build understanding on best practices of optical fibre ducting, trenching, splicing etc. The SLMs on utilities including power supplies, batteries, ACs and DG sets help in efficient utility management at telephone equipment convergence sites.

TABLE 2 – NETWORK BACKBONE OPTICAL FIBER RING AVAILABILITY DURING SEP - NOV 2011

Month	Outage (Nos)	Availability (%)	Outage (Hrs)
Sep-11	32	97.94	134
Oct-11	27	98.77	82
Nov-11	28	98.93	69

FIGURE 4 – BACKBONE RING PERFORMANCE (OCT-NOV 2011)

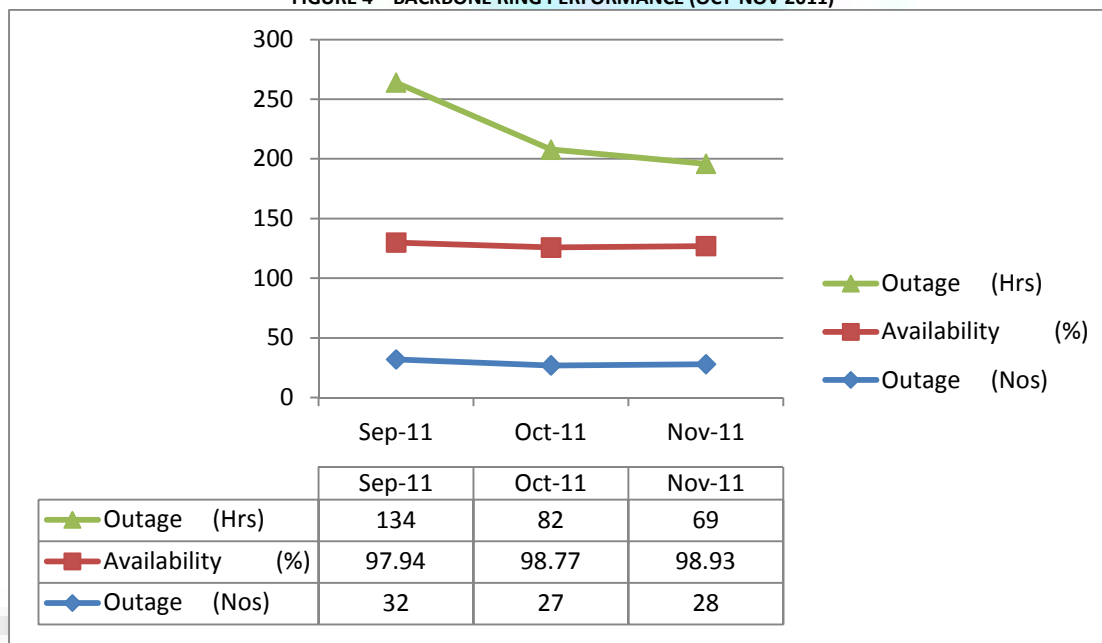


Table 1 & 2 depicts the sustained level of backbone network and optical ring availability over a period of three months. Though fibre cut is mostly because of external factors, the skill sets developed through trainings and SLM helps constructively reduce the mean time to repair faults (MTTR) and reduce splicing losses. This is evident from a cursory look at the statistics provided in the figure 4 above.

TABLE 3 – ALL INDIA CERTIFICATION DURING SEP/OCT 2011

Circle (All India)	Domain (Certification count)				Total Employee Count		
	Fixed Access	Fiber & Utility	Transport	Grand Total	Fixed Access	Fiber & Utility	Transport
00-NHQ	516	156	493	1165	189	211	211
01-AP	699	617	463	1779	147	473	473
02.1-BH	2	181	55	238	16	210	210
02.2-JH	2	11	5	18	1	85	85
03.1-GJ	209	643	278	1130	139	315	315
03.2-RJ	79	109	66	254	58	300	300
04-KN	152	268	187	607	127	335	335
05.2-MU	112	177	20	309	191	193	193
06.1-MP	98	272	92	462	75	364	364
06.2-CG	2	212	62	276	2	125	125
06.3-OR	53	196	16	265	19	207	207
07.1-PB	236	147	114	497	89	219	219
07.2-HR-HP	2	60	53	115	4	178	178
07.3-JK	7	30	10	40	1	66	66
08.1-KL	223	235	200	658	89	214	214
08.2-TN	268	340	272	880	152	358	358
09.1-UPE	87	24	21	132	74	329	329
09.2-UPW	21	130	94	245	11	258	258
10.1-WB	60	194	178	432	8	211	211
10.2-KOL	82	114	104	300	103	176	176
10.3-AS-NE	0	106	14	120	0	150	150
11-DL	116	127	36	279	207	224	224
12-MHG	208	393	157	758	125	443	443
Others	91	283	156	530	0	0	0
Grand Total	3318	5025	3146	11489	1827	5644	5644

The pan-India SLM certification data during the period Sep/Oct 2011 on Wireless, Fixed Access, Transport Network and Data Networks is presented in the table 3 above. In over 45 days of certification camp held in two phases, 1827 Fixed Access employees have completed 3318 certification exams, 5644 employees of Fibre & Utility and Transport have completed 5025 and 3146 certifications respectively. The large number of SLM based technology certifications had an important bearing on the employee competency development and network availability and performance.

The summary of the cost benefit analysis of conventional as well as the 3T training model is provided in the table 4 below. The table highlighting the detailed breakup of the costs is included within the appendix.

TABLE 4 – COST EFFECTIVENESS OF SLM BASED CERTIFICATION

S.N	Parameters	Training Mode	
		Classroom	Self Learning
1	Employees to Train	13587	13587
2	Per Employee Certification Cost (INR)	1895	178
3	Total Certification Time (Days)	6123	45
4	Total Cost (INR)	19303300	300000

The key inferences of this research study are as follows;

1. The certification cost per employee using the 3T model is Rs. 178 as compared to Rs 1895 by conventional method.
2. Time required to build workforce competencies through the 3T model of learning is only 45 days for against 6123 days for classroom training.
3. The Anova of the network performance data (Table 2) resulted in a p factor of 0.008. The hypothesis H2 thus stands proved.
4. The Anova of the certification data P Value is less than 0.05, hence hypothesis H2 stands accepted.

7.0 KEY FINDINGS

1. Telecom operators require multi-skilled manpower to manage & operate complex networks. Skill development is time bound and has limited shelf life these days.
2. Timely certification of all concerned team members across all geographies improves organization competency & productivity.
3. SLM and E-Learning are cost-effective ways to deliver telecom training to the employees.
4. SLM based learning drastically reduces training delivery time & cost as compared to conventional training.
5. iSLM helps employees master complex skills requiring a high level of psycho-motor skills.
6. SLM based learning creates better work-life balance and adopts adult learning techniques.
7. There are no disruption to operation & maintenance on account of training nominations, with the use of the prescribed 3Ts method of learning.
8. Higher commitment to learning is accomplished through certification.
9. Flexi place, time for learning is inbuilt in the learning methodologies.
10. Continuous training and retraining is possible through this method.

8.0 SCOPE FOR FURTHER STUDY

1. Effectiveness of 3Ts method of training through SLM can be measured and validated via online chat for resolving technical queries.
2. Research on ROI for 3Ts method of training through SLM can be measured with respect to telecom network performance & employee performance.

9.0 CONCLUSION

1. The study conclusively establishes the positive impact & effectiveness of Self Learning Modules in the technology intensive telecom domain. The use of self learning modules has a significant impact on building of employee competence.
2. 3Ts method of learning optimally manages cost of learning and certification for ROI.
3. SLM/iSLM certifications through 3Ts model of learning resulted in enhanced employee competence & network operational efficiency & productivity.

10.0 THEORETICAL, PRACTICAL IMPLICATIONS & LIMITATIONS OF THE STUDY

3Ts Blended learning model is designed to provide telcom engineers a holistic learning framework and helps in reducing technology knowledge gaps while resulting in improved customer satisfaction, increased revenue, reduced subscriber churn and improved network availability and service quality. Network Learning Center (NLC) has applied it in grooming fresh engineers, right from their induction. 3Ts blended learning programs for fresh graduates at NLC covers 360 degrees of learning, including classroom training, SLM, Certification, mentoring, coaching, on-the-job training, field visits, presentations, soft skill, job rotation etc. NLC offers many aspects of learning, such as building awareness to various compliances, Self Learning & Certification program etc. The validity of this model is to be empirically validated across multiple organizations within the industry and can form the basis of similar models straddling the entire service industry value chain.

The efficiency of this model has been tested for trainings suitable to the fresh recruits and frontline operational staff. The model has to be tested for efficacy of learning delivery across all organizational roles including leadership and middle management. The model should also encompass behavioural and soft skill training programmes.

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APPENDIX

TABLE 5 – COST ANALYSIS OF CLASSROOM BASED TRAINING AND CERTIFICATION

Cost Analysis - Classroom Training									
Domain	Courses	Employees Eligible for Certification (A)	Course Duration (Days/Subdomain) (B)	Total Training Days per Domain (C)	Average Batch Size (D)	Total Batches Required (E=A/D)	Time Required (Days) (F=C*E)	Training Cost (INR)	Participant Travel Cost (INR)
Fixed Access	FA Telemedia - Wireline, Wireless & Data	1827	5	15	16	114	1713	500000	6508688
Transport	NEC-SDH- PDH MMW, SDH Basics	5880	3	9	16	368	3308	2756250	9922500
Fiber & Utility	Fiber Splicing, OTDR & Utility	5880	1	3	16	368	1103	2756250	3307500
								TOTAL COST	
								2,57,51,188	
								TIME REQUIRED (Days)	
								1895	
								CERTIFICATION COST PER EMPLOYEE	

TABLE 6 – COST ANALYSIS OF SLM BASED TRAINING AND CERTIFICATION

Cost Analysis - Self Learning										
Domain	Courses	Employees Eligible for Certification (A)	SLM Duration (hours) (B)	Total Training Days per Domain (C)	Average Batch Size (D)	Total Batches Required (E=A/D)	Time Required for Certification (Days)	SLM Development Cost (INR)	Participant SLM Attending Cost	Total Certification Cost
Fixed Access	FA Telemedia - Wireline, Wireless & Data	1827	3	NA	NA	NA	30	100000	285469	385469
	Transport	NEC-SDH- PDH MW, SDH Basics	4	NA	NA	NA	30	100000	918750	1018750
Fiber & Utility	Fiber Splicing, OTDR & Utility	5880	2	NA	NA	NA	30	100000	918750	1018750
		CERTIFICATION COST PER EMPLOYEE		178		TIME REQUIRED (Days)	45		TOTAL COST	24,22,969

TABLE 7 – NETWORK BACKBONE RING AVAILABILITY

INDEX	RING	Network Backbone Ring Availability										Ring Description
		Outage (Nos)	Outage (Hrs)	Availability Sep-11	Outage (Nos)	Outage (Hrs)	Availability Oct-11	Outage (Nos)	Outage (Hrs)	Availability Nov-11		
	RR1-1-1	0	0:03:00	100.00	2	3:50:00	99.43	1	0:00:00	99.98	Delt-Japur-Agra-Dehi	
	RR1-1-2	5	4:05:56	99.04	2	3:39:40	99.50	5	4:05:56	97.37	Agra-Japur-Ahmedabad-More-Etawah-Agra	
	RR1-2-1	5	3:15:53	95.68	5	5:47:48	97.63	2	2:27:43	99.66	Ahmedabad-More-Dhule-Surat-Ahmedabad	
	RR1-2-2	1	0:02:00	100.00	0	0:00:00	100.00	9	4:13:03	97.69	Bhuj-Hajapur-Dhule-More-Etawah	
	RR1-2-3W	1	0:05:39	99.99	4	3:34:09	98.15	2	3:26:33	98.63	Mumbai-Surat-Dhule-More	
	RR1-2-3C	2	3:31:54	99.51	2	7:25:50	99.00	1	2:27:15	99.66	Mumbai-Surat (Coastal)-Dhule-More	
	RR1-2-3M&C	0	0:01:00	100.00	0	0:00:00	100.00	2	3:30:43	99.51	Mumbai-Surat (Coastal) and Mumbai-Surat-Main-Dhule-More	
	RR1-3-1	2	2:13:17	99.88	4	2:25:05	98.53	3	4:02:42	98.49	Mumbai-Pune-Dhule-Mumbai	
	RR1-3-2	15	30:40:42	88.82	8	20:50:32	97.20	3	7:15:13	98.99	Pune-Dhule-Hajapur-Hydrabad-Pune	
		32	135:51:23	97.94	27	82:10:08	98.77	28	69:19:10	98.93		

TABLE 8 – ANOVA - NETWORK PERFORMANCE

Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Outage (Nos)	3	87	29	7		
Availability (%)	3	295.64	98.54667	0.282433		
Outage (Hrs)	3	285	95	1183		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	9205.318	2	4602.659	11.60059	0.008675	5.143253
Within Groups	2380.565	6	396.7608			
Total	11585.88	8				

TABLE 9 – DESCRIPTIVE STATISTICS OF CERTIFICATION DATA

	Fixed Access	Fiber& Utility	Transport
Mean	138.5416667	209.375	131.0833
Standard Error	34.39007794	32.92970183	27.24672
Median	89	179	93
Mode	2	#N/A	#N/A
Standard Deviation	168.4762863	161.3219337	133.4811
Sample Variance	28384.25906	26024.7663	17817.21
Kurtosis	5.102388102	2.327527482	2.171422
Skewness	2.138676239	1.477333337	1.564548
Range	699	632	488
Minimum	0	11	5
Maximum	699	643	493
Sum	3325	5025	3146
Count	24	24	24
Largest(1)	699	643	493
Smallest(1)	0	11	5
Confidence Level (95.0%)	71.14129605	68.12027791	56.36413

TABLE 10 – ANOVA – 3T VS CONVENTIONAL MODEL

Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Classroom	3	6122.813	2040.938	1296256		
SLM Certification	3	90	30	0		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	6065804	1	6065804	9.358962	0.037686	7.708647
Within Groups	2592512	4	648127.9			
Total	8658316	5				

FUTURE CHALLENGES OF HRM IN CORPORATIONS OF U.K. IN THE GLOBAL VILLAGE CONTEXT**DR. S. P. RATH****PROFESSOR - MANAGEMENT STUDIES****INSTITUTE OF HOTEL MANAGEMENT****(UNIVERSITY OF HUDDERSFIELD, U. K.)****TAJ HOTLS, RESORTS & PALACES (IHCL) – A TATA ENTERPRISE****AURANGABAD****DR. BISWAJIT DAS****PROFESSOR – MARKETING & COMMUNICATION AREA****CHAIR PERSON DOCTORAL COMMITTEE****KIIT SCHOOL OF MANAGEMENT****KIIT UNIVERSITY****BHUBANESWAR****SATISH JAYARAM****PRINCIPAL****INSTITUTE OF HOTEL MANAGEMENT,****(UNIVERSITY OF HUDDERSFIELD, U.K.)****TAJ HOTELS, RESORTS & PALACES (IHCL) – A TATA ENTERPRISE****AURANGABAD****SAMEER DIWANJI****ASSOCIATE PROFESSOR – HOTEL MANAGEMENT****INSTITUTE OF HOTEL MANAGEMENT****(UNIVERSITY OF HUDDERSFIELD, U.K.)****TAJ HOTELS, RESORTS & PALACES (IHCL) – A TATA ENTERPRISE****AURANGABAD****ABSTRACT**

Human Resource Management starting from the East India Company of U.K. days has challenges to face. Corporate challenges were under control for some time in the late 19th century for the HR professionals. The beginning phase of 21st century has brought many dynamic challenges for the corporate houses globally and for the developed world in particular where the life ratings are high. U.K. is such an example of the developed world which in return has enormous dynamic changes adherences. Time is changing with several factors to influence the decision making in the corporate world. Reforms are no more processes rather demands of the time in business with transformational trends which are the reformation of the existing provisions in the firms of any technology. Gone are those days of technology supremacy of the business world with availability of alternatives and indigenous price sensitive options in any part of the developed world. Trade is no more a big challenge rather the manpower is, at a stage the transformation is moving at a fast pace towards global village with partnerships from the developing and the underdeveloped world. Knowledge and knowledge providers have the edge over the current competitions in the corporate business sectors. U.K. has the deficiency of management of knowledge in the specialised industrial platforms. Role of HR in organising this portfolio is and will be a big challenge in the industrial ecosystem and the business environment. HR functions of the firms are heavily dependent on the HR consulting firms for strategic decision making and knowledge management of the ecosystem. Future packed challenges has the possibility of examination of time framed studies rather the focus of long run studies. A decade do stands substantially as the focal points of preparing and facing the HRM challenges in the business environment of U.K., a developed world.

KEYWORDS

Transformational Reformation, Industrial Eco-System, Global Village, Knowledge Management, HR Challenges.

INTRODUCTION

Human Resource Management (HRM) standing in the management of change is vital with constraints. Dynamism as game has been taken out normally by other streams and divisions of management in any corporate change. Changes world over has happened with emphasis to the quality, productivity, strategy and marketing at large as the business history is concerned for the last thirty years. HRM has its normal terms or the process itself redefines its strategy to be treated as prime functioning in the current decade. Technology is redefining the status of business; especially the communication is the prime pipeline of change process. CRM, e business, out sourcing, social networking, network marketing etc. are bringing new dimensional changes to the concepts of business worldwide. Optimisation of profitability, professional developing trends, quality enhancement with flexibility in work culture has added the new thought and strategic processes to the HRM functioning. In the phases of challenges HR globally will have the marking challenges in the developed world. U.K. being the pioneer of the global language of trade and a part of the Western Europe is more susceptible to these dynamic challenges. Functional practices of HR in future will be of more of technology and scores by quantification as the world of management moves further. Being a developed country, U.K. has syndromes of high per-capita income, lowering exports, heavy dependence on out sourcing, missing professionalism in the growth processes, banking heavily on international trading, heightening knowledge export, and other factorial influence on the manpower. Futures of the U.K. organisations are power packed with challenges in the very short run of time.

RESEARCH OBJECTIVES

HR management is subject to dynamic changes. Changes as compulsions are immediate. Preparedness for changes through futuristic projections by research and analysis has been a part of the HR strategies. This attempts to contextualise the futuristic HR challenges of the next decade as the prime objective. The study aims to project the factual challenges for HR in U.K. companies for the next decade in the growing business scenario of Global Village.

METHODOLOGY & APPROACH

As part of the developmental study literature review and analysis through qualitative approaches are used in the research. Dependence on the secondary sources of authorised agencies involved in HR research in Europe are at large used for qualitative propositions and derived conclusions. HR service agencies projections of facts as future challenges are qualitatively analysed. Comparative study methods are used for deriving critique of the article in projecting future challenges for the next decade in the corporate world of U.K.

FUTURE CHALLENGES

The dynamics of social change are in a flux. The crux of the new order of business will shape the present organizations in a new model, with a taste for freedom; enabling a style of workers with a different kind of management. In the days later; life style models of employees shall be given autonomy by the bosses of the future years. Employees working in an organization will have abundant freedom to exercise their decisions with respect to the task allocated for the time of execution. Employees in the UK based organizations will have enormous freedom to elect their choice of engagement and working with a company of preference. It shall be an organization where the British business player cannot ransom of a captive time period and the employees will be connected by virtue of the internet as free lancers operating from their home. Future employees in different organizations will be operating from a place wherever they are responding to the time schedule and catering to the assignment bestowed. The level of accuracy in the character of performing employees shall enhance with freedom. They can ply wherever they want and can earn money along with their interest in work. Symbiotically developing with the efforts and accuracy being with the family wherever they are.

Proliferation of information highways and networking of people in the levels of organizational pyramid have been initiating landmark inventions in the fast decade of the 20th century. Scope to connectivity of people of places already happen and will accelerate in future years. The scenario will arguably develop a collaboration of economic elevation and technological proliferation. It shall bring forth a magic convergence of all the stakeholders involved in the business processes for earn in their livelihood and shall rapidly curtail the cost of communication. A business democracy shall prevail enabling a Midas change in business organization. It shall be profound and fragrant a make shift where responsibility and accountability and remuneration shall go hand in hand. Market democracy shall earn a respect for potential players and melt the stiffness of Government mechanism. All the organization shall become flat wherein economic empowerment and efficiency of manpower shall become reciprocal and go hand in hand. It should & shall create an atmosphere filled with freedom, flexibility and accuracy.

THE SCENARIO OF THE TIMES

British business houses of the future shall have to be proactive and futuristic in its outlook. The hallmark of the latest compelling models adapting to the best practices of HR in British business houses and UK organizations has to be designed with acumen. If we outline the current provisions of the UK organizations vividly, we see that the processes and people are market driven and hi-tech in their approach. The present structure of organizations at Britain shall get decentralized to the utmost and the organizational structures will have a cohesive and elastic hierarchy. They shall be democratic performers who shall be dependent on the external markets outsourcing the responsibility to be executed. Yet organizational market potential shall be optimally utilized and horned. The inter-process of dependency prevalent in the present modes of administration and governance shall be revisited with an efficient touch. The lethargic ways of working methods of the current times shall have huge changes in the future course. The multi pronged inefficient handling of resources shall immensely change. HR professionals of different organizations instrumental screening people to absorb them adopt inaccurate methods which will find place to certain matrix.

TRANSFORMATIONAL REFORMATION OF EXISTING PROVISIONS

The newness existing in the British HR principles shall be prepared as monomaniac principles in the future years. Its accusation shall be due to the auto critic modus operandi of team leaders/ heads/ management representatives of different organizations. The existing framework of operation with the passage of time shall fail to leverage business; until not substituted by a new model of approach to human resource mobilization.

Human capital can make an organization intelligent and performing overcoming the cataclysmic change. Changes are inevitable as the prospect to business of the organization diversify. Companies widen through the sectors of industry and industries extend out to companies a new in a separate industry. The petals of HR professionals of organization have to be flexible and agile for the fragile environment.

Inevitable recourse to decentralization of HR organizational structures shall lead to a self-empowered hierarchy let loosed from a command control. Democratic empowerment shall be bestowed on performing professionals, working in the organizations with accuracy. Outsourcing of management potentials shall be exploited with a commitment to responsible deliberic process, making the external provider a partner in the supply chain process. The internal marketing momentum shall enable technology to steer the business activities in a Rader point. It shall enable technology sniffing business with a surveillance plan of action. Technology shall manoeuvre the human resource synergy to execute the job efficiently and effectively by virtue of a value system which is utterly human and enforced.

The previous model of British business organization believe in command, control management shall become archaic, history and think of the past in the domain of management. It shall harbinger a group of innovative skill sets novel to the propensity of business. It shall endeavour to succeed the previous business model of operation being succeeded by coordination and cultivation. Prof. C. K. Prahalad's books named 'The fortune at the bottom of the pyramid' and 'Co-Branding' shall have an amplified relevance to the business interpretations. However, in order to look into the moment of need for reforming human resource capabilities the company has to understand the nick of the moment when it is essential to decentralise. A proper assessment evaluation and monitoring of the human resource with respect to the inevitable avalanche of challenges is important. It is to ascertain the quality of manpower essential for manning the organizational structure for making the organization self-sufficient and to succinctly effective and aptly operative.

Science and Technology has become a greatest pillar of problems for managing human resource rightly. It offers multiple choices for enabling performing individuals to work in a friendly environment and amicably deliver the job with a creative touch. It will create a world of abundant richness and happier a world wherein people shall have plenty of liberty to exercise their efficiency devoid of licentiousness to pervert the organization.

INDUSTRIAL ECOSYSTEM

External outsourcing with the melting of hierarchical corporation by virtue of technical changes shall create seamless network for industrial ecosystem to prevail. This talk down organizational model of the previous century shall be replaced by an amicable organization where responsibility, accountability bonhomie has equitable share. Advent of technological high-tech frontiers in management information system shall result in the invention of hi-tech organizations. What is important is to study what is changing and the results of change. New business strategies in a competing demand based economy have goals which are unique and initiative based. The future organization shall subject to a tectonic plate shift and shall be redefined, revisited and reconfigured. In aggregate it will have propound impact on the lives and perspective of employees who shall be interdependent with the firm's business. The changing landscape of UK organizations shall emerge with a technical landscape.

LEADING HR CONSULTING FIRMS

The HR consulting firms navigating right business leaders to maximize human resource capabilities are important. These consulting firms are screening right professionals for the right place. They are namely McKinsey, Logica CMG, IBM, EDS, Deloitte, Booz Allen Hamilton, Atos Origin, Accenture, Bain and Company and Bearing Point. These are ten best companies of United Kingdom cater to the best of the business houses the best of the professionals to enable the systems forge ahead in the expected direction. The persons deployed being recruited have accountable responsibility and immense capabilities to multiply profits for the organization. The image of the HR organization is dependent on the kind profits the person employed delivers to the organization. It is a mutually complementing process between the professional and the HR consulting firm and is importantly a reference for other companies.

Future of British business shall want multitasking professionals operating in a hi-fi sophisticated chamber. The amenities equipped in the office-cum-recreation chamber shall be relaxed environment to ponder and ventilate new ideas befitting to the organizational need. Perfecting a matchless contribution to the organizational requirement shall profile the professional as an iconic professional of future years.

Like the consortiums of British companies operating in an industry specific combined together for mutual profits and shared values; HR organizations shall combined together for meeting each other requirement. A fluid state of reciprocal atmosphere shall be prevailing to help each other for the profit of the HR organization and the business house.

GLOBAL VILLAGE

Information highways and media access to un-trodden pockets of civilization is an invasion of market potential. It can create awareness among the people creating a future business for the segment a decade ahead. With this spurt of technological development and information management, the world is melting into in multiple ways corroborating all aspects of knowledge. In the age of globalization, on the eve of liberalization new concepts of business activities are brewing into the transaction process. Some are denoted to be transparently visible and certain other aspects are fuzzy. In a point of time this fuzzy pockets of knowledge shall be eradicated through the light of technological intervention and awakening.

KNOWLEDGE MANAGEMENT

In the knowledge management field, future is not known without retrieving into the depth of the subject. Reinforced focus on the posterity can be adjudged based on the analysis of the historic data available with the HR organizations and British firms. UK organizations have to become dependent on the knowledge base of employees of training the employees periodically for elevating their status of knowledge matching to the requirements. Knowledge savvy persons become matching to the technological inventions and upgradation of tools and techniques which is essential. Knowledge is the key to successful implementation of updated versions of technological gadgets prescribed by the R & D laboratories. British consortiums shall adhere to certain new knowledge for catapulting the growth of business in consonance to requirements. In order to grow out beating competition business organizations have to look beyond the horizon and ten years from hence in the age of technology is critical for the organization to foresee. Hundred years of non-scientific discoveries and inventions have never revealed so much as has been made with the invention of internet by virtue of the technological innovations. Technology is changing the lives of people for a cataclysmic shift into a transformational state. Lifestyle is getting shifted from the past and is becoming critical to the kind human emotions been. Yet organizations are striding and galloping at a space unconventionally noted in the yesteryears.

FUTURE FOCUS OF HR CONSULTANCY

The future focus of HR consultancy firms has to be based on the forward looking view points of the companies requirements. Britain is having a traditional age old style of functioning from the days of colonial days. Elegance of British business houses reflects the aristocracy of British culture. Cultural assimilation by virtue of the migration of people from different continent and country has made the country cosmopolitan. In a cosmopolitan environment British organizations have people from cross-cultural background and sub-cultures assuming positions of responsibility for deciding on behalf of the organization. They have become global citizens acclimatized with the knowledge of the hour; required for the people to operate in a strange and peculiar environment.

Executives of future organizations have to operate like the soldiers who can fight in the odd situations and unaccustomed environment. If all the organizations have to fight with each other for maintaining the existing equity even; they have to see beyond and focus on the future path of progress. Progress ahead of now ten years from hence will be quite advanced and will be monitored by the GPS through satellite control system. Webcams shall be fitted in the walls looking natural and shall contribute to the streamlining of the processes for making things run in an orderly manner.

CONCLUSION

Future belongs to the techno minds of HR organizations to feedback professionals to the advanced business organizations of Britain. The professionals of the future shall be technologically driven minds with multitasking agility and focus. Internet being the great communicator, linking people across the globe, across different languages, across sub-cultures in the utmost region of the globe. It can communicate and convert people to global citizens and can generate profit by doing a business of tourism; could be. The future of communication network shall be vibrant and effective and shall be mobile think pads of people with sensors capable of reading the thought waves. The executives can think and express a decision through the modes of communication and the employee can accountably respond back as per the expectation of the corporate.

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PROS AND CONS OF BRAND IMAGE BUILDING THROUGH NON MASS MEDIA: A CONCEPTUAL FRAMEWORK WITH SPECIAL REFERENCE TO ORGANISED RETAIL IN INDIA

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ABSTRACT

*In India an increasing number of people are turning to the services sector for employment due to the relative low compensation offered by the traditional agriculture and manufacturing sectors. The organized retail market is growing at 35 percent annually while growth of unorganized retail sector is pegged at 6 percent. The Retail Business in India is currently at the point of inflection. It is a huge industry in terms of size and according to Management Consulting firm Technopak Advisors Pvt. Ltd., and it is valued at about US \$ 350 billion. Organised retail is expected to garner about 16-18 percent of the total retail market (US \$ 65-75 billion) in the next 5 years. India has topped the A.T. Kearney's annual **Global Retail Development Index (GRDI)** for the third consecutive year, maintaining its position as the most attractive market for retail investment. The rapid growth in organised retail created intensified competition among retailers of Organised Vs Un-Organised retail malls in India. Generally, such products or services require a strong establishment of a brand or company name through an effective promotional tool which could also be economic to win the race of competition. The present study encompasses with creation and essential development of brand image for Organised retail through non mass media, Which is very cost effective.*

KEYWORDS

Brand Image, Mass Media, Non- Mass Media, Organised Retail.

INTRODUCTION

In India an increasing number of people are turning to the services sector for employment due to the relative low compensation offered by the traditional agriculture and manufacturing sectors. The organized retail market is growing at 35 percent annually while growth of unorganized retail sector is pegged at 6 percent. The Retail Business in India is currently at the point of inflection. It is a huge industry in terms of size and according to management consulting firm Technopak Advisors Pvt. Ltd., and it is valued at about US \$ 350 billion. Organised retail is expected to garner about 16-18 percent of the total retail market (US \$ 65-75 billion) in the next 5 years. India has topped the A.T. Kearney's annual **Global Retail Development Index (GRDI)** for the third consecutive year, maintaining its position as the most attractive market for retail investment.

TABLE 1: CONSUMPTION SPENDING IN INDIA

Segment	% contribution
Food	62.0
Fashion	9.5
Leisure and entertainment	7.9
Fashion accessories	5.5
Consumer durables	4.0
Health, beauty and pharma	3.8
Furniture	3.4
Telecom	1.8
Books and Music	1.1
Others	1.0
Source: Pantaloon Retail 2011 analyst report	

According to the **BMI India Retail report** for the third quarter of 2011The total retail sales in India will grow from US\$ 395.96 billion in 2011-2012 to US\$ 785.12 billion by 2015. Robust economic growth, high disposable income with the end-consumer and the rapid construction of organised retail infrastructure are key factors behind the forecast growth. Along with the expansion in middle and upper class consumer base, the report identifies potential in India's tier-II and tier-III cities as well. The greater availability of personal credit and a growing vehicle population providing improved mobility also contribute to a trend towards annual retail sales growth of 12.2 per cent. Indian retail sector accounts for 22 per cent of the country's gross domestic product (GDP) and contributes to 8 per cent of the total employment. (**BMI India Retail Report Q4 2011, Business Monitor International August 4, 2011, 71 Pages - Pub ID: BMI6485920**)

BRAND IMAGE

Brand image is the current view of the customers about a brand. It can be defined as a unique bundle of associations within the minds of target customers. It signifies what the brand presently stands for. **It is a set of beliefs held about a specific brand.** In short, it is nothing but the consumers' perception about the product. It is the manner in which a specific brand is positioned in the market. Brand image conveys emotional value and not just a mental image. Brand image is nothing but an organization's character. It is an accumulation of contact and observation by people external to an organization. It should highlight an organization's mission and vision to all. The main elements of positive brand image are unique logo reflecting organization's image, slogan describing organization's business in brief and brand identifier supporting the key values.

Brand image is the overall impression in consumers' mind that is formed from all sources. Consumers develop various associations with the brand. Based on these associations, they form brand image. An image is formed about the brand on the basis of subjective perceptions of associations bundle that the consumers have about the brand. The idea behind brand image is that the consumer is not purchasing just the product/service but also the image associated with that

product/service. Brand images should be positive, unique and instant. Brand images can be strengthened using brand communications like advertising, packaging, word of mouth publicity, other promotional tools, etc.

Brand image develops and conveys the product's character in a unique manner different from its competitor's image. The brand image consists of various associations in consumers' mind - attributes, benefits and attributes. Brand attributes are the functional and mental connections with the brand that the customers have. They can be specific or conceptual. Benefits are the rationale for the purchase decision. There are three types of benefits:

Functional benefits - what do you do better (than others),

Emotional Benefits - how do you make me feel better (than others), and

Rational Benefits/Support - why do I believe you (more than others). Brand attributes are consumers overall assessment of a brand.

"Brand image" is the customer's net extract from the brand. Brand image has not to be created, but is automatically formed. The brand image includes products' appeal, ease of use, functionality, fame, and overall value. Brand image is actually brand content. When the consumers purchase the product, they are also purchasing its image. Brand image is the objective and mental feedback of the consumers when they purchase a product. Positive brand image is exceeding the customers' expectations. Positive brand image enhances the goodwill and brand value of an organization. In many markets, brands of different strength compete against each other. At the top level are *national* or *international* brands. A large investment has usually been put into extensive brand building—including advertising, distribution and, if needed, infrastructure support. Although some national brands are better regarded than others—e.g., Dell has a better reputation than e-Machines—the national brands usually sell at higher prices than *regional* and *store* brands. Regional brands, as the name suggests, are typically sold only in one area. In some cases, regional distribution is all that firms can initially accomplish with the investment capital and other resources that they have. This means that advertising is usually done at the regional level. This limits the advertising opportunities and thus the effect of advertising.

BUILDING A BRAND

At times, organizations are often inspired by a variety of ideas to create products and services which can be offered locally or globally. Generally, such products or services require the establishment of a brand or company name. Often these brands include both logo and lettering and can do a long way in advertising such products or services. Therefore, one of the most important steps in building a Brand is decide upon a brand name for the product or service one wishes to sell.

Branding is a process that allows an individual or a group of individuals the ability to provide a brand image and lettering to an idea. Upon doing so, one has a better chance of selling such items to a broader audience whether that be on a local or global level. Therefore, while the old adage "nothing happens until somebody sells something," still stands true to some extent, at times almost seems as if the process of advertising and branding has overtaken the desire to sell. Although branding generally identifies the company and philosophies behind same, it can also be representative of those working for such a company. This is a good thing as it generates the right type of audience to the product or service being sold based on personal relationships with those running the company.

A very important step in marketing a brand is to **identify the target audience** before creating the logo and lettering in relation to marketing. This is because different age groups react differently to a variety of logo and lettering especially as so much is misrepresented by a variety of gangs and others using such material inappropriately. Therefore, if one can define the brand name, logo and lettering and present same to a marketing research review panel or the like, one may be able to gain a better understanding of which audience one needs to direct their product or service to in order to create the most sales. Still, if one can communicate the use of their product or service clearly, **establish trust within the community**, be that locally or globally, aim marketing at the right audience, build a base of buyers and customer loyalty and offer great customer service, then one is on their way to not only **creating and advertising an excellent brand** but selling one as well. Therefore, when looking for steps in building a brand, there are many steps which one can complete to help make the creation of such brand an easier task. These include, knowing your audience, building your brand, finding a great logo and lettering to represent same, targeting the appropriate audience and placing a number of ads in as many online and offline advertising venues one can find. For, after doing so, one may just find that they are selling even more products and services than one had ever dreamed possible.

MASS MEDIA

Mass media refers collectively to all media technologies which are intended to reach a large audience via mass communication. Broadcast media (also known as electronic media) transmit their information electronically and comprise of television, film and radio, movies, CDs, DVDs and some other gadgets like cameras or video consoles. Alternatively, print media uses a physical object as a means of sending their information, such as a newspaper, magazines, brochures, newsletters, books, leaflets and pamphlets. Photography can also be included under this subheading as it is a medium which communicated through visual representations. The term also refers to the organizations which control these technologies, such as television stations or publishing companies. Mobile phones, computers and Internet are sometimes referred to as New-age Media. Internet media is able to achieve mass media status in its own right, due to the many mass media services it provides, such as email, websites, blogging, Internet and TV.

Outdoor media is a form of mass media which comprises billboards, signs, placards placed inside and outside of commercial buildings/objects like shops/buses, flying billboards (signs in tow of airplanes), blimps, and skywriting. Public speaking and event organising can also be considered as a form of mass media. Until recent time, mass media was clearly defined and consisted of eight mass media industries: books, newspapers, magazines, recordings, radio, movies, television and the internet. With the explosion of digital communication technology in the late 20th and early 21st centuries, the question of what forms of media should be classified as "mass Media" has become more prominent. For example, it is controversial whether to include cell phones, video games and computer games (such as MMORPGs) in the definition. Currently, mass media is classified into the "seven mass media":

- ✓ PRINT
- ✓ RECORDINGS
- ✓ CINEMA
- ✓ RADIO
- ✓ TELEVISION
- ✓ INTERNET
- ✓ MOBILE PHONES

While a telephone is a two way communication device, mass media refers to medium which can communicate a message to a large group, often simultaneously. However, modern cell phones are no longer a single use device. Most cell phones are equipped with internet access and capable of connecting to the web which itself a mass medium.

CHALLENGES IN MASS MEDIA

One major criticism of the mass media is that it can be too topical. A mass media is often forced to cover national and international news due to it having to cater for and be relevant for a wide demographic. As such, it has to skip over many interesting or important local stories because they simply do not interest the large majority of their viewers. Since the 1950s, in the countries that have reached a high level of industrialization, the mass media of cinema, radio and TV have a key role in political power.

MASS Vs LOCAL

Mass media is distinguished from local media by the notion that whilst the former aims to reach a very large market such as the entire population of a country, the latter broadcasts to a much smaller population and area, and generally focuses on regional news rather than global events. A third type of media, speciality media, provides for specific demographics, such as specialty channels on TV (sports channels, porn channels, etc.). These definitions are not set in stone, and it is possible for a media outlet to be promoted in status from a local media outlet to a global media outlet. Some local media, which takes an interest in state or

provincial news, can rise to prominence due to their investigative journalism, and to the local region's preference of updates in national politics rather than regional news.

Mass media is media which is intended for a large audience. It may take the form of broadcast media, as in the case of television and radio, or print media, like newspapers and magazines. Internet media can also attain mass media status, and many mass media outlets maintain a web presence to take advantage of the ready availability of Internet in many regions of the world. Some people also refer to the mass media as the "mainstream media," referencing the fact that it tends to stick to prominent stories which will be of interest to a general audience, sometimes ignoring controversial breaking news. Many people around the world rely on the mass media for news and entertainment, and globally, mass media is a huge industry. Usually, mass media aims to reach a very large market, such as the entire population of a country. By contrast, local media covers a much smaller population and area, focusing on regional news of interest, while specialty media is provided for particular demographic groups. Some local media outlets which cover state or provincial news may rise to prominence thanks to their investigative journalism, and to the clout that their particular regions have in national politics.

NON MASS MEDIA

The non-mass media is generally more objective than the mass media and generally produces more accurate news with less slanting. There are several ways in which interactive and database technologies are being used to deliver targeted communications. E-mail, Database powerful call centers, personalized Experiential Marketing, CRM and eCRM all are various tools of customized communications. One-to-one marketing process, thus, is based on the foundation of learning relationships and tool such as CRM. Internet and mass customization tools are integral part of it.

TABLE 2: MASS MARKETING VS ONE-TO-ONE MARKETING

Mass Marketing	One-to-One Marketing
Average customer	Individual customer
Customer anonymity	Customer profile
Standard product	Customized market offering
Mass production	Customized production
Mass distribution	Individualized distribution
Mass advertising	Individualized message
Mass promotion	Individualized incentives
One-way message	Two-way messages
Economies of scale	Economies of scope
Share of market	Share of customer
All customers	Profitable customers
Customer attraction	Customer retention

Marketers depended on one-to-one modes of selling. Communication was specific, direct and targeted. The geography was identified, the prospect delineated and then approached. One-to-one marketing is therefore a great tool to reinvent then. Get back to the good old days of working hard in the marketplace to find your customer. Get back to the days of personal-touch. Mass media advertising wastage, which touches both the prospect and the non-prospect at the same time (remember advertising for your brand of smoke-stick reaches the man, woman and child in the house alike) will now pave way for a targeted approach that has no wastage and one that does not cover the innocent category of those you must not touch with the barge pole of your idea.

THE REASONS FOR DELIBERATION OF BRAND BUILDING THROUGH NON MASS MEDIA

1. INCREASED ADVERTISING COSTS

a. COSTLY FUNCTION

The strong objection and arguments against the advertising is that it is a costly function. It is generally criticized that the cost of advertising is too high and that such high cost is covered by the selling price of the advertising goods. Advertisement is considered as an indirect cost which is added in the distribution expenses. When expenses are to be increased, the selling price of the products will also be enhanced. It is true factor because large advertisers spend thousands of Rupees for advertising in a week. If the goods were not advertised the cost of advertisement cannot become burden on the consumer. Thus the unbalanced advertising may cause certain goods to cost the consumers more than they should. So it is regarded as an economic waste.

b. ENCOURAGE MONOPOLY

Advertisement restricts the competition among the products. Big industrialists and manufacturers may exercise their monopolistic control over the market with the help of advertisement technique which is always against the public interest.

c. HIGH PRICES

It is undoubtedly true that effective advertising increase the sales volume. This increased sale will require more products. Thus the large scale production brings down the cost of goods per unit due to economies in various sectors which reduces the consumers selling prices. But the producers do not lower the prices and the burden of advertising remains on the shoulders of consumers.

d. DISCONNECTION OF BUSINESS

Small firms cannot properly advertise their products due to limited resources. But on the other side entire market is controlled over by great advertisers. It becomes impossible for small firms to continue their business in the business field so small firms disappear from the market.

e. INFLUENCES PURCHASING POWER

Advertising goods are generally available in the market at high prices which influence the purchasing power of the consumers. So some people use foul means to increase their income for the purpose of meeting their necessities of life. Thus unnecessary advertising creates the corruption in the society.

f. MISUSE OF ADVERTISING

Some beautiful switch lights hoardings, posters and moving pictures are fixed generally in front of some important road for places which have been harmed by the misuse of advertising. Glaring red neon lights have actually been hazards at certain cross roads.

g. CREATING UNREQUITED DESIRE

Another objection is that advertising influences the mind of public. It creates the desire and taste for new products which are not actually necessities of life and income of consumers will not let them enjoy. Advertising may thus be regarded as the cause of unrequited desire which may result in unhappiness.

h. PROMOTION OF SOCIAL EVIL

Some firms present immoral program and features and crime stories in Television and Radio for advertising their products which have a very bad influence upon new generation. So advertising results in creating social evils in the society and wasting of economy.

i. BUYING PROBLEMS

There are numerous similar types of products which are advertised in the market. But producers lay great emphasis on minor differences in the formula or technique of advertised goods. For example there are many brands of advertised Shaving Creams which perform the same function. But it has become impossible for the average buyer to judge with any certainty the quality of the hundreds of articles he buys.

2. PRODUCTS REACHING OBSOLESCENCE STAGE QUICKLY

Obsolescence is the state of being which occurs when an object, service or practice is no longer wanted even though it may still be in good working order. Obsolescence frequently occurs because a replacement has become available that is superior in one or more aspects. Obsolete refers to something that is already disused or discarded, or antiquated. Typically, obsolescence is preceded by a gradual decline in popularity.

TYPES OF OBSOLESCENCE**a. TECHNICAL OBSOLESCENCE**

Technical obsolescence may occur when a new product or technology supersedes the old, and it becomes preferred to utilize the new technology in place of the old. Historical examples of superseding technologies causing obsolescence include higher-quality multimedia DVD over videocassette recorder and the telephone, with audio transmission, over the telegraph's coded electrical signals. On a smaller scale, particular products may become obsolete due to replacement by a newer version of the product. Many products in the computer industry become obsolete in this manner; for example, Central processing units frequently become obsolete in favor of newer, faster units. Singularly, rapid obsolescence of data formats along with their supporting hardware and software can lead to loss of critical information, a process known as digital obsolescence.

b. FUNCTIONAL OBSOLESCENCE

Particular items may become functionally obsolete when they do not function in the manner that they did when they were created. This may be due to natural wear, or due to some intervening act. For example, if a new mobile phone technology is adopted, and there is no longer a provider who provides service based on the old technology, any mobile phone using that technology would be rendered obsolete due to the inability to access service. Products which naturally wear out or break down may become obsolete if replacement parts are no longer available, or when the cost of repairs or replacement parts is higher than the cost of a new item. A product may intentionally be designed to use a faster wearing component - for example, use of soft rubber soles on shoes rather than for example rubber used in tires.

c. PLANNED OBSOLESCENCE

Sometimes marketers deliberately introduce obsolescence into their product strategy, with the objective of generating long-term sales volume by reducing the time between repeat purchases. One example might be producing an appliance which is deliberately designed to wear out within five years of its purchase, pushing consumers to replace it within five years.

d. STYLE OBSOLESCENCE

When a product is no longer desirable because it has gone out of the popular fashion, its style is obsolete. One example is flared leg jeans; although this article of clothing may still be perfectly functional, it is no longer desirable because style trends have moved away from the flared leg cut. Because of the "fashion cycle", stylistically obsolete products may eventually regain popularity and cease to be obsolete. A current example is "acid-wash" jeans, which were popular in the 1980s, became stylistically obsolete in the mid to late 1990s, and returned to popularity in the 2000s.

e. POSTPONEMENT OBSOLESCENCE

Postponement obsolescence refers to a situation where technological improvements are not introduced to a product, even though they could be. One possible example is when an auto manufacturer develops a new feature for its line of cars, but chooses not to implement that feature in the production of the least expensive car in its product line.

3. INTENSIFIED COMPETITION

Competition is pervasive, whether it involves companies contesting markets, countries coping with globalization, or social organizations responding to societal needs. Every organization needs a strategy in order to deliver superior value to its customers.

This is truer today than ever before, as competition has intensified dramatically over the last several decades in almost all domains. It has spread across geography, so that nations must compete to maintain their existing prosperity, much less enhance it. Competition has also spread to all sectors of society, including fields like the arts, education, health care, and philanthropy, where there is growing needs but scarce resources.

Today organizations in all spheres must compete to deliver value. Value is the ability to meet or exceed the needs of customers, and do so efficiently. Companies have to deliver value to their customers, and countries have to deliver value as business locations. This is now just as true for a hospital delivering health care, or a foundation making charitable contributions, as it is for a company producing a product or service. Delivering social value—high social benefits per dollar expended—is fast becoming the imperative for any organization that seeks to advance the public good.

4. CHANGING CUSTOMER'S PREFERENCES

Changing customer needs and preferences for newer models have resulted in shorter product life cycle. The well-educated and groomed customer having good purchasing power now is on an expedition of finding new good quality products and requires change more often. Due to which, many products are facing shorter life. The only remedy to cure this dilemma is to be innovative and either to keep on making products which are suitable for shorter span like seasonal products or another way is to feature the same product with a new concept to the new or same targeted audience. But apart from all these activities the fact still clearly remains that the more you provide new and innovative product the chances of you surviving in the industry increases as CHANGE is what the customer demands today. Finding out how customers access marketing communications reveals their preferences in receiving information. As active recipients of brand messages, they can screen out the irrelevant and the inconvenient. Considering customer preferences makes communications more effective – and more economical. Failure to follow consumers' changing media preferences can be expensive.

5. FOREIGN BRANDS INTO LOCAL BUSINESS DUE TO GLOBALISATION

Brands play a critical role in a firm's international expansion. A coherent international brand architecture is a key component of the firm's overall international marketing strategy as it provides a structure to leverage strong brands into other markets, assimilate acquired brands, and rationalize the firm's international branding strategy.

With the globalization of markets and the growth of competition on a global scale, companies are increasingly expanding the geographic scope of their operations, setting up or acquiring companies in other countries, or entering into alliances across national boundaries. At the same time, with the spread of global and regional media, the development of international retailing, and the movement of people, goods, and organizations across national borders, markets are becoming more integrated. As a result, firms need to pay greater attention to coordinating and integrating their marketing strategy across markets. While Indian consumers have aspired to own international fashion brands, India's large population base has been in turn an inspirational market for international companies. To remote observers, the Indian market may appear to be virgin territory as far as international apparel and footwear brands are concerned. But India has seen the presence of international brands for almost a century, including mass brands such as Bata and luxury brands such as Louis Vuitton.

In 2006, the government of India reopened retail to foreign investment (allowing up to 51 percent foreign direct investment in "single brand" retail). Using this route, many brands have entered India by setting up majority-owned joint ventures, or they have transitioned their existing franchise arrangements into a joint venture structure. By the end of 2008, just under half of the brands were present through a franchise or distribution relationship, while over a quarter had either a wholly owned or majority owned subsidiary. These structures allowed the brands to have greater control of operations, particularly of product. As their comfort and familiarity with India has grown, international companies are more willing now to create corporate structures that allow them a presence in the market today and a step-through to a more controlling stake when government regulations allow. All in all, we feel that international brands are in India not only to stay but also to expand. There is yet a lot of untapped potential in the market, and as the integration of the Indian consumer with global trends continues, international brands can expect to find India an increasingly fertile ground for growth.

CONCLUSION

The retail environment has endured severe challenges in the past two years. Now the outlook is brightening, but this recovery poses new challenges. After cutting costs, staff and inventory, it can be hard to catch up with increased demand. Customers also have many more ways to find what they want at the lowest price and superior service. A one-size-fits-all approach to marketing and sales promotions doesn't work.

To compete successfully, Retail owners have to provide satisfying, differentiated shopping experiences in multiple channels – in stores, on the Web and via smart phones. They have to track sales by channel and in relation to inventory and expenses. To maintain margins they need to find efficiencies in variable costs such as store payroll, packaging, supplies and occupancy. In today's world of internet technology, globalization when everyone is connected and well informed; retailers have to ensure that they continuously understand the pulse of their customers and design their offerings accordingly. This requires not only in depth understanding customer requirements but also thinking laterally to come up with innovative solutions which would make the retailers stand out of the crowd. With rapid globalization, increased connectivity and heightened awareness, the consumer is much more conscious about his needs and requirements. He not only seeks to purchase a product but also the entire shopping experience.

Apart from concentrating on cost effective measures such as **brand building through non-mass media** Retailers and marketers also have to focus on "Innovation and newness which could be the name of retail game in India. An industry has to be radically different in approach towards consumers, product offering, market segmentation and competition. This would create demand within the target segment and in turn help attain viability for the business.

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FEEDBACK ON IMPLEMENTATION OF ONLINE PERFORMANCE MANAGEMENT SYSTEM - A MINI MIX MODEL

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ABSTRACT

In the modern business context, organizations are operating in a highly competitive environment. To withstand competition in a healthy environment it is imperative for the organisations to continuously strive to improve the performance. Performance of the organisation depends not only on full utilization of available resources at least cost and upgrading technology to get benefits of economies of scale but also influence manpower planning and motivates employees towards desired direction for improving their performance on execution of specified tasks. The aim of performance management is to establish an environment of performance-oriented culture to suit the vision and mission of the organisation. Idea behind this philosophy is doing the right things by integrating individual goals to organizational goals. Performance management is a continuous and flexible process that involves all the employees irrespective of cadre to work as partners contributing their best for the organisation to achieve the desired goals. Performance feedback is associated with the individual employee as well as for organizational development. Performance feedback systems ensures firstly appraiser to identify shortfalls if any and suggests corrective actions for the future. Performance feedback systems will also help in identifying training needs, best talent in the organisation and to design suitable compensation to all. In this paper an attempt is made to obtain executive opinions on whether to implementing online Performance management is advantageous to the organization or not in the select organization namely NTPC-a public sector undertaking at Visakhapatnam. The results presented in this paper are drawn from the unpublished Ph. D thesis work of the former under the guidance of the later.

KEYWORDS

Performance management system, NTPC.

INTRODUCTION

In the modern business context, organizations are operating in a highly competitive environment. To withstand competition in a healthy environment it is imperative for the organisations to continuously strive to improve the performance. Performance of the organisation depends not only on full utilization of available resources at least cost and upgrading technology to get benefits of economies of scale but also influence manpower planning and motivates employees towards desired direction for improving their performance on execution of specified tasks. The aim of performance management is to establish an environment of performance-oriented culture to suit the vision and mission of the organisation.

Performance feedback provides information that helps employees to alter, change or maintain their behaviors and/or attitudes so that the organization continues to operate smoothly. Results of Feedback are very important for the employees to know about their performance and where they stood when compared to others. Without feedback, employees tend to assume that their performance is acceptable and unchecked performance behavior leads to long run problems. Role of technology is increasing day by day and every organisation to the possible extent should adopt online PMS.

