



## INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE AND MANAGEMENT

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## A CROSS-SECTIONAL STUDY OF ACCEPTANCE OF MENTORING FOR PROFESSIONAL DEVELOPMENT IN EDUCATIONAL INSTITUTIONS IN GULF COUNTRIES

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### ABSTRACT

*Human Resource Development is a necessity in this competitive global economy. Educational institutions are hit by financial constraints and different priorities. A cheap and feasible method for Human Resource Development is through Mentoring. However, faculty is reluctant to accept this tool for personal development. This paper explores the perception, acceptance and willingness of academic staff to participate in mentoring activities. A cross sectional study was conducted in a College of Higher Education, in Oman to assess the perceptions and acceptance of mentoring by the faculty. Ninety three staff members were included in the study, using self administered questionnaires. The results of this study show that majority of the staff have clear perception and display willingness to accept and participate in the programme. However, majority are reluctant to become mentors, while are happy to be mentees. It is hoped that the findings of this study will help all institutions of higher education to plan their staff developmental programs accordingly.*

### KEYWORDS

Mentoring, Human Resource Development, Higher Educational Institutions.

### INTRODUCTION

Quality awareness is predominant in all organizations, and in this competitive market all educational institutions are working overtime to achieve the standards set for accreditation and acceptance. All educational institutions rely heavily on 'quality' human resource to provide good education to the students. The outputs of the students in international examinations, acceptance in the job market and prestige of the institution are factors that attract more students to these institutions. However, the educational institutions often pay little attention to the need for human resource development, which is essential in this recession hit global economy. Many institutions with vision and well set strategies are now turning towards continued professional development or human resource development, to survive in this competitive era.

This paper deals with the concept of using mentoring to enhance the human resource potential in the institutions of higher education in Oman. The cultural diversity in teachers in Oman makes continued professional development quite challenging. Adding mentoring to it is like adding fodder to a fire. However, it is an excellent method of human resource development.

Learning organizations are characterized by their commitment to the development of their human capital. Service industry, especially the education sector, relies heavily on their human resource. Unfortunately, due to financial constraints, the focus is more on the service delivery rather than the growth and development of its manpower. Funds are usually not allocated to staff development, resulting in neglect of this vital component.

However, certain measures that can be adopted to upgrade human resource skills base, without much financial support from the management. Mentoring is one such tool that can be used effectively in developing human resource, indigenously. Especially in the education sector, where teachers are dedicated to impart instruction on students, can also be used to contribute effectively to their self learning. This study explores the perceptions and acceptance of this tool among academic faculty of educational institutions in the Gulf.

### LITERATURE REVIEW

Human resource development is critical in all kinds of organizations. However, in service industries like, health and education, where human resource is the backbone of its working environment, HRD takes a new meaning altogether. Historically the skills and competencies of teachers have played a key role in the quality of teaching and learning (Kirkpatrick, 1998). Modern research shows that professional development of the teachers' skills and methodologies have a strong influence on the learning environment and consequently on the achievements of students (Borko, 2004).

In this global village, quality is the catch phrase in all spheres of life. Best practices and quality go hand in hand. For an individual to keep up with the best and be on top of his work, he has to strive for continuous professional development (CPD). Although CPD is for the benefit of the individual, it does not absolve the organization from its responsibility of providing suitable opportunities for development to its employees. The concept of professional development in the educational institutions still needs to be streamlined and focused, as it is in its nascent stages (Scribner, 1999).

Most organizations are quickly adopting the concept of HRD for their employees. The HRD concept has three main objectives. Firstly the organization benefits from the skills added to the repertoire of its employees, as their performance improves. Secondly the employees have the advantage of acquiring specialized skills for their job and their performance is enhanced. Thirdly the employees add value to their skills base and hence their marketability increases (Werner & DeSimone, 2005).

However, most employees are unaware or in some cases apprehensive of the CPD concept. Many see accepting CPD interventions as acknowledgment of their professional weakness (Russell, 2009). That is not the case. No one knows everything, nor can anybody be perfect in all spheres of their chosen specialization. Moreover, there are many attributes and aspects of one's working environment.

HRD can include different means both formal as well as informal, to help teachers develop their professional skills and competencies (Grant, 1994). These include the acquisition of new skills, adopting better approaches in pedagogy, upgrading knowledge in new developments in the subject content and resources. This is all the more important in the modern era, as there is a paradigm shift towards learning outcomes of the students, which require a focused and structured approach to staff development (Frye, 2008).

One of the many interventions that can be used for CPD is mentoring. Mentoring is perceived by different people in many varied forms. For this study, mentoring is defined as; "a developmental partnership through which one person shares knowledge, skills, information and perspective to foster the personal and professional growth of someone else." (DOT Handbook, 2010)

A mentor is a person who facilitates personal and professional growth in an individual by sharing the knowledge and insights that have been learned through the years. He is a teacher, problem solver, motivator, coach and a guide all rolled into one. He provides the mentee, who is an achiever, groomed for advancement opportunities to excel beyond the limits of his or her position. To achieve this, the mentee has to be a good learner, decision maker, initiator, risk taker and goal setter. It is the desire of the mentee that can make him excel and achieve excellence through mentoring (DOT Handbook, 2010).

A talented professional may be accomplished in his/her professional domain, but may have lesser developed interpersonal or administrative skills. The lesser secondary skills do not take away the importance or significance of the professional competence of a worker. However, acceptance of one's gaps in different soft skills, provide an individual opportunities to develop these areas and become a holistically more accomplished person (Russell, 2009).

Mentoring in the workplace has the potential of providing benefit for both the employee as well as the organization. It is beneficial for every level of employees and staff. For new recruits, it provides opportunities to learn the organizational culture and the 'ropes' in an effort to be amalgamated into the system. For people in their midcareer or at higher levels, mentoring provides opportunities to stay informed about new technological trends and to convey experiences and wisdom for continuation and posterity (Dalton, Thompson, & Price, 1977; Hall & Kram, 1981; Levinson, 1978).

In case of the organization, mentoring helps in reducing the shock of entry for newcomers, helps prepare for advancement and provides a socializing mechanism for its employees (Levinson, 1976). Staff who have undergone this process usually are less confused, frustrated and alienated with the organization. In return the organization can develop and nurture talent in its employees (Digman, 1978), pass on core values and practices and reduce undesirable turnover (Dalton et al., 1977; Levinson, 1976; Missirian, 1982).

Mentoring can be used in special circumstances as well, in addition to the predictable dilemmas of newcomers and mid career professionals. When those employees who have reached a plateau are required to mentor newcomers, it often stimulates personal growth and development in them as well (Hall, 1980; Hall & Kram, 1981). Mentoring can also play a positive role in fostering acceptance and gelling in marginalized and polarized groups within an organization (Missirian, 1982; Phillips-Jones, 1982).

Although the role of mentoring is quite well established, however, the organization also needs to adapt this vital technique for CPD of its employees. For this certain conditions must exist within the organization before mentoring can be applied. Firstly, a proactive and open environment is needed where all members of the organization can freely interact and cultivate relationships between all hierarchical levels to be able to achieve their developmental goals. Secondly the organizational members must have interpersonal skills to build the supportive relationships as well as have a willingness and interest in doing so. Thirdly, there must exist a reward system within the organization's culture and norms to value and encourage relationship building within the employees (Deal & Kennedy, 1982; Peters & Waterman, 1982; Tichy, 1983).

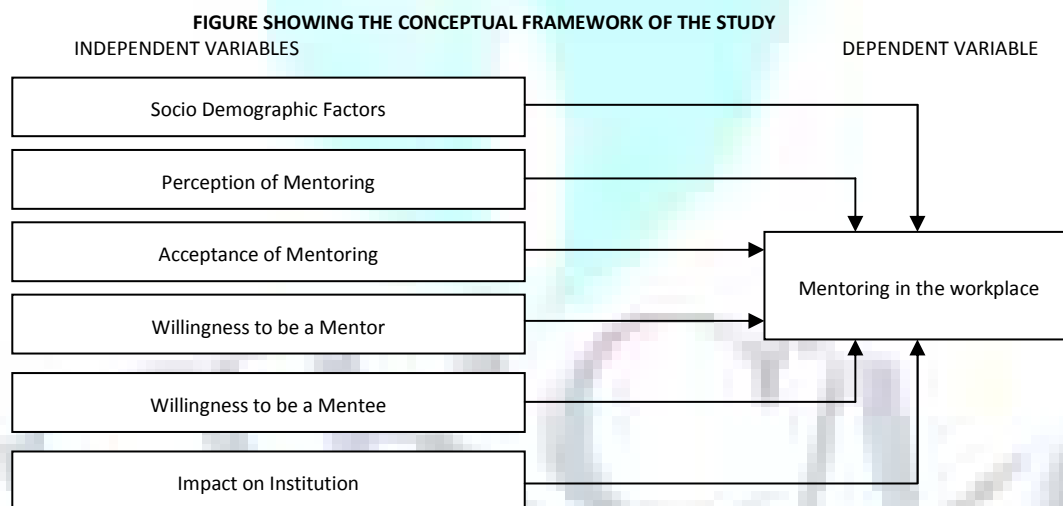
**RESEARCH QUESTION**

This study intended to tease out the apprehensions, many employees feel about the concept of CPD through mentoring which is one of the many interventions available for personnel development. The specific questions this study addressed are:

1. How do employees feel about mentoring in the workplace?
2. What is the acceptance of peers as mentors by the employees?
3. Are employees willing to become mentees?

**CONCEPTUAL FRAMEWORK**

The conceptual framework used in the study is depicted in the figure below, showing the relationship between the dependent and independent variables.



**MATERIAL AND METHODOLOGY**

This was a cross sectional study carried out in an educational institution of higher learning in Dakhliya region in the Sultanate of Oman. Using a self administered questionnaire distributed to 96 number of respondents, during January 2010.

The questionnaire addressed the acceptance of the concept of mentoring in the teaching institution by the employees. The perception of the staff about the concept and how it could be used for CPD purposes. For the sake of detailed analysis, variables were added to the questionnaire to cross tabulate the perceptions of the employees based on their socio demographic and cultural backgrounds.

The data were compiled using standard software package to compute the measures of central tendencies. Further analysis was performed on the data to see correlations if any, between the results and the socio, cultural demographics of the respondents.

**FINDINGS**

The self administered questionnaire was distributed to 96 participants, in an institution of higher learning in Oman, during January 2010. Out of the 96 participants 83 responded by returning the completed questionnaires. Thus the response rate was 86.5 %. The description of the characteristics of the respondents is displayed in the following table.