Feedback not only helps to know the performance of individuals in the organization but also helps in knowing the attitude, perceptions and opinions of its employees on the critical issues like bringing change in the organization. If most of the employees are not in favour of change, the organization can design to bring planned change in the organization by educating its employees.

Design and implementation of performance management strategies, interventions and drivers is easier to advocate but difficult to implement practically in exact way in any organization. On line PMS will help organizations in various fronts to make PMS successful. Implementation of Online PMS will save lot of time for top-level management so that they can use their precious time for some other activities in the organization. Technology will make things simple and quick even though it may involve additional investment and training at the initial stages but in the long run it yields high Rate on investment (ROI) for the organization.

REVIEW OF LITERATURE

Mayston (1985) indicates that performance is measured for the following reasons:

- To clarify the organization's objectives.
- To indicate potential areas for cost savings.
- To enable users to make informed choices.
- To evaluate the final outcomes resulting from the organization's activities.
- To indicate how well different services contribute to specific areas of policy.
- To indicate performance standards when licensing or contracting-out privatized services.

Mayston (1985) suggested teamwork, long-term thinking, building human capital, developing and managing talent, and customer loyalty are good indicators of performance measurement. Most admired companies created performance management systems that take a well-rounded approach to measuring performance. Performance management considers both long term and short-term goals as well as both measurable and quantifiable. A performance appraisal plays a very crucial role in the effective management of business in today's competitive world.

Dayani, (1996) commented that feedback acts as a learning process and encourages effective behavior and serves to recognize individuals of less effective behavior to find remedial measures.

Employees need feedback on their performance as a validation of their contribution to the organization goals. To attain the set goals, the company's vision has to be made clear to the employees and translated them into action plan. Feedback helps the management to get the employees perception of their strengths, to find areas in need of improvement and evolve a better strategy for brining positive work culture (Dayani 1996, Dowling, Wetch & Schuler 1999, Weiss & Hartle, 1997).

Latham et al (2005). Stressed that trainer must pay attention in the behaviour of individual but not the person. Aim of the feedback is to bring in positive change in behaviour and motivate the individual to go along with the others in the team and to attain the individual set standards and It should help not to hurt individual but to enhance the honesty.

Gary Yukl and Richard Lepsinger (2006), "How to Get the Most out of 360 degree Feedback". They described that 360-degree performance appraisals have gained popularity as they provide a comprehensive and holistic picture of employee performance. Almost any appraisal tool can be used to obtain evaluative information through the 360-degree methodology. For this tool to be used effectively, it is essential to consider the design of the questionnaire, the way it is administered, the process of feedback reporting, and to follow up the process with supporting activities such as training and development.

Sarah Harper, Professor, University of South Australia, Australia (2005) "To know the impact of an organization's performance management system", conducted a study on an Australian organization soon after introduction of performance management system (PMS), employees were asked to comment on their attitudes to the PMS. In addition, key stakeholders, managers and employees were interviewed to determine what they considered the impact of the PMS to have been. The results indicated that those workgroups that were already performing well benefited from the PMS, whereas those that were not had a more negative attitude to the PMS and were less positive about its impact on performance. The stakeholders and managers stated that the PMS had a more positive impact on performance than did the employees. Other successful outcomes as a result of the introduction of the PMS included: increased role clarity, standardization of performance objectives, increased feedback on performance and the development of more accurate and relevant performance measures. The study also highlighted the difficulties encountered when evaluating PMS. Both the timing of the evaluation and the measures used need to be carefully considered when designing the evaluation.

According to Nel, van Dyk, Haasbroek, Schultz, Sono, and Werner (2004) appraisal of performance management system serves three important purposes.

- It acts as a vehicle for culture change and provides input to other human resource systems such as reward and development.
- It helps as a yardstick to measure the relative performance of employees to provide ratings made on separate dimensions of performance.
- To provide feedback to the employees which is more specific and helpful for the organization for implementation of a strategic human resource development plan

OBJECTIVES AND METHODOLOGY

In this paper an attempt is made to obtain executive opinions on whether to implementing online Performance management is advantageous to the organization or not in the select organization namely NTPC-a public sector undertaking at Visakhapatnam.

A Mini Mix model is developed to analyze the feedback practices in five stages. The responses are analyzed by considering the practices individually and one with the other in stages.

The responses are counted and presented in a matrix form. This matrix is titled as Mini Mix Matrix as the selection of cells is based on the minimum of the row/ column/diagonal. As the analysis is based on the results of mixed responses on the select practices considered for E-PMS the Model is titled as Mini Mix Model. The study is mainly an empirical one and the variables used are qualitative. This type of analysis is useful for grading or grouping the individuals A or A+ or A- and so on if multiple subjects considered in cases such as student grades, consumer bundles for balanced diet for people in different regions/ age groups and so on.

IMPLEMENTATION OF ONLINE (ELECTRONIC) FEEDBACK

In this paper an attempt is made to analyze the responses obtained from the select executives regarding their opinions on implementation of online Performance Management system (E-PMS). Views of the executives are obtained about the following propositions of Yes/No Type.

1. E-PMS is better than the existing system.
2. E-PMS saves valuable time.
3. Received sufficient training on E-PMS.
4. E-PMS data is more secured than paper work.
5. Sufficient facilities are available for smooth implementation of E-PMS.
6. Fixing standards/Targets (Mutually) is a little difficult task in E-PMS.

The Executives are asked to give their opinion either Yes or No for each of the above propositions on online Performance Management system (E-PMS). Tabular analysis is used for analyzing the executive opinions.

The responses are analyzed by considering the practices individually and one with the other in stages.

STAGE I

The responses to the above, six propositions are coded and presented in a summary form in Table-1

TABLE-1: ANALYSIS ON IMPLEMENTATION OF ONLINE PERFORMANCE MANAGEMENT SYSTEM (E-PMS)

Proposition	1	2	3	4	5	6
1. E-PMS is better than Previous System	186					
2. Sufficient training has been given about E-PMS		175				
3. E-PMS saves your valuable time			179			
4. Sufficient facilities are provided for the smooth implementation of E-PMS				144		
5. Fixing standards/Targets (Mutually) is some how difficult in E-PMS					73 (130)	
6. E-PMS data is more secured than on paper						161

The following points can be noted from Table-1

- Out of 203 selected executives 186 (92%) agreed on the proposition that E-PMS is better than the existing system.
- Out of 203 selected executives 179 (88%) agreed on the proposition that E-PMS saves valuable time.
- Out of 203 selected executives 175 (86%) agreed on the proposition that they received sufficient training on E-PMS.
- Out of 203 selected executives 161(79%) agreed on the proposition that E-PMS data is more secured than paper work.
- Out of 203 selected executives 144(71%) agreed on the proposition that sufficient facilities are available for smooth implementation.
- Out of 203 selected executives 73 (36%) agreed on the proposition that Fixing standards/Targets (Mutually) is difficult in E-PMS. This being a negative question, it implies that 64% of executives (130 in number) gave the opinion that it is not at all difficult to fix standards and targets through E-PMS. This proposition is here after renamed as "Fixing standards/Targets (Mutually) is not difficult in E-PMS"

Thus it is noted that more than 70 % of executives are in favor of implementing E-PMS and no less than 64% opined that fixing standards and targets of executives is not that difficult. Thus most of the executives gave their favorable opinion for implementation of E-PMS.

The analysis has further been extended to know how many of the 64% of executives who expressed their opinion that fixing standards and targets is not that difficult (proposition-5) are positive for the remaining five propositions also.

STAGE-II

Opinions of the 130 executives, who expressed the opinion that it is not difficult to fix standards and targets through E-PMS, are analyzed by considering their opinions on the remaining five propositions and the results are presented in Table-2.

TABLE-2: NUMBER OF EXECUTIVES IN FAVOR OF SELECT GIVEN PROPOSITION-5

Proposition-5	1	2	3	4	6
Fixing standards/Targets (Mutually) is not difficult in E-PMS	121	115	118	89	99

From Table-2 it can be seen that out of 130 executives a minimum of 89 (for proposition four) executives are in favour of all other propositions.

STAGE-III

Opinions of the 89 executives, who expressed the opinion that it is not difficult to fix standards and targets through E-PMS along with E-PMS data is more secured than paper work, are analyzed by considering their opinions on the remaining four propositions and the results are presented in Table-3.

TABLE -3: NUMBER OF EXECUTIVES IN FAVOR OF SELECT PROPOSITIONS GIVEN FOUR AND FIVE

Given Proposition	1	2	3	6
4 and 5	84	77	83	70

From Table-3 it can be seen that out of 89 executives a minimum of 70 (for proposition six) executives are in favour of all other propositions.

STAGE-IV

Opinions of the 70 executives, who expressed the opinion that it is not difficult to fix standards and targets through E-PMS along with E-PMS data is more secured than paper work and Sufficient facilities are available for smooth implementation of E-PMS, are analyzed by considering their opinions on the remaining three propositions and the results are presented in Table-4.

TABLE-4: NUMBER OF EXECUTIVES IN FAVOUR OF SELECT PROPOSITIONS GIVEN FOUR, FIVE AND SIX

Given Proposition	1	2	3
4,5 and 6	67	58	66

From Table-4 it can be seen that out of 70 executives a minimum of 58 (for proposition two) executives are in favor of other propositions.

STAGE-V

Opinions of the 58 executives, who expressed the opinion that it is not difficult to fix standards and targets through E-PMS along with E-PMS data is more secured than paper work, Sufficient facilities are available for smooth implementation of E-PMS and E-PMS saves valuable time are analyzed by considering their opinions on the remaining two propositions and the results are presented in Table-5.

TABLE-5: NUMBER OF EXECUTIVES IN FAVOR OF SELECT PROPOSITIONS GIVEN TWO, FOUR, FIVE AND SIX

Given Proposition	1	3
2,4,5 and 6	58	57

From Table-5 it can be seen that out of 58 executives a minimum of 57 (for proposition three) executives are in favour of the other proposition.

The Results of Opinion Survey on implementation of Online (Electronic) Feedback gave clearly that 57 executives that is 28% are in favour of it in all counts and not less than 64% of total executives are in favour of one or the other.

CONCLUSION

Feedback Practices regarding Implementing E-performance are worth encouraging and it is a good indication for the organization as the executives showed a positive attitude for change. This study clearly indicates that a little more effort in communicating the easy and fair implementation of E-PMS to all the executives leads the system more effective in this select organization namely NTPC, Simhadri, Visakhapatnam.

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APPENDIX**QUESTIONNAIRE****GENERAL PROFILE OF RESPONDENTS**

- Gender: (a) Male (b) Female
- Age group in years: (a) 25 – 35 (b) 36-45 (c) 46+
- Education Qualification: (a) Above PG (b) Post Graduate (c) Graduate (d) Diploma (e) Under Graduate.
- Executive Level/Grade: E1/ E2/ E2A/ E3/ E4/ E5/ E6/ E7/ E8
- Total Experience: (a) Less than 3 years (b) 3-7years (c) 7-10 years (d) More than 10 years

Section – A: Introduction to Performance Management**Section – B: Performance Planning****Section – C: Performance Monitoring & Coaching.****Section – D: Performance Measurement.****Section – E: Performance Feedback.****Section – F: Performance Linked Reward & Development Plan.****Section – G: Performance Management Outcomes.****Section – H: E-Performance Management**

- Do you feel that E-PMS is better than previous System? a) Yes b) No
- Sufficient training has been given about E-PMS a) Yes b) No
- Do you feel adopting E-PMS saves your valuable time? a) Yes b) No
- Do you feel that sufficient facilities are provided for the smooth implementation of E-PMS? a) Yes b) No
- Fixing Employee standards/Targets (Mutually) is somehow difficult in E-PMS a) Yes b) No
- Do you feel that E-PMS data is more secured than on paper? a) Yes b) No

PROBLEMS AND PROSPECTS OF SALES PROMOTION IN RURAL MARKETS OF FMCG SECTOR IN INDIA

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ABSTRACT

Managing constant change is no longer a new phenomenon in the corporate sector. But today's organizations either swim or sink with the changing waters. Since change is inevitable, it is always better that organizations face and manage it, than to avoid the same. The business environment that is highly uncertain, complex and turbulent has forced organizations worldwide to adapt to these changes. Due to the emergence of these changes, Corporate are in continuous search for identifying areas where improvement can be done and bigger market share can be achieved. In this paper, an attempt has been made to identify the problems and to study the prospects of sales promotion in rural markets of Fast Moving Consumer Goods (FMCG) sector. Both primary and secondary data were used for analysis. This study aims to analyse the trend, factors responsible for the growth, popularity of sales promotion schemes of the products in the FMCG Sector in rural markets, and to suggest the ways to increase the market potential. The study revealed that there is a steady increase in the FMCG sector over the last twelve years. Discount offer and Price-pack deal schemes are the two most popular schemes in rural segment of India. The study simplifies 16 possible motivational factors using factor analysis into four major factors for launching the FMCG product into rural segments. The Four major factors are: Behavioural, Market Penetration, Cost, and Competition. If the schemes are sensitive or eye catching, the emotional persuasion becomes relevant. The consumer, middleman, and the sales force utilize these schemes to increase the sales of the product. Low priced brands of the MNCs, small in size, will prove to be successful in course of time. However, failure of monsoons will adversely affect all the sales promotional efforts in this sector to a great extent.

KEYWORDS

FMCG, Factor Analysis, Rural Market, Sales Promotional Schemes, Trend.

INTRODUCTION

Change, change, change – is the buzz word in today's corporate world. Since change is inevitable, it is always better that organizations face and manage it, than to avoid the same. In a competitive economy, sales do not occur automatically. The businessman should prepare the ground for future expansion and evolve new ideas for creating favourable selling situation through innovation and thus establish a market for his products. This can be done with the help of Promotional Strategy which arouses enthusiasm, create buying mood or spark an immediate reaction from the consumer. It influences the attitude of the customer by acquiring the right product at the right time, at the right place and at the right price. Due to the emergence of changes in consumers' attitude, Corporates are in continuous search for identifying areas where improvement can be done and bigger market share can be achieved [Sami A.Khan, 2007]. Therefore, it is essential for every business group to create demand and retain the customers so as to survive in the market through some strategy. One of the strategies adapted is Sales Promotion.

JUSTIFICATION OF THE RESEARCH STUDY

The FMCG industry has moved to the path of globalization and privatization in a novel way. Large private companies and multinational companies (MNCs) entered into the arena and are facing unprecedented competition. The environment so created by globalization is a great challenge to Indian FMCG market. What is therefore required is, the formulation of pragmatic ways and methods and their meticulous implementation to meet the challenges of product promotions. If demand exceeded supply, business had nothing to worry. But the situation started changing after 1991 when some companies fared better in the newly created competitive world. Therefore it is absolutely necessary to introduce innovative promotional schemes for sustainable corporate growth. Sales promotion technique is one of the strategies that help FMCG companies to get a better market share for its sustainable growth. Hence, this study has been undertaken to suggest ways for effective implementation of promotional schemes in rural segments to achieve competitive advantage.

OBJECTIVES OF THE PRESENT STUDY

- To analyse the trend of FMCG sector over the last decade
- To identify and analyse the factors responsible for the growth of FMCG products in to the rural segments from consumers' point of view
- To identify the awareness level of sales promotion schemes by the customers
- To understand consumers and retailer perception towards sales promotion schemes
- To suggest ways to increase the market potential for FMCG products in rural Segments

HYPOTHESES

1. FMCG sector has seen a steady growth in the rural segment during the last few years
2. Awareness about the FMCG products in the rural segment is satisfactory
3. Behavioural changes, place and price play vital role in the growth of FMCG sector in rural areas.

METHODOLOGY

The study is an empirical study using both primary and secondary data. Secondary data were collected from various sources such as journals and magazines, textbooks, newspapers and websites. Primary data were collected using structured questionnaire with three dimensions, namely, consumer perception, popularity of sales promotion schemes, motivational factors responsible for the growth of FMCG products in the rural segments. South Chennai (Tambaram and Sholinganallur Taluks) was selected to collect opinion of the customers. The sample was framed based on the nature of the study using simple random sampling method. To elicit correct opinion, 150 consumers and 50 retailers were interviewed and data were collected during the period of survey, June to August 2011. Only 125 consumer respondents provided complete information and hence the study was confined to 125 consumer respondents. To understand the veracity of data, statistical tools such as one-way tables, two-way tables, Chi-square test, and factor analyses were used.

The sample survey for the research was confined only to South Chennai city due to the familiarity of the researchers. Perhaps, a large number of respondents covering more consumers and retailers in several cities could have helped in refining the findings of this research.

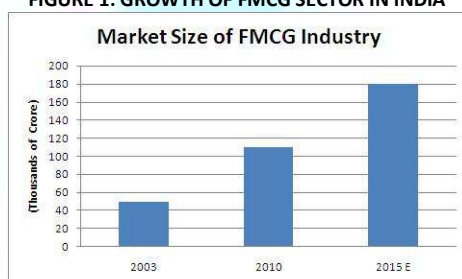
FAST MOVING CONSUMER GOODS (FMCG)

Fast Moving Consumer Goods (FMCG) are popularly named as consumer packaged goods. Items in this category include all consumables (other than groceries and pulses) people buy at regular intervals. It is sold under national and multinational brands in consumer packages through a vast distribution network and is consumed directly by end users [Ganpule, Sane and Bhowmik, 1983]. FMCG products include a wide range of frequently purchased consumer products such as toiletries, soap, cosmetics, tooth cleaning products, shaving products and detergents, as well as other non-durables such as glassware, bulbs, batteries, paper products, and plastic goods. FMCG may also include pharmaceuticals, consumer electronics, packaged food products, soft drinks, tissue paper, and chocolate bars. These items are meant for daily or frequent consumption and have a high turnover. A subset of FMCGs is Fast Moving Consumer Electronics which include innovative electronic products such as mobile phones, MP3 players, digital cameras, Global Positioning Systems (GPS) and Laptops [www.indiajobs4u.com].

INDUSTRY CLASSIFICATION AND GROWTH STORY OF FMCG SECTOR

The Indian FMCG industry is largely classified as organized and unorganized. Organized manufacturing in the Indian FMCG sector started early in the 20th century. Most FMCG companies were multinationals having started mainly as trading companies. However, with the advent of globalization, the consumer has a wide range of choices. The products are branded and backed by marketing, heavy advertising, slick packaging and strong distribution networks. The FMCG segment can be classified into premium segment and popular segment. The premium segment caters mostly to the upper middle class which is not very price sensitive but brand conscious. The popular segment consists of consumers belonging mainly to the semi-urban or rural areas that are not particularly brand conscious but are price sensitive. FMCG products are sold to meet the necessities in the rural areas whereas the same products are sold in the metros to meet their basic necessities as well as luxuries. [Jha and Singh. 1988]. Figure 1 provides the growth of FMCG sector in India during 2003 – 2010 and estimated growth for the year 2015.

FIGURE 1: GROWTH OF FMCG SECTOR IN INDIA



As seen in the figure, there is a steady growth in the market size of FMCG sector in India over the last ten years. The market size was around Rs. 50000 crores in 2003, it is around 120000 crores in 2010 and if the same trend continues, it will reach around 180000 crores in 2015.

KEY POSITIVES FOR THE GROWTH OF FMCG

A considerable part of the disposable income of the middle class is being spent on buying FMCG products, the planned development of infrastructure like roads, ports, railways and airports, changing lifestyle of young population, modern retail stores which offer shopping ambience, variety and a single-point source for purchases resulting in a potential hike in the demand for these goods.

KEY NEGATIVES FOR THE GROWTH OF FMCG SECTOR

Large part of the branded market threatened by spurious goods and illegal foreign imports, and weakened consumer demand, have heightened the competition in key segments like soaps and detergents, putting pressure on profitability [www.ibef.org].

NEED FOR SALES PROMOTION

In a competitive economy, different firms produce products which are similar in use and appearance but quite dissimilar in quality. In this situation, there is a need for persuasive promotional strategy on the part of individual firms to attract the potential customers and to stimulate their constant demand [Subbi Reddy, 1981]. Sales promotion is a temporary device which is withdrawn after a particular period. It is meant for the end users of the product, services, and channels of distribution [Jah, 2003]. The manufactures provide incentives to wholesalers and retailers using promotional schemes to push their stocks. Hence, they are called Push Promotions. The promotional schemes which attract the customers directly to buy more products are called Pull Promotions and thereby pulling the brand through the channel of distribution [Raghvendra, 1980].

TYPES OF SALES PROMOTIONS

- 1. Consumer Promotions:** Sales promotions directed towards consumers may be done either to increase the use of the product among the existing customers or to attract new customers to retaliate against the competitor's sales activities. The various sales promotion methods at the consumer level are free gifts with goods, picture cards with goods, gift coupons, samples, premium and gifts, flash packs, contest, demonstrations and price pack deals.
- 2. Trade Promotions:** Trade promotions are given to the traders to stock the products, to buy in large quantities, to move merchandise from the warehouse to the retail shelf and to have control over the final price charged to the end consumers. Buying allowance, buy back allowance, free goods, merchandise allowances, dealer listed promotion, price deal, gift to dealers, dealers sales contest, and discount are some of the trade promotion strategies used at the dealers' level [Pillai and Bagavathi, 1990].
- 3. Sales Force Promotions:** Sales promotion directed towards salesmen by giving bonus to sales force and conducting sales force contest to make personal selling effective.

PROSPECTS OF SALES PROMOTION

One of the greatest achievements of the FMCG industry has been the sachet packets which helped companies to introduce products in small package sizes, at lower price points, reach new users and to expand market share for value added products both in rural and urban India. The bargaining power of customers is also high. Sales promotion schemes provide the consumer opportunities to choose the best product among the sprouts of domestic and international companies [Kumar, 2007].

CHALLENGES OF SALES PROMOTION

Most of the FMCG consumers and retailers of the primary survey of the authors felt that, the life of the sales promotional schemes is very short. As soon as these concessions are withdrawn, the demand shall also reduce; Disposable income in the rural segment is highly dependent on good monsoons and a rich

harvest; Role of women in buying process is still not independent of family constraints; inadequate credit availability hampers the ability of retailers to carry stock. There is a feeling that such seasonal sales promotional activities are mainly intended to sell inferior quality products

ANALYSIS AND INTERPRETATION

A walk around a supermarket reveals the function of various sales promotion schemes operating simultaneously. Since the retailers are the nearest point to the consumers, they are the most important link in marketing FMCG products. Mass Media, Word of mouth, point of purchase communication will create consumer awareness to generate a favorable attitude to any sales promotion schemes. These may induce buying habit or the buying of quantities in excess of their immediate requirements.

To assess the popularity of different sales promotional schemes, the respondents of the primary survey were asked to tick his/her preference for a specified scheme listed in the questionnaire. The data thus collected were analysed and the results are given in the Table 1. The study reveals that about 51 per cent of the respondents opted for price discount alone and about 20 per cent prefer price pack deal offers. It is evident from the table that Price pack deal offers and discount offers are the most effective schemes inducing the customers to buy more and influence the consumer's attitude towards top up purchases as well. The word reduction or discount electrifies every consumer. But in reality, the discounts allowed to the dealers are not real because the prices are already inflated. Almost everybody rushes to buy any product which is sold less than the list price. Nearly 18 per cent of the respondents are not carried away by any of these sales promotional schemes.

TABLE 1: POPULARITY OF SALES PROMOTIONAL SCHEMES AMONG CONSUMERS

Schemes	Number	Percentage
Price Discount	64	51.2
Price - Pack Deal alone	25	20.0
Coupons alone	5	4.0
Premium alone	5	4.0
Contest	4	3.2
Not interested	22	17.6
Total	125	100.0

SHIFT OF FMCG SECTOR TOWARDS RURAL AREAS

The Indian fast moving consumer's good market has been witnessing change since the liberalization of our economy in 1991. The consumer landscape is also changing very fast. Consumers in urban market today see an exciting explosion of choices, new categories, new brands, and new shopping options and have increasing disposable income to fulfill their aspirations. They are increasingly seeking convenience and enjoyable shopping malls and self service stores to fulfill their requirements. The traditional retail stores are also undergoing a dynamic change as newer forms of retail outlets and malls are growing in the rural segment. Our market is being exposed to the global market and our rural India offers a tremendous market potential. Realizing this, Corporate India is now investing a sizeable chunk of its marketing budget to target the rural consumers. The rural market has been growing at five times the pace of the urban market [Muraliselvam and Nagarajan, 2005]. In the rural families, there is a remarkable improvement in the form of products used, There is also a visible shift from local and unbranded products to national brands - from low priced brands to premium brands. Since urban regions are already matured, the rural region is expected to be the key growth driver.

TABLE 2: RURAL INDIA – THE GROWTH DRIVER FOR FMCG - MOTIVATIONAL FACTORS

Motivational factors	Very important		Important		Least important		Total		Chi-Square	
	N	%	N	%	N	%	N	%	Value	Sig.
Large domestic market	76	60.8	45	36.0	4	3.2	125	100.0	62.608	0.000
A large consumer goods spender	46	36.8	60	48.0	19	15.2	125	100.0	20.848	0.007
Change in demand pattern of consumer	25	20.0	51	40.8	49	39.2	125	100.0	10.048	0.000
Creating consumer awareness through media to the rural folk	30	24.0	34	27.2	61	48.8	125	100.0	17.968	0.000
Preference for branded goods than non branded goods by rural folk	50	40.0	68	54.4	7	5.6	125	100.0	47.152	0.000
Rural penetration	23	18.4	66	52.8	36	28.8	125	100.0	23.344	0.005
Inflow of foreign remittance and foreign made goods into rural areas	53	42.4	25	20.0	47	37.6	125	100.0	10.432	0.021
Presence of well known brands	44	35.2	28	22.4	53	42.4	125	100.0	7.696	0.002
Well established network	49	39.2	53	42.4	23	18.4	125	100.0	12.736	0.000
Intense competition	32	25.6	25	20.0	68	54.4	125	100.0	25.552	0.000
Excess demand over supply	38	30.4	19	15.2	68	54.4	125	100.0	29.296	0.000
Production base for multinationals	20	16.0	26	20.8	79	63.2	125	100.0	50.608	0.946
Low operational costs	43	34.4	42	33.6	40	32.0	125	100.0	0.112	0.000
Growth of newer form of retail outlets and malls in rural areas	26	20.8	27	21.6	72	57.6	125	100.0	33.136	0.000
Behavioural shift in urban market to villages	40	32.0	62	49.6	23	18.4	125	100.0	18.352	0.000
Sophisticated life-style by the rural folks	28	22.4	35	28.0	62	49.6	125	100.0	15.472	0.000

The questionnaire identified a list of 16 possible motivational factors. The responses obtained from the consumers were analyzed and presented in the form of tables. Table 2 provides details of the motivational factors for the growth of FMCG sector in rural segment. Options such as Very Important, Important, and Least Important were provided for each motivational factor. To test the hypothesis that the respondents evenly responded to the options for each factor, Chi-square test has been applied. It is found that there is no uniformity in the options provided by the consumers for all the factors except for the factor, "Production base for multinationals" which is considered as least important by majority of the respondents. In all other factors, the responses are not evenly distributed. The motivational factors listed in the questionnaire were either considered as important or very important by the respondents. Hence, it is concluded that, almost all the factors are considered as important for the FMCG sector to grow in the rural segment.

FACTOR ANALYSIS

An attempt is made using factor analysis to identify the interrelations between parameters among the 16 factors which are responsible for the growth of FMCG products in rural segment. From the analysis, it is found that there are four major broad factors favouring rural markets growth through sales promotion schemes. It is found that the contribution made by the first factor to the total variances is around 30%, the second factor contributes nearly 23% of the total

variance and the third factor contributes about 13%, and the last factor contributes nearly 10% of the total variance. The four factors contribute nearly 75% of the total variance.

TABLE 3: FACTOR ANALYSIS

Factor 1: Behavioural Factor		
S. No.	Variables	Component Loading
1	A large consumer goods spender	0.874
2	Change in demand pattern of consumer	0.870
3	Preference for branded goods than non branded goods by rural folk	0.811
4	Behavioural shift in urban market to villages	0.704
5	Sophisticated life-style by the rural folk	0.682
6	Inflow of foreign remittance and foreign made goods into rural areas	0.603
Total Variance explained by Factor 1		29.700 %
Factor 2: Market Penetration factor		
1	Large domestic market	0.890
2	Rural penetration	0.751
3	Presence of well known brands	0.655
4	Well established network	0.613
5	Growth of newer form of retail outlets and malls in rural areas	0.570
6	Excess demand over supply	0.568
Total Variance explained by Factor 2		22.532%
Factor 3: Cost Factor		
1	Low operational costs	0.903
2	Production base for multinationals	0.790
3	Creating consumer awareness through media to the rural folk	0.558
Total Variance explained by Factor 3		12.834%
Factor 4: Competition Factor		
1	Intense competition	0.863
Total Variance explained by Factor 4		9.758%

In Factor 1, more variables related to behavioural aspects of the consumers are loaded; it is termed as 'Behavioural Factor'. More variables related to market are loaded in Factor 2; and hence this factor is termed as 'Market Penetration Factor'. Variables related to cost are highly loaded in Factor 3, and hence this factor is termed as 'Cost Factor'. The only variable related to competition has been included in Factor 4 and this factor is termed as 'Competition Factor'.

From the factor analysis, it is evident that the growth of FMCG products is influenced by the behavioural aspects of the consumers, penetration of FMCG products into rural market, cost for marketing the FMCG products into rural segment, and competition among small, large and multinational companies.

CHALLENGES FACED BY FMCG SECTOR IN RURAL MARKET

Primary data analysis indicates that Weekened consumer demands (79.2%), Low export levels (72%), and very high competition (66%) are the major challenges faced by the FMCG Sector to penetrate in to rural segment (Table 4). Adequate supportive promotional strategies should be adopted.

TABLE 4: CHALLENGES FACED

Challenges of FMCG Sector	Least great		Great		Very Great		Total		Chi-Square	
	N	%	N	%	N	%	N	%	Value	Sig.
Lower scope of investing in technology and achieving economies of scale, especially in small sectors	36	28.8	7	5.6	82	65.6	125	100.0	28.640	0.000
Low exports levels	30	24.0	5	4.0	90	72.0	125	100.0	13.776	0.001
Very high competition	33	26.4	9	7.2	83	66.4	125	100.0	28.520	0.000
Higher input costs	56	44.8	31	24.8	38	30.4	125	100.0	14.412	0.001
Inadequate infrastructure	33	26.4	26	20.8	66	52.8	125	100.0	10.029	0.007
Spurious goods and illegal foreign imports- violation of ethical norms	30	24.0	11	8.8	84	67.2	125	100.0	4.184	0.123
Weakened consumer demands	10	8.0	16	12.8	99	79.2	125	100.0	0.777	0.678

SUGGESTIONS TO IMPROVE FMCG SECTOR IN RURAL AREAS

More than two third of the respondents of the primary study suggested the following:

- Creating continuous awareness through media in rural areas (89%),
- Availability of durable and non-durable goods in the shelf of the retailers (81%), and
- Competitive pricing (69%)

If strategies are framed effectively and appropriate schemes are launched and propelled accordingly, then the results will be positive.

CONCLUSION

The study reveals that large number of people is making use of different schemes. It also reveals that Discount Offer has been used by as many as 51% of consumer respondents, followed by Price-pack Deals Schemes. During the interview, the retailer respondents revealed that they have adopted sales promotion schemes during the months of July and August to wipe out or reduce the dead stock which is followed by the reason to promote sales during off-season. The study simplifies 16 possible motivational factors using factor analysis into four major factors for launching the FMCG product into rural segments. It is found from the study that behavioral factor, market penetration factor, cost factor, and competition factor influence the FMCG sector to move towards rural segments. When the demand for the FMCG is at its low ebb, sales promotional schemes act as remedial measures, and play a positive role to boost sales. It also alters the time pattern of consumer purchases.

The effectiveness of the promotional efforts depends on the selection of the promotional schemes. If the schemes are sensitive or eye catching, the emotional persuasion becomes relevant. The Consumer, Middleman and the Sales Forces utilize these schemes to increase the sale of the products. Overall, the sector holds a lot of promise but again this promise is in direct correlation to the economic growth of the country. Each form of sales promotion is used to encourage quick movement of products along the channel of distribution. However, the cutthroat competitions in FMCG Sector will put severe pressure on the margins. There are certain unique problems related to rural market, mainly the lack of infrastructure and dependence on monsoon. Failure of monsoons will adversely affect all the sales promotional efforts in this sector to a great extent.

The rural market for FMCG products is having peculiar characteristic – price sensitive. Sometimes even a rich consumer in rural areas is not ready to buy highly priced branded goods which are very popular in urban areas. Corporates which are successful in selling high priced branded goods are unsuccessful when the similar strategies are applied to enter into the rural market. Therefore they look for different brand strategies, pricing strategies and sales promotional strategies to enter into the rural market. Low priced brands of the MNCs, small in size, will prove to be successful in course of time. Many companies like Colgate Palmolive, Hindustan Lever Limited, Godrej, ITC etc have already made forays into rural households but still capturing the entire market is a distant dream.

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FUND GROUPING: A MATHEMATICAL MODEL – PUBLIC AND PRIVATE SECTOR MUTUAL FUNDS IN INDIA

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ABSTRACT

The purpose of this paper was to examine the performance of Mutual Fund schemes from public and private sectors in India. The current study the researcher confident to use a new mathematical model by using cluster analysis and canonical correlation. In this present study to get significant result for various Mutual Fund schemes for both the sectors. The performance evaluation of the individual schemes were arranged such as, the best, the moderate and the weak funds. So that, irrespective of the sectors a few funds were gain significant performance but, maximum number of funds are not gained good momentum.

KEYWORDS

Mutual Fund, Net Asset Value, Market value, Cluster analysis, Canonical Correlation.

INTRODUCTION

The NAV and the Market values are the best indicators to measure the performance of the Mutual Funds (MFs). The NAV and market values for three different periods such as one year, three years, and five years for all types of funds for UTI MF, from public sector and Reliance MF from private sectors are considered to frame the model. The segmentation of different funds of public and private sectors with their characteristic features is identified as well as justified through this mathematical model.

The segmentation process of different funds is achieved through the average of NAV and market values. In this context K-means cluster analysis is found suitable to classify the MFs based on the average of any two prominent predictors. The mechanism of the cluster analysis is applied as a means of identifying the heterogeneous groups prevalent among different public and private sector funds. The heterogeneity and their frequency distribution are briefly estimated through the cluster analysis. Moreover, it helps to identify the best, moderate and weak form of funds from the sample selected institutions. Further, the classification is also substantiated by the formation of appropriate discriminant function, existent of Wilks' Lambda and so on.

OBJECTIVES OF THE STUDY

A MF is a single, large professionally managed investment organisation that combines the funds of many individual investors having similar investment objectives. MF designs its schemes to meet the needs of different types of investors in terms of nature of investments. It collects the savings of investors and invests them in a large and well diversified portfolio of securities such as money market instruments, corporate and government bonds and equity shares. MF is conceived as an institution for providing small investors with avenues of investment in the capital market. Small investors do not have adequate time, knowledge, experience and resource for direct access of capital market. They rely on an intermediary which undertakes investment decisions and provides professional expertise.

METHODOLOGY

This study is a blend of both the descriptive and the analytical methods. The researcher has collected the secondary data which consist of the books, reference materials, literature and journals, amfiindia.com, sebi.com, rbi.com, nsc.com, bsc.com, moneycontrol.com, Economic Times, Business line, and respective institutional.com such as utimf.com, sbimf.com, reliancemf.com icicpruamc.com. The researcher has also collected the annual reports which consist of balance sheet and revenue accounts statements of the respective schemes from the sampled institutions of both public and private sectors. Besides, the researcher has met some of the officials of the industry to know from the horse's mouth through unstructured interview schedule.

REVIEW OF LITERATURE

The Wharton (1962)¹ study investigated MF performance for the period 1953-1958. The findings of this study are available in an article written by Irwin Brown published in 1965. The study examines the issues relating to investment policies, portfolio turnover ratio performance and impact of MFs and trading activity on the stock market. The study concludes that on an average, the fund had not performed later than the composite market from which they select their securities. The methodology used for contingency table compared the lower half of a particular sample in performance with the lower half with growth and also conversely.

Lee and Sunghoon (1995)⁷ evaluate various empirical models of the bond return generating process and suggest new benchmarks that are the most appropriate for evaluating the performance of managed bond portfolios. He provides statistical evidence concerning the performance of bond MFs and examines the sensitivity of performance inferences to benchmark choice. It analyses the cross sectional and inter temporal behaviour of performance measures to determine the relationship between performance and various fund characteristics. The study finds little evidence that the managers of bond fund as a class provide superior performance after accounting for expenses relative to various benchmark returns.

Joshua M. Pollet, Mungo, Wilson (December, 2008)¹² in this study reveal that the actively managed MFs suffer from diminishing returns to scale. Funds should after investment become assets under management increases, although asset growth has little effect on the behaviour of the typical fund. They found that large-cap funds and small-cap funds are associated with better performance. Fund family growth is related to the introduction of new funds that hold different stocks from their existing siblings funds. With many siblings diversify less rapidly as they grow, it is suggested that the fund family may influence a fund portfolio strategy.

Arthur E Goodings (1975)²⁵ attempts an endeavor in quantifying the perception of risk and return by the individuals, the author, summarised the stock evaluation process of three groups of investors of their perception and socio-economic profile on financial investments. The author found that, the important

differences and similarities were observed among group perception. The three groups of respondents were investment professionals, portfolio managers and non-professional investors.

Richard T Bliss (2008)³⁵ in this study of the fields of psychology and sociology offers a large body of theory and evidence on, how individual behaviour differs from group behaviour, particularly for performance and risk taking activities. Relatively little attention however has been devoted to this topic in regard to managed portfolios, even though over 50 per cent of MFs are managed by a team. In this article the authors were provided an empirical examination of whether the funds managed by individual perform differently from funds managed by teams, using a sample of about 3000 equity MFs over 12 years horizon. The authors found that although the number of funds managed by teams has growth at seven times the rate of funds managed by individuals, no significant difference in the risk adjusted performance is observed between team managed and individually managed funds. Funds managed by teams, however are significantly less risky but exhibit lower turnover. In addition that, the total cost of owning a team managed MF is an average, nearly 50 bps lower per year than the cost of owning an individually managed MF. Finally team managed funds attract significantly greater investor flows than individually managed funds even after controlling for performance, risk and expenses.

K.D.Mehru (March, 2004)⁶¹ in the study of MFs has realised they have undergone considerable quantitative changes, since 1960 when they were introduced in India. The present study has been undertaken with the object to find out the perception of the investors towards MFs and also analyse the investor's preference and importance assign to different attributes. The MFs have caught the fancy of Indian investors. This study was an attempt to monitor the MFs looking and also the business connected with it in India with a perspective to enhance the investors' confidence in future. General perception has been that the MF has cheated the common investors and distributed their savings and plans. Regulatory framework and mechanism of quick detection of wrong doings of MFs followed by punishment, is the need of the hour in the given situation for common interest of all.

CLASSIFICATION OF DIFFERENT UTI MUTUAL FUNDS

The present study focuses on 15 different funds of UTI MF for three different periods [one year (2008-09), three year (2006-09) and five year (2004-09)]. Both NAV and market values of these funds for their different periods are totally considered to segment them into heterogeneous groups. Table 1 exemplifies the cluster centres based on NAV and market values. The frequency distribution of each cluster is obtained in the analysis.

TABLE 1: STATUS OF THE DIFFERENT MUTUAL FUNDS

Particlures	Cluster		
	1(Moderate funds)	2(Best funds)	3(Weak funds)
NAV UTI1	5.00	4.68	-12.18
NAV UTI2	9.54	15.03	5.47
NAV UTI3	6.80	21.73	20.77
Market UTI4	-5.95	5.19	-12.10
Market UTI5	11.39	15.66	10.10
Market UTI6	1.00	21.38	22.46

TABLE 2: NO. OF FUNDS IN EACH CLUSTER

Particulars	Grade of fund	Number of funds in each Cluster
Cluster	1 (M)	3.000
	2 (B)	2.000
	3 (W)	10.000
Valid		15.000
Missing		1.000

TABLE 3: NAME OF THE FUNDS BASED ON RESPECTIVE CLUSTERS FOR UTI

UTI Contra Fund	1
UTI Infrastructure Fund	3
UTI Mid-Cap Fund	3
UTI Opportunities Fund	1
UTI Balanced Fund	2
UTI Equity Tax Savings Plan	3
UTI Pharma Healthcare Fund	3
UTI Equity Fund	3
UTI Mahila Unit Scheme	1
UTI Banking Sector Fund	2
UTI Nifty Index Fund	3
UTI Service Industries Fund	3
UTI Marc Fund	3
UTI Master value Fund	3
UTI Sunder Value Fund	3

The final cluster centre clearly indicates the first cluster is moderate in nature with three different funds, namely UTI Opportunities Fund, UTI Contra Fund and UTI Mahila Unit Scheme. It is ascertained that the second cluster comprises only two funds namely, UTI Balanced Fund and UTI Banking Sector Fund. The frequency distribution of clusters largely indicated that the third cluster is weak in their market as well as NAV values. This group comprises ten funds namely, UTI Infrastructure Fund, UTI Mid-Cap Fund, UTI Equity Tax Savings Fund, UTI Pharma Healthcare Fund, UTI Equity Fund, UTI Nifty Index Fund, UTI Service Industries Fund, UTI Marc Fund, UTI Master Value Fund and UTI Sunder Value Fund, On the whole it can be concluded that these ten funds of UTI make with the respective three different periods of NAV and market values.

JUSTIFICATION OF CLUSTERS OF UTI MUTUAL FUNDS

The segmentation of UTI MF into three different heterogeneous groups is justified by the canonical correlation between groups and the discriminating variables. This canonical correlation is achieved through the formulation of the discriminant function with the linear combination of correlation coefficient. The results of the canonical correlation are presented in Table 4.

TABLE 4: EIGEN VALUES

Function	Eigen value	% of Variance	Cumulative %	Canonical Correlation
1	119.923(a)	98.7	98.7	.996
2	1.638(a)	1.3	100.0	.788

First 2 canonical discriminant functions were used in the analysis.

TABLE 5: WILKS' LAMBDA

Test of Function(s)	Wilks' Lambda	Chi-square	Df	Sig.
1 through 2	.003	54.769	12	.000
2	.379	9.215	5	.101

From Tables 4 and 5 it is inferred that the canonical correlation co-efficient 0.996 and 0.788 are statistically significant with Wilks' lambda values 0.003 and 0.379 respectively. This shows that the formulation of three groups of heterogeneous MFs out of the existing 15 funds is justified. The Structure Matrix estimates the variables exactly discreetly the heterogeneous groups.

TABLE 6: STRUCTURE MATRIX

Period of NAV and Market	Function	
	1(correlation)	2(correlation)
Market UTI 4	.050	.705(*)
Market UTI 6	-.209	.525(*)
NAV UTI 1	.124	.511(*)
NAV UTI 2	.032	.378(*)
Market UTI 5	.018	.363(*)
NAV UTI 3	-.074	.256(*)

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions: Variables ordered by absolute size of correlation within function.

*Largest absolute correlation between each variable and any discriminant function

It is found from Table 6 that the NAV and Market values based on five years is the crucial information to classify the funds into heterogeneous groups. The canonical discriminant Table 7 presents two discriminant functions to estimate the average of NAV and Market values for the best performance of the MFs.

TABLE 7: CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

Particlures	Function	
	1 (weak funds coefficient)	2 (Best funds coefficient)
NAV UTI 1	.536	.083
NAV UTI 2	-.601	-.020
NAV UTI 3	.054	-.150
Market UTI 4	-.117	.150
Market UTI 5	1.306	-.032
Market UTI 6 (Constant)	-.793	.209
	5.679	1.316

Unstandardized coefficients

The two discriminant functions are linear in nature in the combination of NAV and Market values. This function sharply estimates the average value which decides best, moderate and poor performance of every MFs

UTI Marc Fund (Weak Fund)

$$Y1 = (0.536) U1 + (-0.601) U2 + (0.054) U3 - (-0.117) U4 + (1.306) U5 + (-0.793) U6 + 5.679$$

$$Y1 = (0.536) (-12.18) + (-0.601) (5.47) + (0.054) (20.77) - (-0.117) (-12.10) + (1.306) (10.10) + (-0.793) (22.46) + 5.679$$

$$Y1 = (-6.528) + (-3.287) + 1.121 - 1.415 + 13.190 + (-17.810) + 5.679$$

$$Y1 = -9.05$$

$$Y2 = (0.083) (-12.18) - (-0.020) (5.47) + (-0.150) (20.77) + (0.150) (-12.10) - (-0.032) (10.10) - (0.209) (22.46) + 1.316$$

$$Y2 = (-1.010) - (-0.109) + (-3.115) + (-1.815) - (-0.323) - 4.694 + 1.316$$

$$Y2 = -8.886$$

UTI Banking Sector Fund (Best Fund)

$$Y1 = (0.536) (4.68) + (-0.601)(15.03) + (0.054) (21.73) - (-0.117) (5.19) + (1.306) (15.66) + (-0.793) (21.38) + 5.679$$

$$Y1 = 2.508 + (-9.033) + 1.173 - (-0.601) + 20.451 + (-16.954) + 5.679$$

$$Y1 = 4.431$$

$$Y2 = (0.083) (4.68) - (-0.020) (15.03) + (-0.150) (21.73) + (0.150) (5.19) - (-0.032) (15.66) - (0.209) (21.38) + 1.316$$

$$Y2 = 0.388 - (-0.300) + (-3.259) + 0.778 - (-0.501) - 4.468 + 1.316$$

$$Y2 = -4.444$$

The fund which occurs in the two discriminant values shown between $Y1 = -9.05$ and $Y2 = -8.886$ is proved to be of weak performance. If the values go beyond the range of -9.05, it can be concluded that the particular fund of UTI companies will face extinction in future. On the other hand if the value lies between 0 and -8.886 then there is a possibility of the fund to perform moderately in future.

The existence of the different heterogeneous groups of public and private sectors fund is necessary for substantiate and determining the performance with the grading best, moderate and poor.

CLASSIFICATION OF THE STATUS OF THE RELIANCE MUTUAL FUNDS

The present study focuses on 12 different funds of Reliance MFs for three different periods (one year, three year and five year). Both NAV and market values of these funds for their different periods are totally considered to segment them into heterogeneous groups. Table 6.15 exemplifies the cluster centers based on NAV and market values. It is followed by the frequency distribution of each cluster obtained in the analysis.

TABLE 8: STATUS OF THE DIFFERENT MUTUAL FUNDS

Particulars	Cluster		
	1 (Weak fund)	2(Best fund)	3(Moderate fund)
NAV Reliance 1	-12.63	17.72	16.04
NAV Reliance 2	9.66	26.05	18.72
NAV Reliance 3	.00	32.53	.00
Market Reliance 4	-22.87	8.95	9.43
Market Reliance 5	-.75	15.98	18.09
Market Reliance 6	.00	23.58	.00

TABLE 9: NUMBER OF FUNDS IN EACH CLUSTER

Particulars	Cluster grade	No. of funds in each cluster
Cluster	1 (W)	1.000
	2 (B)	5.000
	3 (M)	6.000
Valid		12.000
Missing		3.000

TABLE 10: NAME OF THE FUNDS BASED ON RESPECTIVE CLUSTERS FOR RELIANCE MF

Reliance Equity Opportunity Fund Retail	3
Reliance Tax Saver fund	3
Reliance Pharma Fund	2
Reliance Equity Fund	3
Reliance Banking Fund	2
Reliance NRI Equity Fund	3
Reliance Diversified Power Sector Fund	2
Reliance Growth Fund	2
Reliance Vision Fund	2
Reliance Regular Savings Fund	3
Reliance Media Entertainment Fund	1
Reliance Index Fund Sensex Plan	3

From Table 9 it is found that the first cluster consists of the unique fund. Reliance Media Entertainment Fund which is very weak in its performance or yield. The second cluster comprises strong NAV and market values showing its best performance. It comprises five funds namely, Reliance Pharma Fund, Reliance Banking Fund, Reliance Diversified Power Fund, Reliance Growth Fund and Reliance Vision Fund. All these five funds are deemed to possess high NAV and market values.

The third cluster denotes the moderate performance of six funds namely, Reliance Equity Opportunity Retail Fund, Reliance Tax Saver Fund, Reliance Equity Fund, Reliance NRI Equity Fund and Reliance Regular Savings Fund. These six Reliance funds performed moderately for the span of one year to five years period.

JUSTIFICATION OF CLUSTERS OF RELIANCE MUTUAL FUNDS

The segmentation of Reliance MF into three different heterogeneous groups justified by the canonical correlation between groups and the discriminating variables. This canonical correlation is achieved through the formulation of the discriminant function with the linear combination of correlation coefficient.

TABLE 11: EIGEN VALUES

Function	Eigen value	% of Variance	Cumulative %	Canonical Correlation
1	34.436(a)	79.4	79.4	.986
2	8.929(a)	20.6	100.0	.948

First 2 canonical discriminant functions were used in the analysis.

TABLE 12: WILKS' LAMBDA

Test of Function(s)	Wilks' Lambda	Chi-squared	df	Sig.
1 through 2	.003	38.111	12	.000
2	.101	14.920	5	.011

From Tables 11 and 12, it is inferred that the canonical correlation co-efficients 0.986 and 0.948 are statistically significant with Wilks' lambda values of 0.003 and 0.101 respectively. This shows the formulation of three groups of heterogeneous MFs out of the existing 12 funds is justified.

TABLE 13: STRUCTURE MATRIX

particlures	Function	
	1(correlation)	2(correlation)
NAVReliance 3	.471(*)	.443
MarketReliance6	.424(*)	.399
NAVReliance1	-.023	.487(*)
MarketReliance4	-.042	.378(*)
MarketReliance5	-.044	.210(*)
NAVReliance2	.055	.157(*)

From Table 13 it is found that the NAV and Market values based on five years are the crucial information to classify the funds into heterogeneous groups.

Table 14 presents the two canonical discriminant functions to estimate the average of NAV and Market values for the best performance of the MFs

TABLE 14: CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

particulars	Function	
	1(Weak funds coefficient)	2 (Best funds coefficient)
NAVReliance 1	.093	.122
NAVReliance2	.036	-.141
NAVReliance3	-.281	.381
Market Reliance 4	-.474	.213
Market Reliance5	.218	-.020
Market Reliance6 (Constant)	.824	-.444
	-6.673	-.662

The two discriminant functions are linear in nature, the combination of NAV and Market values. This function sharply estimates the average value which decides the best, moderate and poor performance of every MFs.

Reliance Media Entertainment Fund: (Weak Fund)

$$Y1 = (0.093) \times R1 + (0.036)R2 - (0.281) \times R3 - (0.474) \times R4 + (0.218) \times R5 + (0.824) R6 - 6.673$$

$$Y1 = (0.093) (-12.63) + (0.036) (9.66) + 0 - (0.474) (-22.87) + (0.218) (-0.75) + 0 - 6.673$$

$$Y1 = -1.17 + 0.35 + 0 + 10.81 - 0.16 + 0 - 6.673$$

$$Y1 = 3.16$$

$$Y2 = (0.122)R1 - (0.141) R2 + (0.381) R3 + (0.213) R4 - (0.020) R5 - (0.444) R6 - 0.662$$

$$Y2 = (0.122) (-12.63) - (0.141) (9.66) + (0.381) 0 + (0.213) (-22.87) - (0.020) (-0.75) - (0.444) (0) - 0.662$$

$$Y2 = -8.417$$

Reliance Banking Fund (Best Fund)

$$Y1 = (0.093) (17.72) + (0.036) (26.05) + (-0.281) (32.53) - (0.474) (8.95) + (0.218) (15.98) + (0.824) (23.58) - 6.673$$

$$Y1 = 1.647 + 0.937 + (-9.140) - (-4.242) + 3.483 + 19.429 - 6.673$$

$$Y1 = 13.923$$

$$Y2 = (0.122) (17.72) - (0.141) (26.05) + (0.381) (32.53) + (0.213) (8.95) - (-0.020) (15.98) - (-0.444) (23.58) - 0.662$$

$$Y2 = 2.162 - (-3.673) + 12.393 + 1.906 - (-0.391) - (-10.469) - 0.662$$

$$Y2 = 30.26$$

The fund which occurs in the two discriminant values shown between $Y1 = 3.16$ and $Y2 = -8.417$ is proved to be of weak performance. If the values go beyond the above said range -8.417, it can be concluded that the particular fund of Reliance companies will face extinction in future. On the other hand if the value lies between 0 and 3.16 then there is a possibility of the fund to perform moderately in future.

The existence of the different heterogeneous groups of public and private sectors fund is the necessary for substantiate and determining the performance with the grading best, moderate and the poor.

CONCLUSION

MF institution is so unique and it launched its different object oriented schemes to the retail investors. Basically MF is an investment company channelising savings and invested the same funds in a wide number of securities in a way to minimise risk and ensure steady return with the help of fund managers and experts team. A fund grouping mathematical model has been used with the help of cluster analysis and canonical correlation. This model helps to evaluate the values of NAV and Market yearly average return for the sample institutional funds for identifying the best, moderate and poor funds.