TABLE SHOWING SOCIO DEMOGRAPHIC CHARACTERISTIC OF RESPONDENTS

Characteristic	Frequency	Percentage
Gender		
Female	20	25.3
Male	59	74.7
Age		
< 30	9	11.8
31 to 40	41	53.9
41 to 50	20	26.3
> 50	6	7.2
Range 25 to 62, mean 38.7 SD 7.57		
Discipline		
Business studies	17	20.5
Engineering	21	25.3
Information Technology	14	16.9
English Language	25	30.1
Admin and support services	4	7.2
Nationality		
Indian	51	61.4
Omani	7	8.4
Pakistani	5	6.0
Philippines	3	3.6
European and Westerners	15	18.1
Others	1	1.2
Qualifications		
Doctorate	16	19.3
Masters	56	72.3
Graduates	6	7.2
Undergraduates	1	1.2

Out of the total respondents, the distribution by gender showed a quarter (25.3%) were females and three quarters (74.7%) were males. The age wise distribution showed that the minimum age was 25 years and the maximum was 62 years. The mean age of the respondents was calculated as 38.7 years with a standard deviation of 7.57. The department wise distribution showed that 20.5 % belonged to the Business Studies, a quarter (25.3 %) were from Engineering disciplines, 16.9 % from Information Technologies groups, 30.1 % from the English Language centre and 7.2% from administrative departments.

The qualifications of the respondents reveal that 19.3 % possessed doctorates, a little less than three quarters (72.3 %) had masters degrees, 7.2 % had bachelors and 1.2% possessed undergraduate degrees. The group showed a wide diversity of ethnic backgrounds. A little less than two thirds (61.4 %) belonged to India, 8.4 % were Omani, 6.0 % were from Pakistan, 3.6 % from Philippines, 1.2% from Tunisia and remaining 18.1% had a European or Western descent.

TABLE SHOWING THE RESPONSES TO RESEARCH QUESTIONS

Statement	Low	High
Perception of mentoring as a tool for human resource development	12 (14.5%)	71 (84.5%)
Acceptance of mentoring in the workplace	15 (18.3%)	67 (81.7%)
Willingness to participate in the mentoring program	19 (21.7%)	64 (78.3%)
Willingness to become mentors	28 (34.1%)	44 (65.9%)
Willingness to be mentees	26 (31.7%)	56 (68.3%)
Benefits of the program for your organization	14 (17.3%)	67 (82.7%)

In response to the questions regarding the acceptance and perception about mentoring as an intervention to be used in CPD activities, the respondents gave the following answers. The rating was based upon a ten point Likert Scale. This ten point scale was used to give more depth to the responses, and also an effort was made to push the respondents to give a positive or negative response and not ride the fence, as is often done in odd numbered scales.

In response to the questions about how the respondents felt about the concept of mentoring, the mean was a 7.81 with a SD of 1.91. This showed that most of the respondents felt good about the concept of mentoring. Detailed analysis showed that 12 respondents or 14.5% did not feel good about the concept being introduced in the college. The remaining 71 respondents or 84.5% were comfortable with the idea.

As for the acceptance of the idea of introducing mentoring as a CPD intervention, the mean response of 82 participants was 7.39 with SD of 2.27 on a ten point Likert Scale. The data showed that the respondents were very open in accepting the Mentoring concept in the college. Detailed analysis showed that 15 respondents (18.3%) did not accept the idea of mentoring to be introduced in the college. Whereas 67 or (81.7%) of the respondents were quite happy to accept the concept being implemented in the college.

In response to the query that would the participant like to be part of the mentor – mentee relationship, the mean response out of ten score was 7.28 with SD of 2.34. Detailed analysis showed that 19 respondents or less than a quarter (21.7%) did not wish to be involved, while 64 or (78.3%) were happy to be part of the program.

When asked if the participants would like to be mentors if needed, 82 responded with one abstaining. The mean response was 6.35 with SD of 2.64 on a ten point scale. Thus the overall rating was in the affirmative. However the detailed analysis showed that 28 respondents (34.1%) did not wish to be part of the mentoring team, while 44 or (65.9%) were willing to mentor others if required.

Similarly in reply to whether the participants would like to be mentees, 82 responded while one abstained. The mean response was 6.74 with SD 2.59, on a ten point scale. Out of the 82 respondents, 26 or less than a third (31.7%) declined to be mentees, while 56 or more than two thirds (68.3%) were willing to become mentees.

When asked if the mentoring program would be of benefit to the staff, 81 responded while 2 abstained. The mean score was 7.4 with SD 2.14 on a ten point scale. A very small number of 14 respondents corresponding to 17.3% felt that there would be no or little benefit to the college staff. However 67 or 82.7% of the respondents felt that the program would benefit the staff of the college.



TABLE SHOWING CROSS TABULATION BETWEEN RESEARCH ITEM AND GENDER OF RESPONDENTS

Research item	p-value
Perception of mentoring	0.002*
Acceptance of mentoring program	0.177
Willingness to participate in the program	0.371
Willingness to be a mentor	0.199
Willingness to be a mentee	0.647
Beneficial for the College	0.048*

\* Significant at 95% Confidence Interval

When correlation was studied between the gender of the respondents and the benefit of the mentoring program, a statistically significant relationship was determined to exist with a Chi Square value of 12.497 df 2, and p value of 0.002. No statistically significant association was established to exist between gender and acceptance of the mentoring program in the college with a Chi Square at 3.462 df 2 and p value of 0.177. No statistically significant association was found between gender and the desire to participate in the mentoring program with a Chi Square of 1.985 df 2 and p value of 0.371. There was no statistically significant association found between gender and desire to be a mentor Chi Square of 3.225 df 2 and p value 0.199. Similarly no significant association was determined between gender and the desire to be mentees in the program p value 0.647.