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TESTING STATIONARITY OF BETA AND BETA REGRESSION TENDENCIES IN INDIAN STOCK MARKET**DR. BAL KRISHAN****PROFESSOR****DEPARTMENT OF COMMERCE
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UNA****ABSTRACT**

This study analysed that whether betas of securities are close to market beta (one) and stationarity of beta. The results of the study are based on one sample t test. This study is done on securities and portfolios over twelve years and over different investment horizon. Though, in case of security analyses majority of companies (54.50 per cent companies) shows beta close to one over time period. Though, similar results are not seen in case of portfolios, where less than fifty per cent portfolios show significant difference. It indicates that majority of portfolios beta value not regress to one. This study also shows that beta value of securities and portfolios is not close to one with exception of few cases in one year, three years and four years of investment horizons. The historical beta is generally used as the estimates of future beta. The examinations of past beta are making sense, when betas are stationarity, adjusted beta can be used to forecast. But it is not possible in Indian market as autocorrelation do not exist in beta and systematic risk is not stable over twelve years. This concept is useful for investor to analyze the risk of securities and portfolios.

KEYWORDS

Beta regression tendencies, Indian stock market.

INTRODUCTION

Beta measures how a particular stock's price moves relative to the market as a whole. It is usually described as a measure of volatility. That's why beta has emerged as the most popular measure of risk of security. The historic beta is generally used as the estimates of future beta. Only when the betas are stationarity, then in that situation estimates of past betas has make sense. An essential prerequisite for using beta is to access future portfolio risk and return is a reasonable degree of predictability over future time periods. This study examines the stationary of betas in Indian security markets as well as the tendency of betas in successive time period to regress towards mean beta of one. Various sizes of portfolios are constructed to study the effect of group size on beta.

Research on beta has covered various aspects. Some researcher has investigated the various influences on stability and stationarity of beta, which include the length of estimation and holding periods and portfolio size. Some have studied the effect of market conditions, volume of trading and differential information on beta. Others have attempted to modify historical betas such as adjusted beta to get better estimates.

DATA

The present study is based on the secondary data. The data is collected from the website of nseindia.in. In the present study a sample of two hundred ninety one companies are selected. The securities include in our sample are representative both in terms of turnover and market capitalization. Moreover our sample includes securities of all types, making it highly diversified. The securities cover all the areas of industry such as banking, technology, media, pharmaceuticals, textiles etc. The daily returns/price of the sample is matched by the calendar date. NSE Nifty is used as a surrogate for market return. The S&P CNX Nifty (Nifty 50 or simply Nifty) is a composite of top 50 stocks listed on the National Stock exchange, representing 24 different sectors of the economy. The base date selected for calculation of nifty is November 3, 1995. The sample period for the study selected from April 1997 to March 2009.

OBJECTIVES

This study is undertaken with the following objectives:

- Testing beta regression Tendency Company wise over twelve years.
- Testing beta regression tendency over different intervals such as one year, two years, three years, four years, six years and twelve years.
- Sizes of portfolios- various sizes of portfolios are constructed to study the regressive tendency portfolio wise over different interval.
- Testing stationarity of beta for forecasting adjusted beta.

HYPOTHESES

To address the objectives of study, following hypothesis is formulated:

- Hypothesis postulates that tendency of beta in successive time period regress to one

$H_0: \beta_1 = 1$

$H_A: \beta_1 \neq 1$

β_1 = Beta (Systematic risk)

- Second hypothesis posits that stability of beta

H_0 : Successive beta is independent of past beta

H_A : Successive beta is not independent of past beta

The hypothesis is tested at five per cent and one per cent levels of significance.

METHODOLOGY

First hypothesis is tested with of one sample t test.

- Second hypothesis is tested by serial correlation coefficient

Above mentioned hypothesis are also used for portfolios. The beta value is arranged in descending order during 1997-98 for making the portfolios. A portfolio of five securities (Set-1) has been made with equal weight; subsequent portfolios are made with leaving the highest beta security and adding the next lowest beta

security. For the remaining years securities are remain in same portfolios as was in 1997-98. Same procedure are applied for 10 (Set-2), 15(Set-3), 20(Set-4), 25(Set-5), 30(Set-6), and 35 (Set-7) securities portfolios.

RESULTS

TESTING BETA REGRESSION TENDENCY COMPANY WISE OVER TWELVE YEARS

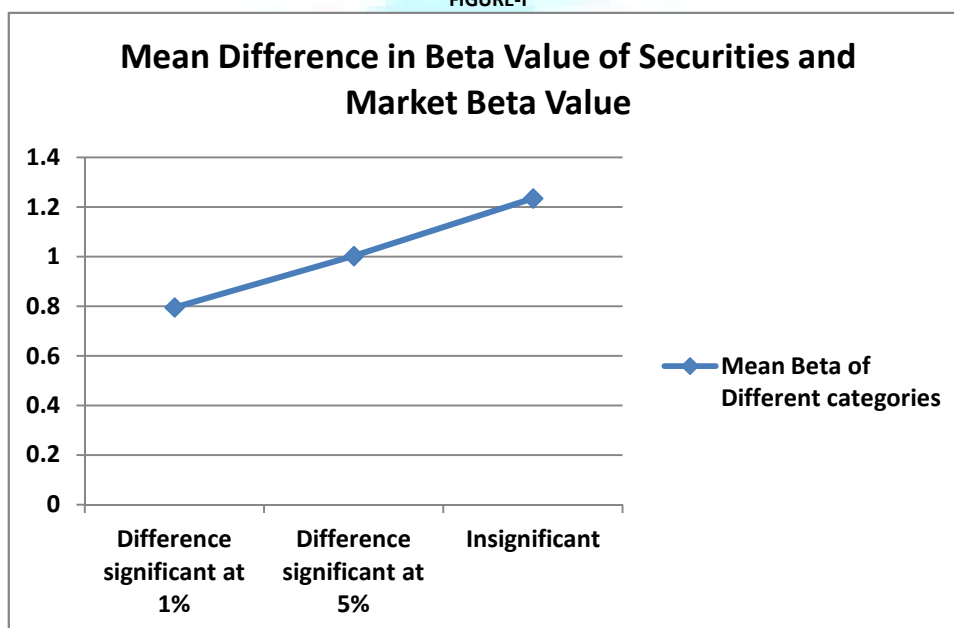
Time series regressions are run to estimate the alpha and beta of companies and portfolios for twelve years. One sample mean t test statistics namely mean difference; standard error; t value and p value are calculated for individual securities and portfolios.

It can be observed from Table-I that in case of 28.30 per cent companies the mean beta value difference between security return and market return are significant at one per cent level. However, in case of 17.2 per cent companies the differences are significant at five per cent level. It depicts that the mean beta value of majorities of companies and market beta values have insignificant difference. Thus, 54.50 per cent of companies have beta value close to one (insignificant difference). It reveals that majority of the companies beta value tends to one (market beta value) over time period. But it can be said that majority of companies close to fifty per cent. So, it is not clearly concludes that maximum listed companies in stock market tends to one.

TABLE-I: MEAN BETA VALUE OF THREE GROUPS FROM 1997-98 TO 2008-09 (SECURITIES)

Category	Mean	Percentage of Companies
Difference significant at 1%	.7955	28.3
Difference significant at 5%	1.0030	17.2
Insignificant	1.2349	54.5
Total	1.0707	100.0

FIGURE-I



Average beta value of securities related to different categories are depicts in figure-I. A closer look at these mean beta values reveals that mean beta is higher for securities (1.2349) in case of third category and lowest (0.7955) in category one.

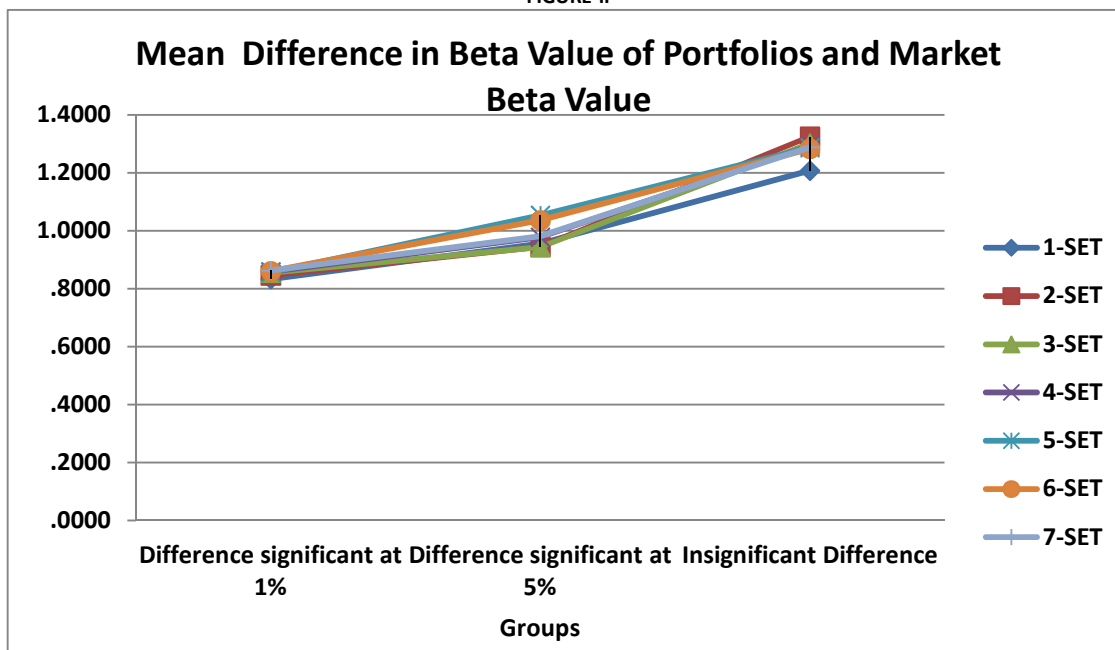
VARIOUS SIZES OF PORTFOLIOS ARE CONSTRUCTED TO STUDY THE REGRESSIVE TENDENCY PORTFOLIO WISE

The results of different portfolios have been presented in Table-II. It is curious to note that similar per centage does not prevail even when the mean beta value difference have been obtained through portfolios. Table-II shows that majorities of portfolios have beta values not close to one. Thus in case of set-1 36.36 per cent portfolios has significant differences at one per cent level and 14.69 per cent portfolios at five per cent level. Similar results such as majority of portfolios do not tend to one are obtained under different sets. It reveals that in Indian stock market beta of 38 per cent to 48.95 per cent portfolios are close to one. So, this study indicates that approximately 50 per cent cases support beta value close to one.

TABLE-II: MEAN BETA VALUE OF THREE GROUPS FROM 1997-98 TO 2008-09 (PORTFOLIOS)

	Mean Beta Value of Three Groups				Number of Portfolios of Three Groups			
	Difference significant at 1%	Difference significant at 5%	Insignificant Difference	Total	Difference significant at 1%	Difference significant at 5%	Insignificant Difference	TOTAL
1-SET	.8333	.9553	1.2070	1.0342	36.36%	14.69%	48.95%	100.00%
2-SET	.8458	.9443	1.3246	1.0332	43.06%	22.42%	34.52%	100.00%
3-SET	.8552	.9436	1.3014	1.0346	51.09%	10.87%	38.04%	100.00%
4-SET	.8585	.9775	1.2914	1.0369	54.24%	6.27%	39.48%	100.00%
5-SET	.8566	1.0532	1.2865	1.0398	54.51%	5.26%	40.23%	100.00%
6-SET	.8601	1.0357	1.2827	1.0430	54.02%	4.60%	41.38%	100.00%
7-SET	.8625	.9810	1.2883	1.0457	52.73%	5.86%	41.41%	100.00%

FIGURE-II



Mean beta values of portfolios are depicted in figure-II which indicates that mean beta is higher in third categories and lowest in first categories under different sets. It reveals that companies and portfolios close to market have mean beta above one. So, these companies and portfolios have highest returns and risk as compared to market.

Above study is based on 12 data (beta value of 12 years) of each company. Thus, 12 data are equally important, as this study reveals that 12 beta values of majority of companies are not close to one.

TESTING BETA REGRESSION TENDENCY OVER DIFFERENT INTERVALS SUCH AS ONE YEAR, TWO YEARS, THREE YEARS, FOUR YEARS, SIX YEARS AND TWELVE YEARS FOR SECURITIES AND PORTFOLIOS

So, it is important to know which investment horizons have mean beta value of all securities close to market value. For this purpose seven investment horizons (one year, two years, three years, four years, six years and twelve years) are studied with different sets of portfolios such as set-1 (five securities portfolios) to set-7 (thirty five securities portfolios).

It is observed that in case of one year investment horizon companies' beta value from 2003-04 to 2007-08 are close to market beta. It means that during these years, differences between companies' beta and market beta are insignificant. In 2008-09, there are significant differences at one per cent and five per cent level and companies are under performed as compared to market because mean beta is 0.8329. It can be observed that set-1 to set-4 and in set-8 difference is insignificant in 2003-04, 2004-05 and 2005-06. But in Set-5, set-6 and set-7 spread is only insignificant in 2003-04 and 2004-05. It reflects that portfolios results under all sets are different as compared to securities in 2006-07 and 2007-08.

This study depicts that results are different in two years investment horizons as compared to one year investment horizons. It shows that differences between companies (portfolios under all sets) betas and market beta have significant difference at five per cent and one per cent levels. It also depicts that mean beta value are higher than one in 1997-99, 1999-01 and 2001-03. Thereafter, their values are less than one that's why companies' (portfolios) returns and risk are less as compared to markets return and risk.

In case of three years investment horizons, differences both in companies and portfolios (all sets) are insignificant in 2003-06 which indicates that mean beta is close to market beta. This paper depicts that in four year investment horizons difference are significant at one per cent and five per cent levels during 1997-01 and 2005-09. It can be seen that during 2001-05, mean beta is close to one and less than one. Results of six years and twelve years investment horizons shows differences are significant at five per cent and one per cent levels.

This study shows that beta value of securities and portfolios is not close to one except few cases in one year, three years and four years investment horizons.

TESTING STATIONARITY OF BETA FOR FORECASTING ADJUSTED BETA

Here, it is important to note that whether beta related to company is stable over study period or not. If beta of a company is auto correlated then systematic risks are stable and its impact on returns will be same for a long run. According to Marshall E. Blume adjusted beta is more close to future beta as compared to previous beta. The concept of adjusted beta is important for prediction in those cases where betas related to company are correlated over time period. In order to measure the stability of beta, auto correlation is tested between betas of each company. In case auto correlation exist then adjusted betas are important for forecasting.

This study indicates that out of 287 companies 248 companies (86.40 per cent companies) have insignificant correlation. Summary of this study presented in table-III. This indicates that systematic risk of majority of companies is not same over study period. In this case benefit of adjusted beta is not taken into account because of non existence of auto correlations of beta during twelve years. Thus, decision regarding weight (related to one and security in adjusted beta) is based on past trend of betas of company. It is not possible to decide the weight because beta does not follow particular direction. So, adjusted beta concept is not useful for forecasting in Indian stock market.

TABLE-III: SUMMARY OF AUTOCORRELATION TEST

Categories	N	% of Total N
Difference significant at 1%	6	0.0209
Difference significant at 5%	33	0.1150
Insignificant	248	0.8641

CONCLUSION

On the basis of the objective of the study the following results have been drawn:

- According to securities and portfolios wise study over twelve years 54.50 per cent securities and 34.52 per cent to 48.95 per cent portfolios are regress to one in context of Indian stock market. But on the basis of above percentage of securities and portfolios it cannot be concluded that beta values of entire companies listed in stock market are tends to one.
- On basis of different time intervals taken for study depicts that all companies and different set of portfolios does not tend to one except in few cases in one year, three years and four years time interval and beta value of companies and portfolios does not regress to one.

- Adjusted beta concept which is given by Blume is not applicable with regard to Indian stock market because beta values of securities are not auto correlated over twelve years. So, the decision regarding weight (related to one and securities) can't be determined. Thus it can be said that beta are not stable over the period of twelve years.

On comparing the present study with the previous studies (Blume), it has been found that there is quite variation in the results. Some studies totally states that beta is unstable over the study period and does not tends to be one. The present study also suggests that beta of around fifty per cent observations has neither regressive tendency nor stationarity. Hence in Indian stock market beta cannot forecast with the help of adjusted betas.

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AN EVALUATION OF FINANCES OF DEC OF SRI VENKATESWARA UNIVERSITY, TIRUPATI, A.P.

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ABSTRACT

Education is an everlasting, continuous and a life-long process. It does not stop at any particular age. The conventional system of education was proved inadequate to accommodate the growing needs of the Indian Society. Therefore, the system of distance education has emerged as an effective alternative to the conventional system of education. Distance Education system caters to the needs of those who cannot pursue formal college education owing to various constraints such as poverty, employment etc. and those who wish to improve their knowledge and skills. Sri Venkateswara University, established in 1952, is one of the three oldest Universities in Andhra Pradesh. The University has been making commendable strides in its service to the socially and educationally disadvantaged students of the society. The University is accredited by NAAC with 'A' grade. The Directorate of Distance Education came into existence in the year 1972 to extend the frontiers of academic excellence beyond its campus. The main objective of distance education is to "reach the un-reached". Through Distance Education, it is hoped to provide all the need-based academic and vocational programmes at your doorstep. The financial performance primarily depends on the total enrollment, income and expenditure of any University. The enrollment, income and expenditure of Sri Venkateswara University during 1999-2009 have been collected for the evaluation of the financial performance. It may be noted that the average income of graduate courses is moderate while that of P.G courses and diploma courses attained a high magnitude of income. The yearly variations in income of graduate courses and diploma courses are moderate where as wild in P.G courses. The growth rate in income is high and significant for all the courses. It may be concluded that the average income is grater in tuition fee and PCP classes when compared to sale of applications. The yearly variations in income from sale of application and tuition fee are not wild while very wide in income from PCP classes. Growth rate in income is uneven in all the items of income. It may be noticed that average income from tuition fees for graduate and P.G courses is more when compared to diploma courses. Variations in income from year to year are wild in P.G and diploma courses while moderately registered in graduate courses. Growth in income is high in P.G courses while that of graduate and diploma courses a moderate growth. The standardized cost cutting measures shall be adopted in the areas like uniform fees, staff pattern and salaries, syllabus and curriculum and administrative set-up so that these DEC's can avoid wastages and compete in a uniform environment for excellent student support services.

KEYWORDS

Sri venkateswara university, distance education.

INTRODUCTION

 Education is an everlasting, continuous and a life-long process. It does not stop at any particular age¹. The conventional system of education was proved inadequate to accommodate the growing needs of the Indian Society. Therefore, the system of distance education has emerged as an effective alternative to the conventional system of education. Distance Education system caters to the needs of those who cannot pursue formal college education owing to various constraints such as poverty, employment etc. and those who wish to improve their knowledge and skills². Sri Venkateswara University, established in 1952, is one of the three oldest Universities in Andhra Pradesh. The University has been making commendable strides in its service to the socially and educationally disadvantaged students of the society. The University is accredited by NAAC with 'A' grade. The Directorate of Distance Education came into existence in the year 1972 to extend the frontiers of academic excellence beyond its campus. The main objective of distance education is to "reach the un-reached". Through Distance Education, it is hoped to provide all the need-based academic and vocational programmes at your doorstep³.

FINANCIAL PERFORMANCE

The financial performance primarily depends on the total enrollment, income and expenditure of any University. The enrollment, income and expenditure of Sri Venkateswara University during 1999-2009 have been collected for the evaluation of the financial performance.

ENROLLMENT

The enrollment indicates the students strength and higher the enrollment higher will be the income as the enrollment and income are directly proportional to each other. Total enrolment of students in graduate, post-graduate and diploma courses in DDE of Sri Venkateswara University has been presented in the Table.1

UNDERGRADUATE COURSES

The enrolment in graduation in DDE of SVU was highest at 10606 in 2008-09 and lowest 2560 in 2005-06 with an average of 4249.40. A two fold increase in the enrolment of graduates is observed between 2005-06 and 2006-07.

Ever since the enrolment continuously and rapidly increased due to increasing awareness on education on the one hand and graduation is minimum level for any job on the other. As per CV value of 75.46, the variations in the enrolment are high in the enrolment of graduate students. The CGR is 0.139. The CGR explains that the growth in enrolment of graduates is normal despite increase in enrolment. The 't' value is 4.191 and significant at one per cent level, showing significant increase in the enrolment of graduates.

TABLE 1: TOTAL ENROLMENT OF STUDENTS IN DDE, S.V. UNIVERSITY

Year	Graduation	Post Graduation	Diploma	Total
1999-2k	2894 (46.23)	3200 (51.12)	165 (2.65)	6259 (100)
2000-01	2500 (38.53)	3506 (54.04)	482 (7.43)	6488 (100)
2001-02	3043 (45.46)	3537 (52.86)	113 (1.68)	6693 (100)
2002-03	2800 (45.52)	3200 (52.03)	150 (2.45)	6150 (100)
2003-04	2724 (47.77)	2773 (48.64)	205 (3.59)	5702 (100)
2004-05	830 (18.45)	3524 (78.35)	144 (3.20)	4498 (100)
2005-06	2560 (33.21)	4926 (64.67)	162 (2.12)	7648 (100)
2006-07	5200 (42.00)	6530 (52.75)	650 (5.25)	12380 (100)
2007-08	9337 (46.32)	10760 (50.18)	750 (3.50)	20847 (100)
2008-09	10606 (40.00)	14938 (56.34)	970 (3.66)	26514 (100)
Mean	4249	5689	379	
C.V	75.46	71.16	82.13	
C.G.R	0.139	0.167	0.194	
t. cal	4.191*	4.444*	3.850*	

Source: Records of DEC of select University

Notes:

(i) * Indicates significant at five per cent level

(ii) Figures in parentheses indicate the percentage to total

POSTGRADUATE COURSES

The enrolment of post-graduates was highest at 14938 in 2008-09 and lowest at 2773 in 2003-04 and the mean enrolment is 5689.40. The enrolment in post-graduation in the initial period was very low due to backwardness of the region, low economic conditions and lack of awareness on higher education. In the latter period, the enrolment abnormally increased from year to year due to cut-throat competition in jobs, promotions and salary hike for higher qualification. The CV 71.16 shows per cent variation in the enrolment and CGR is 0.167 and shows low growth. The 't' value is 4.444 and significant at one per cent level showing significant increase in the enrolment of post-graduates.

DIPLOMA COURSES

The diploma courses enrolment was are highest at 970 in 2008-09 and lowest at 113 in 2001-02 with an average of 379.10. The enrolment in diploma courses was meager compared to other courses. The enrolment was very low up to 2006 and thereafter the enrolment increased very minutely and reached to 970 in 2008-09. The CV is 82.13 and there exists more variations in the enrolment as is noted from CV and CGR represents normal growth in enrolment 0.194. The 't' value is 3.850 and is significant at one per cent level showing significant increase in the enrolment diploma courses. The growth in enrollment is very low in the first half of the study period and very rapid in the latter half of the period.

INCOME

Income is the tablet and tonic of any institute. Income is derived from various sources through enrollment, contact programme classes and examinations. Higher the income higher will be facilities and healthy nature of institute. The income level of graduate, postgraduate and diploma courses is presented in the Table 2.

UNDERGRADUATE COURSES

Income from graduate courses at constant prices was minimum at Rs.11.62 lakhs in 1999-2000 and maximum at Rs.158.52 lakhs in 2008-09 with an average of Rs.78.25 lakhs. The income seems to have increased over the last three years, i.e. 2006-07 to 2008-09. There is an abnormal increase in the enrolment in all the courses and the tuition fee, application cost and examinations fee have been hiked and hence high income is observed from the last three years. The CV is showing 65.22 per cent of variation. The CGR represents 24.01 per cent growth in income. The 't' value is 4.20 and significant at five per cent level. It confirms that the CGR of income is significant with high magnitude.

POSTGRADUATE COURSES

The income from post-graduation courses varied between Rs.19.89 lakhs in 1999-2000 and Rs.914.36 lakhs in 2008-09 with a mean of Rs.224.87 lakhs. The income from post-graduation courses was low and even the increase is also very low upto 2004-05, but from 2005-06 onwards income was very high. The high income is due to introduction of new science courses and abnormal enrolment especially in English, Telugu and MBA. The range of income is Rs. 894.47 lakhs. The CV shows 128.25 per cent variation. The CGR is 44.11 per cent growth in income. The 't' value is 7.60 and significant at five per cent level. It confirms the CGR of income is significant at low magnitude.

TABLE 2: LEVEL OF EDUCATION-WISE CATEGORIZATION OF INCOME OF DDE OF SVU (Rs. in lakhs)

Year	Graduate Courses	Post-graduate courses	Diploma courses	Total
(1)	(2)	(3)	(4)	(5) (2+3+4)
1999-2K	11.62	19.89	1.64	33.15
2000-01	(35.05)	(60.00)	(4.95)	(100)
2001-02	52.73	58.31	3.02	114.06
2002-03	(46.23)	(51.12)	(2.65)	(100)
2003-04	51.27	71.83	2.28	125.38
2004-05	(40.89)	(57.29)	(1.82)	(100)
2005-06	54.65	63.55	2.02	120.22
2006-07	(45.46)	(52.86)	(1.68)	(100)
2007-08	40.98	46.84	2.21	90.03
2008-09	(45.52)	(52.03)	(2.45)	(100)
	89.67	91.31	6.74	187.72
	(47.77)	(48.64)	(3.59)	(100)
	42.37	179.95	7.35	229.67
	(18.45)	(78.35)	(3.20)	(100)
	133.32	259.62	8.51	401.45
	(33.21)	(64.67)	(2.12)	(100)
	147.41	543.03	9.21	699.65
	(21.07)	(77.61)	(1.32)	(100)
	158.52	914.36	10.42	1083.30
	(14.63)	(84.41)	(0.96)	(100)
Mean	78.25	224.87	5.34	
CV	65.22	128.25	64.29	
C.G.R	24.01*	44.11*	24.40*	
t-cal	4.20	7.60	6.06	

Source: Budget Books of DEC of select University

Notes:

(i) * Indicates significant at five per cent level

(ii) Figures in parentheses indicate the percentage to total

DIPLOMA COURSES

The income from diploma course was very low and ranged from Rs 1.64 lakhs in 1999-2000 to Rs 10.42 lakhs with an average of Rs 5.34 lakhs. But from 2004-05 the income from diploma course rapidly increased due to introduction of new diploma courses such as guidance and counselling and job opportunities as an additional degree. The CV shows 64.29 per cent variation and the CGR shows 24.40 per cent growth in income. The 't' value is 6.06 and significant at five per cent level indicating the compound growth rate in income is significant but at low magnitude.

INCOME FROM VARIOUS SOURCES

The total income of DDE, SVU from various categories such as sales of applications, tuition fee, and PCP classes is displayed in Table.3

It is obvious that sale of applications is one of the income sources of DDE. The income from sales of applications was as low as Rs.8.96 lakhs in 2005-06 to as high as Rs.38.51 lakhs in 2008-09 and the mean income is Rs.16.09 lakhs. The income increased steadily only during the last three years due to increase in the sale. The CV shows 56.47 per cent variation. The CGR indicates 10.34 per cent growth in the income. The 't' value is 2.61 and significant at five per cent level. It indicates that the compound growth rate of income is significant at lower magnitude.

TABLE 3: ITEM-WISE INCOME AT CONSTANT PRICES OF DDE OF SVU (Rs. in lakhs)

Year	Item-wise income at constant prices from			
	Sale of applications	Tuition fees	PCP classes	Total
(1)	(2)	(3)	(4)	(5) (2+3+4)
1999-2K	10.83	16.41	5.91	33.15
	(32.67)	(49.50)	(17.83)	(100)
2000-01	12.51	86.89	14.66	114.06
	(10.97)	(76.18)	(12.85)	(100)
2001-02	12.23	93.14	20.01	125.38
	(9.75)	(74.29)	(15.96)	(100)
2002-03	13.38	83.09	23.75	120.22
	(11.13)	(69.11)	(19.76)	(100)
2003-04	12.30	67.25	10.48	90.03
	(13.66)	(74.70)	(11.64)	(100)
2004-05	11.40	152.00	24.32	187.72
	(6.07)	(80.97)	(12.96)	(100)
2005-06	8.96	194.24	26.47	229.67
	(3.90)	(84.57)	(11.53)	(100)
2006-07	15.23	187.61	198.61	401.45
	(3.79)	(46.73)	(49.47)	(100)
2007-08	25.56	260.22	413.87	699.65
	(3.65)	(37.19)	(59.15)	(100)
2008-09	38.51	320.56	724.23	1083.30
	(3.55)	(29.59)	(66.85)	(100)
Mean	16.09	146.14	146.23	
C.V	56.47	64.86	165.01	
CGR	10.34*	28.43*	61.71*	
't' cal	2.61	5.34	5.54	

Source: Budget Books of DEC of select University

Notes:

(i) * Indicates significant at five per cent level

(ii) Figures in parentheses indicate the percentage to total

The income from tuition fee was lowest at Rs.16.41 lakhs in 1999-2000 and highest at Rs.320.56 lakhs with the mean of Rs.146.14 lakhs. The income is low and less than Rs.1 lakhs upto 2003-04 and later on the income increased from Rs.152 lakhs in 2004-05 to Rs.320.56 lakhs in 2008-09 due to abnormal increase in tuition fee. The CV shows 64.86 per cent variation. The CGR shows 28.43 per cent growth in the income. The 't' value is 5.34 and significant at five per cent level. It indicates that CGR is significant and at appreciable magnitude. PCP is one of the major activities of DDE and a leading income generator. The income from PCP classes is minimum at Rs 5.91 lakhs in 1999-2000 and maximum at Rs 724.23 lakhs in 2008-09 with the mean of Rs 142.23 lakhs. The income is very low in the beginning from 1999-2000 to 2005-06. Later on there is a tremendous increase in income due to increase in enrolment in all the courses offered by DDE. The CV shows 166.01 per cent of high variation. The CGR shows 61.71 per cent growth in the income. The 't' value is 5.54 and significant at five per cent level and confirms that the CGR of income is significant with highest magnitude.

EXPENDITURE

Expenditure is involved in preparation of study material, remuneration to the course writers, conducting contact programme classes, evaluation of answer scripts etc. Yearly expenditure of DDE of SVU is segregated into three education levels- graduation, post-graduation and diploma courses. The details of both at constant prices are presented in Table 5.

UNDERGRADUATE COURSES

The percentage share of total expenditure of post-graduation course ranged from 38.75 per cent in 2008-09 to 28.35 per cent. The percentage share of graduate courses ranged from 37.37 per cent in 2007-08 to 18.45 per cent in 2005-2006 in 47.77 per cent in 2004-05. The strength in undergraduate courses is increasing but the expenditure seems very low compared to post graduate courses.

POSTGRADUATE COURSES

The expenditure of graduation varies from 8.45 per cent in 2005-06 to 57.41 per cent in 2008-09. With regard to expenditure of current prices the percentage share of post graduation varied from 48.64 per cent in 2004-05 to 78.35 per cent in 2005-06. The post graduate courses in science have been attracting more strength but expenditure on chemicals, practicals etc is increasing by leaps and bounds

TABLE 5: COURSE WISE EXPENDITURE OF DDE, S.V.UNIVERSITY (Rs. in lakhs)

Year	Graduation Courses	Post-graduation courses	Diploma courses	Total
(1)	(2)	(3)	(4)	(5) (2+3+4)
1999-2K	23.19	39.68	3.27	66.14
2000-01	(35.06)	(59.99)	(4.94)	(100)
2001-02	33.94	37.53	1.95	73.42
2002-03	(46.23)	(51.12)	(2.66)	(100)
2003-04	34.00	47.64	1.51	83.15
2004-05	(40.89)	(57.29)	(1.82)	(100)
2005-06	47.50	55.23	1.76	104.49
2006-07	(45.46)	(52.86)	(1.68)	(100)
2007-08	44.00	50.29	2.37	96.66
2008-09	(45.52)	(52.03)	(2.45)	(100)
	50.22	51.13	3.77	105.12
	(47.77)	(48.64)	(3.59)	(100)
	21.50	91.29	3.73	116.52
	(18.45)	(78.35)	(3.20)	(100)
	49.46	96.30	3.15	148.91
	(33.21)	(64.67)	(2.12)	(100)
	143.47	180.19	17.96	341.62
	(42.00)	(52.75)	(5.26)	(100)
	281.88	180.25	18.83	480.96
	(58.61)	(37.48)	(3.92)	(100)
Mean	72.92	82.95	5.83	
CV	111.36	66.27	114.46	
C.G.R	21.55*	19.68*	25.66*	
t-cal	3.12	7.12	3.48	

Source: Budget Books of DEC of select University

Notes:

(i) * Indicates significant at five per cent level

(ii) Figures in parentheses indicate the percentage to total

DIPLOMA COURSES

In case of diploma courses the expenditure ranges from 1.68 per cent in 2002-03 to 5.25 per cent in 2007-08. The diploma courses have minimum expenditure as well as income. Hence the expenditure seems very low compared to graduate and post graduate course.

Annual mean values of expenditure are Rs.72.92 lakhs, Rs.82.95 lakhs and Rs.5.83 lakhs on graduation, post-graduation and diploma course respectively. Wide variations in expenditure of different courses can be noticed from the CV values. CV is highest for diploma courses at 114.46 per cent followed by 111.36 per cent for graduation courses. CGR recorded at 21.55 per cent, 19.68 per cent and 25.66 per cent for graduation, post graduation and diploma courses respectively. All of which are statistically significant at five per cent level.

DISTRIBUTION OF EXPENDITURE IN OPEN UNIVERSITY

Table .6 shows expenditure items in Open University mode of DDE of SVU. Reading the table vertically with regard to expenditure at constant prices, the following observations can be made. Remuneration to staff is dominant expenditure as its percentage share in total expenditure ranged from 80.66 per cent in 2007-08 to 98.29 per cent in 2005-06. Other expenditure had ranged between the lowest of 1.71 per cent in 2005-06 and the highest of 17.79 per cent in 2007-08.

TABLE 6: DISTRIBUTION OF EXPENDITURE IN OPEN UNIVERSITY (Rs. in lakhs)

Year	Constant prices			
	Remuneration to staff	Advertising	Others	Total
(1)	(2)	(3)	(4)	(5) (2+3+4)
1999-2k	15.97	-	3.33	19.85
2000-01	(82.45)		(16.25)	(100)
2001-02	11.88	0.47	1.49	13.84
2002-03	(85.84)	(3.40)	(10.77)	(100)
2003-04	12.75	0.68	0.87	14.30
2004-05	(89.16)	(4.76)	(6.08)	(100)
2005-06	12.95	0.34	2.84	16.13
2006-07	(80.29)	(2.11)	(17.61)	(100)
2007-08	13.85	0.42	2.60	16.87
2008-09	(82.10)	(2.49)	(15.41)	(100)
	15.17	0.50	0.61	16.28
	(93.18)	(3.07)	(3.75)	(100)
	18.94	-	0.33	19.27
	(98.29)		(1.71)	(100)
	19.75	0.40	1.82	21.97
	(89.90)	(1.82)	(8.28)	(100)
	24.38	0.65	5.42	30.45
	(80.07)	(2.13)	(17.80)	(100)
	31.87	0.45	4.25	36.57
	(87.15)	(1.23)	(11.62)	(100)
Mean	17.75	0.49	2.36	
CV	35.44	24.37	70.20	
CGR	9.30*	0.16 ^{NS}	4.35 ^{NS}	
t-test	4.56	0.04	0.41	

Source: Budget Books of DEC of select University

Notes:

(i) * Indicates significant at five per cent level

(ii) NS: Not significant

(iii) Figures in parentheses indicate the percentage to total

The percentage of share of advertising in total expenditure varied from 1.83 per cent in 2006-07 to 4.76 per cent in 2001-02. Similar pattern is observed with the regard to percentage share of three expenditure items in total expenditure at current prices. Annual Mean expenditure registered at Rs.17.75 lakhs, Rs.0.49 lakhs and Rs.2.36 lakhs on remuneration staff, advertising and others respectively. Based on CV values, the variation in yearly expenditure is highest at 70.20 per cent in 'others' followed by 35.44 per cent on remuneration to staff, 24.37 per cent on advertising. Remuneration to staff registered CGR of 9.3 per cent which is statistically significant at five per cent level followed by CGR of 4.35 per cent with the regard to other expenditure, of 0.16 per cent with regard to advertising. Both are statistically not significant. As seen from Table 6.20, there is statistically significant difference between expenditure items of Open University mode of DDE of SVU.

CONCLUSION

The enrolment in graduation in DDE of SVU was highest at 10606 in 2008-09 and lowest 2560 in 2005-06 with an average of 4249.40. The 't' value is 4.191 and significant at one per cent level, showing significant increase in the enrolment of graduates. The enrolment of post-graduates was highest at 14938 in 2008-09 and lowest at 2773 in 2003-04 and the mean enrolment is 5689.40. The 't' value is 4.444 and significant at one per cent level showing significant increase in the enrolment of post graduates. The diploma courses enrolment was are highest at 970 in 2008-09 and lowest at 113 in 2001-02 with an average of 379.10. The 't' value is 3.850 and is significant at one per cent level showing significant increase in the enrolment diploma courses. The expenditure of graduation varies from 8.45 per cent in 2005-06 to 57.41 per cent in 2008-09, from 38.75 per cent in 2008-09 to 28.35 per cent in post-graduation course and in case of diploma courses the expenditure ranges from 1.68 per cent in 2002-03 to 5.25 per cent in 2007-08. The expenditure CGR recorded at 21.55 per cent, 19.68 per cent and 25.66 per cent for graduation, post graduation and diploma courses respectively. All of which are statistically significant at five per cent level.

It may be noted that the average income of graduate courses is moderate while that of P.G courses and diploma courses attained a high magnitude of income. The yearly variations in income of graduate courses and diploma courses are moderate where as wild in P.G courses. The growth rate in income is high and significant for all the courses. It may be concluded that the average income is grater in tuition fee and PCP classes when compared to sale of applications. The yearly variations in income from sale of application and tuition fee are not wild while very wide in income from PCP classes. Growth rate in income is uneven in all the items of income. It may be noticed that average income from tuition fees for graduate and P.G courses is more when compared to diploma courses. Variations in income from year to year are wild in P.G and diploma courses while moderately registered in graduate courses. Growth in income is high in P.G courses while that of graduate and diploma courses a moderate growth.

The standardized cost cutting measures shall be adopted in the areas like uniform fees, staff pattern and salaries, syllabus and curriculum and administrative set-up so that these DECs can avoid wastages and compete in a uniform environment for excellent student support services. The new evaluation system shall be initiated through testing of the ability, capability and competency traits of a student instead of traditional time horizon and memory. This system enables the student to acquire required skills set to face the competition. The enrolment of students for all the courses shall be increased in DDE of SVU through offering special concessions to the students since the University is located in a backward region. The unviable courses like B.Ed. and B.Lisc are either to be closed down under this distance mode or shall be geared up by reassuming quality mechanism in these courses. Study material waste should be minimized. Study material shall get printed optimally. In other words, the study material shall be printed on demand-wise and need basis.

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COMPLIANCE OF POLLUTION CONTROL MEASURES AMONG INDUSTRIAL UNITS OF PUDUCHERRY

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ABSTRACT

India is one of the fast growing countries in terms of its balanced growth. The increasing inflow of FDI's and FII's has paved the way for industrialization of our economy. Employment opportunities are created and revenue is generated from the upcoming industries. Hence industries play a vital role in the development of the country. Even though all the industrial projects are evaluated, the full impact of the industries has not been revealed till recently. The Copenhagen summit has stressed on the need for curbing industrial wastages and protecting the environment from further damage. This study focused on the execution perspectives of industrial pollution control measures. It is an exploratory nature of study based upon empirical evidences collected as primary data. The primary data has been collected through a well structured interview schedule from the industries located in Puducherry region. The findings of low level environmental proactiveness of many sample industries suggest that there exists scope for expansion of the extent of environmental performance in different areas of corporate practices, particularly where low level of environmental performance was observed.

KEYWORDS

Industrial pollution, control measures, Environmental performance.

INTRODUCTION

In the recent past corporate world had witnessed many – fold increase in the requirement of the environmental regulations in the business practice. Such requirements are likely to be further strengthened in the future. This warrants businesses to take more responsibility for the environmental damages that they create and to approach corporate environmental management in a more proactive way. Accordingly, at the beginning of 21st century, the biggest challenge to the interests of global business is the task of reconciling the demands of sustainable development and corporate strategy. In this context, it was interesting to study the position of industries in an emerging market economy like India. As environmental considerations are likely to be a source of quite profound changes in business practice, the increasing awareness and pressure from stakeholders concerned about the impact of corporate activities on the environment has motivated the managers to engage with environmental issues.

Environmental Management System facilitates this engagement by connecting responsible parties with environmental impacts. Stakeholders may be individuals or groups who may be benefited or may be exposed to risk by the corporation's activities of economical, social and environmental. Privatization, liberalization and globalization, which had increased the competition between companies, have made the companies to produce and supply goods in an efficient manner to suit the needs of stakeholders. Maintaining eco-efficiency and accountability for environmental impacts provides an additional incentive for companies in global competition. The present study is based on the industrial pollution control measures and the industrial execution perspectives towards the implementation of these measures.

NEED OF INTEGRATION OF ENVIRONMENTAL ISSUES IN BUSINESS PRACTICES

As environmental considerations are likely to be a source of quite profound changes in business practice, it was attempted to provide executives the strategic plan for the environmental management. Given the internal and external demands to improve the environmental performance of a company, those companies that achieve high standards of environmental performance are reaping benefits in the form of better productivity, reduced waste generation, energy conservation, regulatory compliance and a better image among their customers and in the market place. Moreover, a realization has dawned that improving environmental performance can lead to cost savings and better efficiency which will in the long term enable companies in the global marketplace. In the quest to generate dynamic competitive advantages, many firms in fact are looking for innovative ways and means to re-conceptualize their products and services

LITERATURE REVIEW

Several studies have been conducted on corporate environmental management. Such studies include Madsen and Ulhoi (1996, 1997, 1999, and 2001) and Madsen (2003) in the context of Danish industry; Ilinitich, Soderstrom and Thomas (1998) in the context of United States; Wehrmeyer et al. (2002) in the context of United Kingdom and Germany; OECD (2004) in the context of Europe, North America and Asia-Pacific region; The Northern Ireland Eight Environmental Management Survey (2006) in the context of Northern Ireland. Now the question is what should executives do to promote corporate greening? Academic literature concerning corporate environmental management provides valuable insights into this question, but relatively few studies have been published on sufficiently concrete ideas based on which firms can formulate their action plan

SIGNIFICANCE OF THE STUDY

India is one of the fast growing countries in terms of its balanced growth. The increasing inflow of FDI's and FII's has paved the way for industrialization of our economy. Employment opportunities are created and revenue is generated from the upcoming industries. Hence industries play a vital role in the development of the country. Even though all the industrial projects are evaluated, the full impact of the industries has not been revealed till recently. Puducherry is a developing city with a cultural diversity facing the problem of environmental degradation, relatively in a larger scale when compared to other states, because there are 8533 companies functioning in this small union territory of Puducherry. Hence, the researcher selected this location for the study.

OBJECTIVES OF THE STUDY

1. To analyze the implementation of Environmental policy and control measures in the industries.
2. To evaluate the effectiveness of implementation of the environmental control measures in the industries.

HYPOTHESES OF THE STUDY

1. There is a significant difference between size of the industrial units in implementing environmental policy
2. There is a significant difference between various segments of industrial units in implementing environmental control measure

METHODOLOGY AND TOOLS EMPLOYED

The study is based on empirical evidences by conducting survey among industries located in Puducherry region, India. Out of the 82 visited polluting companies, 54 samples were received. The research is mainly focused on highly polluting companies. They are Cotton, Rubber, Plastic, Chemical and Metal industries. Percentage, Mean and Standard deviation tests were used for the analysis.

ANALYSIS AND FINDINGS

Out of the surveyed industries, the ones that have environmental policies is reported in the table 1. It reveals that 68.52 percent of the surveyed units had environmental policies, whereas the rest of the 31.48 percent of the industries did not have any environmental policy. The study found that most of the small scale industries are not having environmental policy, whereas the percentage of the medium and large scale industries having environmental policy is mostly higher than the small industries. Hence, there is a significant difference between sizes of the industrial units

TABLE 1: INDUSTRIES HAVING ENVIRONMENTAL POLICY BY SIZE

Sl. No.	Having Environmental policy	Size of Surveyed Units							
		Small		Medium		Large		Total	
		No.	%	No.	%	No.	%	No.	%
1	Yes	3	05.56	13	24.07	21	38.89	37	68.52
2	No	11	20.37	3	05.56	3	05.55	17	31.48
Total		14	25.93	16	29.63	24	44.44	54	100.00

Source: Result computed

Table 2 shows the distribution of Surveyed Units that has an Environmental Department. It was noted that 44.57 percent of the surveyed units did not have any environmental department. Only 55.43 percent of the surveyed units had environmental departments. The analysis also revealed that most of the chemical units had environmental department. Results were poor in case of rubber and plastic units.

Table 2 also shows the distribution of Surveyed Units that have Separate Financial Allocation for Environmental Management. It was found that out of 54 surveyed units 29 units had separate financial allocations in the annual budget for fulfilling the objectives of the environmental policies. It was observed that most of the Chemical, Rubber, and Metal sectors had separate financial allocation. Whereas the percentage of leather and plastic sectors were poor and also cotton sector was very poor in separate financial allocation.

TABLE 2: DISTRIBUTION OF SURVEYED INDUSTRIES HAVING ENVIRONMENTAL DEPARTMENT AND SEPARATE FINANCIAL ALLOCATION FOR ENVIRONMENTAL MANAGEMENT

Industrial Segments	No.	%	Having Environmental Department				Having Separate Financial Allocation			
			Yes		No		Yes		No	
			No.	%	No.	%	No.	%	No.	%
Cotton	6	11.11	2	03.70	4	07.41	1	01.85	5	09.26
Leather	5	09.26	3	05.55	2	03.71	3	05.55	2	03.71
Rubber	5	09.26	3	05.55	2	03.71	3	05.55	2	03.71
Plastic	12	22.22	5	09.25	7	12.97	5	09.26	7	12.96
Chemical	19	35.19	14	25.93	5	09.26	14	25.93	5	09.26
Metal	7	12.96	3	05.55	4	07.41	4	07.41	3	05.55
Total	54	100.00	30	55.43	24	44.57	29	55.55	25	44.45

Source: Result computed

Table 3 shows the effective implementation of environmental control measures in the surveyed industries under different segments. It was found that the environmental control measures had been implemented moderately effective by chemical industry followed by leather and rubber industries. Whereas the metal and plastic industries implemented the environmental control measures were low moderately effective. In the case of cotton industry the environmental control measures were implemented poorly. It was observed that the recycling process and emission control in the chemical industry was very poor though it implemented the other environmental control measures effectively. It also observed that noise pollution was mostly created by metal industry followed by plastic and rubber industry. Hence, there is a significant difference between various segments of the industrial units

TABLE 3: EFFECTIVE IMPLEMENTATION OF ENVIRONMENTAL CONTROL MEASURES IN THE SURVEYED INDUSTRIES UNDER DIFFERENT SEGMENTS IN PUDUCHERRY

Environmental Control Measures		Industry Segments					
		Cotton	Rubber	Leather	Plastic	Chemical	Metal
		Mean %	SD	Mean %	SD	Mean %	SD
EATP	Mean %	38.56	58.42	64.74	47.76	71.24	56.53
	SD	11.71	16.89	05.63	15.23	19.23	07.32
ESWM	Mean%	40.23	60.35	70.67	57.89	84.65	60.18
	SD	09.36	13.43	05.92	20.86	09.34	11.13
RP	Mean %	56.74	74.67	76.89	89.47	40.78	65.32
	SD	12.56	08.36	11.37	11.79	12.63	18.89
AEEE	Mean %	46.45	52.67	72.49	49.41	76.65	68.48
	SD	04.65	08.63	13.85	11.86	17.18	14.27
WM	Mean %	58.70	74.54	67.92	69.72	74.58	66.69
	SD	05.82	09.56	14.62	17.37	09.69	05.36
EC	Mean %	47.77	58.77	55.89	57.26	56.71	48.99
	SD	08.96	06.98	11.95	16.62	13.89	06.32
NC	Mean %	76.73	62.75	66.90	59.88	60.34	52.91
	SD	04.94	18.94	15.34	11.56	09.91	12.61

Source: Results computed

The following are the abbreviations of the environmental control measures variable listed in the above table. EATP – Employees Environmental Awareness and Training Program, ESWM – Employee Safety and Welfare Measures, RP – Recycling Process, AEEE – Adoption of Energy Efficiency Equipment, WM - Waste Management, EC – Emission Control, NC – Noise Control.

SUGGESTIONS

1. There is a need to incorporate provisions to force the corporate sector to disclose the facts about environmental activities and to provide for verification of the facts disclosed.
2. Every industry must educate, train and motivate employees to conduct their activities in an environmentally responsible manner.
3. There must be an integrated legislation framework at the central level and substantive laws at the state levels to address the specific needs of different ecosystems.
4. It is required to impose high tax to the companies that are exceeding regulatory compliance.
5. If the industry has lack of adequate fund to implement the environmental management system, proper grant may be allocated from the side of regulatory agency.
6. Involvement of various stakeholders and creating appropriate environmental awareness among them are necessary to tackle the environmental issues effectively.

CONCLUSION

The findings of low level environmental proactiveness of many sample industries suggest that there exists scope for expansion of the extent of environmental performance in different areas of corporate practices, particularly where low level of environmental performance was observed. The regulators should design appropriate and effective enforcement mechanisms and properly activate them to ensure a higher level of environment performance in corporate practices, so that unit level management can make informed judgments on the basis of such business practice, since the present enforcement mechanism in India is viewed as unsatisfactory. A formal body may be set up with adequate administration or quasi-judicial power to monitor and enforce environmental compliance in corporate practices.

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JOB SATISFACTION AMONG TEACHERS**DR. SANDHYA MEHTA****DY. DIRECTOR****GURU NANAK INSTITUTE OF MANAGEMENT & TECHNOLOGY
LUDHIANA****ABSTRACT**

Work plays a prominent role in our lives. It occupies more time than any other single activity and it provides the economic basis for our lifestyle. It is the employee's general attitude towards his job, management and the organization. It is often believed that the teachers are the builders of the nation and enter the teaching profession for intrinsic factors which encompass the opportunities for professional advancement, personal and professional challenges, professional autonomy, general work conditions, interactions with colleagues, and interactions with students. The present study has been conducted to understand whether the perception of job satisfaction among teachers is affected by the type of organization (private vs. government) and the gender (male vs. female).

KEYWORDS

Job satisfaction, teachers.

INTRODUCTION

To business that we love we eagerly arise, and go to with delight."

William Shakespeare

Job satisfaction portrays the perception of the person towards his or her job, job related activities and environment. It is a combination of psychological and emotional experiences at work. It is often believed that the satisfied employees are productive employees for any organization. It has been observed that employees may be satisfied with some elements of the job and dissatisfied with other aspects of the job simultaneously. Job satisfaction has a number of facets such as satisfaction with: work, pay, and supervision, quality of work life, participation, organizational commitment, and organizational climate (Lum et al., 1998). Satisfaction with one facet does not guarantee satisfaction with all other satisfaction facets. It is affected by lot of variables relating to individual, cultural, social, environmental and organizational factors.

Job satisfaction is a key issue concerning both the individual as well as the organization. A person's job satisfaction can have an impact on their emotions, behavior and work performance. A highly satisfied employee is often able to perform better in some situations than a person who is not as satisfied. Higher expectations often lead to lower job satisfaction. Many a time people are allured by the syndrome that the grass is greener at the other side of the fence and finds their present work a grind. The major predictor of job satisfaction is when the employees see themselves as having a future in the present job and in being treated equally by their bosses. People work for people and many a times people leave because of people. Having more satisfied employees is a good indicator of high morale which leads to higher productivity.

REVIEW OF LITERATURE

Job satisfaction is an affective, cognitive or attitudinal response to work with significant organizational outcomes (Spector, 1997). It has been defined as the extent to which people enjoy their jobs (Fritzche & Parrish, 2005). Organizational psychology has been concerned with its consequences such as productivity, role engagement or withdrawal and turnover (Fritzche & Parrish, 2005). According to Weiss and Cropanzani (1996) job satisfaction represents a person's evaluation of the job and the work context. It captures the most popular view that job satisfaction is an evaluation and represents both belief and feelings. Job satisfaction has been defined the extent to which an employee has favorable or positive feelings about work and work environment (De Nobile, 2003). In general researchers perceive job satisfaction as a general attitude, rather than specific or actual (Jex, 2002).

Referred to as "one of the best-researched concepts in work", job satisfaction mediates the relationships between one individual worker with work conditions, and organizational and individual outcomes (Heller and Judge, 2002; Jex, 2002;). In general, job satisfaction is highly correlated to performance in complex jobs, in relevance to the relationship in less complex jobs. This could be explained by greater autonomy in complex jobs (Johnson and Johnson, 2000; Judge and Hulin, 1993). Numbers of recent studies have looked at personality trait correlates of job satisfaction (Judge, Higgins, Thoresen, & Barrick, 1999). What seems to be lacking is a fairly comprehensive approach to examine, in a single study, personal correlates of job satisfaction.