TABLE SHOWING CROSS TABULATION BETWEEN RESEARCH ITEM AND NATIONALITY OF RESPONDENTS

Research item	p-value
Perception of mentoring	0.111
Acceptance of mentoring program	0.203
Willingness to participate in the program	0.077
Willingness to be a mentor	0.318
Willingness to be a mentee	0.201
Beneficial for the College	0.065

Regarding the nationality and the mentoring program following were the correlations seen. No statistically significant association was seen between the nationality of the respondents and the acceptance of the mentoring program in the college with a p value of 0.203. A very vague association could be seen between the nationality and participating in the program at the college with a p value of 0.077. No statistically significant association was established between the nationality of the respondents and the desire to be a mentor with a p value of 0.318. Similarly there was no statistically significant association found between nationality and the willingness to be mentees with a p value of 0.201. No statistically significant association was established between nationality of the respondents and the perception of the program being beneficial for them at the college, with a p value of 0.111.

TABLE SHOWING CROSS TABULATION BETWEEN RESEARCH ITEM AND AGE OF RESPONDENTS

Research item	p-value
Perception of mentoring	0.426
Acceptance of mentoring program	0.658
Willingness to participate in the program	0.232
Willingness to be a mentor	0.130
Willingness to be a mentee	0.082
Beneficial for the College	0.838

When correlation was studied between age and perception of benefits of the mentoring program, no statistically significant association was established between the age of the respondents and the perception of mentoring with a p value of 0.426. Similarly no statistically significant association as found between age and the acceptance of the mentoring program at the college (p value 0.658). No significant association was established between age and the desire to participate in the mentoring activities (p value 0.232). No statistically significant association was seen between age and the desire to be a mentor (p value 0.130). Similarly no significant association was seen between age and being a mentee (p value 0.082). There was no association seen between age and the beneficial effects of the program for the college (p value 0.838).

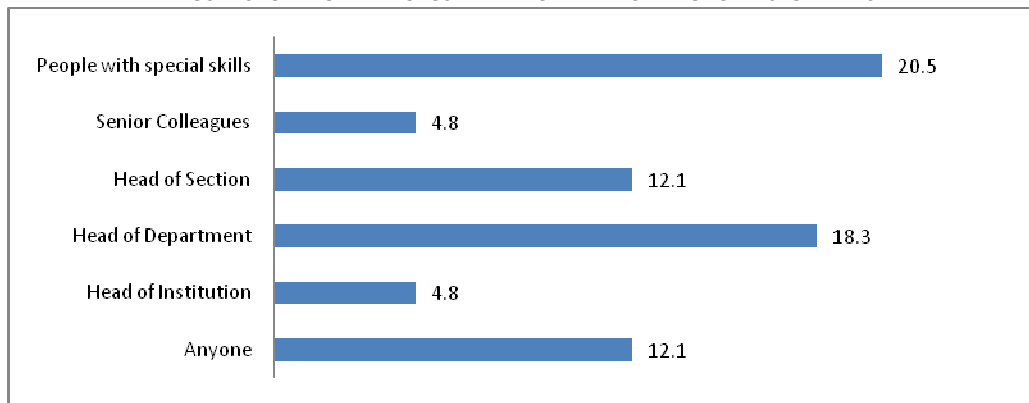
TABLE SHOWING CROSS TABULATION BETWEEN RESEARCH ITEM AND DEPARTMENT OF RESPONDENTS

Research item	p-value
Perception of mentoring	0.332
Acceptance of mentoring program	0.239
Willingness to participate in the program	0.694
Willingness to be a mentor	0.424
Willingness to be a mentee	0.011*
Beneficial for the College	0.047*

\* Significant at 95% Confidence Interval

Correlation studies between the departments and the mentoring program showed the following trends. No statistically significant association was established between the discipline of the respondents and the perception of the mentoring program (p value 0.332). Similarly no significant association could be seen between the discipline of the respondents and the acceptance of the program (p value 0.239), or between the discipline and the desire to participate in the program (p value 0.694). No significant association could be demonstrated between the discipline of the respondents and the desire to be mentors (p value 0.424). However a statistically significant association was established between the discipline of the respondent and the desire to become mentees (p value 0.011). Similarly a statistically significant association was also demonstrated between the discipline of the respondent and their long term perception of the program being beneficial to the college with a p value of 0.047.

FIGURE SHOWING THE PROPOSED MENTOR BY PERCENTAGE OF RESPONDENTS



In response to the question as to who should be a mentor, the respondents came up with a variety of suggestions. Out of the 83 respondents 51 or 71% proposed one mentor or more. Of those who had suggested mentors, 10 (12.1%) respondents felt that anyone could be a mentor. Contrary to these 4 respondents or 4.8% nominated the head of the institution as the most appropriate candidate to be a mentor. Sixteen respondents or 18.3% proposed the head of the department as a suitable mentor. Ten participants or 12.1% suggested that the line manager or in this case the head of section would make a good mentor. Four respondents or 4.8% felt that only senior members of the faculty could be entrusted with the responsibility of mentoring. Seventeen respondents or 20.5% nominated mentors having specific attributes like experience, knowledge, willingness to share, commitment, and empathy among other social values.

## CONCLUSIONS

Based upon the responses of the actual beneficiaries from the mentoring program, it can be concluded that the vast majority of teachers are very positive about the suggested program. The acceptance of the proposed program is high among the respondents. Most of the respondents displayed their desire to be a part of the mentoring program. As for being mentors, most of the respondents were willing to accept others to be their mentors, but were a bit hesitant to become mentors themselves probably being uncertain if they possessed the qualities needed to be mentors. Whereas most of the teachers were desirous of being mentees to self improve and enhance their skills. Regarding the beneficial effects of the mentoring program, most of the respondents felt that the program would have a strong beneficial effect on the teachers and participants.