Research on teachers' job satisfaction suggests that educators are most satisfied from the teaching itself and their supervision and dissatisfied from their salary and promotional opportunities (Dinham and Scott, 2000; Koustelios, 2001; Oshagbemi, 1999).

Teachers enter the teaching profession for intrinsic factors. Very few teachers enter the profession for extrinsic factors such as salary, benefits, or prestige (Choy et al., 1993). Klecker and Loadman (1999) reported on the following aspects of teaching: opportunities for professional advancement, level of personal/professional challenge, level of professional autonomy/decision making authority, general work conditions, interactions with colleagues, and interactions with students.

The present study examines the job satisfaction, i.e. the degree to which job features that are highly valued by individuals are present in their work environment. Though a number of studies have been conducted in the field of academics but a few have been undertaken to compare the job satisfaction of teachers of government and private senior secondary schools. The present study has been conducted to find answer to the following questions:

- Does the type of organization (private vs. government) affect the perception of job satisfaction among teachers?
- Does the gender (male vs. female) affect the perception of job satisfaction among teachers?

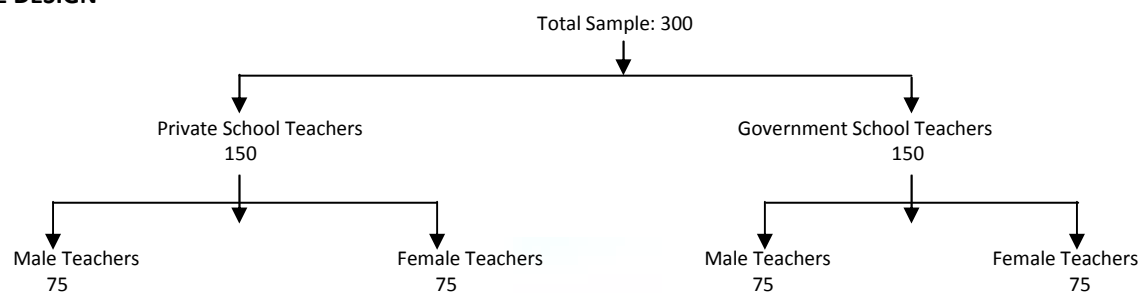
OBJECTIVES

1. To study and compare the job satisfaction of the private and government school teachers
2. To study the job satisfaction of male and female teachers
3. To compare the variables affecting the job satisfaction.

SAMPLE

The sample of this study consisted of teachers working in government and private senior secondary schools restricted to the Ludhiana city. It studied schools affiliated only to Punjab School Education Board belonging to government category and private run schools. The private schools belonging only to the aided category were taken into consideration. A sample of 150 teachers from government and 150 teachers from the private schools was taken into consideration. The convenience sampling technique was used for this purpose. The sample design was as follows.

SAMPLE DESIGN



HYPOTHESIS

- H.1.1: There would be significant difference in the job satisfaction scores of private and government school teachers.
 H.1.1.1: There would be significant difference in the job satisfaction scores of male and female school teachers.
 H.1.1.2: There would be significant difference in the job satisfaction scores of private male and government male school teachers.
 H.1.1.3: There would be significant difference in the job satisfaction scores of private female and government female school teachers.
 H.1.1.4: There would be significant difference in the job satisfaction scores of private male and private female school teachers.
 H.1.1.5: There would be significant difference in the job satisfaction scores of government male and government female school teachers.

RESEARCH METHODOLOGY

The data was collected by using the following research tool:

Satisfaction –dissatisfaction employees Inventory (S-D employees Inventory Pestonjee, 1973; 1981)

S-D employees Inventory (Pestonjee, 1973; 1981) Job satisfaction has been assessed by satisfaction dissatisfaction inventory. This inventory has been developed and standardized by Pestonjee (1973; 1981). The inventory is based on the interaction model (Vroom, 1964) of job satisfaction with number of 'on the job' and 'off the job factors'. Job satisfaction is viewed as a "Summation of employee" feeling in four important areas: Job, Management, Personal Adjustment and Social relations. Job and management together constitute 'on the job factors' and personal adjustment and social relations comprise 'off the job factors'. A factor analytic study of the questionnaire of on the job and off the job factors separately had fielded ten independent dimensions in on the job aspect and eleven independent factors in off the job area (Pestonjee, 1981).

STATISTICAL TECHNIQUES USED

-Descriptive analysis was made to study the perception of job satisfaction of male vs. female and male vs. female teachers. The normality of the data was checked.

-student 't' test was used to study the significance of difference between the mean scores of different groups.

DATA COLLECTION

The researcher contacted the principals of all schools in Ludhiana city personally to get the questionnaires filled. All the questionnaires were handed over to the teachers and after a week they were personally collected back by the researcher. Information could only be received from only 21 schools in the private category and 17 schools in government category. A total of 150 teachers were selected from private category and the same number was collected from government category which was further split into 75 males and 75 females in both the categories.

The teachers were assured that the information given by them would be kept confidential and would be used only for research purposes.

FINDINGS AND ANALYSIS

The findings of the research study were as follows

TABLE 5.1: SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF VARIOUS DIMENSIONS OF JOB SATISFACTION FOR PRIVATE AND GOVERNMENT SCHOOL TEACHERS

Dimensions of Job satisfaction	Private. teachers (n=150)		Govt. teachers (n=150)		t-value
	\bar{X}	S.D	\bar{X}	S.D	
Job	20.24	4.40	19.64	4.04	1.21
Management	7.88	1.82	7.95	1.76	0.34
On the job factors	28.11	4.82	27.60	4.38	0.98
Personal adjustment	19.60	4.46	20.86	4.23	2.51*
Social relation	7.56	3.10	7.19	1.31	1.29
Off the job factors	27.23	5.82	28.01	4.60	1.29
Total job satisfaction	55.03	9.50	55.30	7.71	0.31

*p<0.05 level of significance

Significance of difference between the mean scores of various dimensions of Job satisfaction for government and private school teachers.

It is evident from the table that the private school teachers both male and female do not vary significantly on various dimensions of job significantly on various dimensions of job satisfaction. They do not differ on various dimensions except personal adjustment ($t = 2.51^*$). Since the value of 't' is greater than the table value of 't' there is a significant difference with respect to the personal adjustment dimension of job satisfaction.

Hence the hypothesis stating, "there would be significant difference in the job satisfaction of government and private school teachers was rejected with respect to all parameters except personal adjustment factor.

TABLE 5.1.1: SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF VARIOUS DIMENSIONS OF JOB SATISFACTION FOR MALE VS. FEMALE TEACHERS

Dimensions of Job satisfaction	Male (n = 150)		Female (n = 150)		t-value
	\bar{X}	S.D	\bar{X}	S.D	
Job	20.25	4.15	19.64	4.31	1.28
Management	7.93	1.93	7.93	1.65	0
On the job factors	28.13	4.36	27.54	4.69	1.15
Personal adjustment	20.57	4.53	19.93	4.24	1.31
Social relation	7.39	2.18	7.37	2.59	0.09
Off the job factors	27.96	5.06	27.30	5.21	1.1
Total job satisfaction	56.15	7.56	54.79	8.05	1.44

Significance of difference between the means scores of various dimensions of job satisfaction for male versus female teachers.

Relevant statistics are given in table 5.1.1 It is clear from the table that there is no significant difference in the mean scores on various dimensions of job satisfaction for male and female teachers.

Hence the hypothesis – stating “There would be significant difference in job satisfaction of male vs. female teachers” was not confirmed.

TABLE 5.1.2: SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF VARIOUS DIMENSIONS OF JOB SATISFACTION FOR PRIVATE MALE V/S GOVT. MALE TEACHERS

Dimensions of Job satisfaction	Private male (n=75)		Govt male (n=75)		t-value
	\bar{X}	S.D	\bar{X}	S.D	
Job	19.69	4.67	20.80	3.50	1.56
Management	8.01	2.06	7.84	1.79	0.55
On the job factors	27.7	4.98	28.64	3.63	1.34
Personal adjustment	19.48	4.36	21.68	4.45	3.21*
Social relation	7.43	2.89	7.36	1.09	0.19
Off the job factors	26.91	5.36	29.04	4.93	2.69*
Total job satisfaction	54.61	8.26	57.68	6.48	2.72*

Significance of difference between main scores on various dimensions of job satisfaction for private male vs. government male teachers.

It was clear wide table 5.1.2. that the private male and government male teachers did not differ significantly on various ‘On the job factors’ including job and management factor however they showed significant difference in ‘Off the job factors’. They differed significantly on personal adjustment factor but did not differ on social relation factor.

The private male and government male differed in the total job satisfaction. The significance of difference between various dimensions of job satisfaction was as follows: personal adjustment (t=3.21*); off the job factor (t=2.69*); and total job satisfaction (t=2.72*).

The hypothesis stating that there would be significant difference in job satisfaction of private male vs. government male teachers was partially confirmed.

Hence the Hypothesis – stating “There would be significant difference in job satisfaction of private vs. government teachers” was partially supported.

TABLE 5.1.3: SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES ON VARIOUS DIMENSIONS OF JOB SATISFACTION FOR PRIVATE FEMALE V/S GOVT. FEMALE TEACHERS

Dimensions of Job satisfaction	Pvt. Female (n = 75)		Govt. Female (n = 75)		t-value
	\bar{X}	S.D	\bar{X}	S.D	
Job	20.70	4.08	18.49	4.27	3.68*
Management	7.75	1.55	8.07	1.75	1.26
On the job factors	28.53	4.66	26.56	4.85	2.77*
Personal adjustment	19.72	4.58	20.04	3.88	0.48
Social relation	7.71	3.32	7.03	1.51	1.71
Off the job factors	27.43	6.62	27.07	4.01	0.43
Total job satisfaction	55.96	9.32	53.63	6.39	1.90

Significance of difference between mean scores on various dimensions of job satisfaction for private female vs. government female teachers.

As is evident from table 5.1.3. the private and government female teachers did not differ significantly on various dimensions of job satisfaction except job and on the job factors. They however showed significant difference in these two dimensions.

The significance of difference between the various dimensions of job satisfaction among private and government female teachers was: job (t=3.68*); on the job factors (t=2.77*).

The hypothesis stating that there would be significant difference in job satisfaction of private female vs. government female teachers was partially confirmed.

Hence the Hypothesis stating “There would be significant difference in the job satisfaction of private vs. government female teachers was partially confirmed.

TABLE 5.1.4: SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES ON VARIOUS DIMENSIONS OF JOB SATISFACTION FOR PRIVATE MALE VS. PRIVATE FEMALE TEACHERS

Dimensions of Job satisfaction	Pvt. Male (n = 75)		Pvt. Female (n = 75)		t-value
	\bar{X}	S.D	\bar{X}	S.D	
Job	19.69	4.67	20.70	4.08	1.59
Management	8.01	2.06	7.75	1.55	0.96
On the job factors	27.71	4.98	28.53	4.66	1.05
Personal adjustment	19.48	4.36	19.72	4.58	0.33
Social relation	7.43	2.89	7.71	3.32	0.53
Off the job factors	26.91	5.31	27.43	6.22	0.53
Total job satisfaction	54.61	8.26	55.96	9.32	0.89

Significance of difference between the mean scores on various dimensions of job satisfaction for private male versus private female teachers.

It was evident from the table 5.1.4 that private male and private female teachers did not differ significantly on various dimensions: on the job factors and off the job factors as well as the total job satisfaction.

The hypothesis stating that there would be significant difference in job satisfaction of private male vs. private female teachers was fully rejected.

Hence the Hypothesis – stating “There would be significant difference in job satisfaction of male vs. female teachers” was fully rejected.

TABLES.1.5: SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES ON VARIOUS DIMENSIONS OF JOB SATISFACTION FOR GOVT. MALE VS. GOVT. FEMALE TEACHERS

Dimensions of Job satisfaction	Govt.male (n = 75)		Govt.Female (n = 75)		t-value
	— X	S.D	— X	S.D	
Job	20.80	3.49	18.49	4.27	3.89*
Management	7.84	1.79	8.07	1.75	0.73
On the job factors	28.64	3.63	26.56	4.85	3.13*
Personal adjustment	21.68	4.45	20.04	3.88	2.24*
Social relation	7.36	1.09	7.03	1.51	1.64
Off the job factors	29.04	4.93	27.07	4.01	2.58*
Total job satisfaction	57.68	6.48	53.63	6.39	3.95*

Significance of difference between mean scores on various dimensions of job satisfaction for government male vs. government female teachers.

It was evident from the table 5.1.5. that there is a significant difference between the mean scores of job satisfaction on various dimensions of job satisfaction except in case of management and social relation factors. In case of management and social relation factor there was no significant difference in the mean scores of government male and government female teachers. The total job satisfaction also depicted a significant difference.

The significance of difference between the various dimensions of job satisfaction was as follows: job ($t=3.89^*$), the job factors ($t=3.13^*$), personal adjustment ($t=2.24^*$), off the job factors ($t=2.58^*$), and total job satisfaction ($t=3.95^*$).

The hypothesis stating that there would be significant difference in job satisfaction of government male vs. government female teachers was partially supported.

Hence the Hypothesis – stating “There would be significant difference in job satisfaction of male vs. female teachers” was partially supported.

RESULTS

Major findings were as follows:

-In case of total job satisfaction, the government school teachers appeared to be more satisfied than the private school teachers, though the difference was only slightly high. The factors like less pressure of work, low supervision and high job security may be held responsible for this.

-The male teachers depicted higher levels of satisfaction than the female teachers on 'job' and 'on the job' dimensions of job satisfaction. Though the mean scores did not reflect any variation in case of 'management' factor but the male teachers were higher on job satisfaction for all the other parameters also. The difference was not very high. In case of overall job satisfaction also they depicted higher satisfaction as compared to their female counterparts.

- There were significant differences between the private male and government male teachers on 'On the job' factors. No difference was however found in 'Off the job' factors dimensions except in case of 'social relation factors'.

- The female teachers in private and government schools did not differ significantly in 'on the job factors' which comprised of job itself which is an indication of the fact that salary, infrastructure and working conditions do not affect them much but there is a significant difference with respect to 'management' factor of job satisfaction which reflects effect of the role of leadership in job satisfaction.

-The private male teachers differed significantly from the government female teacher on various dimensions of job satisfaction except on off the job factors.

-The private male exhibited greater satisfaction in the 'job' dimension and 'on the job' factors which could be due to the better working conditions, infrastructure and the congenial atmosphere in private schools.

- There was no significant difference between off the job factors and the total job satisfaction. The female teachers in government schools exhibited higher job satisfaction in overall dimensions of job satisfaction. There was not much difference between the 'Social relation' aspects of job satisfaction. The teachers teaching in government sector both male and female did not differ significantly on various parameters of job satisfaction including on the job factors and off the job factors. There is significant difference in the job satisfaction only with respect to the management factor and social relation factor. In case of the total job satisfaction there is no significant difference between the male and female teachers and the male teachers reported higher levels of job satisfaction as compared to the female teachers.

-The private female and government male differed significantly in various dimensions of job satisfaction except with respect to personal adjustment factor of job 'satisfaction'.

-The teachers in the private schools in male as well as female category differed significantly in their levels of job satisfaction on all dimensions of job satisfaction; on the job factors and off the job factors.

The private and government school teachers did not differ significantly on various dimensions of job dimensions. They did not differ significantly in 'on the job factors' and 'off the job factors' however a significant difference was found in the 'personal adjustment' dimension of job satisfaction. The government teachers scored higher mean scores than the private teachers which was indicative of the fact that they were more satisfied than the private teachers on this parameter. This could be due to the fact that since the government school teachers spend more years in a job and generally don't take any job changes they are able to adjust better on the job. Job hopping being a common phenomenon with private sector; the changed environment poses lot of threats hence some of the teachers are not able to adjust in the job. This could also be attributed to the reason that since the government teachers spend more number of years together with their colleagues and hence are socially quite active and share good rapport with their colleagues.

DISCUSSION

A great deal of research has been conducted to compare private and public schools on a variety of measures such as, effectiveness, equity, student achievement, accountability, job satisfaction, and others (Coleman, Hoffer, & Kilgore, 1982; Lockheed & Jimenez, 1996). Our results were contrary to the results of various studies according to which comparisons between private and public school teachers have shown that private school teachers typically report that they are more satisfied with their jobs than their colleagues in public schools (Alt & Peter, 2002; Henke, Chen, Geis, & Knepper, 2000; Perie, Baker, & Whitener, 1997).

In case of total job satisfaction there was no significant difference for teachers of Government and Private schools. However on comparing 'on the job' and off the job factors there seemed to be some difference in private and public sector organizations. A positive relationship between job satisfaction and organizational commitment has been reported by studies which involve qualified professionals Redfern et al. (2002) reported a strong positive relationship between job satisfaction and organizational commitment in a study of the health care staff in a nursing home in the UK. Similarly, Aameri (2000) found a strong positive correlation between job satisfaction and organizational commitment with a sample of registered nurses in Saudi Arabia. This finding is consistent with a large survey of qualified nurse in the US (Ingersoll et al., 2002), which revealed a closely positive correlation between job satisfaction and organizational commitment. Knoop (1995) also reported organizational commitment was positively related to overall job satisfaction. These studies are not only consistent in reporting a positive correlation between job satisfaction and organizational commitment, but also show the correlation is strong across studies. The findings of the present study more supported by Papanastasiou and Zembylas (2005) who reported that in private schools the salary is less and the working hours are long, while they also have lot less holidays compared to their public sector counterparts. This is similar to the findings in other studies in which the teachers are dissatisfied with their working hours and salaries (Dinham, 1999; Scott, 2000; Evans, 1998; Zembylas and Papanastasiou, 2004; 2005; 2006). Comparisons between private and

public school teachers in US have shown that private school teachers report to more satisfied than the government school teachers (Alt and peter 2002, Henke, Chengeis and Kepper 2000, Perie, Baker and whitener 1997).

The mean scores for male teachers depicted slightly higher levels of satisfaction than the female teachers on 'job' and 'on the job' dimensions of job satisfaction. Though the mean scores did not reflect any variation in case of 'management' factor but the mean scores of male teachers were higher on job satisfaction for all the other parameters also though the difference was not very high. In case of overall job satisfaction also they depicted slightly higher satisfaction as compared to their female counterparts but a significant difference was not observed on any of the parameters. A general observation surfacing from studies examining the role of gender in managerial and marketing contexts (Babin and Boles, 1998; Eagly et al., 1995; Iacobucci and Ostroff, 1993; Meyers, 1985) is that men are more task- or goal-oriented and women are more relationship oriented. Schul and Wren (1992) reported that female salespeople had higher satisfaction with supervision than males. They also reported that male salespeople had greater role conflict than their female counterparts, while there was no gender difference in role ambiguity. Siguaw and Honeycutt (1995) found no differences between female and male industrial salespeople regarding the level of job satisfaction.

The results of our study were similar to the findings of (Mwamwenda, 1997; Souza-Poza, 2000) who found that the male teachers were slightly more satisfied as teachers than females. Cushman (2005) reported that the number of male teachers in primary schools is decreasing hence the reasons for lowered job satisfaction need to be explored.

DIFFERENCE BETWEEN THE VARIOUS DIMENSIONS OF JOB SATISFACTION FOR DIFFERENT CATEGORIES

PRIVATE MALE AND GOVERNMENT MALE TEACHERS

They differed significantly on personal adjustment factor but did not differ on social relation factor. Significant difference was found in the total job satisfaction of both the groups. The same was not found true in case of various researches conducted on comparison between the two sectors (Schneider and Vaught, 1993).

The higher mean scores of government male teachers in personal adjustment, off the job factors and total job satisfaction were indicative of the fact that they were more satisfied than the private male teachers. The factors like less pressure of work, low supervision and high job security may be held responsible for this. The factor that makes public school teachers' job satisfaction level higher than private school teachers is "job security". Even though in some of the schools private school teachers earn more money than public school teachers do, the public school teachers have more job security.

The results were contrary to the findings in which job satisfaction was found to be in higher levels in private sector as compared to the public sector (Kalliath, & Morris, 2002). Borman, Hanson, & Hedge (1997). Supportive evidence was given by Moncrief, Babakus, Cravens, Johnston (2000), who showed that pay satisfaction increases the overall job satisfaction. Despite the fact that the above-mentioned studies were not conducted in schools, they show a general trend that overall job satisfaction is significantly higher in private organizations than in public organizations. A study showed that not only pay satisfaction was related to higher levels of overall job satisfaction (Newbury-Birch, & Kamali, (2001) in the private sector, but the other facets which were supervision, promotion, fringe benefits, rewards, conditions of work, coworkers, and communication were related as well.

PRIVATE FEMALE AND GOVERNMENT FEMALE TEACHERS

The female teachers in private and government schools differed significantly (vide table 5.1.3) 'on the job factors' which comprise of job and job itself which is indication of the fact that salary, infrastructure and working conditions affect them a lot but there was no significant difference with respect to 'management' factor of job satisfaction which indicates the role of leadership in job satisfaction. The higher mean scores with respect to 'job' factor and 'on the job factors' for private female teachers were indicative of the fact that they were more satisfied than the government female teachers. Buitendach and De Witte (2005) found that one of the most significant factors affecting job satisfaction, especially in the educational context, is the work itself, which is highly associated with the characteristics of the structure of the educational organisation. The organisational structure can play a significant role in this regard, depending on whether the structure is highly centralised or decentralised. Lambert et al. (2006) found that where the employees work in a highly centralised and formalised organisation, they tend to be dissatisfied and uncommitted. Research on teachers' job satisfaction suggests that educators are most satisfied from the teaching itself and their supervision and dissatisfied from their salary and promotional opportunities (Dinham and Scott, 2000; Koustelios, 2001; Oshagbemi, 1999). These findings seem to be robust across several different countries and cultural contexts (Koustelios, 2001). As far as early educators are concerned Fenech (2006) reported poor work conditions, low salaries, heavy workloads, unrealistic expectations from managers, low professional status, organizational conflict, and reduced autonomy. The teachers in both the groups differed significantly with respect to 'On the job factors' of job satisfaction. The same has been corroborated by various studies depicting relationship of job satisfaction with various demographical variables (Oshagbemi, 1999; Kouetetois, 2001; Crossman, 2005; Graham Messner, 1998; Linz 2003; Weidmer, 2002; Neils, 2003; Davis, 2004). There have been numerous studies focusing on the factors influencing teacher job satisfaction and dissatisfaction (Rothman & Coetzer, 2002; Friedman & Farber, 1992; Kyriacou, 1987; Shann, 1998; Spear et al., 2000; Thompson et al., 1997). Intrinsic satisfaction for teachers can come from classroom activities with children (Papanastasiou & Papanastasiou, 1998). Additional factors include developing warm, personal relationships with children, the intellectual challenge of teaching and autonomy and independence (Shann, 1998). The private and government female teachers showed no significant differences in total job satisfaction and the private school teachers exhibited higher mean scores of job satisfaction as compared to government school teachers. The same was contrary to the findings of (Papanastasiou, Zembylas, 2005)

PRIVATE MALE AND PRIVATE FEMALE TEACHERS

The teachers in the private schools in male as well as female category did not differ significantly in their levels of job satisfaction on all dimensions of job satisfaction; on the job factors and off the job factors. (vide table 5.1.4).

However as indicated by the mean scores the female teachers in the private schools exhibited more satisfaction as compared to the male teachers on almost all the dimensions of job satisfaction which could be attributed to gender differences in both the categories. Organizational culture; environment and working conditions remaining the same many studies are of the view that women are more satisfied than men in various dimensions of job satisfaction. According to Cushman (2005) many men do not appear to "fit" comfortably into the culture of the primary school. They are often physically isolated in the staffroom and in the allocation of roles. Emotionally, they are isolated in their inability to care and nurture in ways that are inherent in the practices of most female teachers. They often feel "under the microscope"—in a role won for reasons other than their own merits. It is little wonder that men choose not to teach. And it is not surprising there is a high attrition rate of males from teacher training colleges (Cushman, 1998) and schools (Cushman, 2000a, b). Liu, X. S., & Ramsey (2007) found that the female teachers are more likely than male teachers to remain in teaching because teaching offers them a flexible schedule that allows more time to spend with their families. (Kinman, 1998; Oshagbemi, 2000; Barrett 1991; Kent and Fisher, 1997). Sharma and Jyoti (2006) also found female teachers were more satisfied due to the nature of the job and socio cultural value of the profession. The female faculty members have in many studies reported lower satisfaction in areas of pay, promotion but have reported higher satisfaction with co-workers and their work (Tack and Patitu, 1992; Fiorentino, 1999; Tang and Talpade, 1999). These studies are contrary to the findings of the present study in which there are no significant differences in the job satisfaction of private male & female teachers with respect to the various dimensions of job satisfaction.

GOVERNMENT MALE AND GOVERNMENT FEMALE TEACHERS

The teachers teaching in government sector both male and female differ significantly on various parameters of job satisfaction including on the job factors and off the job factors (vide table 5.1.5). There is significant difference in the job satisfaction with respect to all parameters except the management factor and social relation factor. In case of the total job satisfaction there is significant difference between the male and female teachers and as the mean scores indicate the male teachers report higher levels of job satisfaction as compared to the female teachers.

Gender is often included as an individual characteristic in studies of job satisfaction, but no conclusive findings with regard to the levels of satisfaction between males and females have been found (Brief, 1995; Fields and Blum, 1997; Klecker and Loadman, 1999; Mueller and Price, 1996; Oshagbemi, 1997, 1999, 2000; Phelan, 1994; Rosin and Korabik, 1995; Tang and Talpade, 1999; Tuntufye, 1997)

In case of most of the factors with significant difference the government female shows higher satisfaction with respect to the management factor and even in case of social relations the government males exhibit greater satisfaction than females. This was contradictory to the findings of many studies which prove that

the workplace relationships contribute a great deal to the job satisfaction in case of women employees. (Oshagbemi, 2001; Mason, 1995; Jones and Nowotny, 1990; Tack and Patitu, 1992; Fiorentino, 1999; Tang and Talpade, 1999). Jaiyeoba, Jibril (2008) showed that there was no significant difference in male and female; public and private; rural and urban administrators' level of job satisfaction. Alroyali (2001) found that relationships with colleagues were considered by head teachers as a source of satisfaction while promotion was a source of dissatisfaction. Only the study by Alonazi (2002) considered the secondary school head teacher and concluded by identifying responsibilities, recognition, appreciation, relationships with colleagues as sources of satisfaction and promotion as a source of dissatisfaction. The findings of the present study were also similar with the findings of Oshagbemi (1999), who found that UK academics appear to be generally satisfied with their job-teaching, physical conditions/working facilities and supervision and not satisfied with present pay and promotions.

CONCLUSION

The government school teachers appeared to be more satisfied than the private school teachers. There was no significant difference in the mean scores on various dimensions of job satisfaction for male and female teachers. The teachers in the private schools differed significantly in their levels of job satisfaction on all dimensions of job satisfaction. There was a significant difference between the mean scores of job satisfaction on various dimensions of job satisfaction except in case of management and social relation factors. In case of management and social relation factor there was no significant difference in the mean scores of government male and government female teachers. The total job satisfaction also depicted a significant difference. The males scored higher mean scores than the female teachers.

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MODELING AND MEASURING PRICE DISCOVERY IN COMMODITY MARKET

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ABSTRACT

The study was carried out to understand the price discovery mechanism in commodities and assess the long-term trends in their prices. We took the commodity: wheat as an instance and considered factors affecting the prices in India. The data on area, yield, production, beginning stocks, imports, exports, and domestic consumption was collected for the period from 1970-71 to 2009-10 from USDA Production, Supply, and Distribution database. The data on CBOT daily prices have been extracted from MCX and the average annual price of wheat worked out and used for the analysis. Depending upon the suitability of the data the regression equations were fitted and forecasted individually and then the long-term forecasting was made by fitting a multiple regression model. The results of the multiple regression indicated that Demand, MSP, and CBOT were affecting the prices of domestic wheat significantly. One year lagged response model was also used to predict the short-term trends in prices of wheat. The predicted line is coinciding with the actual line and hence the model is good.

KEYWORDS

Price discovery, commodity market.

INTRODUCTION

Commodities are regarded as separate assets in the domain of all assets class. It is perceived that commodity markets are volatile. Therefore, the price volatility drives the demand for hedging the risk in the commodity market. Producers and consumers often seek ways of hedging risk and trading risk. In response to this need, derivative markets for commodity risks trading arose, and their use has become increasingly widespread. Instruments traded in these markets include financial instruments such as futures and forward contracts, options, swaps, and physical instruments like inventories. Future contracts are among the most important of these instruments, and provide significant information about cash and storage markets. A futures contract is also an agreement to deliver a specified quantity of commodity at a specified future date, at a price (the future price) to be paid at the time of delivery. Futures contracts are usually traded on organized exchanges and tend to be more liquid than the forward contract. Other than this, a futures contract differs from a forward contract only in that the futures contract is 'marked to market', which means that there is settlement and corresponding transfer of funds at the end of each trading day. Future market performs several economic functions that include hedging function, price discovery function, financing function, liquidity function and price stabilization.

Commodity futures trading existed in India since 1875. However the commodity futures have been in the state of hibernation for the past few decades owing to a lot of government restrictions. Significant developments took place in 2003-04 in terms of commodity futures market. The government issued a notification on April 1, 2003 withdrawing all previous notifications which prohibited futures trading in a large number of commodities in the country. This was followed by a notification in May 2003 revoking prohibition on non-transferable specific delivery forward contracts. The futures market was opened in anticipation of sound market institutions and market design. In order to set up proper markets, the Government of India (GOI) on recommendation of Forward Market Commission (FMC) granted recognition to National Multi Commodity Exchange, Ahmedabad (NMCE); Multi Commodity Exchange, Mumbai (MCX); National Commodity and Derivative Exchange, Mumbai (NCDEX) as nationwide multi commodity exchanges. Trading commenced at MCX in November 2003 and at NCDEX in December 2003. The FMC applied high standards to the market design. All the three exchanges were required to ensure anonymous order-matching. Prior to these exchanges trading typically took place in small groups who knew each other. But new exchanges offered electronic clearance scheme. The centralized nature of electronic system would overcome difficulties of fragmented and non-transparent price discovery. The FMC also drew upon the learning of equity markets in terms of favoring the demutualised governance structure for the new exchanges. Setting up futures markets was not simple owing to the fact that there is no properly developed spot market. The spot market is fragmented geographically spread across the country. NCDEX for example had to introduce a polling mechanism for spot prices from across mandis. Every commodity had a different set of mandis to be polled depending upon the proportion of spot market trade. The total volume of trade in the commodity future market rose from Rs. 34.84 lakh crore in 2006 to Rs. 36.54 crore in 2007. The volume growth in trade is primarily propelled by MCX and NCDEX. These exchanges also account for a large number of futures contract traded.

Under efficient markets, new information is impounded simultaneously into cash and futures markets. In other words, financial market pricing theory states that market efficiency is a function of how fast and how much information is reflected in prices. The rate at which prices exhibit market information is the rate at which this information is disseminated to market participants. However, in reality, institutional factors such as liquidity, transaction costs, and other market restrictions may produce an empirical lead-lag relationship between price changes in the two markets. Futures markets given their inherent leverage, low transaction costs, and lack of short sale restrictions. Risk transfer and price discovery are two of the major contributions of future markets to the organization of economic activity. Risk transfer refers to hedgers using futures contracts to shift price risk to others. Price discovery refers to the use of future prices for pricing cash market transactions or price discovery means that futures price serves as market's expectations of subsequent spot price. In other words, price discovery is the process by which markets incorporate this information to arrive at equilibrium. In a static sense, price discovery implies the existence of equilibrium price and in a dynamic sense, the price discovery process describes how information is produced and transmitted across the markets. In addition, it also impounds information to all the market participants. Price discovery is a major function of commodity future market. Information on price discovery is essential since these markets are widely used by firms engaged in the production, marketing and processing of the commodities. The essence of the discovery function of future markets hinges on whether new information is reflected first in changed futures prices or in changed cash price. It is conventionally claimed that futures market tends to be the dominant points of price discovery than that spot market.

Several studies suggest that futures markets play a critical role in price discovery for the underlying spot market. This price discovery function implies prices in the futures and spot markets are systematically related in the short run and/or in the long run. In the co integration framework, the price discovery function implies the presence of an equilibrium relation binding the two prices together. If a departure from equilibrium occurs, prices in one or both markets should adjust to correct the disparity. There is a consensus on price discovery issue in any purely competitive market. In a purely competitive market, price discovery issue is more important for all economic agents like producers, wholesalers, and other agents. Because all agents are operating in the product market and also taking decisions for their products irrespective of buyers or sellers on the basis of market price behavior. Ultimately, better decision making leads to an optimal allocation of scarce resources.

The present study attempts to develop an econometric model for both long-term and short-term forecasting of wheat prices in India. The detailed methodology involved in developing the model and forecasting process can be understood in this paper. The short-term forecasting was studied by using lagged response model, where as the long-term forecasting was made with the help of a multivariate model.

LITERATURE REVIEW

The present section outlines both theoretical as well as empirical literature on Modeling and Measuring Price Discovery in Commodity Market in the International and Indian context. The review of the earlier studies here is attempted chronologically in order to get a comprehensive picture.

Booth, Martikeinan and Tse (1997) examined Modeling and Measuring Price Discovery in Commodity Market in the context of four Scandinavian stock markets including Danish, Norwegian, Swedish, and Finnish stock markets for the period 2 May 1988 to 30 June 1994 by employing the multivariate model. Significant price and volatility exist but they are few in number.

Thomas and Karande (2001) analyzed price discovery in India's castor seed market, Ahmedabad and Bombay by using daily closing data on future and spot prices, which spans from May 1985 to December 1999. Although, they have employed G.S. model and seemingly unrelated regression approach, but the interpreted relationship between spot and future markets remained the same in both the estimation approaches. Besides estimating GS return equation separately for the respective months like March, June, September and December, the study ultimately estimated pooled data in merging four contracts. They found that out of four, three seasonal contracts in Bombay future prices lead the Ahmedabad future prices while the March contract in Ahmedabad future prices lead the former one. Despite having smaller volume, the Bombay dominates the future prices over the Ahmedabad prices for all contracts except the contracts maturing at the time of harvest. The reason is due to the fact that prices of castor seeds are largely driven by the export demand. Since the traders or exporters expose to the port in Bombay, the markets have a lead in getting information that drives prices in the June, September and December contracts. This study shows that markets that trade exactly the same asset, in the same time zone, do react differently to information and also small market may lead the large market.

Mooosa (2002) re-examined the Garbade and Silber (1983) model with the objectives of finding out if the crude oil future market perform the function of price discovery and risk transfer. The study uses the daily data of spot and one-month future prices of WTI crude oil covering from 2 January 1985 to July 1996. He found that sixty percent of the price discovery function is performed in future market. The result also showed a fairly elastic supply of arbitrage service. This study shows that Garbade and Silber model is more suitable for description of intraday behavior of spot and future prices.

Kumar and Sunil (2004) investigated the price discovery in six Indian commodity exchanges for five commodities. For their study they have used the daily futures and comparable ready price and also engaged the ratio of standard deviations of spot and future rates for empirical testing of ability of futures markets to incorporate information efficiently. Besides, the study has empirically analyzed the efficiency of spot and future markets by employing the Johansen co integration technique. They found that inability of future market to fully incorporate information and confirmed inefficiency of future market. However, the authors concluded that the Indian agricultural commodities future markets are not yet mature and efficient.

Zhong et al. (2004) investigated the hypotheses that the recently established Mexican stock index futures markets effectively served the price discovery function, and that the introduction of futures trading led to volatility in the underlying spot market using a total of 799 daily observations which covers the period 15 April 1999 to 24 July 2002. By using VECM and EGARCH models, the empirical evidence showed that the futures price index was a useful price discovery vehicle and future trading had also been a source of instability for the spot market.

The study by Zapata, Fortenberry and Armstrong (2005) examined the relationship between 11 future prices traded in New York and the World cash prices for exported sugar by considering the observation from January 1990 to January 1995. They found that the future market for sugar leads the cash market in price discovery. However, they also found unidirectional causality from future price to spot but not vice versa. The finding of co integration between futures and cash prices suggests that sugar future contract is a useful vehicle for reducing overall market price risk faced by cash market participants selling at the world price. Further it was found through impulse response function that a one unit shock in the future price innovation generates a quick (one month) and positive response in futures and cash prices, but not vice versa.

Fu and Qing (2006) examined modeling and measuring price discovery process in Chinese spot-futures markets through Johansen co integration, VECM and bivariate EGARCH model. The empirical results indicated that the models provided evidence to support the long-term equilibrium relationships and significant bidirectional information flows between spot and futures markets in China, with futures being dominant. Although innovations in one market could predict the futures volatility in another market, the volatility spillovers from futures to spot were more significant than the other way round. Gupta and Belwinder (2006) examined the price discovery mechanism in the NSE spot and future market. The study uses the daily closing values of index future SandP CNX Nifty, from June 2002 to February 2005. By using the techniques like Johansen and VECM, it was empirically found that there was bilateral causality between the Nifty index and futures. Besides, it was also found that there exists stronger casual relation from Nifty futures to Nifty index as compared to the vice-versa. This might be the reason due to the lower cost of transactivity in the future market and future market provides flexibility to investors i.e., investors enable to speculate on the price movement of the underlying asset without the financial burden of owning asset themselves.

Praveen and Sudhakara (2006) attempted to study a comparison of price discovery between stock market and the commodity future market. They have taken Nifty future traded on National Stock Exchange (NSE) and gold future on Multi Commodity of India (MCX). The result empirically showed that the one month Nifty future did not have any influence on the spot Nifty, but influenced by future Nifty itself. The casual relationship test in the commodity market showed that gold future price influenced the spot gold price, but not the contrary. So this implies that information is first disseminated in the future market and then later reflected in the spot market. Their study on spot prices of gold during the period of April 2002 to June 2005 showed that the Indian gold prices volatility is relatively higher than global market and Indian stock market has declined during their study period. It was found that the stock market has well developed spot market due to its presence of national wide stock exchange, which provides the stock market a perfect platform for price discovery while the spot commodity market is far away from this platform because spot gold is not confined to one place.

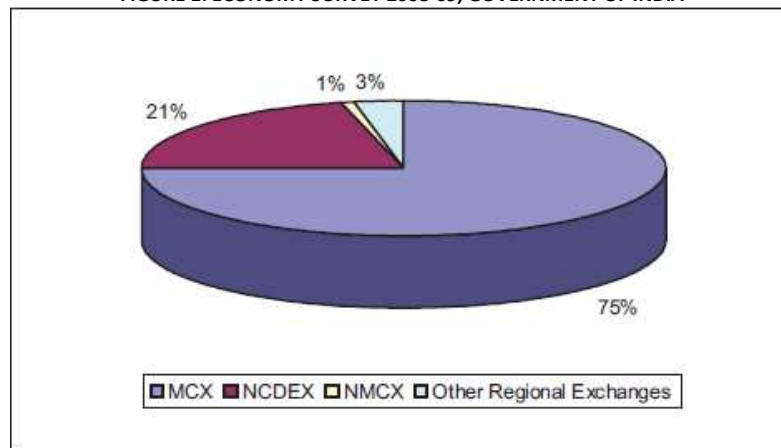
Given the above background, it is apparent that mostly research on modeling and measuring the price discovery role of futures markets and their possible volatility implications for the spot market generally focused on the US and a few other developed markets. This paper examines the case for India that has recently established the commodity futures trading. At least two main features distinguish our analysis in this paper i.e., the futures market effectively serves the price discovery function, and that the introduction of futures trading has resulted volatility in the underlying spot market.

METHODOLOGY AND DATA

The preface of new information results in modeling and measuring price discovery for short intervals of time between futures and spot market due to communication cost. Both increased availability and lower cost of information account together for faster assimilation of information in the futures market than a spot market. However, the price linkage between futures market and spot market would be examined by using co integration analysis that has several advantages. First, co integration analysis reveals the extent to which two markets have moved together towards long run equilibrium. Secondly, it allows for divergence of respective markets from long-run equilibrium in the short run.

To examine the co integrating and error correction dynamics, this study used two futures indices and corresponding underlying spot indices of Multi-Commodity Exchange (MCX), Mumbai. The four indices are MCXCOMDEX and MCXMETAL. The study has used natural logarithm for the transformation of daily data as well as to minimize the heteroscedasticity in the value of the level series. The period of study is from June 2005 to December 2009 after adjusting for dates and missing observations caused by holidays, the total observations for index are 1047 and 1049. The market share is a main source of the motivation for considering MCX rather than NCDEX in the analysis. The Indian commodity exchanges market share in terms of total turnover (End-December, 2009) is shown below.

FIGURE 1: ECONOMY SURVEY 2008-09, GOVERNMENT OF INDIA



Co integrating methodology fundamentally proceeds with non-stationary nature of level series and minimizes the discrepancy that arises from the deviation of long-run equilibrium. The arrived deviations from long-run equilibrium are not only guided by the stochastic process and random shocks in the system but also by other forces like arbitrage process. As a result, the process of arbitrage possesses dominant power in the commodity future market to minimize the very likelihood of the short run disequilibrium. Moreover, it is theoretically claimed that if futures and spot price are co integrated, then it implies presence of causality at least in one direction. On the other hand, if some level series are integrated of the same order, it does not mean that both level series are co integrated. Co integration implies linear combinations of both the level series canceling the stochastic trend, thereby producing a stationary series. The error correction model takes into account the lag terms in the technical equation that invites the short run adjustment towards the long run. This is the advantage of the error correction model in evaluating price discovery. The presence of error correction dynamics in a particular system confirms the price discovery process that enables the market to converge towards equilibrium. In addition, the model shows not only the degree of disequilibrium from one period that is corrected in the next, but also the relative magnitude of adjustment that occurs in both markets in achieving equilibrium.

Moreover, co integration analysis delivers the message saying how two markets (such as futures and spot commodity markets) reveal pricing information that are identified through the price difference between the respective markets. The implication of co integration is that both the commodities in two separate markets respond disproportionately to the pricing information in the short run, but they converge to equilibrium in the long run under the condition that both markets are well innovative and efficient. In other words, the root cause of disproportionate response to the market information is that a particular market is not dynamic in terms of accessing the new flow of information and adopting better technology. Therefore, there is a consensus that price change in one market (futures or spot commodity market) generating price change in the other market (spot or commodity futures) with a view to bring a long run equilibrium relation is :

$$F_t = \alpha + \beta S_t + \varepsilon_t \quad (1)$$

Equation (1) can be expressed as in the residual form as:

$$F_t - \alpha - \beta S_t = \varepsilon_t \quad (2)$$

Where F_t and S_t are futures and spot price of some commodities in the respective markets at time t . Both α and β are intercept and coefficient terms, where ε_t is estimated white noise disturbance term. The main advantage of co integration is that each series can be represented by an error correction model which includes last period's equilibrium error with adding intercept term as well as lagged values of first difference of each variable. Therefore, casual relationship can be gauged by examining the statistical significance and relative magnitude of the error correction coefficient and coefficient on lagged variable. Hence, the error correction model is:

$$\Delta F_t = \delta_f + \alpha_f \hat{\varepsilon}_{t-1} + \beta_f \Delta F_{t-1} + \gamma_f \Delta S_{t-1} + \varepsilon_{f,t} \quad (3)$$

$$\Delta S_t = \delta_s + \alpha_s \hat{\varepsilon}_{t-1} + \beta_s \Delta S_{t-1} + \gamma_s \Delta F_{t-1} + \varepsilon_{s,t} \quad (4)$$

In the above two equations, the first part is the equilibrium error which measures how the dependent variable in one equation adjusts to the previous period's deviation that arises from long run equilibrium. The remaining part of the equation is lagged first difference which represents the short run effect of previous period's change in price on current period's deviation. The coefficients of the equilibrium error, α_f and α_s , are the speed of adjustment coefficients in future and spot commodity markets that claim significant implication in an error correction model. At least one coefficient must be non zero for the model to be an error correction model (ECM). The coefficient acts as an evidence of direction of casual relation and reveals the speed at which discrepancy from equilibrium is corrected or minimized. If α_f is statistically insignificant, the current periods change in future prices does not respond to last period's deviation from long run equilibrium. If both α_f and β_f are statistically insignificant; the spot price does not Granger cause futures price. The justification of estimating ECM is to know which sample markets play a crucial role in the price discovery process.

The study was carried out to assess the long-term trends in the prices of wheat and factors affecting the wheat prices in India. The investigation calls for data on different variables which affect the prices of wheat in Indian markets. The data on area, yield, production, beginning stocks, imports, exports, and domestic consumption was collected for the period from 1970-71 to 2005-06 from USDA Production, Supply, and Distribution database. The total consumption data includes both the quantity consumed for the purposes of food and feed. The per capita food consumption was taken into account while estimating the total quantity of wheat consumed for food purpose. However, the yearly data on average prices of wheat for India was available only for the period from 1979-80 to 2005-06 and hence the previous prices were interpolated and included in the analysis. The data on CBOT daily prices have been extracted from MCX Meta stock software and the average annual price of wheat worked out and used for the analysis.

SELECTION OF MODEL

In the beginning, all the selected variables were included in the model, but due to interrelationship among the independent variables few variables have been clubbed and used for the analysis. The variables included in the model are: total supply, total demand, minimum support price, CBOT prices and area under wheat cultivation for the whole study period. The total demand includes consumption for food and feed and export, whereas total supply includes imports, total production, and stocks held by both government and private agencies.

To assess the trends in different variables which affect the price of wheat, different forms of equations were used, depending upon their suitability. The equations used are as below:

$$y = a + bt + ct^2 + dt^3 + ut \quad \text{For trends in Prices} \quad (1)$$

$$y = a + bt + ut \quad \text{For Supply} \quad (2)$$

$$y=a+bt+ut \text{ - For Demand----- (3)}$$

$$y=a+bt-ct_2+dt_3-et_4+ut \text{ - For MSP----- (4)}$$

$$y=a+bt-ct_2+dt_3+ut \text{ - For Area----- (5)}$$

Where,

y = Price, supply, demand, MSP and area for respective equations

a= Intercept

bt, ct₂, dt₃, et₄ = Coefficients

ut= Stochastic term

Results and Discussion

The coefficients, standard errors of the corresponding coefficients, coefficient of determination, and significance of the model are presented in Table 1. The predicted variables from the above equations were used to forecast the prices of wheat by using a multivariate model of the following type:

$$\log Y = \log(a) + (b_1)\log X_1 + (b_2)\log X_2 + (b_3)\log X_3 + (b_4)\log X_4 + (b_5)\log X_5 + u_i \text{----- (6)}$$

Where,

Y = Price of wheat

b₁, b₂, b₃, b₄, b₅ = Coefficients

X₁, X₂, X₃, X₄, X₅ = Independent variables

u_i = Stochastic term

The regression coefficients, standard errors of coefficients, coefficient of multiple determination, and significance of the model can be seen from Table 2. It could be seen from Table 2 that the multiple regression model developed for forecasting the wheat prices was found to be highly significant for the factors like demand, MSP, and CBOT prices. The total effect explained by these variables together was found to be 89%, which seems to be highly significant for price forecasting validated by regression analysis. Model explanatory power is 89% which is good enough to address fundamental factors like demand, MSP, and CBOT prices and rest 11% is explained by other exogenous variables, which we have not included in the model due to lack of data and inability of quantifying some of the variables like climatic factors. The other fundamental factors like area and total supply have negative and non-significant effect. For forecasting the prices of wheat for the years 2007, 2008, 2009, and 2010, the forecasted values of independent variables affecting the prices were taken into account and the predicted and actual trends in the prices of wheat can be seen in Figure 1.

$$\log Y = \log(a) + (b_1)\log X_1 + (b_2)\log X_2 + (b_3)\log X_3 + (b_4)\log X_4 + (b_5)\log X_5 + u_i \text{----- (6)}$$

Where,

Y = Price of wheat

b₁, b₂, b₃, b₄, b₅ = Coefficients

X₁, X₂, X₃, X₄, X₅ = Independent variables

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TABLE 1: TRENDS IN SELECTED VARIABLES THAT AFFECT THE PRICES OF WHEAT (1970-71 TO 2008-09)

Sr.no	Variable	Intercept	T	T ²	T ²	T ⁴	R ²	F
1	Price (Y)	4045.49	207.36** (85.81)	-20.34* (5.34)	0.51** (0.095)	-	0.87	76.22
2	Supply (X ₁)	26297.68	1692.76** (113.64)	-	-	-	0.86	221.85
3	Demand (X ₂)	19937.1	1595.35** (54.91)	-	-	-	0.96	844.01
4	MSP (X ₃)	3129.76	592.18** (81.27)	-60.23* (7.07)	1.61** (0.18)	-0.006* (0.06)	0.92	92.3
5	Area (X ₅)	16630.5	634.56** (634.56)	-16.50NS* (-16.50)	0.18NS* (0.18)	-	0.91	110.89

** Significant at 1 per cent level NS Non-significant

Note: Figures in the parentheses indicate the standard errors of the corresponding coefficients.

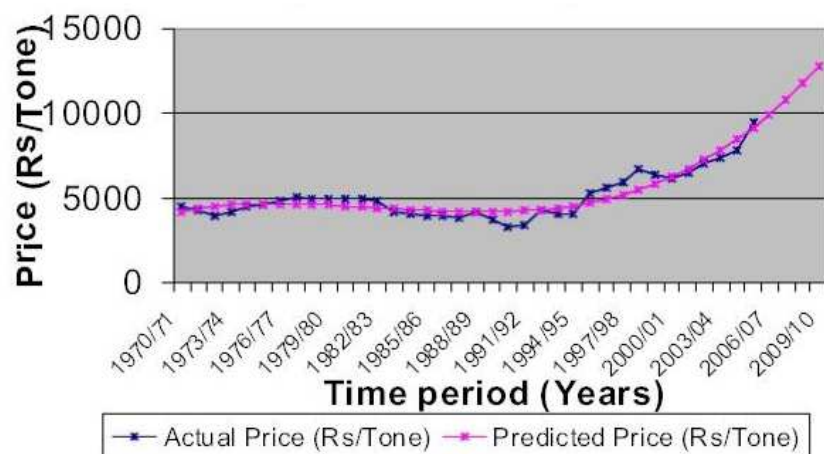
TABLE 2: FACTORS RESPONSIBLE FOR VOLATILITY IN THE PRICES OF WHEAT IN INDIA (1970-71 TO 2008-09) (N=36)

Sr.no	Independent variable	Coefficient
1	Total Supply in '000 tones (X ₁)	-0.001 ^{NS} (1.12)
2	Total Demand in '000 tones (X ₂)	0.28 * (0.12)
3	Minimum Support price in Rs. Per tones (X ₃)	0.98** (0.07)
4	CBOT Price in \$ per tones (X ₄)	0.19** (0.09)
5	Area in '000 Ha (X ₅)	-0.20 ^{NS} (0.38)
	Intercept	-0.82
	R²	0.89
	F' Value	49.95

** Significant at 1 per cent level * Significant at 5 per cent level

NS Non-significant

FIGURE 2: FIGURES IN THE PARENTHESES INDICATE THE STANDARD ERRORS OF THE CORRESPONDING COEFFICIENTS

**LAGGED RESPONSE MODEL**

Similarly, by using the available short-term data on Delhi spot prices and CBOT wheat price, the lagged response model of the following type was used by using the daily time series data for the period from September 2004 to December 2006 and August 1973 to August 2007 respectively for Delhi spot prices and CBOT. The results were significant at first lag with high r^2 value of 99 per cent and low Mean Sum of square for error was found to be 120 and 135.5, respectively, which is low, and best fit to address the forecasting ability of the model. The results of actual and predicted prices for Delhi spot price and CBOT respectively can be seen from Figures 4 and 5. The following type of the model was used for forecasting wheat prices:

$$P_t = f(P_{t-1}) \quad (7)$$

Where, P_t = Price of current year

$f(P_{t-1})$ = Price of previous year

FIGURE 3: WHEAT PRICE FORECASTING MODEL FOR DELHI MARKET

Wheat Price forecasting model for Delhi Market
(Sept 04 to Jan 07)

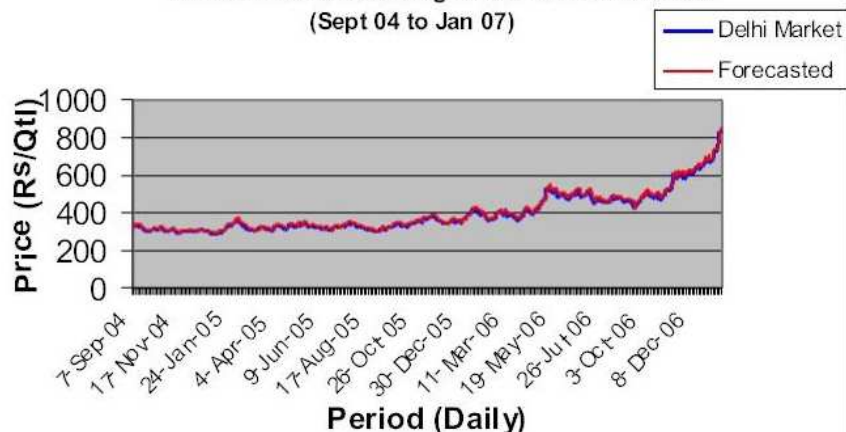
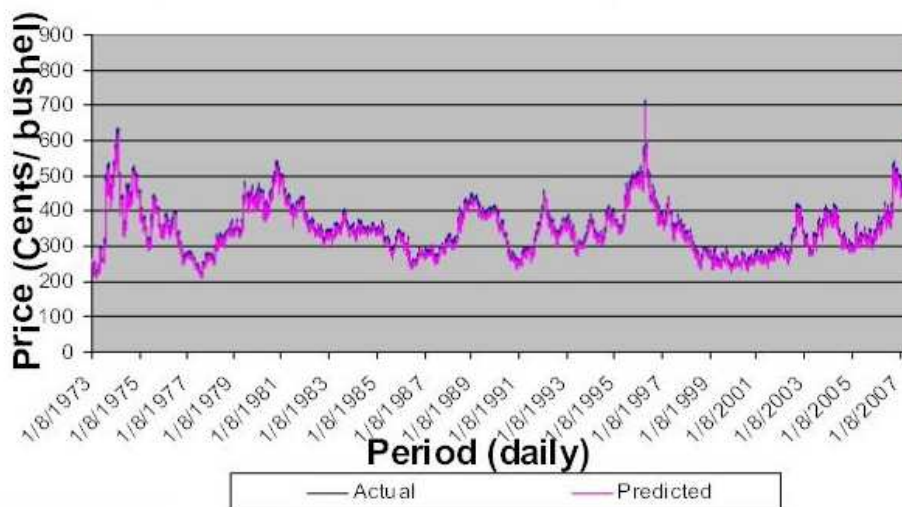


FIGURE 4: WHEAT FORECASTING MODEL

CBOT Wheat forecasting model

**ANALYSIS AND FINDINGS**

We deployed a Multivariate Price Forecasting Model for Wheat with Area, Supply, Demand, Minimum Support Price (MSP), and Global Wheat Prices as variables. Forecast models, both the structural model as well as lagged time series model, predicted the prices fairly efficiently. Forecasts for the year 2006-07, 2007-08, 2008-09 and 2009-10 were Rs 9,964, Rs 10,820, Rs 11,752 and Rs 12,764 per ton, respectively. This assumes an average yearly increase in acreage and MSP of 3 per cent and 4 to 6 per cent, respectively (as predicted by the model). However, if there is a less than desired increase in acreage/level of MSP, then there could

be shortfall in supply which would have to be met with imports from abroad. The above forecast models are amenable to fine-tuning the predicted prices by incorporation of new and additional information as and when they become available.

CONCLUSIONS

The process of price discovery is crucial for all participants in commodity markets. The present paper re-examines the work of team to measure price discovery for wheat markets with finite elasticity of arbitrage services. Instead of explicitly modeling convenience yields to take account of backwardation/contango structures, this paper argues that wheat's are investment as well as consumption assets and therefore should be co integrated with a unit co integrating vector. Our price discovery measure depends on the relative volumes traded in the spot and future markets.

Applied to data for four wheat commodity, our model shows that

- i) all the commodities are co integrated with a unit co integrating vector suggesting that they are investment as well as consumption assets and
- ii) Both the spot price and the future price are equally important for the price discovery process, suggesting that futures trading in commodity are not as predominant in terms of volumes traded as for other equity markets.

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CORPORATE CARBON DISCLOSURE THROUGH SUSTAINABILITY REPORT - AN INDIAN EXPERIENCE

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SURAT

ABSTRACT

Climate change is a major environmental challenges of our time, posing greatest threat to sustainable development globally and regionally. The root cause of it is increasing concentration of Greenhouse Gases (GHGs) in the atmosphere by human activities like manufacturing, transportation, deforestation and so on. Considering the risks as real, Government of India has launched National Action Plan for Climate Change known as NACCC, which targets to reduce GHGs emission by 20 % in India by the year 2020 compared to base year 2005. Indian companies generate around 31% of the country's CO₂ emissions and therefore they are one of the important players in the fight against climate change. This study is undertaken with two objectives namely 1. to know whether climate change has been a material issue for Indian companies which made Sustainability Report for 2010 ? and 2. If material issue, what is the carbon disclosure made by such companies? The disclosure is measured on the basis of guideline on 'Global Framework for Climate Risk Disclosure' which incorporates two voluntary disclosures namely GRI framework and CDP (apart from third one namely financial regulatory disclosure in Security Exchange Commission not relevant in Indian context), taking in all 35 items. Out of 24 companies which made Sustainability Report for the year 2010, climate change has been material issue for 20 companies, which were further studied to seek answer to objective 2. The findings showed overall disclosure score of 63 % (with 50 % in emission disclosure, 87% in emission management, and 0.25% and 0.15 % in physical and regulatory risk disclosure category). Overall, the results of the study indicate that Sample Indian Companies have started the journey for carbon emission reduction in proactive manner and are on the right tract to align their businesses with national agenda of low carbon economy and thereby achieve sustainable development.

KEYWORDS

carbon disclosure, carbon emission, carbon emission reduction, , Climate change, sustainable development.

INTRODUCTION AND CONTEXT OF THE STUDY

The climate change, one of the major environmental global challenges of our time has adverse consequences for human health, ecological and socio-economic systems, posing greatest threat to sustainable development globally and regionally. The root cause of this problem is increasing concentration of Greenhouse Gases (GHGs) in the atmosphere by human activities like manufacturing, transportation, deforestation and so on. Over a decade ago most countries of the world joined an international treaty known as the 'United nations Framework Convention for Climate Change (UNFCCC) to address the danger of global climate change and reduce the global warming to the extent inevitable. Later on number of nations including India ratified to Kyoto protocol, which is an international and legally binding agreement to reduce greenhouse gas emission worldwide by assigning mandatory targets for signatory nations. For Kyoto protocol purpose for the period 2008-2012, the world is divided into two categories –annex 1 countries (developed countries) who have to reduce their emission of 6 specified greenhouse gases known and non annex 1 countries (India falls in non-annex 1 countries), who are the receivers in short term in terms of CDM projects (which helps to bring clean technologies from developed countries) and carbon credits (which generates revenue by selling it to Annex 1 countries). Climate change is a long term problem requiring years of sustained efforts. Considering the risks as real, Government of India has launched National Action Plan for Climate Change known as NACCC, which targets to reduce GHGs emission by 20 % in India by the year 2020 compared to base year 2005. Eight National Missions are being launched for implementation through the respective nodal Ministries. Further, the Planning Commission is now finalizing a blueprint for the 12th five year plan, to enable the Indian economic growth story to not only follow a low-carbon route, but also to fulfill the voluntary GHG emission reduction targets.

CLIMATE CHANGE AND CORPORATE SECTOR

While the government has initiated several such actions, the role of business firms in mitigating and adapting to carbon emission needs to be discussed as they are seen as contributing significantly to environmental degradation through GHGs emissions. Indian companies use over 40% of the commercial energy produced in the country and generate 31% of the country's CO₂ emissions¹. Their involvement is thus important in the fight against climate change since they can drive technological innovation and adoption of environment - friendly technologies and practices, thus reducing GHGs emissions. In a 2008 survey conducted by the ASSOCHAM, only 20% of the respondent companies had initiated actions in response to climate change². In a 2009 PWC survey of 62 top CEOs in India, the response was more positive; suggesting that Indian business has gradually gone up its responses to climate change³. The CDP –India 200 Report 2010 study remarked "There is a visible 'shift' within the Indian industry to mitigate and adapt to climate change impacts, despite lack of any regulatory requirements for GHG abatement. The positive response of Indian businesses to CDP over the last four years is an indication of this change and their willingness to address climate change⁴".

As evident from above, few enlightened companies in India, committed to sustainable development have started taking proactive role in handling climate change issue as a part of strategic management for sustainable development of their business and thereby align with national ecological agenda of climate change. The handling of climate change issue requires system approach to carbon management which includes carbon measurement, governance and strategy, carbon reduction and innovation, carbon disclosure and monetization of reductions and reduction of risk.

CORPORATE CARBON DISCLOSURES

There are two global disclosure frameworks related to carbon disclosure namely Carbon Disclosure Project (CDP) which specifically addresses the issue of climate change and Global Reporting Initiative (GRI) based on 'Sustainability Report' framework, which takes climate change as a part of sustainability. Though both the frameworks take into consideration, system approach to carbon management, they adopt different methodology and purposes. While CDP is based on questionnaire survey on annual basis, initiated for the purpose of clean investment, Sustainability Report is initiated for sustainability development and is based on annual voluntary reporting mechanism.

The research shows that there is a higher likelihood of voluntarily disclosing carbon emissions by firms with superior environmental performance (relative to the industry median), conditional on firms taking environmentally proactive actions (Ella Mae Matsumura , Rachna Prakash and Sandra C. Vera-Muñoz 2011) .

As the corporate carbon disclosure is not regulatory requirement in India and mainly in non-financial nature, such enlightened Indian companies may find it most appropriate to report their carbon management initiatives and performance as a part of sustainable development strategy through voluntary global reporting framework of 'Sustainability Report' as per GRI guidelines.

GRI describes, it as a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The Sustainable reporting⁵ as per Global Reporting Initiative (GRI) guidelines is very comprehensive framework to demonstrate the organization's commitment to sustainable development. Principles and indicators that organizations can use to measure and report their economic, environmental, and social performance are part of this framework. The Guideline "G3" is the foundation of the Framework.

The G3 Guidelines outlined in the disclosure framework are such that the organizations can voluntarily, flexibly, and incrementally adopt. The Framework is applicable to organizations of any size, constituency or location, and has been used already by many hundred organizations around the world as the basis of their sustainability reporting. Information-seekers can more accurately interpret disclosed information if it is communicated through the GRI's credible, comparable framework. The flexibility of the G3 format allows organizations to plot a way for continual improvement of their sustainability reporting practice. Sustainability reporting includes three bottom-lines namely profit, people, planet. The planet includes various environmental aspects including carbon management⁶.

While defining the content of the report, G 3 guideline encourages to identify topics to be incorporated in Sustainability Report of a particular company using the principle of materiality, stakeholder inclusiveness, sustainability context and guidance on setting the report boundary.

The enlightened Indian companies who have considered climate change as material issue in sustainability context can voluntarily report it as a part of sustainability report. In the year 2010, (as on February 23, 2011) world over 1796 companies made sustainability Reporting as per GRI guideline, of which 24 companies were from India.

REVIEW OF PREVIOUS RELATED STUDIES

Ioannou and Serafeim⁷ (2011) studied "The Consequences of Mandatory Corporate Sustainability Reporting". The purpose of the study was to investigate whether mandatory disclosure of sustainability information has significant consequences on managerial practice. The study is based on 58 countries corporate disclosure practices. For the study, the countries have been divided into two categories namely countries with mandated sustainability disclosures and voluntary disclosures. The dependent variable studied were: Social Responsibility, Sustainable Development, Employee Training, Corporate Boards, Ethical Practices, Bribery & corruption, Managerial Credibility. India also was also one of the country in sample countries studied for the purpose. In the context of India, the said study findings suggest that in countries with voluntary sustainability reports the sustainability development increases.

In 2010, the CDP in partnership with WWF-India and CII-ITC Centre of Excellence for Sustainable Development⁸ asked India's largest 200 companies on the National Stock Exchange (NSE) to disclose what action they are taking to address climate change. The CDP 2010 study got the response from 51 companies from top 200 companies as per market capital in national Stock Exchange. The methodology of the study was questionnaire survey. Based on various response to questionnaire, the sample companies were given score. Top 10 companies name were given with the individual score. The study remarks "There is a visible 'shift' within the Indian industry to mitigate and adapt to climate change impacts, despite lack of any regulatory requirements for GHG abatement. The positive response of Indian businesses to CDP over the last four years (CDP India project takes yearly review) is an indication of this change and their willingness to address climate change"

Jairaj⁹ (2010) studied "a disclosure-based approach to climate change in India. Early lessons from business regulation". This paper argues that as a step towards improving Indian corporate response to climate change, it is worth exploring an appropriate disclosure-based regulation system. It sets out reasons why Indian companies need to improve their responses to climate change; and compares and contrasts disclosure-based regulation with other traditional models of regulation (command-and-control or market-based) in terms of their approach, strengths and weaknesses, based on its implementation in different parts of the world. The paper discusses examples of regulatory efforts on energy conservation attempted in India: the Energy Conservation disclosure regime under the Companies Act; the initial efforts at the Perform, Achieve and Trade (PAT) regime under the Energy Conservation Act and; the GHG Emission disclosure under the Carbon Disclosure Project. Through empirical analysis, the paper discusses the aims and objectives of these examples and evaluates their relative strengths and limitations. The paper concludes "-----In the present case, where corporate India needs to improve its response to the challenges posed by climate change, this paper has argued that government policy must focus on the creation of incentives and disincentives, creation of knowledge and getting corporate India to self-catalyze. However, to figure out whether government policy aimed at catalyzing industry is achievable or not, it is necessary to have information in the public arena; and this is where disclosure-based regulation holds the key."

RESEARCH METHODOLOGY

RESEARCH PROBLEM

The purpose of this paper is to report the findings of "the study on corporate carbon disclosure through sustainability report for Indian companies in the Sustainability Report for the year 2010". In the year 2010 (by cut off date 23-2-2011) 24 Indian companies made sustainability report as per GRI guidelines.

RESEARCH OBJECTIVES

The study was undertaken with two objectives namely:

1. For Indian companies which made Sustainability Report for year 2010, climate change has been a material issue?
2. If material issue, what is the carbon disclosure made by such companies?

DATA COLLECTION

For the purpose of objective 1, reports of all 24 companies were studied to know the materiality issue for disclosure by the companies. Out of 24 companies, Companies, for which climate change has been material issue were further studied to seek answer to objective 2. For objective 2, carbon content category has been used as per the guideline on 'Global Framework for Climate Risk Disclosure'¹⁰ which incorporates two voluntary disclosures namely GRI framework and CDP (apart from third one namely financial regulatory disclosure in Security Exchange Commission not relevant in Indian context). As per GRI guidelines the carbon performance disclosure is limited to 4 measures / indicators namely EN 16, EN 17 (core indicators) and EN18 (additional indicator) and EC 2 but a broader view has been taken by including matters related to energy consumption, carbon issue in product, transportation, environmental expenditure etc which is related to climate change, in line with CDP to make the findings comparable with CDP as regards to climate change - carbon management, measurement and physical and regulatory risks. In all 35 contents were identified which includes 4 headings namely 1.Emission Disclosure, 2. Strategic Analysis & Climate Risk and Emission Management, 3. Assessing Physical Risk, and 4. Analysis of Regulatory Risks.

RESULTS OF THE STUDY

For the purpose of objective 1, reports of all 24 companies were studied to know the materiality issue for disclosure by the companies. Out of 24 companies, climate change has been material issue for 20 companies, which were further studied to seek answer to objective 2 as per the guideline on 'Global Framework for Climate Risk Disclosure' discussed above. The findings of the study are reported in Table 1.

TABLE 1: CORPORATE CARBON DISCLOSURE AS PER GUIDELINE ON 'GLOBAL FRAMEWORK FOR CLIMATE RISK DISCLOSURE' FOR SELECT INDIAN COMPANIES

Sr No.	Content Category	Maximum Score	Actual Score	Score in %	Mean Value	Standard Deviation	No of Companies reporting	% of Companies reporting
1	Emission Disclosure	100	50	50%	2.5/5	1.58	18/20	90%
2	Emission Management	460	382	83%	19.10/23	2.36	20/20	100%
3	Assessment Of Physical Risk	80	5	06%	0.25/4	0.44	4/20	20%
4	Analysis Of Regulatory Risks	60	3	05%	0.15/3	0.37	3/20	15%
	Total	700	444	63 %	22/35	-	-	-

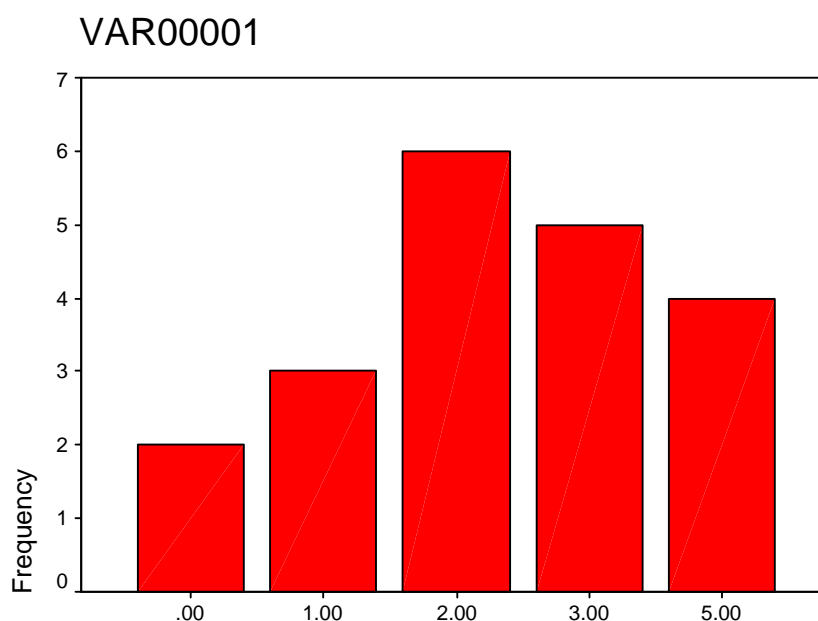
EMISSION DISCLOSURE

Table 2 and Figure 1 shows the frequency distribution of disclosure score of sample companies. 2 (10%) companies did not disclose anything, while 3 (15%) companies scored 1, 6 (30%) companies scored 2 and 4(20%) companies scored 5 out of 5 total score. The mean value of disclosure score is 2.5 out of maximum 5 (50%) with s.d.of 1.57.

The emission disclosure contained the questions related to measurement of carbon footprint in terms of direct and total carbon emission at present and in future. In general most of the companies reported direct and total carbon emission presently and less on carbon savings and expected future carbon emission.

TABLE 2: FREQUENCY DISTRIBUTION OF EMISSION DISCLOSURE SCORE BY SELECT INDIAN COMPANIES

Score	No of companies	%
0	2	10%
1	3	15%
2	6	30%
3	5	25%
4	0	-
5	4	20%
Total	20	100%

FIGURE 1: FREQUENCY DISTRIBUTION OF EMISSION DISCLOSURE SCORE BY SELECT INDIAN COMPANIES**EMISSION MANAGEMENT**

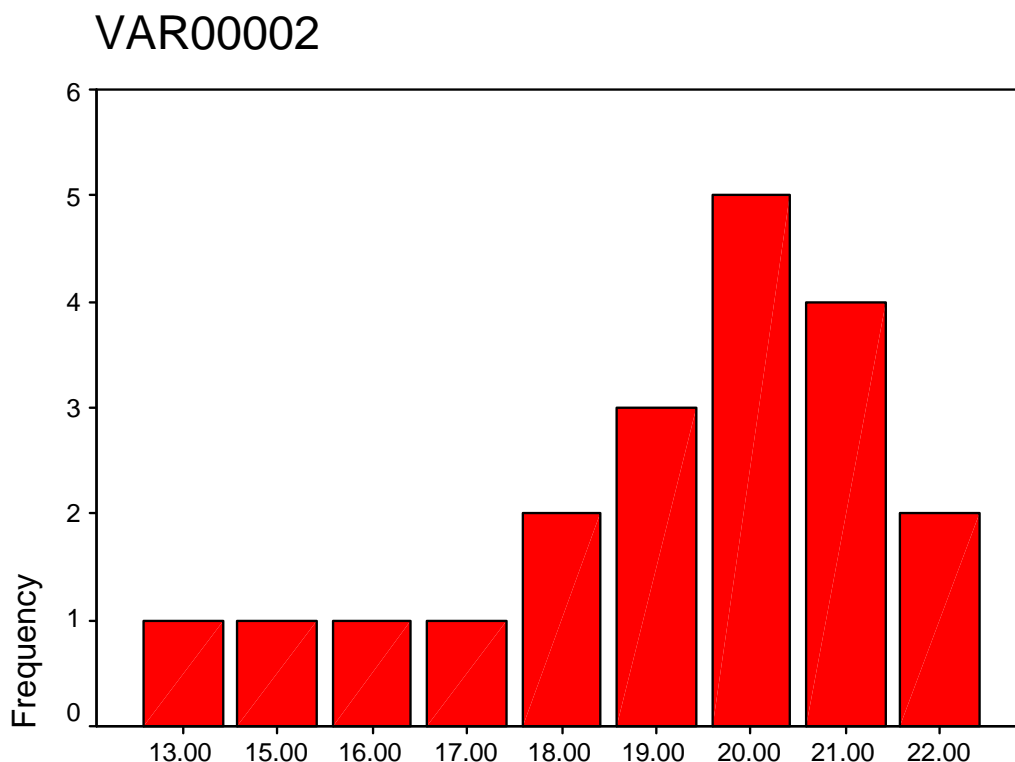
Emission management questions pertained to corporate governance and strategic management for reduction of carbon footprint and risk management. The overall score of the companies has been 83%, showing very encouraging results (mean value 19.1 out of maximum score 23, s.d. 2.36).

The frequency distribution of emission management disclosure score is shown in Table 3 and Figure 2

TABLE 3: FREQUENCY DISTRIBUTION OF EMISSION MANAGEMENT DISCLOSURE SCORE

Score	No of Companies	%
13	1	5
15	1	5
16	1	5
17	1	5
18	2	10
19	3	15
20	5	25
21	4	20
22	2	10
Total	20	100

FIGURE 2: FREQUENCY DISTRIBUTION OF EMISSION MANAGEMENT DISCLOSURE BY SELECT INDIAN COMPANIES



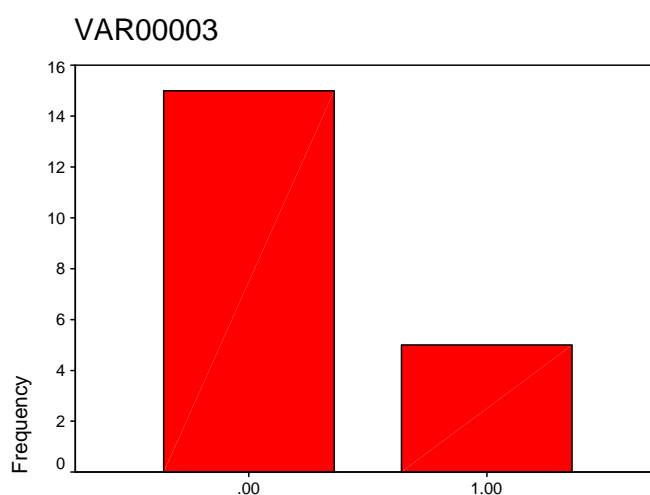
VAR00002

Out of 20 companies, 11 (55%) companies scored more than average and 9 (45%) companies less than the average. The lowest score is 13 out of 23, being 57 %. The number of years since companies are reporting their triple bottom line is different for select Indian companies with some companies doing it for the first time while some other companies reporting for fifth or sixth time. The G3 guideline encourages progressive reporting, to improve performance and disclosure every year, so the difference in disclosure is bound to happen. However, the overall the average carbon management disclosure score of 83% (minimum score being 57 %, maximum score 96 %) indicate that the result is quite encouraging so far carbon management is concerned.

ASSESSMENT OF PHYSICAL AND REGULATORY RISKS

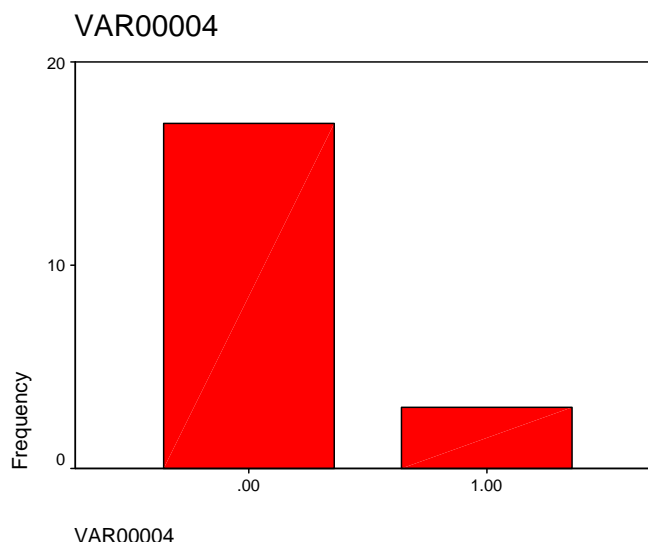
The disclosure of physical and regulatory risks is not a regular practice for sample companies as the disclosure score indicate (table 1, Figure 3 and 4). Bearing 4 and 3 companies (with score of 5 out of 80 and 3 out of 60) which disclosed some information about their physical and regulatory risk respectively, other companies have not made any disclosure in this area. Most of the companies report that their risk management systems are in place to identify and monitor the risks but specific disclosure about the physical and regulatory risks in climate change area is not a common practice for sample companies.

FIGURE 3: FREQUENCY DISTRIBUTION OF PHYSICAL RISK DISCLOSURE BY SELECT INDIAN COMANIES



VAR00003

FIGURE 4: FREQUENCY DISTRIBUTION OF REGULATORY RISK DISCLOSURE BY SELECT INDIAN COMPANIES



DISCUSSION

The overall disclosure score of 63 % in four categories (with 50 % in emission disclosure, 87 % in emission management, and 0.25% and 0.15 % in physical and regulatory risk disclosure category) clearly indicate that select Indian companies, who have made sustainability report and considered climate change as material issue, are reporting in this crucial area as a part of their sustainable development.

The difference in score of individual companies is not highlighted in the study as the sustainability report is meant to encourage sustainable development in progressive manner. The varying size, nature of industry, number of years since making sustainability reporting are some the factors which influence the carbon disclosure score and are bound to be different for companies. However, the overall score especially in two categories, emission disclosure and emission management show very encouraging result.

The findings of this study are in line with other studies like CDP - India report 2010, and PWC 2009 survey.

CONCLUSION

Overall, the results of the study indicate that Sample Indian Companies have started the journey for carbon emission reduction in proactive manner and are on the right tract to align their businesses with national agenda of low carbon economy and thereby achieve sustainable development.

However, to bring quantum leap progress in carbon emission reduction by Indian Industries there is a scope to bring catalysts/and incentives. Bharath Jairaj¹¹ (2010) suggested "an appropriate disclosure-based regulation that has the potential to improve corporate India's response to climate challenges" Tax relief or tax concessions, additional depreciation provision on investment in Green Technology linked to carbon emission reduction, honoring companies with national level prize for achieving sizable carbon emission reduction are some of the other incentives to motivate Indian industries to achieve carbon emission reduction in defined time frame - by the year 2020 - and attain sustainable development.

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A STUDY ON CONSUMER BEHAVIOR OF MOBILE PHONES FROM UNIVERCELL STORES IN KERALA

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ABSTRACT

The aim of marketing is to meet and satisfy targeted consumer's needs and profitability of the concern. The starting point in marketing planning is always the consumer. Meanwhile, one of the most popular and important terms in marketing is the behaviour of consumers. The study is primarily focused on the consumer behaviour of mobile phones from UniverCell stores in Kerala. The study is done on 200 consumers, who came to purchase mobile phones from UniverCell stores in different parts of Kerala to know their buying behaviour and it has been found that the consumers are influenced by their friends and advertisement given in Television.

KEYWORDS

consumer, behaviour, marketing, Kerala, Univercell.

THE BACKGROUND OF STUDY

Consumer behaviour is not a simple concept in the mobile phone market, with the advent of technology. It refers to the mental, psychological and emotional process of consumers during searching, purchasing and post purchase of a product or service. It is influenced by social, psychological and personal factors.

STATEMENT OF THE PROBLEM

Consumers prefer to purchase mobile phones based the reputation of the established shops. UniverCell is a leading player in the retail mobile market with its presence largely in South India and always preferred by the consumers. UniverCell entered the Kerala market in 2008 and had launched ten showrooms. Kerala is regarded as unique market in India. Consumers' expectations should be met to create a total value in the market. Therefore, this study is beneficial for the mobile phone retail stores in Kerala, especially for UniverCell. Retail outlet image and its location are important. Consumer usually prefers a nearby retail outlet for small shopping and goes to a far away store for costly shopping. Hence the study is done to find out the motivational factors which make the consumers to select the nearby Univercell stores to buy the mobile phones.

OBJECTIVES OF THE STUDY

- To identify and examine the various factors that persuades the consumers to visit UniverCell stores in Kerala.
- To understand the mode of advertisement that attracts the consumers

HYPOTHESIS

- a) There is no association between age of the respondents and decision making for purchasing the mobile from the particular store
- b) There is no association between age of the respondents and type of advertisement that respondents prefer more.
- c) There is no association between gender of the respondents and the type of advertisement

LITERATURE REVIEW

Chirag V Erda (2008) on 'a comparative study on buying behaviour of Rural and Urban consumer on mobile phone in Jamnagar district' found out that the rural consumers are not bothered about the quality, function and brand compared to urban consumers. Rural consumers use friends as source of information but the purchase decision is taken by them individually.

Shashikumar Sharma L & Chaubey D.S (2007) assessed the consumer's awareness and their attitude towards the Mobile service providers in Lucknow. It is observed that the level of consumer satisfaction, the perception of consumers of the prospects of mobile services and the impact of mobile services in bringing about the social change, depend on the demographic characteristics of the respondents

A research by Heikki Karjalainen, et al., (2005) on 'Factors affecting consumer choice of mobile phones: two studies from Finland' revealed that brand plays a very important role in stimulating the customers to choose one mobile over the other. Also the factors like advertisement and price too has an effect in consumer decision making process and in buying behaviour.

Rajesh Rajaguru and Margaret J Matanda, of Monash University(2006) conducted an exploratory research on 'Consumer Perception of Store and Product Attributes and its Effect on Customer Loyalty within the Indian Retail Sector' suggested that store and product attributes determine customer loyalty. It's found that Indian consumers are more concerned with service quality, store, convenience, product quality and availability of new products

A Study on the 'The effects of promotional activities on brand decision in the cellular telephone industry' done by *Chu-Mei Liu (Assistant Professor, Kai Nan University)* 2002, revealed the importance of advertising, branding and promotions in the telecommunication sector.

A Study on Purchase Pattern of Cosmetics among Consumers in Kerala done by *Dr. Vinith Kumar Nair and Dr. Prakash Pillai R* (2007) analysed the purchase patterns and spending styles of people belonging to different segments of cosmetic consumers in Kerala. This study helped in analyzing the customer attitude towards the different factors identified after the focus group discussions.

BRIEF VIEW OF METHODOLOGY

The main part of methodological study involved the collection of primary data from the respondents of the study. The study used the primary data. Well-structured and questionnaire was used to collect information from the respondents of 8 UniverCell stores located at different parts in Kerala. i.e., 3 stores in Cochin, 2 each in Trivandrum and Kottayam and one in Calicut. The data collected was analyzed through Percentages, frequencies and chi - square tests. Additional information was collected from the available sources such as books, journals and dailies. Convenience sampling is adapted for sampling and 200 samples were collected from the respondents.

LIMITATION OF THE STUDY

- The present study is confined to UniverCell stores in Kerala and hence the findings may not be applicable to other states in the country.
- The sample size of 200 cannot be taken for generalizing consumer behavior studies.
- Consumer behavior is dynamic in nature and hence there is every possibility that the findings of today become invalid tomorrow

DATA ANALYSIS AND INTERPRETATION

TABLE 1: DISTRIBUTION OF AGE OF RESPONDENTS

Age group	Frequency (n=200)	Percentage (%)
Less than 20	82	41.0
20 to 30	70	35.0
31 to 40	38	19.0
Above 40	10	5.0

Table 1 shows that the maximum number of respondents comes to the Univercell stores belong to the age group of less than 20 who constitute 41% of the total respondents.

TABLE 2: DISTRIBUTION OF GENDER OF RESPONDENTS

Gender	Frequency (n=200)	Percentage (%)
Male	160	80.0
Female	40	20.0

Table 2 shows that the maximum number of respondents in the Univercell stores is men who constitute 80% of the total.

TABLE 3: NO. OF MOBILES USED BY THE RESPONDENTS

No. of mobiles	Frequency (n=200)	Percentage (%)
Single	176	88.0
Two	24	12.0

It is clear from the above table that 88% of the respondents use only single mobile phones.

TABLE 4: INFORMATION SOURCE FOR THE MOBILES PURCHASES

Information Source	Frequency (n=200)	Percentage (%)
Newspaper	49	24.5
TV	35	17.5
Mobile phone retailer	8	4.0
Friends	108	54.0

It is clear that 54% of the respondents purchase mobiles based on the information given by friends.

TABLE 5: DECISION TAKEN TO PURCHASE THE MOBILE

Decision	Frequency (n=200)	Percentage (%)
Self decision	62	31.0
Friends	91	45.5
Family	35	17.5
Mobile phone retailer	12	6.0

The maximum number of respondents were influenced by their friends to purchase mobiles from this store.

TABLE 6: INFLUENCE OF ADVERTISEMENT

Influence	Frequency (n=200)	Percentage (%)
Yes	44	22.0
No	156	78.0

78% of the respondents were not influenced by the advertisement given by the Univercell stores.

TABLE 7: TYPE OF ADVERTISEMENT

Type of advertisement	Frequency(n=200)	Percentage (%)
News paper	58	29
Television	96	48
Radio	7	3.5
Bill boards	11	5.5
Special event promotions	28	14

Table 7 shows that the maximum number of respondents i.e., 48% was attracted by TV advertisement.

CHI-SQUARE TESTS

TABLE 8: ASSOCIATION BETWEEN AGE GROUP OF THE RESPONDENTS AND DECISION MAKING

Decision Making	Age Group				Statistical Inference
	< 20	20 to 30	31 to 40	> 40	
Self decision	10	26	19	7	$\chi^2 = 59.749$ df= 9 P < 0.05 Significant
Friends	57	31	2	1	
Family	14	9	11	1	
Mobile phone retailers	1	4	6	1	

From the Chi-Square test it is clear that there is a significant association between the age of respondents and their purchase decision of mobile from this store.

TABLE 9: ASSOCIATION BETWEEN AGE GROUP OF THE RESPONDENTS AND TYPE OF ADVERTISEMENT

Type of Advertisement	Age Group				Statistical Inference
	< 20	20 to 30	31 to 40	> 40	
Newspaper	24	19	12	3	$\chi^2 = 23.442$ df= 12 P < 0.05 Significant
Television	40	38	16	2	
Radio	1	1	4	1	
Billboards	4	3	1	3	
Special event promotion	13	9	5	1	

From the Chi-Square test output, that there is a significant association between the age group and the type of advertisement that he/she prefers more.

TABLE 10: ASSOCIATION BETWEEN GENDER AND THE TYPE OF ADVERTISEMENT

Type of Advertisement	Gender		Statistical Inference
	Male	Female	
Newspaper	51	7	$\chi^2 = 9.586$ df= 4 P < 0.05 Significant
Television	71	25	
Radio	4	3	
Billboards	11	0	
Special event promotion	23	5	

From the Chi-Square test output that there is a significant association between the gender and the type of advertisement.

FINDINGS AND SUGGESTIONS

The maximum number of respondents come to the Univercell stores are around 20 years old and they constitute 41% of the total and in which 80% of them are men. Also 88% of the respondents use only single mobile phones. It is clear that 45.5% of the respondents collect information from their friends to purchase mobile phones from this store. The maximum number of respondents said that they were attracted by TV advertisement. It was found that 78 % of the respondents were not influenced by other means of Media. From the Chi-Square test it is clear that there is a significant association between the age of customers and the purchase decision of mobile from a particular store. There is a significant association between age of customers and type of advertisement, gender and type of advertisement. Since advertisements have good effect in the consumer buying behaviour, new form of advertisements are needed.

CONCLUSION

Kerala, being a land of high consumer oriented market, its potential is huge and vast. The mobile phone is no more seen as a luxury product and its use is increasing day by day. New companies are entering into the world of mobile phone business and the competition getting tougher. To survive in this market, any dealer should see that it has sufficient customers and business to support its growth and survival. New and innovative promotional methods are to be identified. Ultimately it matters most, the customer, who visit the store must leave with the satisfaction..

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THE STOCHASTIC MODELLING AND RELIABILITY ANALYSIS OF A BATTERY PRODUCTION SYSTEM IN AN INDUSTRY

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ABSTRACT

This paper is concerned with stochastic modelling and analysis of battery production system in an industry consisting of a number of units of varying nature. All the units work in sequential manner. Using regenerative point technique, the various reliability characteristics of interest such as reliability, MTSF, steady state availability, busy period and expected profit, which are useful to system managers, engineers, training supervisors and reliability analysts, are obtained. The MTSF and profit function have also been studied through graphs in respect of various parameters in order to have better understanding of the system.

KEYWORDS

Stochastic Modeling, Reliability, MTSF, Steady State Availability, Busy Period and Expected Profit.

INTRODUCTION

Although a lot of work has been done in the field of reliability but most of it is concerned with hypothetical models which are not of much practical utility because they may not exist in real life. Very few authors Sharma and Panigrahi (1990), Singh et al. (1993), Kumar et al (1996), Singh and Nair (1997), Arora and Kumar (2000), Singh and Singh (2002), Singh (2010), Gupta et al. (2010) have studied the industrial system models with real existing situations. For the purpose of analyzing real existing system, a model of Battery production system is developed for its stochastic analysis by personally visiting the production unit situated at Sidhra in the out-skirts of Jammu city of state Jammu and Kashmir.

The given production system consists of four units of varying nature. The working of different units of the system is described as follows:

1. **BURNER:** Lead or an alloy of lead is melted in the burner and is extracted through an outlet in the form of the grid/plates. Grid is dried and active material is pasted to the grid – brown colored lead dioxide (PbO_2) on positive plates, grey colored sponge lead (Pb) on negative plates. The number and size of the plates determine current capability. Batteries with large plates or many plates produce more current than batteries with small plates or few plates. After drying the plates, plates are charged in the charging room.
2. **CELL MAKER:** It makes the cells by connecting positive and negative plates with separators in between, and then assembles them. Separators are thin sheets of porous, insulating material used as spacers between the positive and negative plates. Fine pores in the separators allow electrical current to flow between the plates while preventing short circuits.
3. **DRILLING MACHINE:** It drills plastic container so that all the cells can be fitted in the plastic container. Plastic containers and their covers are made of polypropylene.
4. **SOLDERING MACHINE:** Heavy, cast alloy metal straps are welded to the negative terminal of one cell and the positive terminal of the adjoining cell until all the cell are connected in the series, and through the railing the container is shifted to the other side of soldering machine and then the cover is welded to the container. After this battery is filled with electrolyte- a mixture of sulphuric acid and water through the holes. The battery is then checked for leaks. The final step is charging. During this step, the battery terminals are connected to a source of electricity and the battery is charged for many hours. When the battery is fully charged it is ready for use.

Using regenerative point technique the following important reliability characteristics of interest are obtained:

1. Reliability and mean time to system failure (MTSF).
2. Point wise and steady-state availabilities of the system.
3. Expected up-time of the system.
4. Expected busy period of the repairman during $(0, t)$.
5. Net expected profit incurred by the system during $(0, t)$ and in steady state.

ASSUMPTIONS

1. Failures and repairs are stochastically independent.
2. All the transitions are stochastically independent.
3. A single repair facility is always available with the system to repair a failed unit and a team of experts is called only in case of emergency repair.
4. A repaired unit is as good as new and is immediately reconnected to the system.
5. A unit fails only after producing certain number of items.
6. On starting of drilling machine, the soldering machine starts automatically as it requires certain time to maintain its pressure.
7. If one unit is already in repair and within this period if some other unit also fails then the whole system is put into emergency repair in order to make the system ready as early as possible.
8. All the failure time distributions are taken to be negative exponential.
9. All the repair time distributions are taken as arbitrary.

NOTATIONS

α	:	Constant failure rate of another unit when one unit has already failed.
α_i	:	Failure rate of the unit B/C/D/S respectively, for $i=1, 2, 3, 4$
$H_i(\cdot)$:	C.d.f of repair time of the units B/C/D/S respectively, for $i=1, 2, 3, 4$

$G_i(\cdot)$:	C.d.f of emergency repair time.
$q_{ij}(t)$:	P.d.f. of time for transition from state S_i to S_j in time $(0, t)$.
$Q_{ij}(t)$:	C.d.f. of time for transition from state S_i to S_j in time $(0, t)$.
p_{ij}	:	Steady state probability of direct transition from the regenerative state S_i to S_j .
μ_i	:	Mean sojourn time in state S_i .
$Z_i(t)$:	Probability that the system sojourns in state S_i upto time t .
*	:	Symbol for Laplace Transform, i.e. $f^*(s) = \int_0^\infty e^{-st} f(t) dt$
\sim	:	Symbol for Laplace -Stieltjes Transform i.e. $\tilde{F}(s) = \int_0^\infty e^{-st} dF(t)$

SYMBOLS FOR THE STATE OF THE SYSTEM

B_o	:	Burner is operative.
B_s	:	Burner is in standby mode.
B_r	:	Burner is under repair.
C_g	:	Cell Maker is good.
C_o	:	Cell Maker is operative.
C_r	:	Cell Maker is under repair.
D_g	:	Drilling Machine is good.
D_o	:	Drilling Machine is operative.
D_r	:	Drilling Machine is under repair.
S_g	:	Soldering Machine is good.
S_o	:	Soldering Machine is operative.
S_r	:	Soldering Machine is under repair.
Emergency repair	:	System is put under emergency repair, when any two units of system are failed.

With the help of the above symbols the possible states of the system are:

$S_0 = [B_o, B_s, C_g, D_g, S_g]$	$S_1 = [B_r, B_o, C_o, D_g, S_g]$	$S_2 = [\text{Emergency Repair}]$
$S_3 = [B_o, B_s, C_o, D_o, S_o]$	$S_4 = [B_r, B_o, C_o, D_o, S_o]$	$S_5 = [B_o, B_s, C_o, D_r, S_o]$
$S_6 = [B_o, B_s, C_o, D_o, S_r]$	$S_7 = [B_o, B_s, C_r, D_o, S_o]$	$S_8 = [B_o, B_r, C_o, D_o, S_o]$
$S_9 = [B_o, B_s, C_o, D_g, S_g]$		

The transition diagram along with all transitions is shown in figure 1.

TRANSITION PROBABILITIES

Let $T_0 (\equiv 0)$, T_1, T_2, \dots denotes the regenerative epochs and X_n denotes the state visited at epoch T_n i.e just after the transition at T_n . Then $\{X_n, T_n\}$ constitute a Markov-Renewal process with state space E , set of regenerative states and

$$Q_{ij}(t) = P(X_{n+1} = j, T_{n+1} - T_n \leq t | X_n = i)$$

is the semi Markov kernel over E .

Then the transition probability matrix of the embedded Markov chain is

$$P = (p_{ij}) = (Q_{ij}(\infty)) = (Q(\infty))$$

The various steady state transition probabilities are as follows:

$p_{01} = 1$	$p_{12} = 1 - \tilde{H}_1(\alpha)$	$p_{13} = \tilde{H}_1(\alpha)$
$p_{23} = 1$	$p_{34} = \frac{\alpha_1}{\alpha_1 + \alpha_2 + \alpha_3 + \alpha_4}$	$p_{35} = \frac{\alpha_3}{\alpha_1 + \alpha_2 + \alpha_3 + \alpha_4}$
$p_{36} = \frac{\alpha_4}{\alpha_1 + \alpha_2 + \alpha_3 + \alpha_4}$	$p_{37} = \frac{\alpha_2}{\alpha_1 + \alpha_2 + \alpha_3 + \alpha_4}$	$p_{42} = 1 - \tilde{H}_1(\alpha)$
$p_{43} = \tilde{H}_1(\alpha)$	$p_{52} = 1 - \tilde{H}_3(\alpha)$	$p_{53} = \tilde{H}_3(\alpha)$
$p_{62} = 1 - \tilde{H}_4(\alpha)$	$p_{63} = \tilde{H}_4(\alpha)$	$p_{72} = 1 - \tilde{H}_2(\alpha)$
$p_{73} = \tilde{H}_2(\alpha)$	$p_{82} = 1 - \tilde{H}_1(\alpha)$	$p_{83} = \tilde{H}_1(\alpha)$
$p_{97} = \frac{\alpha_2}{\alpha_1 + \alpha_2}$	$p_{98} = \frac{\alpha_1}{\alpha_1 + \alpha_2}$	

From the obtained steady state probabilities, it can be easily verified that:

$p_{01} = p_{23} = 1$	$p_{12} + p_{13} = 1$	$p_{34} + p_{35} + p_{36} + p_{37} = 1$
$p_{42} + p_{43} = 1$	$p_{52} + p_{53} = 1$	$p_{62} + p_{63} = 1$
$p_{72} + p_{73} = 1$	$p_{82} + p_{83} = 1$	$p_{97} + p_{98} = 1$

MEAN SOJOURN TIME

Mean sojourn time in state S_i is defined as the time of stay of system in state S_i before transiting to any other state. If T_i denotes the sojourn time in state S_i then mean sojourn time state in S_i is:

$$\mu_i = E[T_i] = \int P(T_i > t) dt$$

Thus

$\mu_0 = \int e^{-\alpha_1 t} dt = \frac{1}{\alpha_1}$	$\mu_1 = \frac{1}{\alpha} [1 - \tilde{H}_1(\alpha)]$	$\mu_2 = \frac{1}{\gamma}$
$\mu_3 = \frac{1}{\alpha_1 + \alpha_2 + \alpha_3 + \alpha_4}$	$\mu_4 = \frac{1}{\alpha} [1 - \tilde{H}_1(\alpha)]$	$\mu_5 = \frac{1}{\alpha} [1 - \tilde{H}_3(\alpha)]$
$\mu_6 = \frac{1}{\alpha} [1 - \tilde{H}_4(\alpha)]$	$\mu_7 = \frac{1}{\alpha} [1 - \tilde{H}_2(\alpha)]$	$\mu_8 = \frac{1}{\alpha} [1 - \tilde{H}_1(\alpha)]$
$\mu_9 = \frac{1}{\alpha_1 + \alpha_2}$		

Limits of integration are not to be mentioned whenever they are 0 and ∞ .

ANALYSIS OF RELIABILITY AND MTSF

Let ' T_i ' be the time to system failure when system starts functioning from regenerative state S_i at time $t = 0$. Then the reliability of the system is given by

$$R_i(t) = P[T_i > t]$$

Using the basic probabilistic argument recursive relation among $R_i(t)$ can be easily developed and taking L.T of the relations and solving for $R_0^*(s)$, we get

$$R_0^*(s) = \frac{N_1(s)}{D_1(s)} \quad (10)$$

where,

$$N_1(s) = (1 - q_{34}^* q_{43}^* - q_{35}^* q_{53}^* - q_{36}^* q_{63}^* - q_{37}^* q_{73}^*) (Z_0^* + q_{01}^* Z_1^*) + q_{01}^* q_{13}^* (Z_3^* + q_{34}^* Z_4^* + q_{35}^* Z_5^* + q_{36}^* Z_6^* + q_{37}^* Z_7^*)$$

and

$$D_1(s) = 1 - q_{34}^* q_{43}^* - q_{35}^* q_{53}^* - q_{36}^* q_{63}^* - q_{37}^* q_{73}^*$$

Taking the inverse L.T. of (10) we get the reliability of the system.

To get MTSF, we use the well known formula

$$E(T_0) = \int R_0(t)dt = \lim_{s \rightarrow 0} R_0^*(s) = \frac{N_1(0)}{D_1(0)} \quad (11)$$

where

$$N_1(0) = (1 - p_{34}p_{43} - p_{35}p_{53} - p_{36}p_{63} - p_{37}p_{73})(\mu_0 + p_{01}\mu_1) + p_{01}p_{13}(\mu_3 + p_{34}\mu_4 + p_{35}\mu_5 + p_{36}\mu_6 + p_{37}\mu_7)$$

and

$$D_1(0) = 1 - p_{34}p_{43} - p_{35}p_{53} - p_{36}p_{63} - p_{37}p_{73}$$

Here we have used the relations

$$q_{ij}^*(0) = p_{ij} \text{ and } Z_i^*(0) = \mu_i$$

AVAILABILITY ANALYSIS

Let $A_i(t)$ denote the probability that the system is up at epoch t when it initially starts from regenerative state S_i . Using the definition of $A_i(t)$, the recursive relations among $A_i(t)$, can be easily developed, taking their L.T and solving for $A_0^*(s)$, we get

$$A_0^*(s) = \frac{N_2(s)}{D_2(s)} \quad (12)$$

where

$$N_2(s) = [1 - q_{34}^*(q_{43}^* + q_{23}^*q_{42}^*) - q_{35}^*(q_{53}^* + q_{23}^*q_{52}^*) - q_{36}^*(q_{63}^* + q_{23}^*q_{62}^*) - q_{37}^*(q_{73}^* + q_{23}^*q_{72}^*)](Z_0^* + q_{01}^*Z_1^*) \\ + q_{01}^*Z_2^*[q_{12}^*(1 - q_{34}^*q_{43}^* - q_{35}^*q_{53}^* - q_{36}^*q_{63}^* - q_{37}^*q_{73}^*) + q_{13}^*(q_{34}^*q_{42}^* - q_{35}^*q_{52}^* - q_{36}^*q_{62}^* - q_{37}^*q_{72}^*)] \\ + q_{01}^*(q_{13}^* + q_{12}^*q_{23}^*)(Z_3^* + q_{34}^*Z_4^* + q_{35}^*Z_5^* + q_{36}^*Z_6^*) + q_{01}^*q_{37}^*Z_7^*(q_{01}^* + q_{23}^*q_{12}^*)]$$

and

$$D_2(s) = 1 - q_{34}^*(q_{43}^* + q_{23}^*q_{42}^*) - q_{35}^*(q_{53}^* + q_{23}^*q_{52}^*) - q_{36}^*(q_{63}^* + q_{23}^*q_{62}^*) - q_{37}^*(q_{73}^* + q_{23}^*q_{72}^*)$$

The steady state availability of the system is given by

$$A_0 = \lim_{t \rightarrow \infty} A_0(t) = \lim_{s \rightarrow 0} s A_0^*(s) \\ = \lim_{s \rightarrow 0} \frac{s N_2(s)}{D_2(s)} = \lim_{s \rightarrow 0} N_2(s) \lim_{s \rightarrow 0} \frac{s}{D_2(s)} \quad (13)$$

Since, $D_2(0) = 0$, by using L'Hospital rule, we have

$$A_0 = \frac{N_2(0)}{D_2'(0)}$$

where

$$N_2(0) = \mu_2[p_{12}(1 - p_{34}p_{43} - p_{35}p_{53} - p_{36}p_{63} - p_{37}p_{73}) + p_{13}(p_{34}p_{42} + p_{35}p_{52} + p_{36}p_{62} - p_{37}p_{72})] + \mu_3 + p_{34}\mu_4 + p_{35}\mu_5 + p_{36}\mu_6 + p_{37}\mu_7$$

and

$$D_2'(0) = (p_{34}p_{42} + p_{35}p_{52} - p_{36}p_{62} - p_{37}p_{72})\mu_2 + \mu_3 + p_{34}\mu_4 + p_{35}\mu_5 + p_{36}\mu_6 + p_{37}\mu_7$$

The expected up time of the system during $(0, t)$ is given by

$$\mu_{up}(t) = \int_0^t A_0(u) du \quad (14)$$

So that

$$\mu_{up}^*(s) = A_0^*(s)/s \quad (15)$$

BUSY PERIOD ANALYSIS

$B_i(t)$ is the probability that the system having started initially from regenerative state $S_i \in E$ is under repair at time t due to failure of the unit. Using probabilistic arguments, relations among $B_i(t)$ can be set up, taking their L.T and solving for $B_0^*(s)$, we have

$$B_0^*(s) = \frac{N_3(s)}{D_2(s)} \quad (16)$$

$$N_3(s) = [1 - q_{34}^*(q_{43}^* + q_{23}^*q_{42}^*) - q_{35}^*(q_{53}^* + q_{23}^*q_{52}^*) - q_{36}^*(q_{63}^* + q_{23}^*q_{62}^*) - q_{37}^*(q_{73}^* + q_{23}^*q_{72}^*)](Z_0^* + q_{01}^*Z_1^*) + q_{01}^*Z_2^*[q_{12}^*(1 - q_{34}^*q_{43}^* - q_{35}^*q_{53}^* - q_{36}^*q_{63}^* - q_{37}^*q_{73}^*) + q_{13}^*(q_{34}^*q_{42}^* - q_{35}^*q_{52}^* - q_{36}^*q_{62}^* - q_{37}^*q_{72}^*)] + q_{01}^*(q_{13}^* + q_{12}^*q_{23}^*)(q_{34}^*Z_4^* + q_{35}^*Z_5^* + q_{36}^*Z_6^*) + q_{01}^*q_{37}^*Z_7^*(q_{01}^* + q_{23}^*q_{12}^*)]$$

In the long run the probability that the repairman is busy in the repair of system, is given by

$$B_0 = \lim_{t \rightarrow \infty} B_0(t) = \lim_{s \rightarrow 0} B_0^*(s) = \frac{N_3(0)}{D_2'(0)} \quad (17)$$

where

$$N_3(0) = \mu_2 p_{01}[p_{12}(1 - p_{34}p_{43} - p_{35}p_{53} - p_{36}p_{63} - p_{37}p_{73}) + p_{13}(p_{34}p_{42} + p_{35}p_{52} + p_{36}p_{62} - p_{37}p_{72})] + p_{34}\mu_4 + p_{35}\mu_5 + p_{36}\mu_6 + p_{37}\mu_7$$

PROFIT ANALYSIS

The profit function $P(t)$ can easily be obtained for the system model under study with the help of characteristics obtained earlier. The expected total profits incurred during $(0, t)$ are

$$P(t) = \text{expected total revenue in } (0, t) - \text{expected total expenditure in } (0, t) \\ = K_0 \mu_{up}(t) - K_1 \mu_b(t)$$

where K_0 is revenue per unit up time is, K_1 is the cost per unit time for which repair man is busy in repair of the failed unit.