The choice of mentors varied among the respondents of this study. The largest segment of respondents felt that it was important for mentors to have specific attributes and values to be successful as mentors. A sizeable number of respondents felt that people who were senior, and in line management would make good mentors.

Mentoring seems to have a significant place in the professional development programs in institutions of higher education in Oman. The willingness of the teachers to accept mentors augurs well for their continued professional development.

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## ROLE OF USER FEES IN ETHIOPIA: A CASE STUDY OF JIMMA UNIVERSITY SPECIALIZED HOSPITAL, SOUTH WEST ETHIOPIA

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### ABSTRACT

*In response to reducing budgets and growing demand for health care many low and middle income countries have adopted formal user fees in government health facilities as a strategy to generate revenue for public health facilities. Ethiopia meanwhile has been practicing user fees in public health facilities since 60 years and only few studies conducted on this area and addressed the issues related to user fee system of this country. A Hospital based descriptive study both qualitative and quantitative research methods used. Data collected from secondary sources, in-depth interviews and exit interviews on outpatients. There is sharp decline in all out patients departments providing free services during the study period. The growth of user fees has increased from 2.2% [2085-09]-to 7.8% [2009-2010]. But the percentage of user fees to total budget declined from 5.68% to 4.72%. Out of 401 exit interview respondents 60.8% paid for the service and 38.2% got free treatment from the facility. Monthly income, occupation, land ownership, residence, and source of income of the respondents turned out to be statistically significant. The health service utilization in this hospital is not depended on user fees only, but factors like availability of health professionals, drugs and other expenses are also affecting. The revenue from user fees is less than 5%, which is similar to the results of user fee studies in other SSA countries. Even if there are some leakages and under coverage for the identification of poor, most of the poor people are exempted from payment.*

### KEYWORDS

Health care financing, User fees, Sub-Saharan Africa.

### BACKGROUND

Most of the African countries have had a tradition of free Public health services. But the declining budgets allocation and growing demand for health care many countries have forced to adopt formal user fees in public health facilities as a strategy to generate revenue [Bitran R&Giledeon.U, 2003]. At the time of tight budget constraints, it was hoped that user fee revenues would enhance quality improvements, such as improved drug availability, staff motivation and operating costs. In 1987, the governments of African countries meeting in Bamako with direct involvement of the UNICEF and WHO, proposed the introduction of user fees in Sub Saharan Africa to improve the under funded health care system. After years of commitment to free health care, the implementation of user fees in Sub-Saharan countries [SSA] are intend to supplement to governments' health spending less than \$5 per capitae .The meeting decision later came to be known as Bamako initiative [BI]. By the end of mid 90s user fees were common in several developing countries particularly in Africa where in1995, 28 out of 37 countries studied the World Bank survey had introduced user fees in government health facilities(Arhin D, 2000) ). In 1987 in its report the World Bank argued that user fees would:

- Raise substantial additional revenue for health sector which could be used to improve efficiency and equity in the health sector:
- Improve targeting of resources by reducing frivolous demand:
- Improve efficiency by encouraging people to use low cost primary health care services while protecting poor through exemptions [World Bank 1987].

### ADDIS ABABA CONSENSUS ON USER FEES

Ethiopia meanwhile has been practicing some form of payments in public health facilities since 60 years back even before the introduction of user fee system in other Sub-Saharan economies [FMOH 2000]. In 1997 Addis Ababa [capital of Ethiopia] Consensus on principles of cost sharing in Education and Health in Sub-Saharan Africa provides two key principles that are sill relevant. First, cost sharing should only be considered after all other options have been thoroughly examined, including user revenue from taxation, and efforts to reduce costs by making services more efficient. Second, fees should be considered a stepping stone towards other financing options like insurance mechanisms (Addis Ababa Consensus 1997).

### IMPACT OF USER FEES IN AFRICAN COUNTRIES

An overall assessment of the extensive literature on user fees over the last twenty three years giving a higher weighting to country wide data, shows that this policy has not fulfilled its objectives. Evidence from many low and middle income countries in Africa showed that overall utilization of public health services declined after introduction of user fees. In Zambia, for example after introduction of registration fees at health centers and treatment fees at hospitals in mid 1990s, overall attendance in public health facilities dropped by a third over two years followed a continued but slower decline (Blas E& Lambella M2001). A study conducted by save the children UK in Sudan reported that pregnancy follow up which used to be free of charge in Sudan, but when user charges introduced the visits of pregnant mothers declined significantly (Witter S et al 2005). In Tanzania it was found that people turned to traditional medicine after introduction of user fees in public health facilities because of payments are flexible and credit arrangements are possible in traditional and private practitioners. (Mula S.Moshi A & Ribera.J 2000). The rationale for user fees was set by World Bank in 1987 which argued that fees can raise substantial additional revenue for health sector which will leads to improved efficiency and equity. But in many African countries the fee raised very little revenue and it is less than 5% of total public health revenue and the fee levels have been sufficient to suppress the demand from poor people and exemption schemes are ineffective (Yates.R 2006). A survey conducted in 16 African found that user fees contributed 1-20% of recurrent health service expenditures and an average around 5% (Gilson L1997). Equity is the underlying principle of all major global health policies. If revenue from user charges is used to improve the quality of care at lower facilities, which typically are close to poor people, utilization by the poor as well as their health might improve. Alternatively if user charges dissuade richer sections from using public health facilities, they may help the poor to obtain better access to subsidized care (Mahal A2005). Most of the studies showed the evidence that after introduction of user fees it adversely affected the utilization by the poor, either they are not seeking care or shifting to traditional medicines.