The expected total profit per unit time, in steady state, is

$$P = \lim_{t \rightarrow \infty} [P(t)/t] = \lim_{s \rightarrow 0} s^2 P^*(s)$$

So that

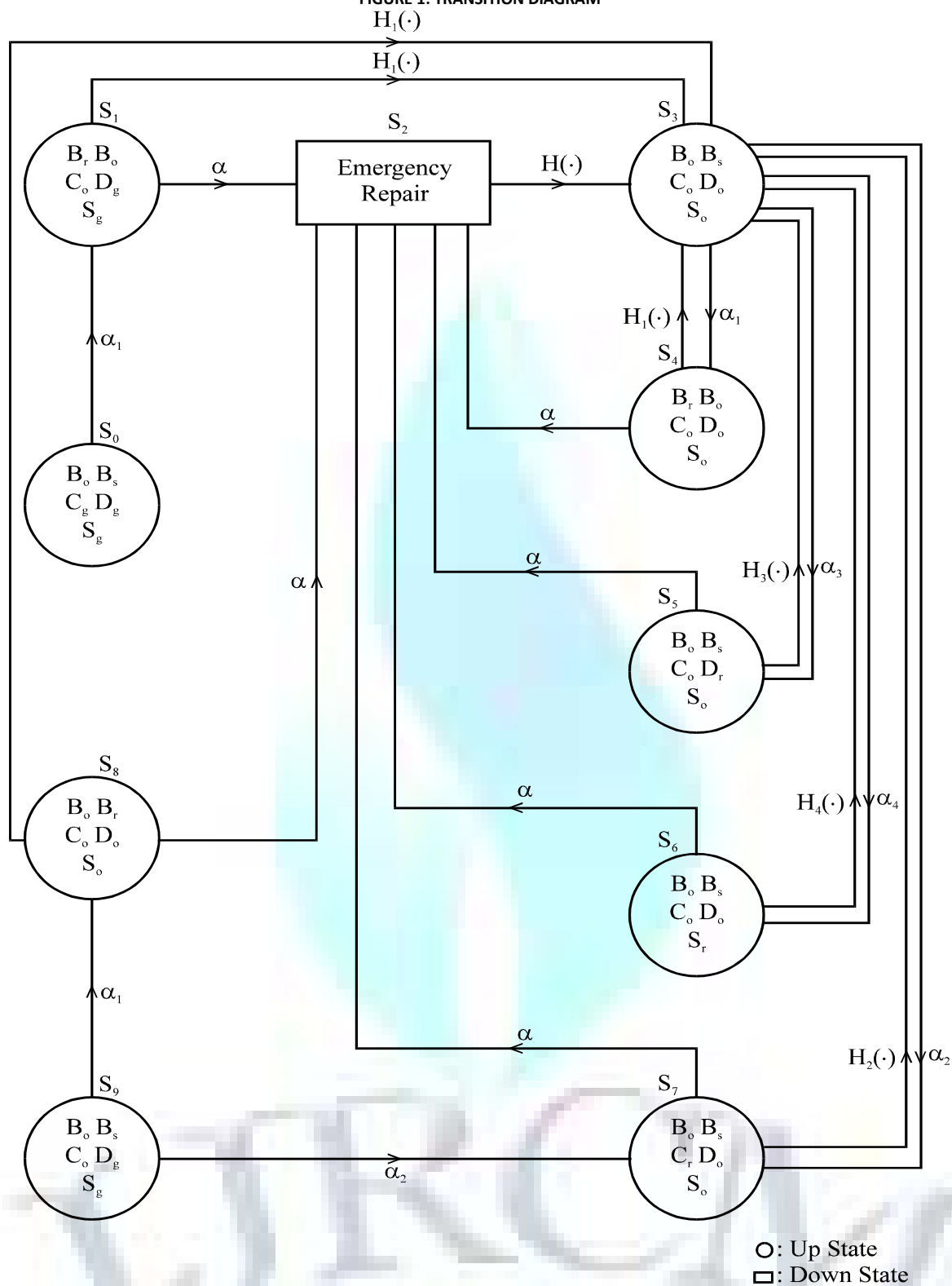
$$P = K_0 A_0 - K_1 B_0$$

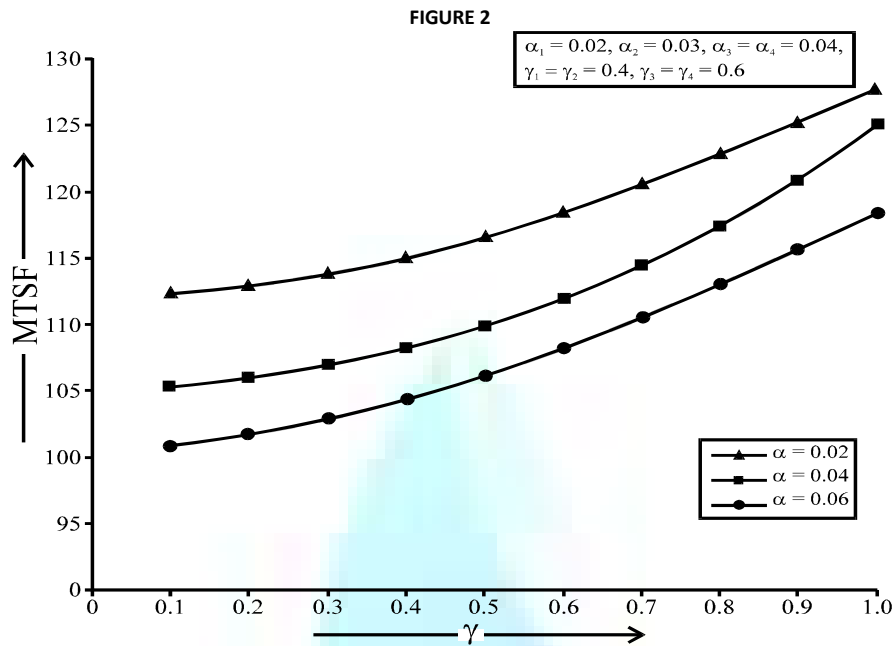
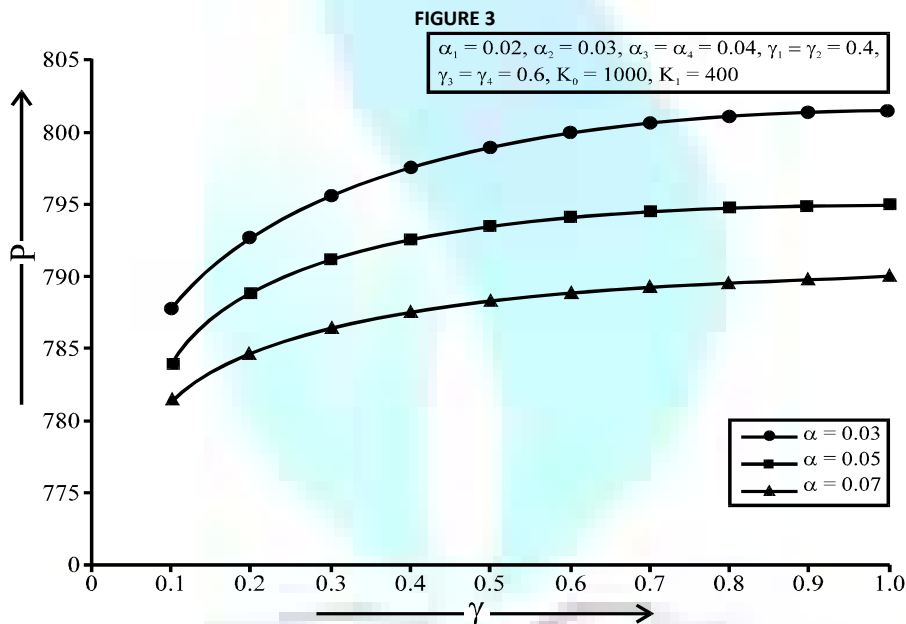
GRAPHICAL STUDY OF THE SYSTEM MODEL

For a more concrete study of system behavior, we plot the graphs of MTSF and profit function for the system model. In figure 2, curves represent the graph of MTSF w.r.t. γ (emergency repair rate) for different values of α (failure rate of any other unit when one unit is already under repair) as 0.02, 0.04, 0.06, while the other parameters are fixed as $\alpha_1 = 0.02$, $\alpha_2 = 0.03$, $\alpha_3 = \alpha_4 = 0.04$, $\gamma_1 = \gamma_2 = 0.04$, and $\gamma_3 = \gamma_4 = 0.06$. We observe that the MTSF increases with increase in emergency repair rate. Initially the rate of increase in MTSF is slow but as the emergency repair rate is more than 0.7 the rate of increase in the MTSF is

higher. Moreover as the value of α increases MTSF decreases. In figure 3, curves represent the graph of Profit function P w.r.t. γ (emergency repair rate) for different values of α (failure rate of any other unit when one unit is already under repair) as 0.03, 0.05, 0.07, while the other parameters are fixed as $\alpha_1 = 0.02$, $\alpha_2 = 0.03$, $\alpha_3 = \alpha_4 = 0.04$, $\gamma_1 = \gamma_2 = 0.04$, $\gamma_3 = \gamma_4 = 0.06$, $K_0 = 1000$ and $K_1 = 400$. Initially the graph for the profit function increases rapidly but as the emergency repair rate increases, the increase in the profit goes on slow and becomes almost constant for repair rate greater than 0.9. Moreover as the value of α increases profit decreases

FIGURE 1: TRANSITION DIAGRAM



Behavior of Profit Function P w.r.t γ for different values of α **ACKNOWLEDGEMENT**

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A STUDY OF IMPACT OF E LEARNING ON UNIVERSITY STUDENTS

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ABSTRACT

With the help of e-learning students can update their knowledge with all the latest happening of their subject. E learning avails students the option of selecting learning materials that meets their level of knowledge and interest also students can study wherever they have access to a computer and Internet. With so many advantage of e- learning it is in demand. But not many students are aware of this technology tool which has hampered their academic growth. This paper has tried to study the concept of e-learning, knowledge of studied students about e-learning. What kinds of facilities are available to university students for e-learning at their college campus. Further the attempt has been made whether E – learning depends on branch of study of students and their career plans.

KEYWORDS

Branch of Study, Career plans, E- Learning.

INTRODUCTION

Technology can help students learn more effectively and can improve their efficiency. E- Learning is the best technology tool which can improve students in all spheres of their life. Many students will already be used to accessing information via mobile phones and the web. E-learning engages younger students and can help faculties meet the needs of students' with various varied learning styles.

E Learning is the need of hour. The university education can only give theoretical approach of various subjects. Successfully completing online or computer-based courses builds self-knowledge and self-confidence and encourages students to take responsibility for their learning. So sincere effort must be made to promote e- learning and thus try to simplify the process of e- learning as quickly and efficiently as possible.

LITERATURE REVIEW

Challenges of E- Learning by Vasaanthi Vasudev, The Hindu, Tuesday, September 18, 2001

The use of technology in education is highly positive but the caveat is to avoid falling through the looking glass. The true challenge is for education to freeze a model that captures quality and computer technology into an integrated communication system. Such a blend will zoom educational goals to dazzling heights of sublimity. If we bear the key idea in our mind that the true power of educational technology comes not from replicating things that can be done in other ways, but when required, do things that could not be done without it, we realize that most of our concerns are resolved. Technology is no doubt the revitalizing antidote for a stagnating educational system, but the ideal situation would be a judicious blend that optimizes the advantage of both the traditional and telematic educational system.

E- Learning helps Strengthen Education, by R. Rajalakshmi, Director of Software Technology Parks of India (STPI), The Hindu Wednesday, Oct 26, 2005, Namakkal

The Union Government is encouraging e-learning particularly to benefit the people in rural areas, Director of Software Technology Parks of India (STPI) R. Rajalakshmi said, she was delivering the keynote address at the inaugural of the two day International Conference on e- learning organized jointly by the PGP college of Engineering and Technology (PGPCET) and the University of West Bohemia, Czech Republic and supported by the STPI here on Tuesday. She said that the Government was keen on providing computer literacy to the rural people. Already countries such as Singapore, Japan and Indonesia were making a lot of progress in e-learning.

E-Learning in India – E- Learning Asia Day Presentation By Dr. Sanjaya Mishra (<http://www.wikieducator.org/user:Missan>)

In Technology – Over 20 Billion USD software exports to over 100 countries in the world- market share above 20% software development world wide- one third of e- commerce telephone subscribers added every year. **Mobile Subscribers:** 233.6 million (sept 2008)- **Internet Users :** 42 million (3.7% only). Higher Education in India 2006 – Central Universities: 20-State Universities: 217- Deemed to be Universities: 106 – Private Universities: 10-institutes of National importance: 13-institutes established under act: 5- colleges: 17625.

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While the conventional education system with different forms of E-learning and rigid academic instructive curriculum could not bring desired changes in specific timeframe, work at the rural level in the targeted communities and groups, a multipronged sociological approach with sociable and flexible curriculum in e-learning programs becomes the need of hour. The impact of socializing influence of these E-learning programs should be properly exploited to motivate and inspire the rural target groups. The benefits of E-Learning then becomes extensive and soon integrates with the needs of lower strata of the society in order for achieving a rapid social transformation in the lives of the farmers, vocational groups, artisans and small income self help groups comprising of women, girls and physically challenged people. The paper suggests a number of new generation E-Learning programs as strategies of development communication with a promise of high returns for the industry for its investment in these programs with socially relevant message and media convergence.

NEED OF STUDY

With the globalization whole world has become a small house. To days education needs to be more flexible and industry oriented. The latest tools like internet, audio – video equipments have reformulated whole education system. If student wants the competitive edge over his subordinates, he must be familiar with all the latest happening in his field and in general world. With the help of e-learning student particularly at university level can learn new values that too at very cost effective rate.

So with ever increasing importance of e- learning there is a need to motivate university students towards e- learning. This paper has made an attempt to study how university students are using e-learning and what impact it had on them.

OBJECTIVES OF THE STUDY

- 1) To study the concept of e-learning
- 2) To study the students knowledge about e –learning.
- 3) To find out whether the students are using e- journals and e-books.
- 4) To study the various tools of e –learning available for university students in selected study area.

HYPOTHESIS OF STUDY

Ho1: E learning use does not depend on the Branch of study of students.

Ho2: E learning use does not depend upon career plans of the students.

LIMITATIONS OF STUDY

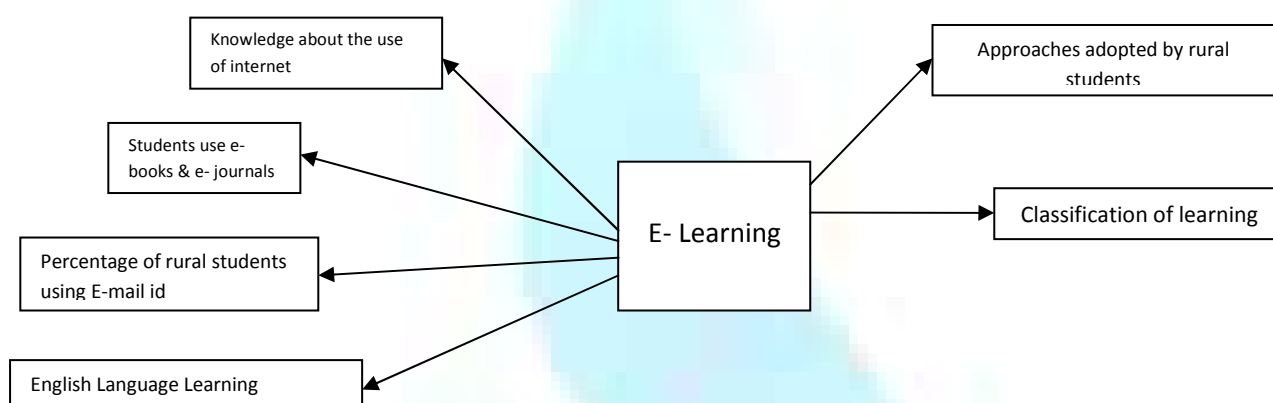
1) The study is conducted in Nagpur city.

E LEARNING

E-learning is essentially the computer and network-enabled transfer of skills and knowledge. E-learning applications and processes include Web-based learning, computer-based learning, virtual education opportunities and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM. E-learning comprises all forms of electronically supported learning and teaching. The information and communication systems, whether networked learning or not, serve as specific media to implement the learning process. The term will still most likely be utilized to reference out-of-classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum. With e-learning Class work can be scheduled around personal and professional work. This will in turn reduce travel cost and time to and from colleges. E-learning is essentially the computer and network-enabled transfer of skills and knowledge.

DEFINITION

E-Learning is content and instructional methods delivered on a computer (whether on CDROM, the Internet, or an intranet), and designed to build knowledge and skills related to individual or organizational goals.

EMPIRICAL MODEL OF E-LEARNING

Source:- Eugene I. Pradeepkumar-J, Dr. N. Panchanatham , Amazing impact of E-Learning Education in rural India, Prabandhan, Indian Journal of Management, Volume 4,number 5, May 2011, p 43-49

RESEARCH METHODOLOGY

The data was collected from both the sources i.e. primary and secondary. For primary data collection non probability convenient sampling was used. The primary data was collected from 20 students each from commerce, Arts, Science and Engineering streams. All these students belong to the colleges of Nagpur city. The questionnaire was filled from these students through personal meeting, mail and by telephonic communication. The secondary data was collected from various books, news papers and online journals.

DATA ANALYSIS

The data collected were converted with suitable tables for the purpose of analysis. Whenever necessary simple averages and statistical tools like Chi-square techniques were adapted to analyses the data. Chi-Square formula is useful technique to identify the influence of dependent variables. The Formula used is $\chi^2 = \frac{\sum (O-E)^2}{E}$, where o is observed frequency and E is expected frequency.

TABLE - 1: DEMOGRAPHIC CHARACTERSTICS OF RESPONDENGs

	Categories	Count	Percentage
Class	UG	63	78.75
	PG	17	21.25
Use of Email id	ARTS	06	30
	COMMERCE	14	70
	SCIENCE	17	85
	ENGINEERING	18	90
Knowledge of E- learning	ARTS	05	25
	COMMERCE	14	70
	SCIENCE	16	80
	ENGINEERING	19	95
E- Learning Facilities available at College	ARTS	02	10
	COMMERCE	09	45
	SCIENCE	14	70
	ENGINEERING	18	90
Various E- learning facilities available	Virtual Classroom	56	56
	Audio Video Conference	32	32
	Instant Messaging	02	02
	Internet Facility	10	10

CALCULATIONS AND SUMMARY

Sr no	Factors	Degree of freedom	Table Value	χ^2 Value	Result
1	Gender	02	5.99	1.44	NS
2	Branch of Study	04	9.49	10.69	S
3	Medium of instruction	03#	7.82	12.36	S
4	Career Plans	04##	9.49	25.65	S
5	Parents income	04###	9.49	11.35	S

S= significant

NS= Not significant

Medium of Instruction: - English, Marathi and Hindi

##Government Jobs, Private Jobs, Entrepreneurship, not decided

0-10,000; 10,000-20,000; 20,000; 30,000; 30,000 and above

TESTING OF HYPOTHESIS

1) Null Hypothesis Ho1:- E learning use does not depend on the Branch of study of students:-

Analysis table shows that table value of chi square test of effect on branch of study on e learning is 9.49 while chi square value is 10.69. The table value is less than calculated value. Hence hypothesis is wrong. Therefore there is association in the given subject. Hence E learning use does depend on the Branch of study of students.

2) Null Hypothesis Ho2: E learning use does not depend upon career plans of the students.

Analysis table shows that table value of chi square test of effect on branch of study on e learning is 9.49 while chi square value is 25.65. The table value is less than calculated value. Hence hypothesis is wrong. Therefore there is association in the given subject. Hence E learning use does depend on the career plans of students.

FINDINGS

- 1) **Knowledge about internet:** - out of studied students 25% of arts students have knowledge about internet. 70% of commerce students have knowledge about internet. 80% of science students have knowledge about internet. While in engineering percentage goes to 95%.
- 2) **E- Learning facilities available at college:-** 10% of studied have agreed that they have e – learning facility available for them in college. 45% of studied commerce student have agreed that they have E- Learning facility available for them. 70% of science students have confirmed that they have e learning facility. While 90% of Engineering students have told that they are benefited from e learning facility in their college premises
- 3) **E- Learning facilities available:** - when asked to eighty students about E – learning facilities available to them 56% students told that they are having virtual class room available to them. 32% have said that audio video classroom is available to them. 2% have confirmed that instant messaging services are available to them. While 10 % have said that internet facility is available to them.
- 4) **Students using E- mail:** - 20 % of arts students were having E –mail id. 70% of Commerce students are having e mail id. 85 % of science students were having E mail ID. While the engineering students are having Max. Percentage i.e. 90 when it comes to using E- mail id for communication.
- 5) Out of 80 respondents 63 students are from UG courses while 17 students are from PG courses.

CONCLUSION & RECOMMENDATIONS

Nagpur is one of the developing cities of India. Being situated in central portion of India this city has emerged as new educational hub of Maharashtra after Pune and Mumbai. The city is mushroomed with all kinds of colleges and deemed universities which are trying their level best to give quality education to the students. For providing quality education to the students all the colleges are trying to adopt e learning tools. This has given them competitive edge over their competitors. The arts, commerce science colleges are seem to more reluctant in using e learning. Engineering colleges comes under technical based education. These colleges because of AICTE rules and regulations are keener to adopt e-learning tools. So similar efforts must be made by UGC also to promote e learning. Also all e learning tools are in English many students were found wanted in e learning. So effort must be made to improve English of students through e learning so that it will create interest among students and will promote e-learning. The faculties on the same side must be aware of e-learning tools. So the training workshop must be held at university level to get faculties familiar with e-learning. Lastly, some assignments based on e learning should be included in university curriculum.

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EMOTIONAL INTELLIGENCE AMONG COLLEGE STUDENTS

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ABSTRACT

The present research aimed to study the emotional intelligence among college students, to find out the level of emotional intelligence of a sample of college students. To find out whether there is gender difference in emotional intelligence. Sample of the study consisted 70 undergraduate students of Government home science college Hassan, Karnataka, studying in B.A. & B.Sc. Among them 30 are male & 40 are female. Personal and socio demographic datasheet (prepared by the Investigator), Emotional Quotient scale (prepared by Anukool Hyde, SanjyotDethe and UpinderDhar) was used to collect the data. Scoring was done as per the direction given in the Manual. 'P' value & inter correlation has been calculated to find out the objectives of the present study. The result indicates that, among 70 undergraduates students males have slightly high self awareness, empathy, integrity, emotional stability, self development, commitment when compared to females and high self motivation, managing relations compared to females. While females have slightly high altruistic behavior compared to male.

KEYWORDS

Emotional intelligence, undergraduates, male, female.

INTRODUCTION

aniel Goleman, the father of Emotional Intelligence defines as a '**Potential for mastering the skills of self-awareness, self-management, social awareness, and relationship management.** Daniel Goleman narrates the distinction between cognition and emotion. This introduces various established models of Emotional Intelligence. His study highlights the superiority of Emotional Intelligence over IQ as a predictor of success at workplace.

E.Q. ACCORDING TO APA

Emotional intelligence Type of intelligence defined as the abilities to perceive, appraise, and express emotions accurately and appropriately, to use emotions to facilitate thinking, to understand and analyze emotions, to use emotional knowledge effectively, and to regulate one's emotions to promote both emotional and intellectual growth.

RELATIONSHIP BETWEEN EQ & IQ

IQ is a measure of intelligence quotient, where as EQ is a measure of emotional quotient. Emphasizing EQ does not mean De Emphasizing IQ. The latter is not less relevant for success in job performance or life than the former. The fact remains that one needs a relatively high level of IQ nearly to get admitted to a science or Engineering course. However once you are admitted, how you compare with your peers has less to do with IQ differences and more to do with emotional factors or EQ.

EQ is not the opposite of IQ. Some people are blessed with a lot of both, some with little of either. What researchers have been trying to understand is how they complement each other; how one's ability to handle stress, for instance, affects the ability to concentrate and put intelligence to use.

Transitions through education from school-college-career are challenging and difficult, especially for minority, first generation, and non-traditional college students. These Transitions are critical to academic achievement, program completion, and college success. With the current emphasis on academic accountability as measured by tested performance, there needs to be an increased emphasis, and more balanced perspective, on the development of social and emotional learning essential to academic and career excellence. Educational gaps have been created by underachievement and attrition. Nationally and in Texas, colleges and universities are challenged to provide educational access and opportunity for greater numbers of students and to improve their participation and success rates. Research findings indicate that personal factors and emotional intelligence skills are important to student achievement and college success. New program models are needed to address the issues of low achievement, attrition, lack of motivation, and student engagement. Research findings indicate that emotional intelligence skills are important and perhaps critical factors of student achievement, retention, and personal health (Nelson and Low, 1999, 2003, 2004, 2005; Epstein, 1998; Bartlett, 2002; Stottlemire, 2002; Vela, 2003; Chao, 2003; Nelson, Jin, and Wang, 2002; Elkins and Low, 2004; Nelson & Nelson, 2003; Williams, 2004; Potter, 2005; and Smith 2004). Extensive interdisciplinary research indicates that emotional intelligence and related non-traditional measures of human performance may be as or more predictive of academic and career success than IQ or other tested measures of scholastic aptitude and achievement (Gardner, 1983, 1993, 1997; Sternberg, 1985, 1995; Goleman, 1995, 1997; Dryden and Vos, 1994; Astin and Associates, 1993; Townsend and Gephart, 1997; Weisenger, 1985, 1998; Cooper and Saway, 1997; Epstein, 1998; Nelson and Low, 2003; and Low and Nelson 2004, 2005).

These findings provide a compelling case for including emotional skill development in academic and student services programs in schools and colleges. Colleges have long recognized the importance of experiential and out-of-class co-curricular learning. An early pioneer in student development referred to the need for more effective self-management and "intelligent self direction" (Bennett, 1933). This wise observation by Bennett is true today as qualitative, holistic, emotive, and subjective experiences of students are critical to healthy growth and development. Emotional development of students does not seem important until behavior becomes problematic and reported. Familiar examples are underachievement, bullying, attrition, school violence, absenteeism, substance abuse, lack of motivation, and psycho-educational problems. Even though educators are compassionate, specific help is often absent, ineffective, or too late. Proactive programs to identify and develop emotional skills are needed to prevent problematic behaviors, not react to them after the fact.

Recent studies indicate that Emotional Intelligence influences behavior in a wide range of domains including school, community and the workplace. At the individual level, it has communicated effectively, solve everyday problems, build meaningful interpersonal relationships, and even our ability to make moral decisions. Give that Emotional Intelligence has the potential to increase our understanding of how individuals behave and adapt to their social environment, it would seem an important topic for further study. Research has led to the understanding that emotions often provide individuals with valuable information about their social environment. Simultaneously, emotions have emerged not as the antithesis of reason but potentially complementary to decision making and

social problem solving. The growing interest in Emotional Intelligence has raised a few issues and questions. There is an immediate necessity to surface the hidden assumptions, correct the mistaken impressions with regard to the subject of Emotional Intelligence.

OBJECTIVES

1. To find out the level of emotional intelligence of a sample of college students.
2. To find out whether there is gender difference in emotional intelligence.

HYPOTHESES

H1 There is no significance difference in the EI mean scores between the males and the females in this sample.

H2 There is no significance difference in the mean scores on components of EI sub-skills between the males and the females in this sample

OPERATIONAL DEFINITIONS

Emotional Intelligence: EI involves the ability to perceive accurately, appraise and express emotions; the ability to access and/or generate feelings when they facilitate thoughts; the ability to understand emotions and emotional knowledge and intellectual growth. These abilities are traced through the following 10 factors. They are –

- A Self –awareness
- B Empathy
- C Self motivation
- D Emotional stability
- E Managing relations
- F Integrity
- G Self development
- H Value orientation
- I Commitment
- J Altruistic behavior

SAMPLE

The sample consisted 70 undergraduate students of Government home science college Hassan, Karnataka studying in B.A. & B.Sc. Among them 30 are male & 40 are female. The respondents were given assurance of confidentiality.

ASSESSMENT TOOLS

The questionnaire method was adopted to obtain the subjects' responses keeping in view the nature of present study.

The data were collected with the help of these assessment tools.

1. Personal and socio demographic datasheet (prepared by the Investigator)
2. Emotional Quotient scale (prepared by Anukool Hyde, SanjyotDethe and UpinderDhar)

DESCRIPTION OF TOOLS

1. **Personal datasheet:** The data sheet was developed by the investigator.
2. **Emotional Quotient scale;** There are 34 items in the Emotional Quotient scale, constructed by Anukool Hyde, SanjyotDethe and UpinderDhar. Each statement of the scale has 5 response alternatives as given below:
 - *Strongly Agree*
 - *Agree*
 - *Uncertain*
 - *Disagree*
 - *Strongly Disagree*

FACTORS OF EMOTIONAL INTELLIGENCE

The scale identifies 10 factors. They are -

- A Self –awareness
- B Empathy
- C Self motivation
- D Emotional stability
- E Managing relations
- F Integrity
- G Self development
- H Value orientation
- I Commitment
- J Altruistic behaviour

PSYCHOMETRIC PROPERTIES OF EI SCALE

Reliability: The Reliability of the scale was determined by calculating the split-half reliability coefficient was found to be 0.88.

Validity: Besides face validity, as all items were related to the variable under focus, the scale has high content validity. It is evident from the judges/experts that items of the scale are directly related to the concept of Emotional Intelligence. In order to find out the validity from the coefficient of reliability (Garrett, 1981), the reliability index was calculated, which indicated high validity on account of being 0.93.

INSTRUCTIONS

EI SCALE

"Here some statements are given and for every statement you have to express your views by making tick (✓) or on that particular block of the five alternatives. Answer all the statements, and do not omit any one of them. Please be honest and try to answer as fast as possible.

Confidentiality will be maintained. There is no right or wrong answer, so please give your response on all the items. 1. Strongly Agree 2. Agree 3. Uncertain. 4. Disagree 5. Strongly Disagree."

SCORING

Scoring was done as per the direction given in the Manual.

TABLE 1 INDICATING THE SCORING OF EI SCALE

Strongly agree	5
Agree	4
Neutral	3
Disagree	2
Strongly disagree	1

RESULT & DISCUSSION

Emotional Intelligence: "involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (Mayer & Salovey, 1997, p. 10). Historical Advent and Concept of Emotional Intelligence is as follows, According to Guastello & Guastello (2003), the concept of emotional intelligence has its roots in Darwin and psychology. The earliest example in experimental psychology that was similar to emotional intelligence was the idea of "social intelligence" (Hedlund & Sternberg, 2000). Social intelligence was defined as "the ability to interpret social situations and make appropriate response there to" (Guastello & Guastello, 2003, p.665). The concept of social intelligence was further divided into 12 intrapersonal intelligence, and made up two of Gardner's eight intelligences (Gardner, 1983). It was from these ideas that the notion of emotional intelligence was created by Goleman (1995) stated that emotional intelligence is a combination of five characteristics: knowing one's emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships. This concept of emotional intelligence was greatly expanded by BarOn into the construct domain of personality traits in 1997 (Guastello & Guastello, 2003). BarOn (1997) defined emotional intelligence using fifteen characteristics, which fell into six categories: personal awareness, interpersonal relationships, problem solving, reality testing, stress management, and general mood.

With this background the present study result in Table 1 shows mean, SD and p value of different variables of emotional intelligence of males and females. The mean value of male self awareness is 18.82 and a female is 16.65. This shows that males have slightly high awareness when compared to females. The scores are significant at 0.01 level. In empathy mean value is 21.95 of males and 19.21 is females. The SD scores are 2.52 and 0.97 respectively. This shows that males have slightly high empathy when compared to females and the scores are significant at 0.01 level. The mean value of males in the variables self motivation is 25.43 and 23.85 is females and SD values are 2.49 and 2.04 respectively this reveals that males have high self motivation when compared to females. The p values are 0.20 hence the scores are insignificant. In the variable emotional stability the mean for males is 16.78 and 15.80 for females when the SD of 0.75 and 1.014 respectively. This shows that males have slightly high emotional stability when compared to females. In managing relations the mean and SD scores for males and females are 16.08(14) and 1.30(1.10) respectively. Hence males have high capacity of managing the relations when compared to females. The scores are significant at 0.002 level. In Integrity mean values is 13.56 of males and 12.85 females. The SD is 0.60 and 0.97 respectively for males and females. This shows that males have slightly high integrity when compared to females. The p value is 0.14; hence the scores are not significant. The mean value of males in the variables self development is 8.30 and 8.48 is of females and the SD scores are 0.31 and 0.41. This reveals that females have slightly high self development when compared to males. The mean value of males in value orientation is 8.39 and SD is 0.39 and mean value for females is 7.91 and SD is 0.52 this shows that males have high value orientation when compared to females. In the variable commitment the mean value of males is 8.65 and 8.44 for females and the SD scores are 0.55 and 0.52 respectively. This reveals that males have slightly high commitment when compared to females. In Altruistic behavior males have mean value of 7.91 and 7.36 for females the SD scores are 0.57 and 0.77 respectively for males and females. This reveals the females have slightly high altruistic behavior when compared to males. This is what we can find in Goleman study also from his study he says Emotional intelligence includes components like self-awareness, ability to manage moods, motivation, empathy and social skills such as cooperation and leadership (Goleman, 1998). When it comes to emotional intelligence neither women are 'smarter' nor men are 'superior'. Men and women are equal in their ability to increase emotional intelligence; while women tend to be strong in competencies based on empathy and social skills, men do better in those based on self regulation (Goleman, 1998). That is there is no much difference in male & female. Even an examination of the North American sample did not reveal significant differences on emotional and social intelligence between the various ethnic groups that were compared, (Suzuki & Valencia, 1997).

Among the most useful definitions of emotional intelligence, says that emotional intelligence lends itself to consider other forms of intelligence in addition to cognitive intelligence (Wechsler, 1958; Goleman, 1995; Hayashi, 2006). The definition of intelligence includes the ability to adapt to new situations and to reach success in life situations (Jacobs, 2004). From 1900 through the 1950s, an accepted measure of intelligence was the Intelligence Quotient (IQ) test. IQ scores were thought to measure an individual's potential for success in life (Wechsler, 1958; Sunew, 2004). However, IQ is no longer seen as a reliable tool to help determine an individual's success. Because of the long history and use of the IQ concept, any new measure or definition of intelligence has to account for it (Encinas, 2001; Perkins, 1999). Traditional intelligence tests contribute only 20% to the factors that determine life success (Gardner, 1995). This led to the Multiple Intelligence (MI) theory being proposed by Gardner in the field of human cognition (Byron, 2000 & Gardner, 1993). Gardner divided intelligence into interpersonal intelligence and intrapersonal intelligence (Liptak, 2005). He defined interpersonal (or social) intelligence as "the ability to notice and make distinctions among other individuals and, in particular, among their moods, temperaments, motivations, and intentions" (Gardner, 1983, p. 239). Intrapersonal intelligence was defined as "the capacity instantly to effect discriminations among these feelings and, eventually, to label them, to enmesh them in symbolic codes, and to draw upon them as a means of understanding and guiding one's behavior" (Gardner, 1983, p. 239). These two main concepts of interpersonal and intrapersonal intelligence have been the focus of much of the ongoing research in emotional intelligence (Hayashi, 2006). Emotional, social, practical intelligence and the non academic intelligences, noncognitive intelligences, and nonintellective intelligence are separate from IQ (Hedlund & Sternberg, 2000). This concept of intelligence has gained popularity through the publication of a number of commercially successful books (Hayashi, 2006). The definition of emotional intelligence has been refined to reflect more strongly the notion that emotional intelligence is an ability. With this in depth interpretation of emotional intelligence we have done inter correlation between all factors included in emotional intelligence thus, Table 2 shows the result of inter correlation between Emotional intelligence, self awareness and integrity total scores (.247) are significant at 0.05 levels. Empathy with self awareness total scores are (.386) are significant at 0.01 level. Empathy and self motivation total scores (.311) are significant at 0.05 levels. Empathy with managing relationship and integrity total scores (.447 & .383) are significant at 0.01 level. Self motivation with Empathy total scores (.311) are significant at 0.01 levels. Managing relationship and Empathy total scores (.447) are significant at 0.01 level. Integrity with self awareness, self motivation, empathy and commitment total scores (.247, .383, .261 & .281) are significant at 0.05 & 0.01 level. Self development with commitment total scores (.514) are significant at 0.01 levels. Value orientation with altruistic behavior total scores (.251) are significant at 0.05 level. Integrity with self awareness, self motivation and commitment total scores (.247, .261, & .281) are significant at 0.05 level. Integrity with commitment total scores (.281) are significant at 0.01 level. Commitment with empathy, integrity and self development total scores (.289, .291 & .514) are significant at 0.05 & 0.01 level. Altruistic behavior with value orientation total scores (.251) are significant at 0.01 level. Therefore it is concluded that there is a positive correlation between Emotional intelligence of undergraduate students,

CONCLUSION

When we define **Emotional intelligence** as one Type of intelligence defined as the abilities to perceive, appraise, and express emotions accurately and appropriately, to use emotions to facilitate thinking, to understand and analyze emotions, to use emotional knowledge effectively, and to regulate one's emotions to promote both emotional and intellectual growth. If this is true then it is very important during the years where the students learn to become a civilized person, become ready to take responsibility of him/her self along with taking responsibility of family many a times. If they have emotional intelligence it will ease their job to enter into adult world. Thus we thought to find out emotional intelligence of our students in a small study before we get into the big study in a large scale with huge sample.

LIMITATIONS OF THE STUDY

The sample was not representative of the rural students. The sample size was very small. Effect of the demographic variables was not studied.

SUGGESTION FOR THE FURTHER STUDY

The effect of demographic variables can be studied to know their effect on emotional intelligence.

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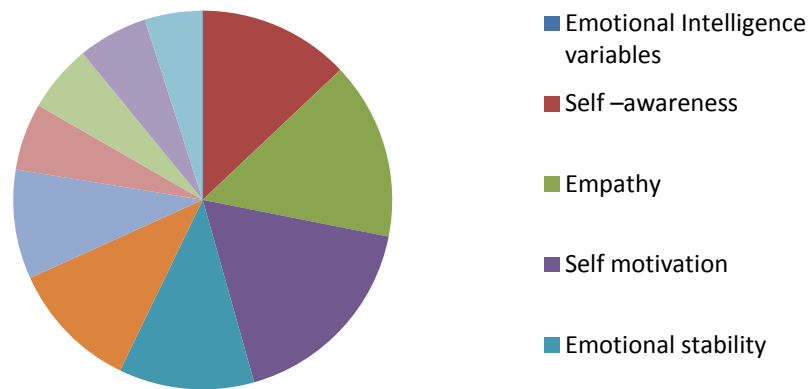
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TABLE**TABLE 1: THE MEAN, SD AND P VALUE ON EMOTIONAL INTELLIGENCE OF GENDER**

Emotional Intelligence variables	Male		Female		P value
	Mean	SD	Mean	SD	
Self –awareness	18.82	2.24	16.65	1.21	0.01
Empathy	21.95	2.52	19.21	0.97	0.01
Self motivation	25.43	2.49	23.85	2.043	0.20
Emotional stability	16.78	0.75	15.80	1.01	0.178
Managing relations	16.08	1.30	14	1.106	0.002
Integrity	13.56	0.60	12.85	0.97	0.14
Self development	8.30	0.31	8.48	0.41	0.536
Value orientation	8.39	0.39	7.91	0.52	0.86
Commitment	8.65	0.55	8.44	0.52	0.55
Altruistic behavior	7.19	0.57	7.36	0.77	0.25

GRAPH 1

Male



GRAPH 2

Female

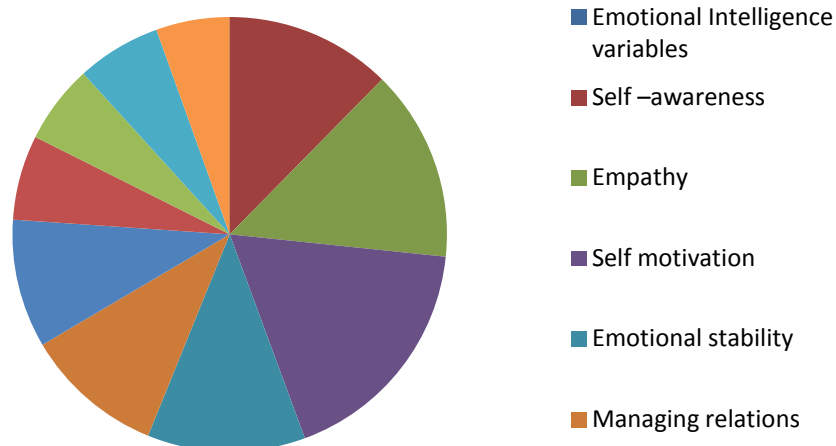


TABLE 2: INTER CORRELATION OF EMOTIONAL INTELLIGENCE

Emotional Intelligence	SA	EM	SM	ES	MR	IN	SD	VO	CO	AB
SA Pearson Correlation	1	.386**	.008	.032	.195	.247*	.169	-.208	.177	.083
Sig. (2-tailed)		.001	.948	.794	.106	.039	.162	.817	.142	.494
N	70	70	70	70	70	70	70	70	70	70
EM Pearson Correlation	.386**	1	.311*	.114	.447**	.383**	.154	.148	.289*	.114
Sig. (2-tailed)	.001		.009	.346	.000	.001	.204	.220	.015	.346
N	70	70	70	70	70	70	70	70	70	70
SM Pearson Correlation	.008	.311**	1	.190	.172	.261	.163	.019	.104	.011
Sig. (2-tailed)	.948	.009		.116	.155	.029	.70	.178	.875	.390
N	70	70	70	70	70	70	70	70	70	70
ES Pearson Correlation	.032	.114	.190	1	.080	.096	.242* .216	.216	-.022	.160
Sig. (2-tailed)	.794	.346	.116		.508	.428	.70	.072	.859	.187
N	70	70	70	70	70	70	70	70	70	70
MR Pearson Correlation	.195	.447**	.172	.080	1	.230	.160	.069	.199	-.202
Sig. (2-tailed)	.508	.000	.155	.106		.055	.187	.570	.099	.093
N	70	70	70	70	70	70	70	70	70	70
IN Pearson Correlation	.247*	.383**	.261*	.096	.230	1	.218	.028	.281*	-.170
Sig. (2-tailed)	.039	.001	.029	.428	.055		.070	.82	.014	.161
N	70	70	70	70	70	70	70	70	70	70
SD Pearson Correlation	.169	.154	.163	.242*	.160	.218	1	.151	.514**	.036
Sig. (2-tailed)	.162	.204	.178	.044	.187	.070		.213	.000	.770
N	70	70	70	70	70	70	70	70	70	70
VO Pearson correlation	-.028	.148	.019	.216	.069	.028	.151	1	.012	.251*
Sig. (2-tailed)	.817	.220	.875	.072	.570	.821	.213		.919	.036
N	70	70	70	70	70	70	70	70	70	70
IN Pearson Correlation	.247*	.383**	.261*	.096	.230	1	.218	.028	.281*	-.170
Sig. (2-tailed)N	.039	.001	.029	.428	.055		.070	.82	.014	.161
N	70	70	70	70	70	70	70	70	70	70
CO Pearson Correlation	.177	.289*	.104	-.022	.199	.291*	.514**	.021	1	.020
Sig. (2-tailed)	.142	.015	.390	.859	.099	.014	.000	.919		.869
N	70	70	70	70	70	70	70	70	70	70
AB Pearson correlation	.083	-.114	.011	.160	-.202	.170	-.036	.251*	.020	1
Sig. (2-tailed)	.494	.346	.929	.187	.093	.161	.770	.036	.869	
N	70	70	70	70	70	70	70	70	70	70

BOOTSTRAPPING: STARTING A BUSINESS ON A BUDGET**SHABANA A. MEMON.****ASST. PROFESSOR****BHARATI VIDYAPEETH DEEMED UNIVERSITY INSTITUTE OF MANAGEMENT
KOLHAPUR****ABSTRACT**

Policy-makers and researchers increasingly recognize that small businesses are a vital element in economic development and job creation. Their innovation activities, distinct from those of large firms, are essential for economic growth; but small businesses face major difficulties in obtaining long-term external financing. Most of the literature on financing small firms emphasizes debt and equity funding from traditional sources of finance as the most important sources of funds for growth. Small firms lack tangible assets, especially at the early stages of their life cycle that could be used as collateral and their products also have little or no reputation, subject to non-marketability. The external financing market, if available, is a relatively expensive way to fulfill entrepreneurs' needs for resources. The question arises: "How can a small business obtain financing outside of traditional institutional sources"? The answer lies in bootstrap financing. Bootstrap financing refers to a range of highly creative ways of acquiring resources without borrowing money or raising equity from traditional sources. Bootstrapping is one of most effective and inexpensive ways to ensure a business' positive cash flow. Bootstrapping means less money has to be borrowed and interest costs are reduced. Bootstrap financing really begins and ends with the entrepreneur's attention to careful management of his financial resources. As one continues to pursue his dreams of small business success, he should be sure to conduct thorough review as one should not make plans to build a house of cards upon a mountain of debt! Instead, build a successful small business upon a sure and firm foundation. In doing so, he will soon discover that bootstrapping is truly the doorway to long-term business success! An attempt is made in this paper to highlight the concept of bootstrapping, the ways of bootstrapping and its advantages and disadvantages.

KEYWORDS

bootstrapping, shoestring budgets.

INTRODUCTION

The primary goals of **starting a business** is to make money. However, it takes an undeniable amount of capital in order to properly launch and sustain a business. This amount of money for a given venture has to do with the unique goals and needs of the entrepreneur. It is crucial for a new business to develop resources and additional means to obtain further capital because without proper financing, a new enterprise may find it extremely difficult to compete with an already established competition. In addition, the lack of **funding** may also lead to a company closing or even worse, bankruptcy. It is important to consider the pros and cons of different financial sources that are available in order to make an effective educated decision to fund a startup. Don't raise the funds needed to start your company unless you absolutely must do so. And there are additional reasons to bootstrap rather than raise money now:

- Fund Raising takes much more time than most entrepreneurs anticipate. The time dedicated to raising money could be more effectively used to develop and commercialize your first product. Generate revenues (and profits) early-by bootstrapping the company.
- Raising money too early, before meeting substantial milestones for success, decreases the valuation at which money can be raised thereby increasing the percentage of ownership new investors will require to complete the transaction. Bootstrap the company-keep 100 percent ownership.

Success in entrepreneurship is not necessarily a contest of having the fattest wallets. Rather, it is an exercise of smart financial management, careful strategic planning, and yes, lots of luck. Bootstrapping enables entrepreneurs to operate their startup companies with minimal infusions of cash from others. Bootstrapping, getting a lot done on very little cash, is a common practice for early stage companies. For most start-ups, bootstrapping is an essential first stage because it:

- Demonstrates the entrepreneur's commitment and determination.
- Keeps the company focused.
- Allows the business concept to mature more into a product or service.
- Gives the concept a chance to be vetted by the market.
- Allows some milestones to be achieved.

REVIEW OF LITERATURE

Carter et al. (2003) conducted the first systematic study of women business owners, and their equity financing strategies include bootstrap financing as an option. Their study examines the influence of human, social and financial capital of women entrepreneurs seeking equity funding. It discusses access to funding sources, bootstrapping techniques, and the development of financial strategies in the early stage of women owned businesses.

Lahm and Little (2005) conclude that academic textbooks used in college and university entrepreneurship courses devote just a few paragraphs or pages to the subject of bootstrapping and as a result, potential small business owners are not prepared for the realities that they will face as nascent entrepreneurs.

Ebben and Johnson (2006) construct a study based on the Winborg and Landström (2001) clusters. Sampling 146 firms in the Midwestern US. They link bootstrap financing to organizational theory and firm development.

Brush et al. (2006) expand on the study of Carter et al. (2003) by examining how women entrepreneurs use bootstrap financing across different stages of venture development, in a sample of 88 women-led high growth, high-technology US start-ups.

Willoughby (2008) includes revenue and other non-traditional sources of funds under the umbrella of "unorthodox" bootstrap financing. Based on a sample of 93 bioscience technology firms from New York State and 91 bioscience firms from Utah, Willoughby concludes that unorthodox bootstrap financing is the dominant method of financing in that industry.

Neeley and Van Auken (2009) analyze how three characteristics of the business owner may influence financing: education level, age and gender. Their questionnaire is based on the Winborg and Landström study (2001) and includes responses from 247 firms from Illinois.

Ebben (2009) links small firm bootstrapping methods to the firms' financial conditions. His survey of 186 manufacturing firms in the US is based on 25 techniques identified by Winborg and Landström (2001). The financial condition of the firm is measured by liquidity, financial leverage and profitability. The data for the firms' financial condition were obtained from the Kauffman database.

Winborg (2009) identifies seven motives for seeking bootstrap financing: cost reduction, managing without long-term external finance, lack of capital, risk reduction, gaining freedom of action, saving time, and enjoyment in helping others. Based on a sample of 91 Swedish business founders, Winborg examines the relative importance of the different motives in using financial bootstrapping in new businesses.

Smith (2009) sheds light on how technology-based start-ups fund innovation through studying the biographies of three well-known UK-based entrepreneurs. The case studies confirm the importance of personal networks in bootstrap financing innovation.

Lam (2010) conducts a longitudinal, multi-stage fieldwork study in Hong Kong and Shanghai to

Understand bootstrap financing from an enactment perspective. The paper highlights the active role entrepreneurs take in managing both the demand for and the supply of entrepreneurial finance to narrow the dynamic funding gap.

Bosse and Arnold (2010) use the real options framework to forecast small firms' bootstrapping behavior with respect to trade discount based on a sample of 606 small firms in the US. The findings suggest that the greater the cash flow generated by taking the discount for early payment, the more entrepreneurs are likely to take advantage of it. The length of time until the trade credit must be paid in full has the opposite effect on the use of early payment discount.

Jones and Jayawarna (2010) examine how social networks help new ventures acquire resources through bootstrap financing. They explore how these resources influence business performance as measured in sales growth and turnover at their early operating stages. The study distinguishes three kinds of social ties — strong, weak, and brokerage — and how they affect three different types of bootstrapping finance: payment related, owner-related, and joint utilization. The results are based on a longitudinal study of 211 entrepreneurs in the UK.

Neely and Van Auken (2010) conduct an empirical study of 32 female-owned firms and 215 male-owned firms from Illinois to examine how female- and Male-owned small businesses differ in their use of bootstrap financing. The questionnaire is based on work by Winborg and Landström (2001), Van Auken (2005) and Van Neely and Van Auken (2009).

Studies to date are modest in their findings, reflecting the exploratory and descriptive nature of their methodology. All the findings, however, indicate that financial bootstrapping is a regular and widely-used technique among small businesses. It is tool used primarily in the early stages of a company's lifecycle and although it encompasses a wide variety of techniques, firms rely mainly on just a few methods.

HOW TO BOOTSTRAP?

With the current downturn the entrepreneurs are compelled to take what they can get and extract maximum mileage out of every rupee. In reality, it is difficult for a small first-time entrepreneur to go beyond the "friends and family" round of funding. True entrepreneurs maximize the tight funds with resourcefulness and innovation until they can approach banks and venture funds with a track record.

These rules of bootstrapping are simple in theory, and not much difficult in practice.

1. Use your own money

Bootstrapping requires you to use your own money to start a business. This is not a bad thing because you are looking to start out small and keep costs to an absolute minimum. You should be very careful what you spend your money on.

2. Keep costs to a minimum

When starting a new business, it's tempting to go out and rent a nice office, hire a secretary and have a professional marketing agency to plan and conduct your marketing, but you've got to remember that you cannot afford to do that because you are not at that stage yet.

3. Do as much as you can by yourself

This will most likely lead to long hours in the beginning, but it is a fundamental of bootstrapping. You don't need to rent an office, hire marketing agencies, or employ a secretary in the beginning. Instead you can work from home by turning a spare room or even just a spare desk into your workspace.

Use social media to get your business or product's name out there. Put links to articles on social media platforms such as Twitter and Facebook. Respond to customer queries by personally answering calls and responding to your own emails.

4. If your business fails, get out quickly and try something else

The mantra is fail fast. Knowing when a business is failed is the hard part. Establish a target and a timeline as a cutoff, if the target is met, business is viable, otherwise, it's failed and time to move on to something else.

5. Put cash flow ahead of profit

In the beginning, you'll need to take what money you earn from sales and invest most or all of it back into the business to grow it. This can be difficult, especially if you have no other income. You have to think of ways to use the money from early sales to increase sales and profit in the future.

ADVANTAGES OF BOOTSTRAPPING

1. You have all the control

The great thing with bootstrapping is that you don't have to compromise with business partners. You can organize and get things started quicker. You don't have to sign a contract with business partners or investors at this stage.

2. You keep all the profits

What's best about running a business by yourself and bootstrapping is that you don't have to split the profit with anyone else. You also decide how much to take for yourself and how much to reinvest back into your business. It's all yours.

3. You'll learn to become more versatile and resourceful

You'll find that you probably have to pick up new skills to run your new business. For example, if you start up an online business, you'll need to learn some web design and management skills; you'd also benefit from learning some online marketing techniques to get your product out there in front of the Internet's multitudes. Learning these skills reduces expenses and increases your overall skill set.

BOOTSTRAPPING OPTIONS

Some of the biggest companies we see today started from garages and kitchen tables on shoestring budgets. They got through their initial days by using practices known as "bootstrapping".

Bootstrapping options available to entrepreneurs can be divided into four categories:

1. Product development
2. Business development
3. Minimization of capital needed and
4. Meeting the need for capital.

IMPORTANT BOOTSTRAPPING TECHNIQUES FOR PRODUCT DEVELOPMENT

- Prepaid licenses, royalties or advances from customers.
- Special deals on access to product hardware.
- Customer-funded research and development
- Free or subsidized access to general hardware
- Turning a consultant project into a commercial product.

IMPORTANT BOOTSTRAPPING TECHNIQUES FOR BUSINESS DEVELOPMENT

- Foregone or delayed compensation
- Reduced compensation
- Personal savings
- Working from home
- Deals with professional service providers at below-competitive rates
- Space at below-market or very low rent

- Personal credit cards and home equity loans.

IMPORTANT BOOTSTRAPPING TECHNIQUES TO MINIMIZE THE NEED FOR CAPITAL

- Buy used equipment instead of new
- Borrow equipment from other businesses for short-term projects
- Use interest on overdue payments from customers
- Hire personnel for shorter periods instead of employing permanently
- Coordinate purchases with other businesses (mutual purchasing of goods)
- Lease equipment instead of buying
- Use routines to speed up invoicing
- Cease business relations with customers who frequently pay late
- Offer same conditions to all customers (that is, no expense on preferential treatment to some)
- Obtain trade credit from suppliers
- Deliberately choose customers who pay quickly
- Share business premises with others
- Employ relatives or friends at non-market salaries
- Run the business completely from your home.

IMPORTANT BOOTSTRAPPING TECHNIQUES TO MEET THE NEED FOR CAPITAL:

- Withhold entrepreneur's salary payment for short or long period of time
- Seek out best purchasing conditions with suppliers
- Deliberately delay payment to suppliers
- Use the entrepreneur's private credit card for business expenses
- Obtain capital via the entrepreneur's assignments in other businesses
- Obtain loans from relatives and friends
- Barter underused products or services with other firms
- Franchise or license the product or business idea to others for a royalty fee.

ENTREPRENEURS ON A TIGHT BUDGET CAN COME OUT WINNERS

Entrepreneurs always have been bootstrapping startup ventures. It is a time-proven method for extending the funds available to start a company until the cash generated from earnings is available to fund the growth of the business.

Here are **ten ways** entrepreneurs on a tight budget can still come out a winner:

- 1. Set realistic goals.** The first step every start-up entrepreneur must do is to determine the right scope and size of your business. Many entrepreneurs simply jump into the idea of starting a business, without understanding what the business really entails - financial requirements, management know-how and technological skills, human resource requirements. They eventually fall short of what they can really do. Review the business you have in mind and determine if it is within a range that's both attainable and desirable.
- 2. Plan your costs properly.** A lot of entrepreneurs start a business without the faintest idea of what the costs will be. They either overestimate the cost or worse, underestimate the financial requirements needed to properly capitalize the business.
- 3. Smart financing for your business.** Financing a small business is not a lock-stock-and-barrel proposition. For many entrepreneurs, there is no single source to finance their entire operation. The money provided by one source (e.g. your mom) may be enough to buy your raw materials, but you still need money for your working capital. The ideal financing source is one that provides the longest payback period, carry the lowest interest rates, require little or no collateral and demand no personal liability. The next best thing is to choose what makes the best sense for you and your business, given your priorities.
- 4. Put your money where it will bear fruit.** Shoestring entrepreneurs have one common characteristic: they lack money and often struggle to raise capital for their businesses. Capital of a start-up venture goes to either of these investments: "fixed assets" (furniture, fixtures, and equipment), or "working assets" (inventory and working capital). Despite the lack of capital, many small business owners put most of their money to buying fancy equipment and chic office space - costs that a struggling start-up can do without. This is a common error in business decision-making. Successful business owners put as much money as possible into the working assets - which bears cash and sales - and as little as possible into fixed assets.
- 5. Is it the right time?** Timing can be a key to the success of a start-up. There's a right time and a wrong time to open a business, especially if your business is cyclical in nature or in a seasonal location, you should plan through the months when the crest for the demand of your product cyclically ends.
- 6. Control the cash.** Cash flow is said to be the lifeblood of a small business. Your business will survive only as long as it has the cash to pay for your financial obligations. With limited capital, cash flow controls every decision in shoestring enterprise. Many businesses fail not because they are undercapitalized but because they fail to properly plan the undercapitalized operation.
- 7. Push the sales.** Building sales depend on several factors - nature of the business, location, level or competition and intensity of marketing and promotion. The goal of every shoestring entrepreneur must be to build up sales immediately. The key rule is to dedicate at least two hours of your day to marketing your business. Know the steps you'll take before you start and after you start to maximize sales and help the business to increase sales quickly.
- 8. Balance your sales and profit objectives.** Sales and profit do not always go together. Some entrepreneurs are willing to cut down their profits in their effort to drive sales up. Many times volume alone will not be able to compensate for the loss in profits. Try to maintain gross profits at least equal to the industry averages. Strive to give the business the best balance between a solid policy of capturing sales without sacrificing needed profit margins.
- 9. Be 'lean and mean'.** A struggling start-up does not need dead weights. Keep your fixed costs down and spend only on items that can sufficiently contribute to improving the bottom line. If you can still adequately operate from your home office, there is little need in leasing an office space. Avoid hiring a permanent employee if you can still manage with temporary and seasonal staffs. Every rupee in expense should be directly tied to income.
- 10. Master the financial tools.** As a business owner, you are responsible for the life and growth of your business. This entails knowing, not only the marketing or production aspects of your business, but the financial tools you need to manage your business effectively. Understanding the finances of your business will give you control over its direction.

DRAWBACKS AND CAUTION

1. Long, long hours

You'll have to work longer than normal hours while bootstrapping. This will be compounded by choosing to be employed by another business until your new business starts making money.

2. All costs and losses are yours

Remember, what money you have, you probably worked for. You are risking losing that money temporarily or even permanently by doing it alone and bootstrapping. You'll need to be smart enough to assess risk as accurately as possible.

3. All problems have to be solved by you

When bootstrapping, you don't have a committed team working with you to help brainstorm new ideas and solutions to problems. While you can ask friends and other professionals for advice when they are available, it's not always convenient to do so. Bootstrapping may limit results that a creative team or partnership can achieve.

4. Minimise capital: When an entrepreneur raises funds from friends and family, he is advised to take only what is absolutely essential — just enough to cover operating expenses till his product or service can start generating some revenues.

5. Be realistic: Instead of gearing up big to service the "dream market share" the entrepreneur might capture, he should calculate how much he can actually deliver with the limited resources he has and aims for that. This will avoid wasteful staffing and at the same time generates cash flow. It also gives him a chance to refine his product before expanding.

CONCLUSION

Remember that, ultimately bootstrapping doesn't mean dishing out all of your personal savings; it means funding your business with customer revenue. As a teenager, you may not be as hard pressed to bring in revenue right away, but you should be conscious of how much of your own money you're paying out. Make sure that you see returns on your investments in the business. If the business isn't growing and beginning to generate revenue, ask yourself why and be even more cautious about investing your money in it.

Continue bootstrapping as long as possible, but know when it's time to seek investors. Postponing fund-raising to the extreme can cripple the company, especially when the window of opportunity is short (as is often the case in technology start-up companies). Potential investors will recognize and value your bootstrapping resourcefulness in starting your company.

Understanding your business totally will give you much better operational control. In most cases there is a direct correlation between the quality of your decisions and the size of your revenue stream. For minimum risk, you must understand fully this cause-and-effect correlation.

In summary, watch your costs, trust your gut and drive forward with all the passion in your dream. The growth may be slower with bootstrapping, but it's all yours.

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EMPLOYEE ENGAGEMENT WITH SELECTED FACTORS AT BSNL, HYDERABAD- AN EMPIRICAL STUDY**P. LAKSHMI NARAYANAMMA****ASST. PROFESSOR****SCHOOL OF MANAGEMENT STUDIES****SREENIDHI INSTITUTE OF SCENCE AND TECHNOLOGY****YAMNAMPET****ABSTRACT**

Employee Engagement is the level of commitment and involvement of an employee towards organization and its values. An engagement of employees is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organization. It is a positive attitude held by the employees towards the organization and its values. The organization must work to develop and nurture engagement which requires a two way relationship between employer and employee. Thus the objective of this research paper is to explore the job satisfaction of employees when involved in organizational matters, Samples of respondents are interviewed with the help of structured questionnaire and data is presented in the form of tabulations with statistical tools. The paper includes employee engagement with selected factors at BSNL, Hyderabad.

KEYWORDS

Commitment, Decision Making, Employee Engagement, Job Satisfaction.

INTRODUCTION

The best companies now know, without a doubt, where productivity—real and limitless productivity—comes from. It comes from challenged, empowered, excited, rewarded teams of people. It comes from engaging every single mind in the organization, making everyone part of the action, and allowing everyone to have a voice—a role—in the success of the enterprise. Doing so raises productivity not incrementally, but by multiples.”

- Jack Welch, Former Chairman and CEO of General Electric, Human Resources, 10 September 2003

Employee Engagement is the process whereby employees are involved in decision making processes, rather than simply acting on orders. Employee participation is part of a process of empowerment in the workplace. Employee participation is in part a response to the quality movement within organizations. Individual employees are encouraged to take responsibility for quality in terms of carrying out activities, which meet the requirements of their job. Employee participation is also a part human resource development in modern organizations. Employees are trusted to make decisions for themselves and the organization. This is a key motivational tool.

The extent that an employee believes in the mission, purpose and values of an organization and demonstrates that commitment through their actions and their attitude towards the employer (both internal & external) will determine the employee satisfaction towards his/her work. Employee engagement is high when the statements and conversations held reflect a natural enthusiasm for the company, its employees and the products or services provided.

REVIEW OF LITERATURE

In a recent research by Hewitt Associates, it was found that, companies who are better able to engage their employees are better equipped to deliver superior business performance and returns to share holders. It was found that employee engagement is a key driver of double-digit growth companies. Paul bernthal of Development Dimensions International Inc., found that companies, which score high on employee engagement have more satisfied employees who are less likely to quit, are more productive.

Josh Greenberg, president of Alpha Measure Inc., points out that engaged employees will stay with the company, be an advocate of the company and its products and services, and contribute to bottom line business success. Engaged employees also normally perform better and are more motivated. There is a significant link between employee engagement and profitability. Employee engagement is critical to any organization that seeks not only to retain valued employees, but also increase its level of performance.

The Towers Perrin Talent Report, 2003 found significant relationship between employee engagement levels and financial performance of companies. They found that as engagement decreases employees’ propensity to leave the organization and increase their orientation to meet customer needs. It was also found that the cost of production decreases as employees become more engaged in their work.

RESEARCH METHODOLOGY**NEED FOR THE STUDY**

Most organizations today realize that ‘satisfied’ employee is not necessarily the ‘best’ employee in terms of loyalty and productivity. It is only ‘engaged employee’ who is intellectually and emotionally bound with the organization, feels passionately about its goal and is committed towards its value who can be termed thus. He goes the extra mile beyond the basic job responsibility and is associated with the actions that drive the business. Moreover, in the terms of diminishing loyalty, employee engagement is a powerful retention strategy. The fact that it has a strong impact on the bottom-line adds to its significance.

SCOPE OF THE STUDY

The purpose of this study is to highlight” the job satisfaction of employees when engaged in organizational policies. The study explores various related issues like Employee commitment, senior management support, openness and trust of employees etc. The scope of the study is restricted to selected organization i.e., BSNL, Hyderabad.

DATA SOURCE

The present research being descriptive in nature mainly depends upon primary and secondary sources of data. The secondary information is collected from Journals, Thesis, reports and websites. Primary data was collected using the structured questionnaire.

RESEARCH INSTRUMENT

The questionnaire is fully structured. The field work was carries for a period of 2 months. The approximate time taken to fill a questionnaire is two to three days. To study the opinion of the respondents towards engagement in organizational policies, a five-point scale (Strongly agree, Agree, Neither agree or nor disagree, Disagree, Strongly disagree) is adopted to study the relationship amd variation of respondents.

SAMPLING PROCEDURE AND SAMPLE SIZE

The sampling procedure chosen for the study is simple random sampling. A sample of 50 respondents was taken for the study.

STATISTICAL TECHNIQUES USED FOR ANALYSIS

The data is analyzed by using Mean, Standard Deviation, Coefficient of Variation and Coefficient of correlation. The methodology adopted for collecting the primary data is through questionnaire method. Questionnaire is designed using objective type questions mostly of multiple choices, keeping in view the time availability at the disposal of the decision maker. Questions designed are simple and specific, to generate response according to the objectives. Questionnaire is arranged in a logical order, logical to the respondent and proper care has been taken to avoid ambiguity in responses and at the same time enabling the respondents to answer the questions easily and quickly with the time available at their disposal.

LIMITATIONS OF THE STUDY

Some of the respondents may be biased towards the responses given. Some of the responses given may not be the true indicative of their preferences and influences on the performance. This can happen as the questionnaire is highly structured, and there is a possibility of the respondents choosing one of the alternatives at random mechanically without applying much thought. This study is limited to BSNL; Hyderabad hence, the results of the study cannot be generalized. Due to time and cost constraint, the study is restricted only to certain selected respondents all are educated.

OBJECTIVE OF THE STUDY

To study the job satisfaction of employees when engaged in organizational policies.

HYPOTHESIS

The following hypotheses have been chosen to achieve the stated objectives of the research.

H0: There is no significance variation in job satisfaction of employees when engaged in organization policies.

H1: There is significance variation in job satisfaction of employees when engaged in organization policies.

RESULTS AND DISCUSSIONS

Here

X means number of respondents = Arithmetic mean

x means $(X - \mu)$

TABLE I: MEAN, STANDARD & COEFFICIENT OF VARIATION OF JOB SATISFACTION

S.NO.	FACTORS	Great Extent	Reasonable Extent	Fair Extent	Little Extent	Strongly Disagree
1	Total Frequency	334	342	194	118	12
2	Mean	33.4	34.2	19.4	11.8	1.2
3	Assumed Mean μ	33	34	19	12	1
4	$x=(X-\mu)^2 \sum x^2$	1492	420	450	1004	18
5	σ	12.2148	6.4808	6.7082	10.0199	1.3416
6	$CV=(\sigma/\bar{X})*100$	36.5713	18.9497	34.5784	84.9144	111.80

TABLE II: MEAN, STANDARD & COEFFICIENT OF VARIATION OF EMPLOYEE INVOLVEMENT

S.NO.	FACTORS	Strongly agree	Agree	Neither agree or nor disagree	Disagree	Strongly Disagree
1	Total Frequency	144	388	98	146	24
2	Mean	18	48.5	12.25	18.25	3
3	Assumed Mean μ	18	49	12	18	3
4	$x=(X-\mu)^2 \sum x^2$	64	744	420	380	24
5	σ	2.8285	9.6437	6.9642	6.8921	1.7351
6	$CV=(\sigma/\bar{X})*100$	35.3554	19.8839	59.1485	37.7646	57.7351

TABLE III: COEFFICIENT OF CORRELATION BETWEEN JOB SATISFACTION AND EMPLOYEE INVOLVEMENT

	Job satisfaction X	Employee involvement Y	$x=X-\bar{X}$	x^2	$y=Y-\bar{Y}$	y^2	by
Strongly Agree	33	18	13	169	-2	4	-26
Agree	34	49	14	196	29	841	406
Neither Agree nor Disagree	19	12	-1	1	-8	64	8
Disagree	12	18	-8	64	-2	4	16
Strongly Disagree	2	3	-18	324	-17	289	306
	$\Sigma X=100$	$\Sigma Y=100$		$\Sigma x^2=754$		$\Sigma y^2=1202$	$\Sigma xy=710$

$$r = \frac{\Sigma xy}{\sqrt{(\Sigma x^2 * \Sigma y^2)}}$$

Where

$$\bar{X} = \frac{\Sigma X}{N} = \text{mean of the difference of Job satisfaction}$$

$$x = X - \bar{X} = \text{mean deviation of Job satisfaction}$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \text{mean of employee involvement}$$

$$y = Y - \bar{Y} = \text{mean of employee involvement}$$

$$\bar{X} = \frac{\Sigma X}{N} = \frac{100}{5} = 20$$

$$\bar{Y} = \frac{\Sigma Y}{N}$$

$$\begin{aligned}
 &= \frac{100}{5} \\
 &= 20 \\
 r &= \frac{\sum xy}{\sqrt{(\sum x^2 * \sum y^2)}} \\
 &= \frac{710}{\sqrt{(754 * 1202)}} \\
 &= \frac{710}{\sqrt{906308}} \\
 &= \frac{710}{952.002}
 \end{aligned}$$

$$= 0.7457$$

Since the $r < 1$ there exists a correlation coefficient between job satisfaction and employee involvement.

t-test for the coefficient of correlation between job satisfaction and employee involvement.

$$\begin{aligned}
 t &= \frac{r}{\sqrt{(1-r^2)}} \sqrt{(n-2)} \\
 &= \frac{0.7457}{\sqrt{1-(0.7457)^2}} \sqrt{5-2} \\
 &= \frac{0.7457}{\sqrt{1-0.556}} \sqrt{3} \\
 &= \frac{0.7457}{\sqrt{0.4432}} * 1.732 \\
 &= \frac{0.7457}{0.66618} * 1.732
 \end{aligned}$$

$$= 1.119 * 1.732$$

$$= 1.938108$$

Since the calculated value is less than the table value we reject the alternate hypothesis i.e., table value of $t_{0.05} = 3.182 < t_{cal} = 1.938108$ we accept the null hypothesis that there is.....no significant difference in job satisfaction when employees are engagement in organization policies.

Employees are satisfied with the job satisfaction factors and are fully involved in organizational matters which indicate that organization is concentrating more on effective employee engagement practices. Though the employees are involved in the decision making process with the senior management but majority of employees are no happy with the process.

It is recommended that, the company needs to provide opportunities for personal and professional growth with clear guidelines and direction to their employees to meet the future demands.

CONCLUSION

Employee engagement is the level of commitment and involvement of an employee towards organization and its values. It is the positive attitude held by the employees. It is rapidly gaining popularity, use and importance in the workplace and impacts organizations in many ways.

At BSNL the organization is maintaining good employee relationships which benefits both organization and employees. It is better to invite employee suggestions and through implementing good suggestions it can create trustworthiness which leads to employee involvement and commitment.

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MERGERS AND ACQUISITIONS IN INDIAN INFORMATION TECHNOLOGY INDUSTRY AND ITS IMPACT ON SHAREHOLDERS' WEALTH

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ABSTRACT

Numerous academic studies are available on merger announcements and their impact on market valuation of equity or shareholders' wealth, but there is hardly any documented evidence for Indian Information Technology Industry. In this research on "Mergers and Acquisitions in Indian Information Technology Industry and its Impact on Shareholders' Wealth", an attempt is made to know the wealth effects of mergers and acquisitions in the Indian Information Technology Industry during the period 2008-2010. For this, an event study analysis has been conducted from the point of view of shareholders of the acquiring companies to ascertain whether shareholders of acquiring companies have been benefited or not. The analysis reveals that the shareholders of the acquiring firms did not gain significant abnormal returns and the mergers and acquisitions did not have any impact on the shareholders' wealth. The analysis of the individual deals also reveals that no deal has benefited their respective shareholders.

KEYWORDS

Information Technology Mergers, Market Valuation of Mergers, Event Study Analysis.

INTRODUCTION

The business environment today has become more dynamic and firms need to cope with this dynamic environment to grow. The growth for firms can be organic or inorganic. Most of the firms in their quest for growth choose the route of inorganic growth. Mergers and acquisitions being one such route is been prominently used by business firms in the last decade or so. We can see mergers and acquisitions happening throughout the world. In the United States, the first merger wave occurred between 1890 and 1904 and the second began at the end of the World War I and continued through the 1920s. The third merger wave commenced in the latter part of World War II and continues to the present day. About two-thirds of the large public corporations in the USA have merger or amalgamation in their history.

In India, Mergers and acquisitions have been more in number and value in the last decade or so. The total number of mergers and acquisitions in 1999-2000 was 1068 and the value of acquisitions was Rs.32,012 crores. In 2000-01 the total number was 1215 and value of acquisitions being Rs.29,218 crores. In 2006-07 the number increased to 1418 and the value of acquisitions to Rs.2,38,191 crores. In 2009-10 the number of deals were 823 and the value of acquisitions was Rs.1,39,921 crores and in 2010-11 till February the number of deals were 733 and the value of acquisitions amounted to Rs. 1,78,154 crores. Thus Mergers and Acquisitions, the way in which they are understood in the Western countries, have started taking place in India in the last decade. Now with lot of mergers and acquisitions happening in Indian context it is essential to understand whether such a strategic decision taken by the firm has led to any increase in the performance of the company. The merger or an acquisition is justified only when it has yielded the desired results to the stakeholders. The decision taken by firms should result in creation of wealth to the shareholders. There has been research done to know whether strategic decisions like merger or an acquisition have any effect on the shareholders wealth. The effect of an event like M&A can be viewed from two perspectives: An Accounting perspective and Market perspective. The studies done, both in India and abroad have taken into consideration the market approach. A brief review of literature is been done to get an understanding of the research done to know the effect of an event like merger on the shareholders wealth.

REVIEW OF LITERATURE

This section provides some important research on the effect of merger and acquisitions on the shareholders wealth. Studies so far include both domestic and cross border merger and acquisitions and also are based on overall data and on different sectors. Andrade et al (2001) in their paper mentioned that on average acquirers destroy shareholders value or they do not create value. The studies do not find any support for the value creation for the shareholders at the time of acquisition. On the other hand the market reaction to the target firms is positive and significant at the time of acquisition announcement. Combined wealth effect of acquirers and targets are also positive.

Jensen and Ruback (1983) and Jarrell et al (1988) conclude that the mergers seem to create value but the value is accrued entirely to target firms and the acquirers either destroy value or they do not create any value. Some recent studies (Shleifer and Vishny, 2003; Rhodes-Kropf & Viswanathan, 2004; Dong et al, 2006) followed the market valuation approach to answer some of the empirical findings in merger and acquisition. They argue that mergers are driven by the valuation in the market. Some studies are country specific, mainly between developed and developing countries. Recent studies have made attempt to understand the wealth effect of acquisitions made by developing country firms of developed country firms. International acquisitions by Indian firms have been examined by Zhu and Malhotra (2008) and Gubbi et al (2009). Zhu and Malhotra (2008) empirically examined the announcement effect of cross-border acquisitions by Indian firms for the period of 1999 to 2005. Their study shows that the Indian stock market reacts positively to the acquisition announcement. However, positive abnormal return last for three days, after that it becomes negative. Gubbi et al (2009) did an event study of 425 cross-border acquisitions by Indian firms during 2000-2007. They also showed that the Indian acquirers created value in international acquisitions and the value created is higher when the target firms are located in advanced economic and institutional environments. Manoj Anand and Jagandeep Singh (2008) in their study on bank mergers in India found significant return to both bidder firm and target firm shareholders. Aigbe Akhigbe and Anna D. Martin (2002) in their study on Microsoft found that Microsoft's acquisitions in the internet/online services segment adversely affected the stock prices of internet/online services rival portfolio. The results of the study do not indicate that the financial market perceives Microsoft's operating-system acquisitions instrumental in achieving synergies from Microsoft's dominant role in the operating system segment to the detriment of its internet/online services rivals. The study found rivals to respond favourably to Microsoft's operating system acquisitions. This study is more company specific when compared to studies in other sectors. Kohers, Ninon, Kohers, Theodor (2000): in their study found that the distinctive high-growth, high-risk nature of technology-based industries raises important questions about the creation of wealth in high-tech takeovers. The results show that acquirers of high-tech targets experience significantly positive abnormal returns, regardless of whether the merger is financed with cash or stock. Factors influencing bidder returns are the time period in which the merger occurs, the ownership structure of the acquirer, the high-tech affiliation of acquirers, and the ownership status of the target.

Thus it is evident that while studies are be done mainly on overall basis both involving domestic as well as cross border mergers and acquisitions but sector specific studies are very few and in case of India studies are mainly done on banking sector. Here an attempt is been made to understand the effect of a merger or an acquisition on the wealth of the shareholders with reference to Information Technology.

NEED FOR THE STUDY

Mergers and Acquisitions, being part of growth strategy, have been adopted by most of the companies in India. There are certain sectors where we find lot of activities and more so in service sectors. We find that studies are been done in Banking sector in India. However we do also find lot of M&A activities in other sectors too. Hence to know the performance of these events it is essential to study their impact on shareholders' wealth. The present study is related to Indian Information Technology Industry. Further studies can also be done on different sectors involved in both domestic and cross-border mergers and acquisitions.

OBJECTIVES OF THE STUDY

The objectives of this study are as follows:

1. To know the effect of cross-border mergers and acquisitions on the wealth of shareholders of the acquiring companies in Indian Information Technology Industry.
2. To know the effect of domestic mergers and acquisitions on the wealth of shareholders of the acquiring companies in Indian Information Technology Industry.

Based on the above objectives the following hypothesis are developed

HYPOTHESIS 1

H₀: Cross Border Mergers and Acquisitions do not have impact on the shareholders' wealth of acquiring companies.

H₁: Cross Border Mergers and Acquisitions do have impact on the shareholders' wealth of acquiring companies.

HYPOTHESIS 2

H₀: Domestic Mergers and Acquisitions do not have impact on the shareholders' wealth of acquiring companies.

H₁: Domestic Mergers and Acquisitions do have impact on the shareholders' wealth of acquiring companies.

RESEARCH METHODOLOGY

In conducting this study the data are obtained from CMIE Prowess database. Daily adjusted closing prices of stocks and the market index (BSE 500) are obtained from BSE website. The Acquirer and Target Company are public limited companies and are listed on the stock exchange. A total of 18 companies were obtained who have undertaken domestic and cross border mergers or acquisitions during the period from January 2008 to August 2010. Out of these 10 companies have made a total 12 cross border mergers and acquisitions and 10 companies were involved in domestic merger or acquisition. Glodyne Technoserve Ltd and Wipro Ltd have undertaken both domestic and international mergers. The study is based on the performance of acquiring and target companies in the observations. The event study methodology used in our analysis is quite straight forward and conventional (MacKinlay, 1997). An event study is an econometric method to measure the impact on a company from a certain event and is one of the most used empirical methods in finance and accounting. The event study methodology was introduced by Fama et.al. in the paper "The adjustment of stock prices to new information" of measuring changes in security prices from an event or announcement. An event study is an econometric method to measure the impact on a company from a certain event and is one of the most used empirical methods in finance and accounting. Accordingly to the efficient market hypothesis the effects of an event will immediately be reflected in the security prices and the event study methodology has its strength in measuring these implications

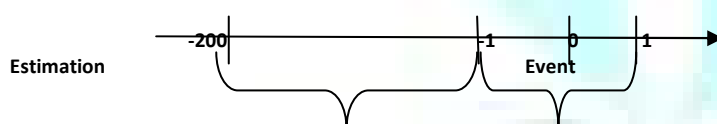
THE EVENT WINDOW

The event window determines the number of days over which we measure the possible abnormal return caused by the event. The theory of the efficient market hypothesis proposes that any shift in stock prices caused by the event will happen immediately due to rational behaviour which talks in favour of short event window since a long window could risk diluting the possibility of finding any significant evidence. However if the event window is too short we risk not catching the effect of the event if the information comes out after the closing of market and therefore doesn't reaches the public until the next day or if the information is leaked the day before the announcement and therefore causes the effect the day before the actual announcement/event day.

THE ESTIMATION PERIOD

The estimation period is used to estimate the expected return of the stocks. The period therefore needs to be long enough to create a respective measure of returns but too long and estimation period can risk biasing the estimation with information from other events or changes in the firms general conditions. It is normally set at around a year of prior to the event window. In this paper it is set to 200 days when the weekends are excluded.

TIMELINE –



To ensure that any information leakage is being captured, the identified merger period includes 20 days before and 20 days after the event (-20 to +20). The reason for considering such a window is that our objective is to evaluate the impact of the merger on shareholders' wealth of the acquiring and target companies around the day of the official announcement. The event window of (-15 to +15), (-10 to +10) and (-5 to +5) have also been analysed to evaluate the impact as the deal got closer and also to study the impact in short run periods. The analysis is based on secondary data. For the sample selected for the study Cumulative Abnormal Returns (CAR) are calculated using a standard event study analysis. Abnormal returns, that indicate the additional impact on stock returns due to an event over and above normal market movements, are computed as follows:

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt}$$

Where, R_{it} is the daily return on firm 'i' on day 't' and R_{mt} is the return on the bench mark index, α and β are OLS regression parameters that are estimated using the market model over the previous period of 200 days (Estimation Window).

AGGREGATION OF ABNORMAL RETURNS

The abnormal return observations must be aggregated in order to draw overall inferences for the event of interest. The aggregation is along two dimensions – through time and across securities. We will first consider aggregation through time for an individual security and then will consider aggregation both across securities and through time. The concept of cumulative abnormal return is necessary to accommodate a multiple period event window. Define $CAR_i(T_1, T_2)$ as the sample cumulative abnormal return (CAR) from T_1 to T_2 where $T_1 < T_1 \leq T_2 \leq T_2$. The CAR from T_1 to T_2 is the sum of the included abnormal returns,

$$CAR_i(T_1, T_2) = \sum_{t=T_1}^{T_2} AR_{it}$$

The average of CAR will help you receive to the CAAR (Cumulative Average Abnormal Return)

The cumulative abnormal returns are computed for acquiring companies and target companies and the significance of Cumulative average abnormal returns is tested by calculating the t statistic value.

RESULTS AND DISCUSSIONS

The earlier studies on impact of mergers and acquisitions on shareholders wealth shows that the acquiring company shareholders don't gain any significant abnormal returns in and around the announcement date. The results of this study are consistent to the earlier studies which conclude that the shareholders of the acquiring company will have a negative abnormal return around the announcement date.

TABLE 1: CUMULATIVE ABNORMAL RETURNS OF SAMPLE COMPANIES INVOLVED IN CROSS BORDER MERGERS AND ACQUISITIONS FOR WINDOW PERIODS - 20+20, -15+15, -10+10 AND -5+5 DAYS

Acquirer Company	Target Company	CAR -20+20	CAR -15+15	CAR -10+10	CAR -5+5
Glodyne Technoserve Ltd	Decision one Inc USA	-19.13	-20.09	-10.76	-3.42
GSS America Infotech Ltd	ATEC Group USA	-8.85	-23.47	-13.72	-5.78
HCL Technologies Ltd	Capital Stream Inc-USA	-3.82	-0.33	16.38	-0.29
HCL Technologies Ltd	NTS Group UAE	42.98	24.49	12.97	12.46
Helios & Matheson Information Technology Ltd	Helios & Matheson North America Inc. USA	-1.18	-8.75	-18.66	-4.40
Mascon Global Ltd	Ebusinessware Inc USA	-17.00	0.02	8.59	-5.71
Mindteck (India) Ltd	Prime Tech Solutions USA	-14.16	-18.95	-16.65	2.16
Prithivi Information solutions Ltd	Precentix Inc USA	-29.00	-32.07	-27.88	-13.08
Rolta India Ltd	OneGIS Inc USA	-10.58	-3.80	-3.67	0.88
Rolta India Ltd	Whittman Hart USA	22.62	10.44	-7.00	6.83
Silverline Technologies Ltd	OMDR Inc Canada	-37.87	-22.48	-23.33	-6.76
Wipro Ltd	Nokia Mobile Broadcast solutions Finland	8.42	11.00	13.17	23.41

Table 1 provides Cumulative abnormal returns for sample companies for event windows of -20+20, -15+15, -10+10 and -5+5. The cumulative abnormal return for the event window -20+20 of the sample companies shows a mixed result. While HCL Technologies acquiring NTS group of UAE earned an abnormal return of 43% to its shareholders but shareholders of Silverline Technologies suffered substantial loss to the extent of 38%. In the event window of -15+15, shareholders of Prithivi Information Solutions Ltd are major losers (-32%) but shareholders of HCL Technologies earned an abnormal return of 24.5%. Similarly for the event window of -10+10 HCL Technology shareholders have gained while again shareholders of Prithivi Information have lost value. In a shorter window of -5+5 the shareholders of Wipro Ltd have gained substantially i.e 23.41%.

Thus from the above table we can see a mixed reaction from the stock market around the announcement of an international merger or an acquisition by an information technology company. Better known companies have gained substantially, as the acquisition by such companies are viewed positively by the market. However shareholders of lesser known companies tend to lose on an international merger or an acquisition as the market reacts negatively to such an announcement. The possible reason for mixed behaviour of the market needs to be studied further but one possible reason could be the maturity of the Indian stock market.

TABLE 2: CAAR AND T STATISTIC FOR EVENT WINDOWS -20+20, -15+15, -10+10 AND -5+5

Event Window	CAAR	t statistic
-20+20	-5.63	-0.88
-15+15	-7.85	-1.67*
-10+10	-7.25	-1.77*
-5+5	-1.12	-0.56

*, **, *** indicates statistical significance at 10%, 5% and 1% respectively

The Cumulative Average Abnormal Returns of the sample for different event window along with t statistic value have been provided in table 2. The overall sample gives a negative CAAR for different event windows. The -20+20 window gives a negative CAAR which is statistically insignificant. Similar negative return for -15+15, -10+10 can be seen which is statistically significant and -5+5 can be seen with t statistic value which is statistically insignificant.

Table 3 provides information of the Cumulative abnormal returns of sample observations for different event windows. The result shows that the acquirer company has failed to create any significant wealth to shareholders'. All the firms in the study have shown negative CAR except for Allied Digital Communications which showed positive CAR for all the windows.

TABLE 3: CUMULATIVE ABNORMAL RETURNS OF SAMPLE COMPANIES INVOLVED IN DOMESTIC MERGERS AND ACQUISITIONS FOR WINDOW PERIODS - 20+20, -15+15, -10+10 AND -5+5 DAYS

Acquirer Company	Target Company	CAR (-20 to +20)	CAR (-15 to +15)	CAR (-10 to +10)	CAR (-5 to +5)
3i Infotech Ltd.	3i Infotech B P O Ltd.	-1.379	-1.207	-1.743	-3.777
3i Infotech Ltd.	E-enable Technologies Pvt. Ltd.	-0.24	-0.296	0.262	0.323
3i Infotech Ltd.	J & B Software (India) Pvt. Ltd. ¹	1.077	1.524	1.926	1.407
3i Infotech Ltd.	Stex Software Pvt. Ltd.	-0.535	-0.026	0.087	0.807
3i Infotech Ltd.	A O K In-house B P O Services Ltd. ²	-0.24	-0.296	0.262	0.323
Allied Digital Services Ltd.	En Pointe Technologies India Pvt. Ltd.	1.385	1.562	2.938	3.441
Aptech Ltd.	Aptech Software Ltd.	-0.17	-0.32	-0.8	-0.625
Glodyne Technoserve Ltd.	Compulink Systems Ltd. [merged]	-0.601	-0.602	-0.117	-0.9
K P I T Cummins Infosystems Ltd.	K P I T Cummins Global Business Solutions Ltd.	-0.352	-1.091	-1.241	-1.408
Mindtree Ltd.	Aztecsoft Ltd. [merged]	0.172	0.305	-0.283	-0.614
Mindtree Ltd.	Mindtree Wireless Pvt. Ltd. [merged]	-1.064	-1.126	-1.208	-1.767
Polaris Software Lab Ltd.	Laser Soft Infosystems Ltd.	-0.006	0.173	0.426	0.58
Tata Consultancy Services Ltd.	T C S E-serve Ltd.	-0.393	-0.244	0.587	-0.021
Tech Mahindra Ltd.	I-policy Networks Ltd. [merged]	0.196	-0.039	-0.099	-0.313
Tech Mahindra Ltd.	Satyam Computer Services Ltd.	-0.32	-0.768	-0.631	-0.822
Wipro Ltd.	Wipro Technology Services Ltd.	-0.22	-0.267	-0.186	-0.192

¹3i Infotech Ltd has also announced the merger with Fineng Solutions Pvt. Ltd and Taxsmile.com India Pvt. Ltd on the same day

²3i Infotech Ltd has also announced the merger with Elegon Infotech Ltd on the same day

All the observations across event windows have not yielded significant abnormal returns to the shareholders Allied Digital has performed better than all other observations across all the event windows. The analysis of the abnormal returns of individual company security across different event windows reveals that they have given negative cumulative abnormal returns to the shareholders in most of the cases. For event window -20 to +20, all the observations have negative

cumulative abnormal returns except for Allied Digital Services Ltd. and for one case of 3i Infotech Ltd. and for event window (-15 to +15), the shareholders of Allied Digital Services Ltd and for one observation of 3i Infotech Ltd. have gained more average abnormal returns than any other observation in the event window. Similarly for event window -10 to +10 and -5 to +5 most of the observations show a negative abnormal returns except for those two cases reported above which have given abnormal returns to their shareholders. However it is worth to note that for one observation of 3i Infotech Ltd the result shows negative abnormal returns for all event windows. Thus, the event of the individual observations has had negative impact on the wealth of their respective shareholders. Table 4 reports the Cumulative Average Abnormal Returns (CAAR) across companies for different event windows along with their t statistic value.

TABLE 4: CAAR ACROSS COMPANIES FOR EVENT WINDOWS -20+20, -15+15, -10+10 AND -5+5 WITH T STATISTIC VALUE

Event Window	CAAR	t statistic
-20+20	-0.77	0.242
-15+15	0.03	0.009
-10+10	4.29	0.808
-5+5	-0.42	-0.064

*, **, *** indicates statistical significance at 10%, 5% and 1% respectively

The CAAR for event window -20+20 across sample companies involved in domestic mergers and acquisitions shows a statistically insignificant negative CAAR. Similar results can be seen for event windows -15+15 and -5+5. However CAAR for event window -10+10 shows significant positive returns to the shareholders. The above results reveal that the stock market reacts negatively to a merger announcement made by the company and shareholders tend to lose significant wealth in and around the announcement date. These results are consistent for both individual and across sample companies for all event windows except for -10+10 which shows significant positive returns.

FINDINGS

The results of the study provides evidence than in case of cross-border mergers and acquisitions most companies have shown a negative CAR, thus suggesting shareholders value destruction in and around the announcement date. The wealth destruction is evident for both individual securities and cross-sectional analysis. Most of the earlier studies also show similar results. Most of the Indian acquiring company shareholders tend to lose their wealth in short run on the announcement of either cross border or domestic merger or an acquisition by an Indian IT company. However as a precaution this cannot be generalised due to the fact that Indian companies are still in the nascent stage of cross border mergers and acquisitions. Lack of experience of the Indian companies to International acquisitions and a less matured stock market may be major reasons for such negative reactions. This study can be further extended to different sectors to know the effect of such events on shareholders wealth. Further studies can be to understand the determinants of cross border mergers and acquisitions.

CONCLUSION

This research paper is an attempt to provide an analysis of Cross Border and domestic Mergers and Acquisitions in Indian Information Technology Industry from the perspective of acquiring company shareholders. The analysis shows that the mergers and acquisitions did not have positive impact on the shareholders' wealth. The event study analysis results show that acquiring companies' market value of equity has been reduced on the immediate announcement of mergers. It can be concluded that the mergers and acquisitions in the study did not have an impact on the shareholders' wealth across securities as well as for individual securities.

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PLASTIC CARD FRAUDS AND THE COUNTERMEASURES: TOWARDS A SAFER PAYMENT MECHANISM**ANUPAMA SHARMA****ASST. PROFESSOR****BADDI UNIVERSITY OF EMERGING SCIENCES & TECHNOLOGY****MAKHNUMAJRA****ABSTRACT**

With the advent of new technology the payments in banking system have undergone a tremendous change. Whether it's a debit card or a credit card, the customers have showed their preference over the usage of both. But over a period of time, the fraudsters have innovated a number of ways to make these channels insecure for payments. As such, along with the increase in the usage of cards in plastic card industry, the number of frauds has also increased significantly resulting in insecurity in the minds of the card users due to monetary losses. In order to overcome these undesirable situations where the money is put into danger by coming into illegitimate hands, it is essential that the users should know what kind of frauds can occur and what can be done to surmount such fraudulent acts by taking the pertinent counter measures. This paper throws light on these aforesaid issues which can help in making the payment mechanism safer and enabling its use for the years to come.

KEYWORDS

ATM (Automated Teller Machine), Card fraud, CVV (Card Code Verification), PIN (Personal Identification Number), Plastic cards.

INTRODUCTION

Plastic cards and the ATM dispensers are used these days all over the world for making payments and for cash withdrawals. In some countries the use of card transactions has even surpassed the volume of cash transactions. Banks do love plastic cards because it saves their time and money and the users love these cards because it frees them from the compulsion of carrying cash around all the time. The debit cards can now be used at any ATM without any additional charges and the same cards can also be used across the world.

IMPORTANCE OF STUDY

The significance of the study lies in the fact that there is an indispensable need to make the current mechanism of card industry safer. As rightly quoted 'prevention is better than cure', it is important to know the various fraudulent activities being carried out in the economy and what can be done to combat such activities to build up the confidence of consumers in the technology.

OBJECTIVES OF THE STUDY

The basic purpose of this study is to find out the various types of card frauds which are taking place in the current scenario of financial markets, how these frauds can be prevented by taking assorted countermeasures by the parties involved in plastic card transactions and also to study a brief current status of card industry in India.

RESEARCH METHODOLOGY

The research study is primarily based on the secondary data. To gain an overview of current status of card industry in India, the secondary data has been an important source and has been taken from the websites. Apart from this the countermeasures suggested in the study have been devised from the author's personal observations during her three years of association with branch banking.

DEBIT CARD

A Debit Card also known as plastic card or a check card is an electronic card which is used as an alternative to make cash payment for purchases. Debit cards can be used at ATM's for cash withdrawals and at the merchant establishments for making payments for purchases. Some of the merchant establishments also provide the facility of cash back. There are broadly two categories of Debit cards-

Online Debit cards- Also called as PIN cards, online debit cards are used for withdrawal of cash from the cash dispensers. These cards require PIN for authentication of transaction and the money is immediately debited from the account of the cardholder.

Offline Debit cards- Also called as Signature debit, are used for making payments at POS terminals (Point Of Sale) like credit cards. Offline Debit cards require the signatures of the cardholder for authentication of transaction and it requires 2-3 days for the transaction to get reflected in the account of the cardholder.

Advantages of Debit Cards

- Debit cards provide a lot of handiness to the holders for not carrying cash.
- The cards often save the time of transaction if compared with payment of larger amounts made in cash.
- These cards also carry a low cost as there are no interest charges like in credit cards.

CURRENT SCENARIO OF PLASTIC CARDS USAGE IN INDIA

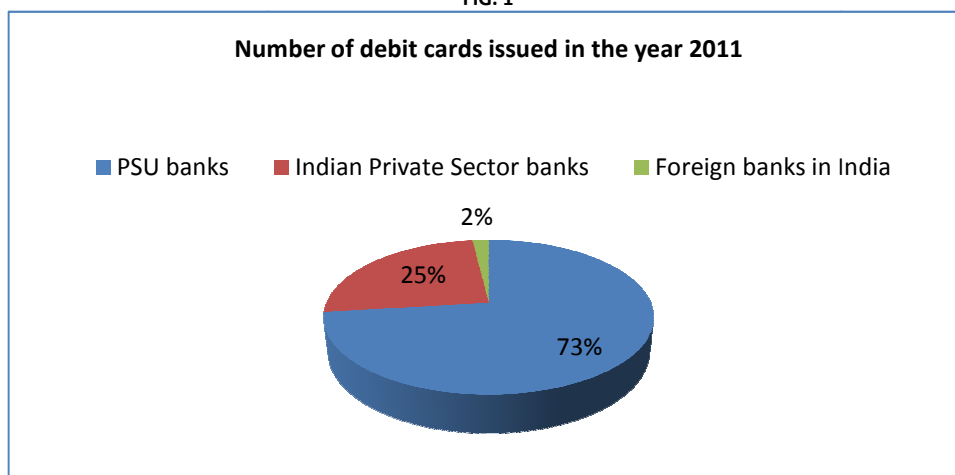
According to a latest report of RBI the total number of debit cards in India has risen to 211.87 million by the financial year 2011, whereas the total number of credit cards issued stood at 18.18 million. Almost all the banks in India are having tie-ups with Visa and master card for issuing debit cards. The interesting fact is that the number of credit cards issued over a period of time has declined as compared to the debit cards. The main reason behind this is the default in making payments by the customers. The banks have now become more cautious in their approach while issuing the credit cards. Due to a significant number of credit card defaults the ICICI bank was forced to cancel 25% of its credit cards. A brief segregation of debit cards issued by various Indian banks is as follows-

TABLE 1: CURRENT STATUS OF CARDS ISSUED BY BANKS

Banks	Total Number of debit cards issued by the year 2011	Total Number of credit cards issued by the year 2011
PSU banks (including SBI, Canara, PNB etc.)	154.79 million	3.03 million
Indian Private Sector banks (banks like Axis, ICICI, HDFC etc.)	53.05 million	9.30 million
Foreign banks in India (banks like Citi, HSBC etc.)	4.02 million	5.8 million
Total	211.87 million	18.18 million

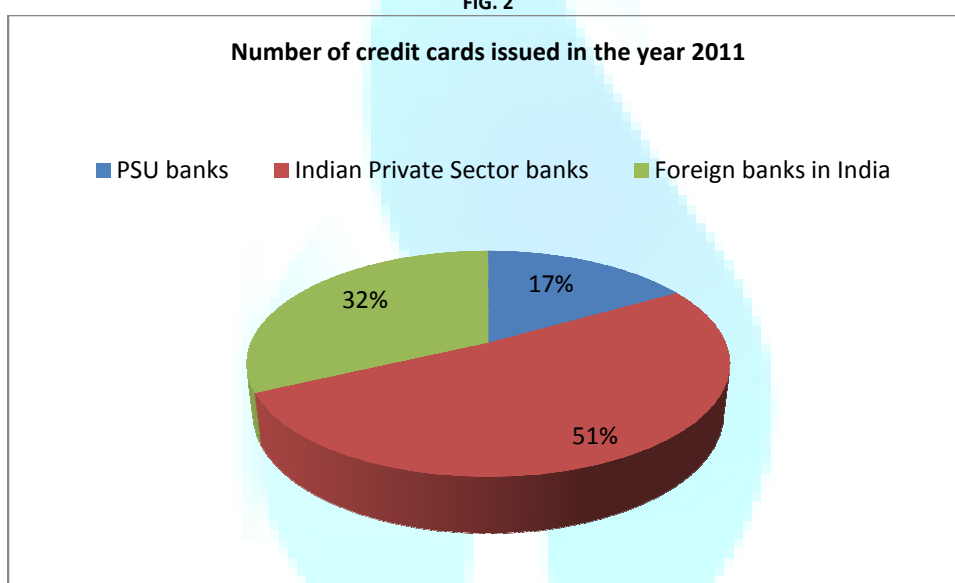
*Data Source-RBI website.

FIG. 1



In debit card industry the maximum number of debit cards has been issued by the PSU banks i.e. 154.79 million (73%) cards followed by the Indian private sector banks who have issued a total of 53.05 million (25%) cards. And the minimum share is of foreign banks who have issued a total of 4.02 million (2%) cards.

FIG. 2



In credit card industry the maximum share of 9.30 million (51%) is in the hands of Indian Private Sector banks followed by the foreign banks in India having a share of 5.8 million (32%). And the PSU banks have issued the least number of cards i.e. 3.03 million (17%). In comparison PSU banks have issued more debit cards than the credit cards and the private sector banks have issued more credit cards than the debit cards which reflect the risk bearing appetite of each sector.

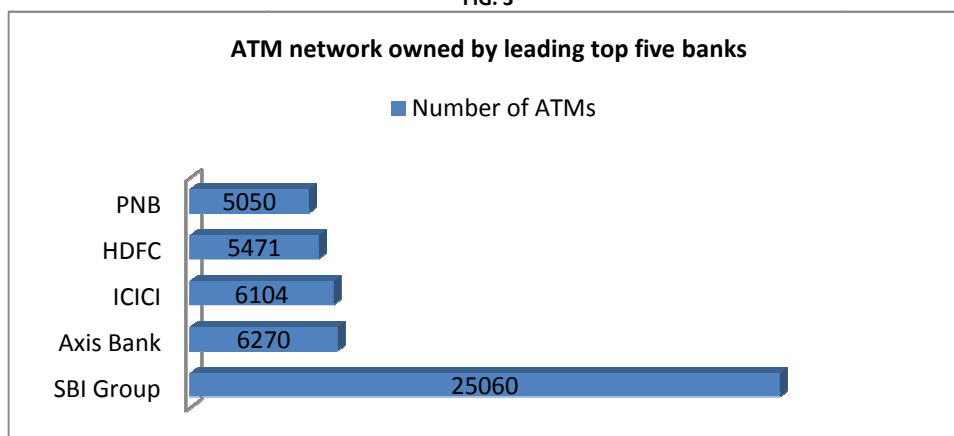
AUTOMATED TELLER MACHINES

An Automated Teller Machine also known as Cash point, Cash machine, cash dispenser, Automatic banking machine etc is a computerized electronic device which allows the customers to withdraw cash without the presence of a cashier or a human teller. ATM was invented by Sir John Shepherd Barron and first ATM was used in June 1967 at Barclays Bank in Enfield, UK. Other than cash withdrawals the ATM machines are used for availing a number of other banking services also like accessing account statements, paying bills, changing passwords, depositing cash etc. ATMs provide 24x7 banking facilities to the customers thus adding to their convenience.

CURRENT SCENARIO OF ATMs IN INDIA

According to a latest report by NPCI (National Payment Corporation of India) the total number of ATMs has increased by 19000 over past one year. The total number of ATMs in March 2010 was 56,711 which rose to 75,178 in March 2011. The leading banks having the major ATM network are SBI group having 25,060 ATMs across the country, Axis bank having 6,270 ATMs, ICICI bank having 6,104 ATMs, HDFC bank- 5,471 ATMs and PNB having 5,050 ATMs. Due to the ease of banking transactions more and more banks are broadening their ATM networks.

FIG. 3



In India the maximum number of ATMs (25060) has been installed by SBI group followed by the Axis bank (6270) and ICICI (6104). Whereas HDFC and PNB are also having a network of 5471 and 5050 ATMs respectively. In comparison the SBI group is having a major chunk of ATM network in India.

DEBIT CARDS AND ATM FRAUDS

A fraud occurs when the card is physically stolen or there is stealth of information related to the card. In case of stealth cards the only safety measure is the signatures on the back of the card at signature panel, but even these signatures can be forged. Moreover the merchant establishments do not care for verifying the identity as well as the signatures since it is not mandatory and is also against the merchant's agreement with the card companies. Often it has been noticed that the small transactions undergo less inquiry and even the merchants do not take any extra precautions for such transactions. The fact that the swiping of debit cards at POS (Point of sale terminals) does not require PIN has also encouraged the card frauds.

TYPES OF CARD FRAUDS

Physical Stealth- One of the most common case of card fraud is physical stealth of the card. The cards are then freely used over different merchant establishments for making purchases. Banks have even been reported with the cases where the cards have been stolen by the kith and kin of the card holders since they share most nearest proximity with them.

Account takeover- In this the criminals often takeover the account of the cardholder by first gathering the required information regarding the card and then they contact the respective card issuers impersonating as original holder to direct the issue of a new card due to loss of earlier one. They also temper the physical mailing system of the cards to ensure that the new card doesn't reach the original cardholder.

Shoulder Surfing- In this technique a criminal in a queue behind the person withdrawing the money peeps over his shoulder to see him feeding the PIN and memorize it. The criminal may also use some device to capture a small video of PIN being entered. Shoulder surfing can then be clubbed with physical stealth or card trapping for cash with draws.