In the first phase user fees were a new idea that the World Bank and other donor agencies felt would solve the acute health financing problems in developing countries. But after two decades of evidence from many countries which showed that user fees it self doesn't solve the health financing problems in developing countries. So a broad approach is needed from policy makers to solve problem. The appropriateness of user fees has been widely questioned even with in the World Bank. In September 2001 the World Bank issued a revised user fee policy, saying it "supports the provision of free basic health services to poor people and discourage user fees for immunization, MCH and efforts to targeting TB, HIV/AIDS and certain other disease. Now a debate is going on whether to retain or remove user fees especially in African countries. However user fees were still considered as necessary and the emphasis was on correcting their design and implementation to minimize the problems .By the early 2000s , the donors were focusing on pro-poor policies and had come to view user fees as undesirable. But most bilateral and multilateral donors continue to resent user fees as a "necessary evil". DFID, for example in its strategy paper "Making government work for poor people states that: "when government can afford it, poor people should have free access to basic health services..... But poor countries cannot always afford free universal public service, and because formal charges levied by poorly paid and corrupt officials, government may do better to formalize fees at affordable level". Similarly the World Bank continues to insist that user fees are still relevant and appropriate. "Publicly subsidized care for all is not an affordable option for African governments" World Bank states in its handbook in 2001. Finally, the World Bank says "no blanket policy on user fees" outlined in the World Development report 2004 can be seen as a land mark on user fee policy.

## HEALTH SECTOR REFORM AGENDA IN ETHIOPIA

Health services in Ethiopia are financed through four sources. These are : ( 1) government [both federal and regional],(2) bilateral donors [both grants and loans], (3)non-governmental organizations and (4)private contributions. The national health accounts exercise for financial year 2000/01 revealed that the major contribution is that of out of households [out of pocket] contribution is [46%], government [33%] and bilateral and multilateral donors [21%].Ethiopia had a national system of nominal fees for services provided at government facilities for a long time (NHA 2001). But there have been high rates of exemption and low rates of revenue collection. MCH services, Immunizations, TB, malaria, HIV/AIDS etc are exempted from user fees. In 1993 Ethiopian Federal Ministry of Health set out the principles and objectives of Health sector reform in Ethiopia. This made emphasis on Strengthening of cost recovery measures, Decentralization of health care delivery system and Promotion of private sector and NGO involvement in the financing and delivery of health care. Implementation followed in 1995, designed to strategic frame work for health sector reform over a period of 20 years. Reforming health care financing is one of the strategies of Health Sector Development Program [HSDP] and cost recovery is integral to this strategy. In 1998 a Health care financing [HCF] strategy was adopted by the council of Ministers and one of the core concepts of the HCF strategy is "Health Facility Revenue", a cash fund derived from user fees, revolving drug funds [RDFs], risk sharing schemes and donations that can be retained at facility, and which is additional to the government budget and to be used to improve the quality and quantity of health services (Health sector strategic plan 2005). Now HSDP111 phase is running and the main objective of health care financing section of this plan in to increase overall health expenditures percapita from 5.6US\$to 9.6US\$.The share of health as a proportion to total government budget should be double and 100% of retention and utilization of revenue generated from user fees at hospitals and health centers (HSDP111).

In Ethiopia the practice of charging user fee is not new, and has existed for more than 60 years. Users being charged for registration, laboratory tests, investigation and diagnostic methods and drugs. There is an exemption policy for the poor who can not afford to pay. The actual capacity of the population to pay for public health services is uncertain. In 1995 WHO estimates that 30-38% of the patients were exempted from user fees. In contrast a study conducted by Oxford university in Amhara and Southern regions in 1996 suggests that the percentage of free or exempt patients were only about 10%.Clinics in highly impoverished areas of Northern Shewa reported only 3-4% of exemptions. A study conducted in 2002 on free healthcare provision in Northern Ethiopia find out that 59.5% of the patients had been served as free.

The criteria for granting free health care services in Ethiopia is mainly based on the real monthly income of the individual and setting the minimum wage for civil servants.In1967, for example anyone with a monthly income less than 50 Birr [US\$ 25] was eligible for free health services (Endale L, Damian H 2002).In 1997 the monthly income for eligible was revised and changed to 105 Birr [US\$52] and presently it was fixed as 324Birr which is the basic salary of a government servant. As to the 1981 proclamation the eligibility criteria of an applicant was determined by the Kebele administration. A committee of people from the Kebele administration would examine the means of livelihood and grand a certificate that allows the individual to get free treatment from public health facilities. The eligibility certificate would usually be valuable up to one year. But many times the exemption polices are biased and under utilization and leakages are common. Although there are guidelines for implementing the user fee system and granting waivers and exemption mechanisms in the public health sector only few studies have been conducted on this issue. Therefore this study will try to provide some insights on the role of user fees as a health care financing strategy in Ethiopia.

## RESEARCH METHODOLOGY

**Study area:** the study was carried out in Jimma University specialized hospital. The hospital is located in Jimma town, about 335 Km south west away of Addis Ababa. The town has one hospital, one health centre and one MCH clinic as public health facilities. Now the hospital has 450 beds and 12 main departments and serving about 15,000,000 people living in the south west region of Ethiopia including South Sudanese refugees. This is a teaching hospital and the only referral hospital in Oromia region attached to Jimma University and governed by Federal Ministry of Education.