Card trapping- In this kind of fraud the cash machines are often tempered with so that the card does not come out after the transaction is over. When the customer does not get the card back and moves away thinking that the card has been withheld, then the card is removed by these criminals and is misused.

Card skimming- Also known as card cloning, this involves the use of false card readers and cameras to steal the ATM card number and the PIN. The criminals often place a false card reader above the original one, which reads and stores the information like card number, cardholders name, CVV number, card issue and expiry date etc. The information is then used for creating cloned cards. The thieves also place the cameras at some hidden places which are angled towards the keypad or the monitor to take the pictures of PIN being entered.

Site Cloning- The criminals can also clone the sites or create false merchant sites to collect the card details.

COUNTERMEASURES/SUGGESTIONS

In order to keep one secure from the fraudulent transactions the following countermeasures can be adopted by the concerned parties:

COUNTERMEASURES TO BE TAKEN BY THE CARDHOLDERS

- Memorize the PIN; there should be no physical storage.
- Avoid PIN sharing.
- Sign at the back of the card.
- Change PIN frequently and especially after receiving the PIN from the card issuer.
- Try to keep the PIN unique, which can not be easily figured out.
- Always keep the number of card issuer for deactivation in case of loss of card. Most of the banks provide 24 hour customer services in this regard.
- Avail the services of SMS banking so as to keep yourself informed of every credit or debit transaction from your account through an SMS.
- In case of card being misused lodge a complaint with the respective bank.
- Avoid any financial transaction from public places like cyber cafes.
- Use virtual keyboard for safety while feeding PIN if the option is available.
- Avoid carrying cards when not required, it will ensure their physical safety.
- Encircle the total amount in debit receipts to avoid any alteration.
- Cut the card through the magnetic strip while discarding it.
- Always take the receipts of cash withdrawals. In case of account being debited and cash not dispensed from the machine the complaint can be lodged with the respective bank. The bank can reimburse the amount if at the end of the day the teller remains unbalanced provided the receipt has been taken and kept.
- Tally the receipts with the account statements regularly.
- Do not share your card information with others. The important information required for card fraud is-Name of the accountholder, card number embossed on the card and also written the magnetic stripe, CVV number and the cards expiry date.
- Keep lesser money in the account having plastic card. Smart idea for not loosing everything in the account.

COUNTERMEASURES TO BE TAKEN BY THE MERCHANT ESTABLISHMENTS

- Install cameras. In developed countries the crime is comparatively less just because of the cameras installed at almost all public places and the merchant establishments.
- In case of online booking of tickets the debit cards should be physically checked.
- Provide data security by not storing the full information of card on computer systems.

COUNTERMEASURES TO BE TAKEN BY THE CARD ISSUERS

- Install cameras at all ATMs.
- Blocking or deactivating cards as soon as the request is received.
- Keep the cards and PINs separately. Rely only on trusted courier services for mailing.
- Undertake proper investigation of card frauds.
- Use fraud detection and prevention soft wares.
- Provide safety instructions to the cardholders at the time of card issue.
- In U.S. the federal laws give the right to withhold the payment in case of any conflict or fraud if purchased through a credit card.

CONCLUSION

There has been a tremendous increase in the usage of plastic cards in India over a period of time and the number of frauds has also increased considerably. The advantages of the new technology have their own demerits also. In case of plastic card frauds the most affected parties are the merchants of goods and services as they have to bear the full liability for losses due to frauds, the banks also bears some cost especially the indirect cost whereas the cardholders are least affected because of limited consumer liability. But all these losses can be dealt with by making the prudent use of the new technology and taking the respective countermeasures.

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A STUDY ON CAUSES OF JOB STRESS IN THE IT SECTOR OF BANGALORE

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ABSTRACT

Job stress can be easily caused to an employee in the modern world, especially in the IT hub of Bangalore where people are surrounded by all the factors causing stress. When the cause of the stress can be identified, is of short duration, and can be responded to by a specific set of positive actions that eliminate the cause, this is a healthy stress reaction. However, when the source of the stress is not identifiable, becomes excessive, repeated, prolonged, or continuous, it becomes "distress" and creates unhealthy physiological and psychological reactions. Continuous staring of computers, plenty of deadlines, less control over decision making related to one's job, lack of symmetry between organisation's and individual objective are a few factors contributing to the job stress. This paper deals with the job stress in the IT sector of Bangalore. To study the factors causing the job stress primary data was collected from the IT sector after dividing the IT sector into small to medium, large size and multinational companies. Statistical tool Chi square and ANOVA were applied to interpret the result. Appropriate suggestions are given on the basis of result.

KEYWORDS

causes, Job Stress, overcome.

INTRODUCTION

Work is the core belief of every human. Through work the humans fulfill their basic need to create, accomplish, and feel satisfied. Stress can be caused when the humans are not able to utilize their creativity, intelligence and decision making ability. With the immense increase in the adaptation of technology in all the sectors, the offices have become more like factories with a row of workers more disconnected from the final product. Workers don't find the job very challenging, and the overall job satisfaction comes down. Due to this a sense of boredom seeps in, also the feeling that every minute of one's working day is being recorded has intensified the pressure of the job. All this put together causes Occupational or job stress. Cause of Job stress includes job insecurity, technology, and high demand for performance, workplace culture, personal or family problems. Job stress leaves a worker completely drained out with symptoms insomnia, loss of mental concentration, anxiety, absenteeism, depression, substance abuse, extreme anger and frustration, family conflict, physical illnesses such as heart disease, migraine, headaches, stomach problems, and back problems.

REVIEW OF LITERATURE

Lot of research has been conducted into stress over the last hundred years. IT Industry is the fastest-growing industry in our country, but it is most vulnerable to lifestyle diseases, its future growth could be stunted if stress and other health related problems are not addressed now. Long working hours, night shifts and a sedentary lifestyle make people employed at information technology companies prone to heart disease and diabetes. There have also been growing reports of mental depression and family discord in the industry. In Bangalore, the psychiatrists say their Saturdays are reserved for marriage counseling for the IT sector. The ICRIER (Indian Council for Research on International Economic Relations study), which surveyed 81 companies, said they lose approximately 14% of their annual working days due to employee sickness. Less than a third of them provide their staff with preventive health care measures. Reducing just one health risk increases an employee's on-the-job productivity by 9% and cuts absenteeism by 2%, the study said.

IMPORTANCE OF THE STUDY

This proposed research is in the field of commerce and management. This research is based on the fact that long working hours, high work pressures, deadlines, are causing stress in the booming IT sector, and so an attempt will be made in this research to find out the level of stress and its causes in the IT sector. Stress is a prevalent and costly problem in today's workplace. Many IT workers report high levels of stress, and high levels of stress are associated with substantial increases in health service utilization. Additionally, periods of disability due to job stress tend to be much longer than disability periods for other occupational injuries and illnesses. An attempt will be made in this study to find out the level of stress present in the IT industry, for this purpose three IT firms are selected. The way stress is affecting the employees will be found out and, later it will be studied that what are the steps adopted by the management to cope up with the stress.

OBJECTIVES OF PROBLEM

From the problems stated above we derive the objectives as

- To get an insight of the causes of the stress in the IT sector
- To compare the stress in various types of firms of the IT sector.

METHODOLOGY

This study is based in Bangalore. The IT sector is under study. The data is collected from the people working on a middle level i.e. the team leads. For this purpose Bangalore IT sector was divided into small to medium companies, large companies and Multi-National companies, this division was done on the basis of number of employees. Equal number of the employees was considered in all the three types of companies, i.e. 30 employees were taken from every IT firm. So the total sample size is of 90 respondents. The questionnaires were distributed to collect the primary data regarding the job stress. The data which was collected was tabulated and represented in the graphs. Statistical Tools i.e. Chi square testing and ANOVA are used for data interpretation.

RESULTS AND DISCUSSION

Hypothesis	Table value	Calculated Value	Accept/Reject
H0: Feeling of job stress and gender are not dependent. H1: Feeling of job stress and gender are dependent.	3.84 Alpha = 0.05(5% LEVEL OF SIGNIFICANCE) and degree of freedom d.o.f. = 1	0.1171	accept the null hypothesis (Ho) and reject the alternate hypothesis (H1)
H0: Feeling Of Job Stress And Age Group are not dependent. H1: Feeling Of Job Stress And Age Group are dependent.	7.82 Alpha = 0.05(5% LEVEL OF SIGNIFICANCE) and degree of freedom d.o.f. = 3.	1.469	accept the null hypothesis (Ho) and reject the alternate hypothesis (H1).
H0: Feeling Of Job Stress And income are not dependent. H1: Feeling Of Job Stress And income are dependent.	7.82 Alpha = 0.05(5% LEVEL OF SIGNIFICANCE) and degree of freedom d.o.f. = 3.	3.66	accept the null hypothesis (Ho) and reject the alternate hypothesis (H1) .
H0: Feeling Of Job Stress And Number Of Working Hours are not dependent. H1: Feeling Of Job Stress And Number Of Working Hours are dependent	5.99 Alpha = 0.05(5% LEVEL OF SIGNIFICANCE) and degree of freedom d.o.f. = 2.	0.28	accept the null hypothesis (Ho) and reject the alternate hypothesis .

ANOVA RESULTS

HYPOTHESIS	CALCULATED VALUE OF F	TABLE VALUE AT 0.5 LEVEL	SIGNIFICANT OR NOT
HO – Clarity of work objectives is same in Small to medium companies, large Companies and Multi-National companies H1 –Clarity of work objectives is not same in Small to medium companies, large Companies and Multi-National companies	0.01	1.65	NO
HO –Control and freedom at work is same in Small to medium companies, large Companies and Multi-National companies H1 –Control and freedom at work is not same in Small to medium companies, large Companies and Multi-National companies	0.1189	1.65	NO
HO – Level of Job Satisfaction is same in Small to medium companies, large Companies and Multi-National companies H1 – Level of Job Satisfaction is not same Small to medium companies, large Companies and Multi-National companies	0.253	1.65	NO
HO – Physical Demand From The Work is same in Small to medium companies, large Companies and Multi-National companies H1– Physical Demand From The Work is not same in Small to medium companies, large Companies and Multi-National companies	13.84	1.65	YES
HO – Performance Of Employees is same in Small to medium companies, large Companies and Multi-National companies H1– Performance Of Employees is not same in Small to medium companies, large Companies and Multi-National companies	6.48	1.65	YES

FINDINGS

The above mentioned chi square results show that job stress is not caused due to the gender of a person. This means that the chances of job stress in today's world are equal for a male as well as a female. Job stress is not caused due to the age of a person. Thus it is concluded that whether a person belongs to younger, middle or elderly age group the chances of the person to get job stress is same. The next analysis is related to the job stress and income. It is concluded that chances of getting the job stress does not depend on the income. Whether a person belongs to higher or lower income group his or her chances of getting job stress is same. The next analysis is related to the job stress and number of working hours. It is concluded that chances of getting the job stress does not depend on the number of working hours. Whether a person works long or no his or her chances of getting job stress is same. Actually the factors such as gender of a person, age of a person, income of a person and the number of hours a person works can cause stress but that is the other type of stress here this research only deals with the job stress which is caused mainly due to the job environment and job conditions.

From the ANOVA it is very clear that Clarity of work objectives is same in Small to medium companies, large Companies and Multi-National companies. When the mean of this variable was studied it was found that the mean for clarity of work objective for the three company types i.e. Small to medium companies, large Companies and Multi-National companies was, 77, 75, 72, respectively. Thus it is concluded that work objectives are well defined in all the three company types and the employees are very clear about what is to be done. Thus the job stress which could have arisen due to the non clarity of work objectives is not arising in this area.

From the next ANOVA it is clear that Control and freedom at work is same in the Small to medium companies, large Companies and Multi-National companies. When the mean of this variable was studied it was found that the mean for Control and freedom at work for the three companies i.e. Small to medium companies, large Companies and Multi-National companies was 187, 182, 195, respectively. Thus it is concluded that Control and freedom at work is good in all the three companies and the employees feel free about the decisions regarding their work. Thus the job stress which could have arisen due to the lack of control or rigidity in freedom is not arising in this area.

From the next ANOVA it is clear that Level of Job Satisfaction is same in Small to medium companies, large Companies and Multi-National companies. When the mean of this variable was studied it was found that the mean for Control and freedom at work for the three companies i.e. Small to medium companies, large Companies and Multi-National companies was, 183, 185, 172, respectively. Thus it is concluded that the level of job satisfaction is towards a higher side in all the three companies. And so the job stress which could have arisen due to the lack of job satisfaction is not arising in this area.

From the next ANOVA it is clear that Physical Demand from the Work is not same in Small to medium companies, large Companies and Multi-National companies. When the mean of this variable was studied it was found that the mean for Control and freedom at work for the three companies i.e. Small to medium companies, large Companies and Multi-National companies was, 177, 179, 182, respectively. In this mean the mean of Multi-National companies is 182 which is higher than the mean of the other two company types. Therefore it is concluded that the Physical Demand From The Work is more in Multi-National

companies. It is further interpreted that since the Physical Demand From The Work is more in Multi-National companies therefore the job stress will also be more in Multi-National companies.

From the last ANOVA it is clear that Performance of Employees is not same in Small to medium companies, large Companies and Multi-National companies. When the mean of this variable was studied it was found that the mean for Performance of Employees for the three companies i.e. Small to medium companies, large Companies and Multi-National companies was, 75, 74, 163, respectively. In this mean the mean of Multi-National companies is 163 which is higher than the mean of the other two company types. Therefore it is interpreted that the Performance of Employees is least Multi-National companies. It is further concluded that since the Physical Demand from the Work is more in Multi-National companies, the health of the employees is also a matter of concern and this is affecting their performance.

SUGGESTIONS

JOB ANALYSIS-It involves understanding and aligning the priorities in the job; it includes concentrating on few important activities and paying less attention to unimportant tasks. This helps one to get the greatest return from the work, while keeping the workload under control.

UNDERSTAND THE ORGANIZATION'S STRATEGY-Every job will exist for a reason, and this will be determined by the strategy of the organizational unit one works for. Focus as to how the organisation can achieve its mission through the tasks done. Employee's individual objectives should contribute towards the mission. These should be major objectives of one's job. If they are not, make a note of this.

UNDERSTAND THE ORGANIZATIONAL CULTURE-every organization has its own culture – its own, historically developed values, rights and wrongs, and things that it considers to be important. If one is new to an organization, talk through with established, respected members of staff to understand these values. Check which objectives fit with these values. How far they reinforce the company's culture? Align ones priorities with the company's priorities.

CONCLUSION

Stress is a part of everyday life .With a fast life packed with loads of work; one is bound to be stressed out. Stress is the body's way of responding to any kind of demand. Both good and bad experiences cause job stress. Analyzing working conditions as a primary source of stress is an important first step in overcoming it. Recognising the cause of job stress and working on eradication of that cause is the key for success.

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IMPACT OF TRADITIONAL MEDIA ON JUDICIAL OFFICERS

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ABSTRACT

The present study is based on the interaction of traditional media and judges. Traditional media are part of culture and near the heart of people of India. It is source of information and entertainment. The present study tries to understand the view of judges (district court) about traditional form of media, role of traditional form of media in their life, usage and impact. Judges play important and crucial role in Indian society. For the study 50 judges of Jaunpur district court is chosen using purposive sampling method. Extensive questionnaire is used to collect data from the judges which are later analyzed using percentage and graphical representation. Beside that personal interview is conducted to get the other information. The study shows though earlier traditional form of media has significance but now days it is losing importance.

KEYWORDS

Traditional media, Judiciary, puppetry, Ramlila.

INTRODUCTION

Both Judiciary and media are the intrinsic and integral part of Indian democracy. Media act as watch dog of the society and one of its main functions is the surveillance of the society. Media act as moral judge by making people aware about the responsibilities for their deeds. Judiciary punishes misdeeds of people, protects the rights of people and work against any autocracy. Thus nature of the job of both the institutions is same but the way of doing is different. Media is considered as 'consciousness industry' makes people realize their faults by asking question. Vinod Mehta, Editor-in-Chief of Outlook, outlined the similarities between the Media and the Judiciary, "both the Media and the Judiciary wanted the society to introspect and did not want any outside interference. Both media and judiciary protect their freedom with great zeal."

Both judiciary and media are accused of hyper activism and act beyond their jurisdictions. Media accuse judiciary for failing in its duty and fading moral and judiciary consider these accusations as contempt of courts and take actions against the media men. The trend of clash between the two institutions is becoming more frequent these days. The present study tries to know the interaction of judiciary and media with different point of view. It tries to study how the judges use media and how media affects them.

LITERATURE REVIEW

Extensive survey of literature had been done by the researcher to know about the nature of judicial work, people involved in the profession and over all judiciary system of India. Different resources like books, journals, internet and written documents are read to understand the nature of judicial system at district level. The various effect studies of media previously done on different groups are also read to know the framework of the study. The term Tradition is derived from Latin word "tradition" means handing down, delivery etc. (Mukhopadhyay, DD, 2003). In traditional communication faiths, rituals, culture and process are transferred from one generation to next (Singh, O P, 2002). Traditional media is a term used to denote "people's performance". It includes folk dances, rural drama and musical variety of village people. These performing arts are cultural symbols of a people. Folk songs are rhythmic pattern of words repeated by many in chorus (Raju B.R, 1978). It is easy to identify the segments of audience of special interest and advertise the product they need. Magazine articles and advertisements are friendly rivals for readers' attention (Colin Stewart, 2001). Performing art is the expression of people most intrinsic to them which emerged out their heart in the form of song, dance and theatre. These performing arts pulsate with life and modified itself with the flux of time. Traditional media give a personal touch to the otherwise impersonal mass media. Traditional folk media are personal forms of communication and entertainment. These art forms are the way of life of a community and provide acceptable means of bringing development issues into the community on its own term. The traditional media are close to the hearts and minds of the people, so there appear is a personal, intimate level (Kumar Harish, 2006). Familiar format and content of communication and known dialects reduces the barriers of communication.

OBJECTIVE

The main objective of the present paper is to study the traditional media impact on judicial officers.

HYPOTHESIS

Traditional media is significant to judicial officers

DATA COLLECTION

To understand the impact of traditional media on judicial officers of Jaunpur district 50 judges are chosen as sample for getting response. Data is collected through extensive schedule, structured interview and observation. Large amount of raw data is obtained that is required being processed and analyzed in accordance to the purpose. This is essential for a scientific study and for ensuring that researcher has all relevant data for making complete comparisons and analysis.

FINDINGS AND ANALYSIS

The data after collection has to be processed and analyzed. The researcher has taken the following steps for the processing of raw data

EDITING- Careful scrutiny is done of the completed schedule. Editing is done to assure that the data are accurate, consistent with the facts gathered, uniformly entered, as complete as possible and arranged to facilitate coding and tabulation. Both type of field editing and central editing was done. Rewriting of the

answers of the respondents is done immediately after the interview is over so that words abbreviated and/ or in illegible form at the time of recording the respondents' responses could be corrected. Central editing has been done after all the schedules were collected. In case of inappropriate and missing replies the researcher determines the answer by reviewing the other information in the schedule. When it is not possible to determine the answer the respondents were contacted again for clarification. In case it was not possible to get the appropriate answer the entry of 'No Answer' was made so that all the wrong replies would be dropped from final result.

CLASSIFICATION ACCORDING TO ATTRIBUTE- large volume of raw data is reduced into homogenous groups to get meaningful relationship. Data are arranged in classes on the basis of common characteristics. Simple classification according to the attributes is done.

TABULATION - as mass of data is assembled the researcher arranged it in form of table in concise and logical order in rows and columns. For this research simple tabulation is done which give answers to questions about one characteristic of data only.

SIGNIFICANCE OF RAMLILA

The significance of traditional media- folk drama form Ramlila in the life of judges of Jaunpur district can be understood by the following tables and charts.

TABLE 1: RESPONDENTS SEEN RAM LILA

Answer	Number	Percent
Yes	45	90%
No	5	10%

When asked if they ever seen Ram Lila 45 out of 50 told yes and 5 of them told they never seen Ram Lila.

90% of the judges have seen Ram Lila and 10% had not seen.

More of the judges had seen Ram Lila.

FIG. 1

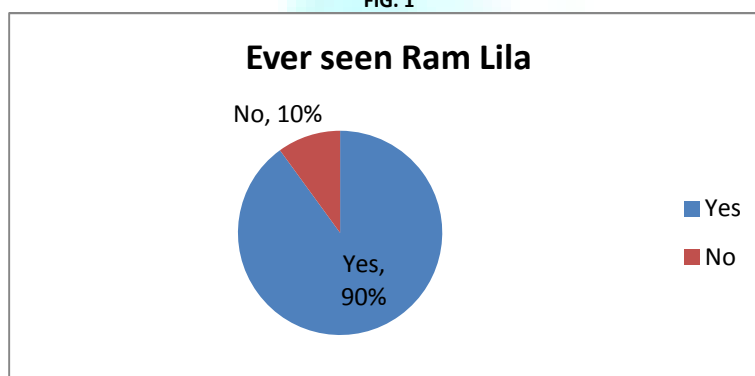


TABLE 2: WHERE DID YOU SEE RAM LILA

Answer	Number	Percent
On TV	4	9%
Open air theatre	41	91%
Closed Theatre	0	0%
Total	45	100%

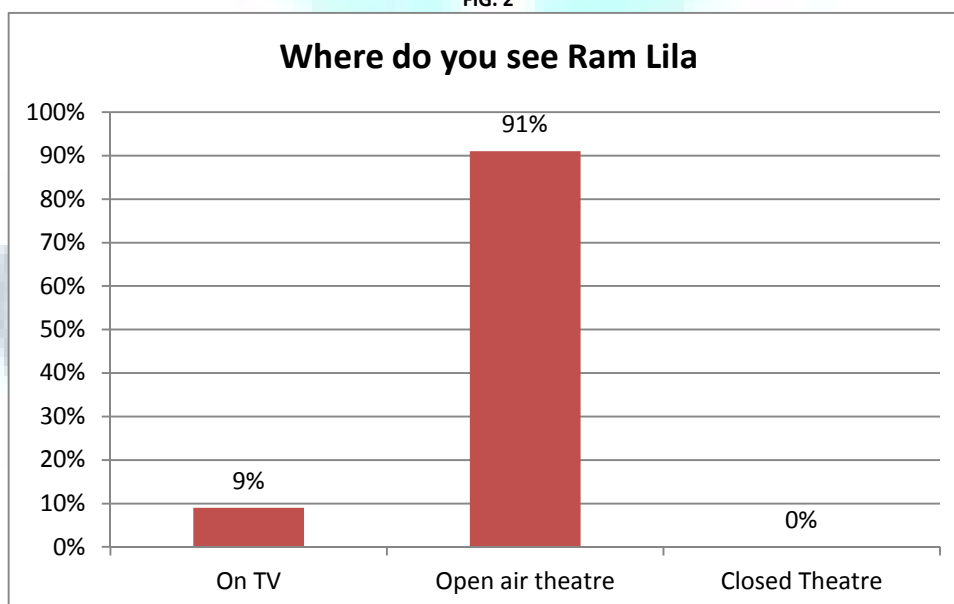
When asked where they watched Ram Lila 4 out of 45 Judge (these judges watched Ram Lila) told they watched on TV. 41 of them watched it in open air theatre.

No one watched it in closed theatre.

9% of the respondents watched Ram Lila on TV. 91% of them watched in open air theatre. 0% of them watched it in closed air theatre.

More of the judges watched Ram Lila in open air theatre.

FIG. 2



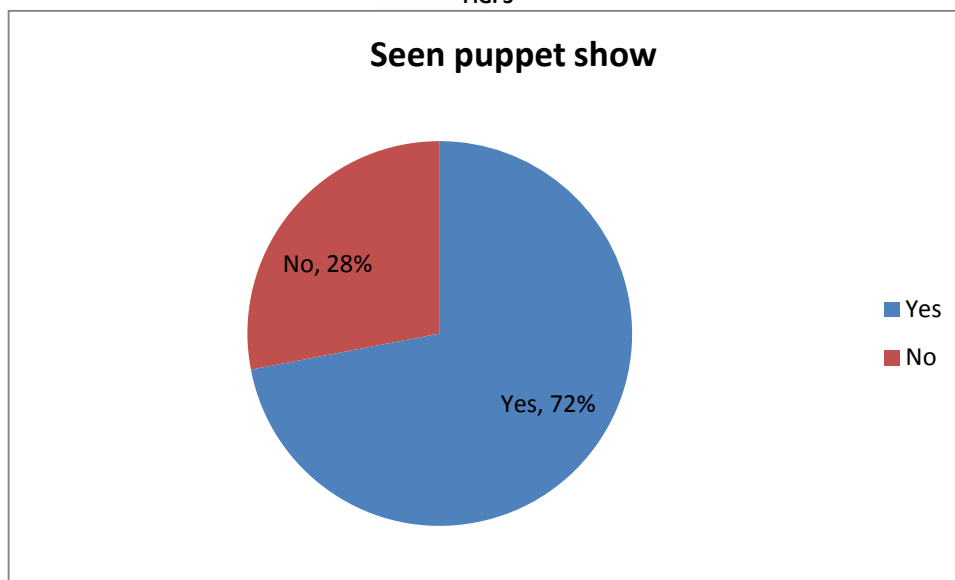
SIGNIFICANCE OF PUPPETRY

Puppetry is also folk dance drama form which magnetizes children of all age. For adults also it is source moral and religious education. Beside this it is used successfully by NGOs and social bodies for social education.

TABLE 3: SEEN PUPPET SHOW

Answer	Number	Percent
Yes	36	72%
No	14	28%
Total	50	100%

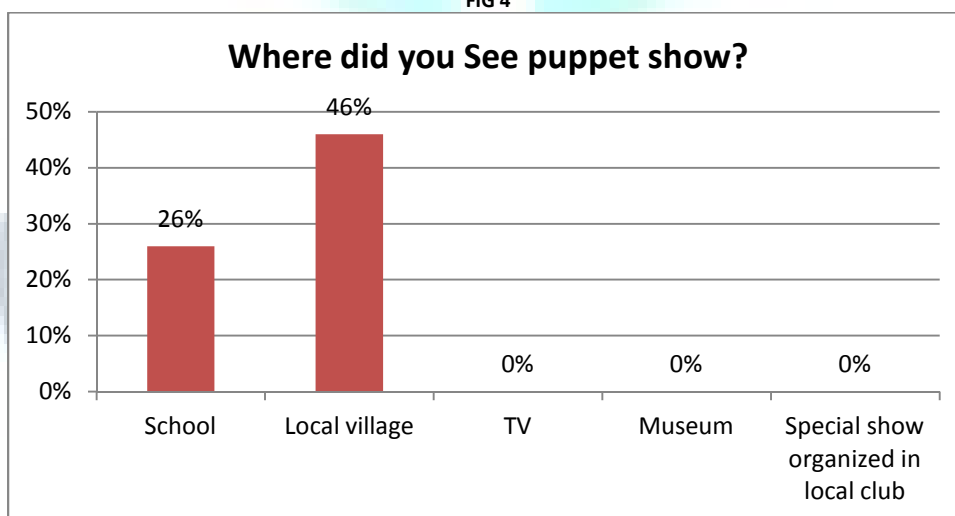
When they asked if they ever seen puppet show 36 out of 50 judges told yes and 14 of them told that they never saw puppet show. 72% of the respondents have seen puppet show but 28% haven't. More of the judges have seen puppet show.

FIG. 3**TABLE 4: WHERE DID YOU SEE PUPPET SHOW?**

Answer	Number	Percent
School	13	26%
paternal village	23	46%
TV	0	0%
Museum	0	0%
Special show organized in local club	0	0%

When asked where they saw puppet show 13 out of 26 judges (only this number of judges have seen puppet show) told in school. 23 of them have seen the show in local village. No one had seen the show on TV, museum or in local club.

26% of the respondents have seen the puppet show in school and 46% have seen it in their local village. 0% of them have seen it on TV, museum or in local club. More of the judges have seen puppet in their paternal villages.

FIG 4**SIGNIFICANCE OF TRADITIONAL MEDIA**

To understand the present situation of traditional media the following tables and charts will be helpful.

TABLE 5: TRADITIONAL MEDIA LOST ITS IMPORTANCE

Answer	Number	Percent
Yes	50	100%
No	0	0%

When asked if traditional media lost its importance all 50 of the judges told yes. None of them told no.

100% of the respondents think that traditional media has lost its importance.

All of the judges think that traditional media has lost its importance. But when asked if it is important for them in an open ended question they told that traditional media is still useful in their life.

FIG. 5

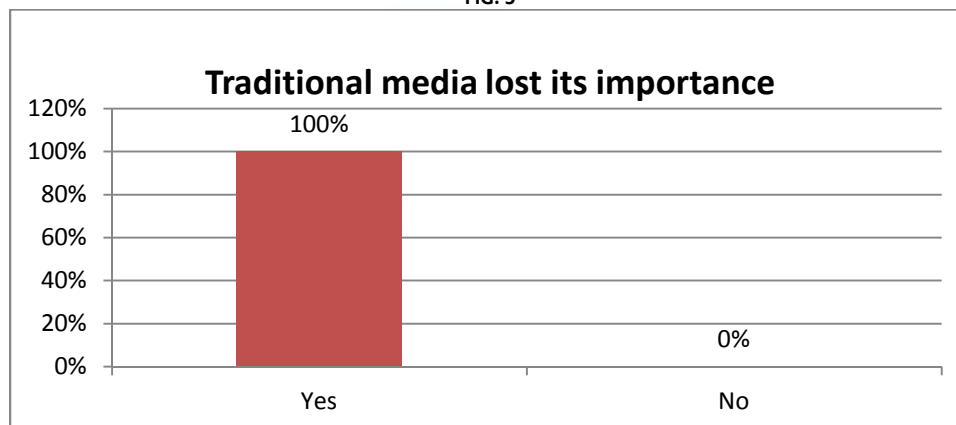


TABLE 6: LAST EXPOSED TO TRADITIONAL MEDIA

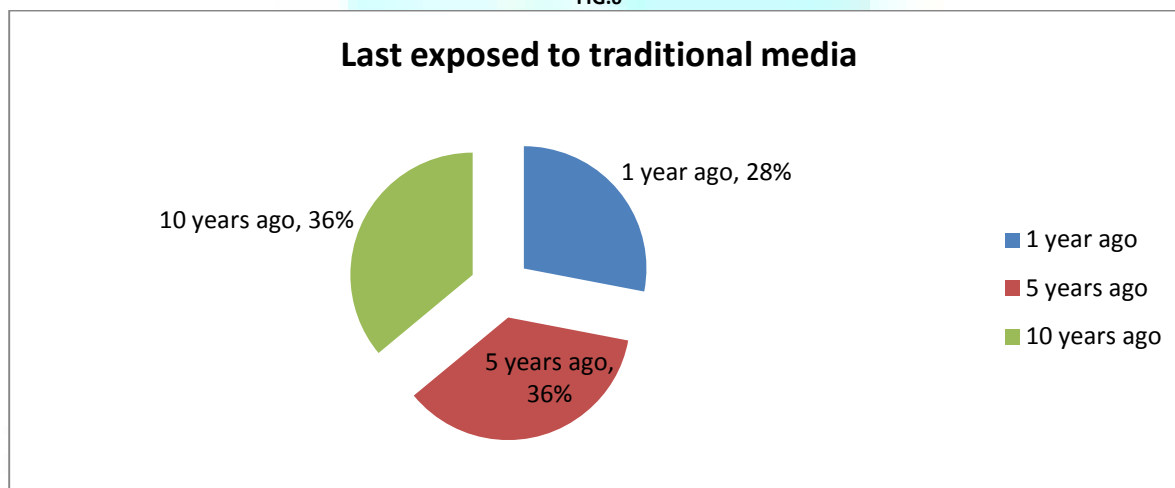
Answer	Number	Percent
1 year ago	14	28%
5 years ago	18	36%
10 years ago	18	36%
Total	50	100%

The judges were asked when they were last exposed to traditional media 14 out of 50 judges told that they had last exposed to it 1 year ago. 18 of them told that they were exposed to it 5 years ago. 18 of them were exposed to traditional media 10 years ago.

28% of the respondents were exposed to the traditional media 1 year ago. 36% of them were exposed to it 5 years ago and rest of 36% exposed to it 10 years ago.

More of the judges are not recently exposed to traditional media.

FIG.6



CONCLUSION

Regarding the development of media in the district it is found that before the development of modern media traditional form of media is existed in the district. Traditional folk songs 'Birha' and 'Kagari' is popular form for entertainment. Folk drama form of Ram Lila solved the purpose of both entertainment and moral education. Munadi, Wall writing and word of mouth is other form of media for general and public information. Folk theatre form Ram Lila and puppet show is used to consider the impact of traditional media on the judges of Jaunpur. 90% of the judges had seen Ram Lila. Among those 91% of the judges had seen Ram Lila in open air theatre. 72% of had seen puppet show in their paternal villages. Most of the judges have been exposed to traditional media but 72% had been exposed to it about 5 or more years ago. All of the judges share the opinion that traditional media has lost its importance

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CUSTOMER RELATIONSHIP BUILDING THROUGH SOCIAL NETWORKING WEBSITES

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ABSTRACT

Social media marketing programs usually center on efforts to create content that attracts attention and encourages readers to share it with their social networks. A corporate message spreads from user to user and presumably resonates because it appears to come from a trusted, third-party source, as opposed to the brand or company itself. CRM is comprised of sales, marketing and service/support-based functions whose purpose was to move the customer through a pipeline with the goal of keeping the customer coming back to buy more and more stuff. 93% of Americans want brands to have a presence on social media sites. 60% of Americans regularly interact with companies on a social media site. Purchase recommended products or services more than four out of five consumers (81%) will go online to verify those recommendations, specifically through researching product/service information (61%), reading user reviews (55%) or searching ratings websites (43%) Americans will spend 9% more with companies that provide excellent service. This paper tells us the how consumer relationship is enhanced by social media websites.

KEYWORDS

CRM, Media, Social.

INTRODUCTION

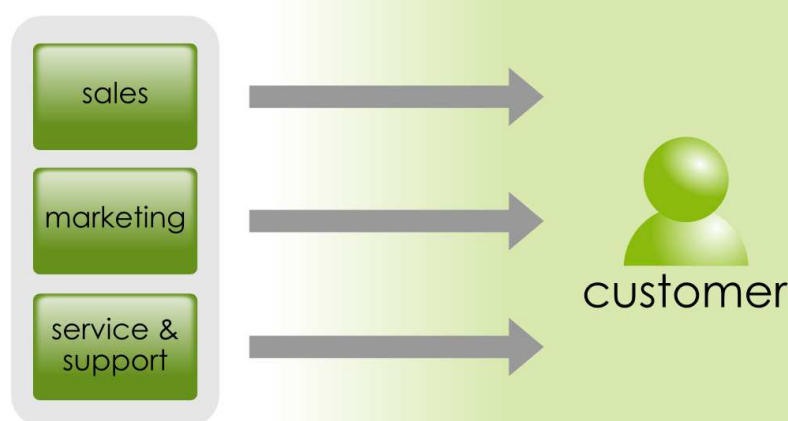
 Social media marketing refers to the process of gaining traffic or attention through social media sites. Social media marketing programs usually center on efforts to create content that attracts attention and encourages readers to share it with their social networks. A corporate message spreads from user to user and presumably resonates because it appears to come from a trusted, third-party source, as opposed to the brand or company itself. Hence, this form of marketing is driven by word-of-mouth, meaning it results in earned media rather than paid media. Social media has become a platform that is easily accessible to anyone with internet access. Increased communication for organizations fosters brand awareness and often, improved customer service. Additionally, social media serves as a relatively inexpensive platform for organizations to implement marketing campaigns.

Besides research tools, there are many companies providing specialized platforms/tools for social media marketing, such as tools for:

- Social Media Monitoring
- Social Aggregation
- Social Book Marking and Tagging
- Social Analytics and Reporting
- Automation
- Social Media
- Blog Marketing
- Validation

FIGURE: 1

Traditional CRM



Source: Chess Media Group, Morgan, 2011

CRM is comprised of sales, marketing and service/support-based functions whose purpose was to move the customer through a pipeline with the goal of keeping the customer coming back to buy more and more stuff. Traditional CRM was very much based around data and information that brands could collect on their customers, all of which would go into a CRM system that then allowed the company to better target various customers.

Customer satisfaction is an integral part of company growth and success. Customer relationship management (CRM) systems offer businesses a way to keep current customers satisfied, as well as a way of finding new customers. Social networking can play a huge role in both these endeavors. Many companies incorporate CRM systems in order to manage and organize all the contact it has with both existing and prospective customers, through software or Web-based approach that supports these ventures. For example, customer data and interactions can be entered, stored, and accessed by personnel based on several categories. The data then can be used to encourage better customer service with comprehensive information, and to improve targeted marketing. Social networking offers yet another channel to accomplish both of these goals. This natural marriage between next-generation social technologies and enterprise platforms brings together a powerful tool for the ever-changing corporate world. Whether your business is large or small, the benefits are countless. For

example, a large corporation can use social networks for providing better customer service to their already large customer base. A small company may use social networks to reach more people and spread the word of their products and services. In the end, the main goals are providing better customer service and attracting new customers.

(<http://www.crmsocialmedia.com/category/social-networks-and-crm/page/2/>)

OBJECTIVES OF STUDY

- To know the customer relationship building through social networking websites.
- To know the recent trends on the use of social media networking websites in India.

RESEARCH METHODOLOGY

Secondary data was used to conduct the research. The data was collected from various books, journals and reports.

LITERATURE REVIEW

FIGURE: 2
Social CRM

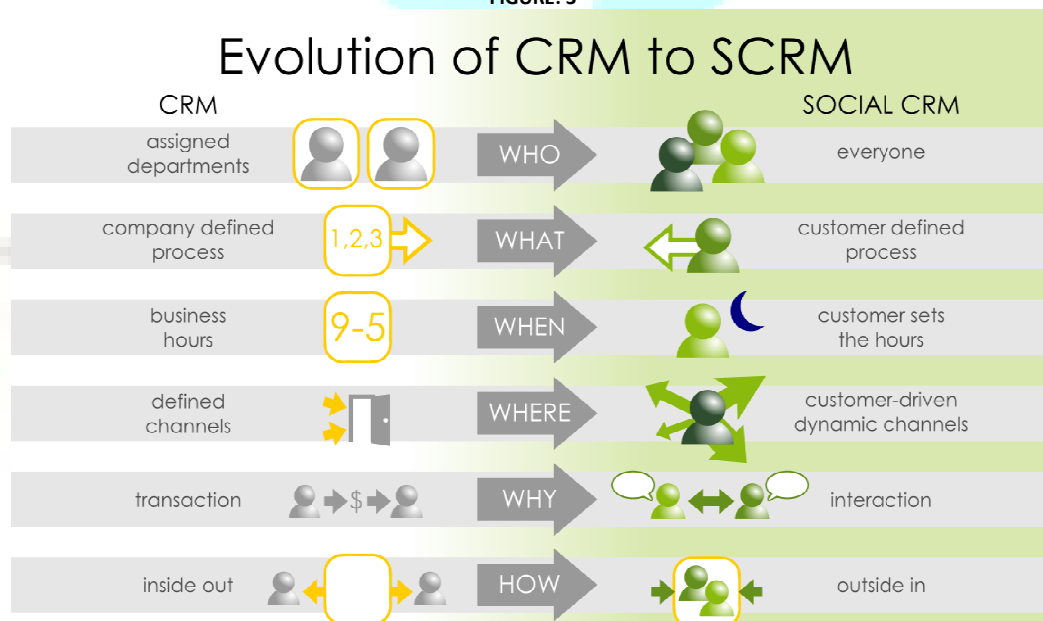


Source: Chess Media Group, Morgan, 2011

Social CRM is first a strategy that is often supported by various tools and technologies. The strategy is based around customer engagement and interactions, with transactions being a byproduct. Social CRM is still about CRM (but evolved), meaning a back-end process and system for managing customer relationships and data in an efficient and process-centric way. Social CRM will mean different things to different organizations. The key is being able to understand the business challenge you're looking to solve, and then solving it. Social CRM is one component of developing a social or collaborative business, both internally and externally. (Chess Media Group, Morgan). As social networking sites explode in popularity, the hype and interest continue to build. Facebook alone topped 200 million users in 2009 (Wauter 2009). Social networks began as the province of individuals, businesses are now trying to capitalize on this trend as they search for specific strategies and tactics to derive value from it. In fact, Gartner Research shows a large increase in investment in social networking by businesses (Metz, 2008). "CRM is where you are going to see the ROI in the business model as opposed to anywhere else. It's all about connecting and engaging in new ways with 4 customers," (McKay 2009).

HAPPENING OF EVOLUTION

FIGURE: 3



Source: Chess Media Group, Morgan, 2011

The chart above is pretty self-explanatory, but let's back it up with a few statistics of how and why people consume and share information. 93% of Americans want brands to have a presence on social media sites (Cone Business in Social Media Study, 2008). 60% of Americans regularly interact with companies on a social media site (Cone Business in Social Media Study, 2008)

Three most influential factors for consumers when deciding which company to do business with are:

- Personal experience (98%)
- Company's reputation or brand (92%)
- Recommendations from friends and family (88%)

41% of customers believe that companies should use social media tools to solicit feedback on products and services (Cone Business in Social Media Study, 2008). 43% of consumers say that companies should use social networks to solve the customers' problems. Only 7% of organizations understand the CRM value of social media, according to the Brand Science Institute, European Perspective, August 2010. Before deciding whether to purchase recommended products or services, more than four out of five consumers (81%) will go online to verify those recommendations, specifically through researching product/service information (61%), reading user reviews (55%) or searching ratings websites (43%) (Cone Online Influence Trend Tracker, 2010). Americans will spend 9% more with companies that provide excellent service (American Express). This is just a small sampling of the available data on the web that shows how consumers are changing and evolving with the growth of social media.

THE LIST OF FEW SOCIAL NETWORKING POSSIBILITIES ARE MANY, HERE ARE A FEW EXAMPLES OF SOCIAL NETWORKS BEING USED FOR CUSTOMER RELATIONSHIP MANAGEMENT

FACEBOOK

1. Create a profile page free of charge and tell everyone why your company is the best. On your profile page you add logos, videos of products, customer testimonials, and pictures.
2. Facebook is all about meeting people and growing your friend list. Use this to your company's advantage by accepting new friends, all while creating more business.
3. On Facebook, you have a "wall" where customers can post comments and engage in dialogue with one another. This can also be useful when connecting with product representatives and sister companies.
4. Use the polls on Facebook to get quick information and opinions from your actual customers. This knowledge is extremely valuable when making decisions about your future.

BLOGS

1. Having the customer be a part of the conclusion/solution can ensure a satisfied customer, because he or she helped solve the problem.
2. Communicating with the customer may help alleviate simple tensions, and resolve misunderstandings. Employees tend to feel less stress when customers aren't explosive and unhappy.
3. Social networking is in real-time, which allows companies to be responsive and accurate. Customers are used to being frustrated by being put on hold in call centers. Blogs can help resolve this problem by offering an easy way to be heard.
4. Sometimes customers are more comfortable reaching companies in a way that makes them relaxed. A blog can offer a non-confrontational way to ask questions and make suggestions in a casual environment.

A FEW KEY TRENDS LOOK OUT FOR IN 2012

1. Social TV Integration

Many shows have already begun to integrate social TV, either through polling or integrating social elements within the show. See my example of how both the UFC and WWE are integrating social media into their programming. Social media played a pivotal role in the last presidential election, and it will likely be more integrated into political broadcasts. As each news channel fights hard to keep their viewers engaged, networks like CNN and Fox have made significant strides to engage their audience, although some would argue that this social media integration has come at the expense of hard-hitting journalism and analysis.

2. TV Is Going Online in a Big Way

2012 will be the first time that the Super Bowl will be streamed live to the world. Since the Super Bowl is generally viewed as the mother of all advertising spectacles, it will add a new dynamic into the digital component to advertising and social media integration.

3. Facebook Credits Take Center stage

Facebook in 2012 has the potential to project its power and truly take Facebook credits into a viable currency. Amy puts it quite well when she says "they're building an online destination we'll never need to leave, and my guess is they're only about 8% of the way through their product roadmap."

4. Big Business Has Woken Up

The way corporate entities approach social media is shifting. Many companies realize that setting up Twitter, YouTube and Facebook accounts is not going to cut it as their social media strategy. Brands will need to seriously shift their perspective by treating social channels more like communication channels and less like advertising channels in order to make a difference. From my perspective this transition has already occurred, judging by the extent to which brands' Twitter accounts are now used as channels for CRM and customer support, managing pissed off or happy customers in near real-time.

5. ROI Is Still Huge

ROI will remain a key metric to any social media strategy. The concept of engagement is now becoming more and more an expected metric. CEO adoption of social media is improving, and more CEOs are recognizing the benefits of humanizing their brand by taking to Twitter. (Puopolo, Martin 2011)

The study by Coleman Parkes Research revealed the following data:

- More than 75 percent of companies worldwide admit that social networking will come into the business undetected if not proactively managed.
- Approximately 60 percent of respondents say integrating social media technologies is not on the agenda.
- Only 18 percent of respondents have any kind of strategy in place to integrate these technologies within the company for employees.

www.avanadeadvisor.com/CRMSocialmedia

INCREASE BRAND AWARENESS

The first step in engaging social customers is to listen to what they are saying. While social networking sites provide a rich source of customer opinions and attitudes, the challenge is to capture this information in a useful form and in a way that benefits the business. The Social Networking Accelerator for Microsoft Dynamics CRM can help organizations increase the awareness of their brand and products and improve market sentiment by:

- Identifying key influencers in each product area to increase brand awareness.
- Automatically tracking public online conversations of interest within the customer system of record.
- Rating and tracking the sentiment of specific social networking conversations.
- Tracking online reaction to new announcements or developments.
- Keeping track of competitors by monitoring their public online conversations.
- Using social networks as a source of market research by creating online focus groups.
- The Social Networking Accelerator for Microsoft Dynamics CRM can help marketing organizations engage social customers while managing and tracking their efforts by:
- Quickly spotting developing PR or perception issues and addressing them with pinpoint responses.
- Authoring social networking messages directly from the customer system of record.

- Automatically tracking responses to social networking messages or conversations.
- Seamlessly integrating social networking channels into existing marketing methodologies.
- Launching online marketing programs that engage social customers in their preferred environment.
- Seamlessly tracking responses and leads generated from online marketing efforts.

<http://crm.dynamics.com,2009>

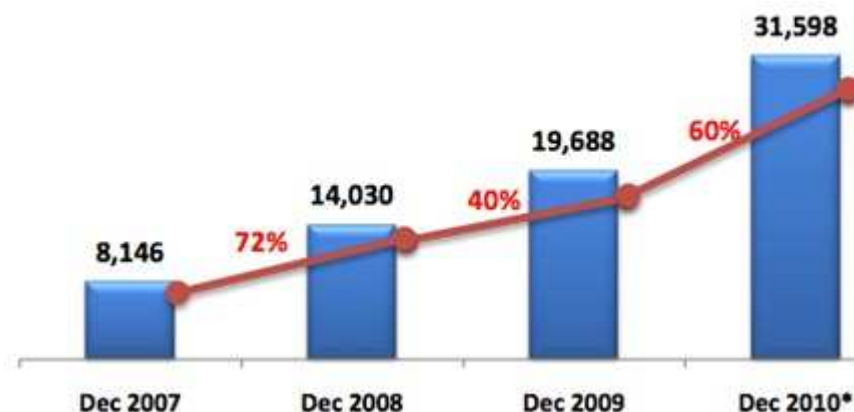
RECENT TRENDS IN INDIA FOR BUILDING CUSTOMER RELATIONSHIP THROUGH SOCIAL MEDIA NETWORKING WEBSITES

ECOMMERCE GROWTH TRENDS

According to a report released by IMRB and IAMAI, the e-commerce market in India is expected to be a 31,598 crore valuation by end of 2010. A growth of almost 4 times of the market size back in 2007, the e-commerce industry is picking on the trend of the increasing number of Internet subscribers in India. Clearly the growth in the e-commerce industry has been tremendous with a larger audience accepting the ease of online payments.

FIGURE: 4

Growth of Net Commerce over the Years (Figures in INR Crores)



Source: Ecommerce in India- Statistics, Trends & Insights

<http://www.imediainconnection.in/article/91/Digital/Internet/ecommerce-in-india-statistics-trends-and-insights.html>

The e-commerce market is projected to grow to 46,520 crore by 2011, which then will be a 400% growth in the last 5 years. What is more interesting is the breakup of the market, which is primarily skewed towards the online travel industry.

The following chart lays out the market size and breakup of the e-commerce industry in India from 2007 to 2010:

FIGURE: 5

Net Commerce Market Size from 2007 to 2011 (Figures in Crores. Percentages indicate share of the overall market size)				
Year	Dec 2007	Dec 2008	Dec 2009	Dec 2010+
Total Market Size	8,146	14,030	19,688	31,598
Online Travel Industry	6,250 (77%)	10,500 (75%)	14,953 (76%)	25,258 (80%)
Online Non-Travel Industry	1,896 (23%)	3,530 (25%)	4,735 (24%)	6,340 (20%)
- eTailing	978	1,120	1,550	2,050
- Digital Downloads or Paid Content Subscription	238	290	435	680
- Financial Services *		1,200	1,540	2,000
- Other Online Services (incl. Online Classifieds)	680	920	1,210	1,610

Source: Ecommerce in India- Statistics, Trends & Insights

<http://www.imediainconnection.in/article/91/Digital/Internet/ecommerce-in-india-statistics-trends-and-insights.html>

The above figure clearly states that the online travel industry accounted for 76% of the total e-commerce market in India in 2009. Although skewed since 2007, the non-travel industry is slowly capturing the market share percent by percent. The study states that e-Tailing is one the primary growth drivers and will remain so in the near future too. The growth in the e-commerce sales is a clear indicator of the growing number of people using Internet to make purchases. But again, the online purchases are limited to a certain category of buying like travel purchases, electronic items, online classifieds, buying movie tickets, food delivery, gaming subscriptions, etc. In spite of such growth in the industry, not many people amongst the total online audience is making online purchases as of now. The trend of hunting for information online and then being followed by a physical purchase is still prevalent.

TOP 5 SOCIAL NETWORKING WEBSITES IN INDIA

FIGURE: 6

Position	Social Network	Size	Remarks	Page Views
1	Orkut	18 Million	Despite facing strong competition from Facebook, it is a favorite amongst the Tier 2 and Tier 3 Cities (Relatively Smaller Cities compared to the Metros) in India	65.1 Million
2	Facebook	17 Million	The highest growing Social Network in the world is certainly proving itself in India too	3,945 Million
3	LinkedIn	8 Million	The most sought after professional network in India growing at a very healthy rate. Top 2 uses of this network are (1) Hiring & (2) Professional Networking	72 Million
4	Ibibo	5 Million	An Indian Social network that focuses on Social Gaming and E-commerce platforms. It has certainly marked its place but is still lagging far behind the likes of Facebook and Orkut	102 Million
5	Twitter	4.5 Million	The fastest growing network in the global social media space is spreading like a Virus in India as well	16.4 Million

Source: <http://www.penn-olson.com/2011/01/04/social-media-india/>

SOME WORTHWHILE STATISTICS TO LOOK AT

- 60% of the social networking traffic come from Non Metro-Cities but the highest traffic generating city still remains to be a Metro i.e. Mumbai.
- The highest numbers of active users are from the 15-24 age groups but LinkedIn has a different age group of active users i.e. 25-34 age-groups.
- The male-female ratio shows consistency with the overall population break-up by gender i.e. 80:20 in favor of males.
- Social media in India reaches out to 60 per cent of the online Indian audience,
- Facebook and Orkut, together cater to about 90 per cent of the users in the social media space.
- Facebook is the only social network in India that has witnessed a tremendous growth, almost doubling its users in the last 6 months.
- Highest number of active social media audience in India are in the age group of 15-24 and are graduates who are looking for a Job or planning further studies.
- The maximum users come from the less than 2 lakhs p.a. income category. This is because social networks are primarily driven by the youth.
- More than 45% of the users on Social Networks return during the day. Facebook tops the list with users re-visiting more than 3 times during a day.
- Majority of the time spent by the Indian audience on Facebook is on Interactive Games/Applications and then on viewing Photos.

CONCLUSION

From the above discussion it is clear that social networking sites have helped a lot in building customers. As today customers want the products and services at their door step. So these social network sites have helped the customers to know about various products by interacting directly with the seller online and know about the products and services. The customers feel more comfortable online as they can chat about their favorite product and can get ready information at the same time. They do not require visit market even. And on the other side, the seller is also at advantage as his cost is decreased. They just needs to visit the social sites and have a direct chat with his customers and answer their queries. More than 45% of the users on Social Networks return during the day. Facebook tops the list with users re-visiting more than 3 times during a day. 93% of Americans want brands to have a presence on social media sites (Cone Business in Social Media Study, 2008). 60% of Americans regularly interact with companies on a social media site (Cone Business in Social Media Study, 2008). Purchase recommended products or services more than four out of five consumers (81%) will go online to verify those recommendations, specifically through researching product/service information (61%), reading user reviews (55%) or searching ratings websites (43%) Americans will spend 9% more with companies that provide excellent service. So from here it is clear that social networking sites can create wonders.

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