**Study design:** A hospital based descriptive study both qualitative and quantitative research methods were employed to study the outlined above. Information was gathered by three methods: (1) Secondary data; (2) In depth interviews with 10 key persons, [3] Exit interview on 401 out patients.

**Data collection and analysis:** We obtained the secondary data from records of jimma university hospital, Federal Ministry of education, Federal Ministry of Health and Oromia Health Bureau. Relevant research studies and reports also were reviewed. An exit interview was conducted on out patients of jimma university hospital for the supportive evidence of free health care provision. A total of 401 people were interviewed. Respondents were selected from all out patient department excluding the services providing free. The sample size was determined with the help of Epi Info software based on previous year's outpatient's number. A systematic random sampling technique was used for selection of respondents. First respondent was selected as random followed by every tenth patient was selected for exit interview. Structured questionnaire was used for data collection. The data entered in SPSS16 and analyzed. For qualitative data collection purposively selected10 key persons from Jimma University specialized hospital and Federal Ministry of Education, Federal Ministry of Health ,Oromia Health Bureau, Jimma Kebele administration were interviewed. An interview guideline was used for data collection. In depth interviews were tape recorded, transcribed and analyzed thematically.

**Ethical approval:** Ethical clearance obtained from Jimma University Ethical committee and Jimma University hospital administration. Informed consent obtained from respondents before in depth interviews and exit interview.

**Limitations of the study:** Documentation system in the hospital is not function well, so there is chance of variations in the health service utilization data. Inpatients were not included in the data collection on free health service provision.

## RESULTS

This study assessed the role of user fees as a health care financing mechanism in jimma university hospital Ethiopia. Through this study we attempted to examine the health service utilization, revenue from user fees, and utilization pattern of revenue from user fees and practice of free health care provision [waivers and exemption schemes] in this hospital.



**TABLE 1: ANALYSIS OF HEALTH SERVICE UTILIZATION JIMMA UNIVERSITY SPECIALIZED HOSPITAL [2005-08]**

No	Services	2007-08	2008-09	2009-2010
1	New OPD Cases	60,472	41,107(-32%)	71,793(74.65%)
2	Admissions (Inpatients)	7,873	8068 [2.48%]	9,051[12.18%]
3	Operations major	728	1,364	1749
4	Operations minor	1,736	2087	2838
5	Deliveries	2,206	2,813	2,753
6	Laboratory	183,311	227,668	12,48741
7	X-ray	12,131	8407	14,157
8	Ultrasound	1,993	1,289	2,367
<b>Free services</b>				
9	Family planning	2,221	3,256 [46.6%]	853 [-73%]
10	Vaccination	6,288	6,476 [2.9%]	5,266 [-18%]
11	TB clinic	7766	3960	1001
12	ART	732	1026	449
13	PMTCT	1409	1112	1003

The study analyzed three consecutive years' secondary data. The results showed that, health service utilization in various out patients departments of this hospital decreased significantly in the year of 2008-09, but this decline in utilization is not due to user fees. There are other reasons like, lack of trained professionals and availability of medicines in many departments during that period affected the service utilization. But in 2009-10 the health service utilization has increased, because now many departments have the facility of specialists and departments are equipped with modern diagnostic and therapeutic instruments. But there is a steady increase in admissions in all departments through out the study period. Very interestingly there is a sharp decline in all departments providing free services in 2009-10.

**TABLE 2: THE SHARE OF USER FEES TO TOTAL BUDGET TO JIMMA UNIVERSITY SPECIALIZED HOSPITAL BUDGET [2005-08]**

Year	2007-08[Birr]	2008-09[Birr]	2009-10[Birr]
Total budget	12,136,434	14,795,827 [2.19%]	15,491,100 [4.7%]
Revenue from user fees	689,004.47	704,281.32 [2.2%]	731,028.37 [7.8%]
Percentage of user fees	5.68%	4.76%	4.72%

The study results show that there is steady increase in public health budget allocated to this hospital. There is 2.19% increase noticed in 2008-09 and again it is increasing up to 4.7% in 2009-2010 periods. The growth of revenue from user fees has increased from 2.2% in 2008-09 to 7.8% in 2009-2010 and revenue from user fees and total budget allocated and used by the hospital are increasing every year but when the revenue from user fees compared to public health budget is declined from 5.68% in 2007-08 to 4.72% in 2009-2010.



TABLE 3: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF EXIT INTERVIEW RESPONDENTS

No	Socio-demographic Variables	Total [n]	Percentage
1	Sex		
	Male	224	57%
	Female	171	43%
2	Residence		
	Urban	157	39.3%
	Rural	242	69.7%
3	Age		
	18-24	118	34%
	25-34	96	27.6%
	35-44	58	16.7%
	45-54	40	11.5%
	<55	35	10.5%
4	Education		
	<Grade 1	84	26.2%
	Grade 1-6	79	24.9%
	Grade 7-10	74	23.7%
	Grade 10-12	36	11.2%
	>Grade 1	45	14.0%
5	Occupation		
	Government employees	31	7.8%
	Merchants	46	11.8%
	Farmers	137	34.3%
	Housewife	42	10.5%
	Students	108	27.6%
	Other workers	21	5.3%
	Unemployed	10	2.8%
6	Monthly income		
	<300Birr	185	47.0%
	300-500 Birr	122	31.7%
	500-1000 Birr	60	15.5%
	>1000 Birr	23	5.8%
7	Marital status		
	Married	192	47.9%
	Never married	187	47.6%
	Separated	5	1.2%
	Divorced	3	2.0%
	Widowed	5	1.2%
8	Land ownership	259	65.4%
	Yes	137	34.6%
	No		
9	House ownership	18	4.5%
	Rented from kebele		
	Rented private	51	12.7%
	Own house	321	81.0%
	Free	6	1.5%
	Others	1	.2%
10	Family size	34	5.2%
	1-2		
	3-5	159	38.3%
	>5	203	56.2%

#### SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE EXIT INTERVIEW RESPONDENTS

The study covered a total of 401 facility exit respondents. Out of the total respondents, 227[56.6%] were found to be males and 242[60.3%] are from rural areas. One hundred and thirty seven [34.3%] of the respondents are farmers followed by one hundred and eight [27.6] are students. Thirty one [7.8%] is government employees and forty two [10.5%] are housewives. One hundred eighty five [47%] of the respondents had a monthly income less than 300 birr [US\$ 10] per month. Only twenty three [5.8%] had the income above 1000 birr per month. The main source of income for two hundred and twenty eight [57%] respondents are from farming followed by eighty three [20.8%] from employment. Of the total respondents two hundred, and thirty five [58.6%] can read and write. Eighty four [26.2] respondents had the education below 1 grade and only forty five [14%] completed grade 12<sup>th</sup>. Two hundred and fifty nine respondents [65.4%] had their own land, and three hundred and twenty five [81%] living in their own house. One hundred and eighty four [46.2%] of the respondents had electricity facility, three hundred and three [75.8%] had the facility of separate kitchen and toilet.

TABLE 4: COMPARISON OF SOCIO-DEMOGRAPHIC VARIABLES WITH WAIVERS GRANTED AND PAY CATEGORIES OF SERVICES AT JIMMA UNIVERSITY SPECIALIZED HOSPITAL, SOUTH WEST ETHIOPIA (MAY 2009)

No	Socio-Demographic Variables	Paid	Granted free/wavier	Total	p-value
1	Sex				0.836
	Male	136 [61%]	88 [39%]	224	
	Female	105 [62%]	65[38%]	170	
2	Residence				0.002
	Urban	111[71%]	45 [29%]	156	
	Rural	132 [55%]	107[45%]	239	
3	Age				0.582
	18-24	73 [61%]	45 [39%]	118	
	25-34	75[78%]	21 [22%]	96	
	35-44	28[48%]	30[52%]	58	
	45-54	66[73%]	24 [27%]	90	
	>55	21[60%]	14[40%]	35	
4	Occupation Government employees				0.003
	Merchants	26 [83%]	5 [17%]	31	
	Farmers	35 [76%]	11 [24%]	46	
	Housewife	72 [53%]	65 [47%]	137	
	Students	29 [69%]	13 [31%]	42	
	Other workers	65[60%]	43 [40%]	108	
	Unemployed	11[ 52%]	10 [48%]	21	
	4 [40%]	6 [60%]	10		
5	Monthly income				<0.001
	<300 Birr	106 [57%]	79 [43%]	185	
	300-500 Birr	65 [53%]	58 [47%]	122	
	>500 Birr	69 [77%]	14 [23%]	83	
6	House ownership				0.767
	Rented from kebele	10 [55%]	8 [45%]	18	
	Rented private	34 [67%]	17[33%]	51	
	Own house	196[61%]	125 [39%]	321	
	Free	3 [50%]	3[50%]	6	
	Others	1 [100%]	0	1	
7	Education				0.370
	<Grade 1	41 [48%]	43[52%]	84	
	Grade 1-6	50 [63%]	29[37%]	79	
	Grade 7-10	48 [65%]	26 [35%]	74	
	Grade 10-12	28[78%]	8 [22%]	36	
	>Grade 12	28 [62%]	17 [38%]	45	
8	Main source of income				0.000
	Employment				
	Farming	62[75%]	21[25%]	83	
	Business	116[51%]	110[49%]	226	
	Others	63[80%]	16[20%]	79	
	3 [37%]	5 [63%]	8		
9	Land ownership				0.000
	Yes	140[55%]	116[45%]	256	
	No	101[74%]	35 [26%]	136	
10	Family size				0.628
	1-2	22[64%]	12[36%]	34	
	3-5	100[63%]	59 [57%]	159	
	>5	12160%]	82[40%]	203	
11	Self assed poverty level				0.001
	Very poor	29[49%]	30 [51%]	59	
	Moderately poor	152[59%]	104 [41%	256	
	Not poor	51[80%]	13[20%]	64	

**WAIVERS AND EXEMPTIONS RECEIVED BY RESPONDENTS**

Out of total 401 exit interview respondents two hundred and forty four [60.8%] paid for the services and one hundred and fifty three [38.2%] claimed that they got free treatment from the facility. The proportion of respondents aware of free health care for poor was 97% and 92.3 % for urban and rural respectively. Out of these respondents 26.9% got this information about free health care provision from their kebele and only 4.5 % from facility level. One hundred and forty three [35.7%] of respondents claimed that they are facing problems to get free treatment card from kebele. One hundred and eighty eight (46.9%) of the respondents reported that they know many people who did not get free treatment letter, even if they were deserved. Two hundred and one (50.1%) claimed that they personally know people who are not going to health facilities because of their inability to pay. Two hundred and eight (51.9%) reported they know people who are rich are getting free card from kebele. Three hundred and three respondents [76.1%] believed that the cost of health care is high so there is a need for pro-poor health care financing system while three hundred and ninety three (98%) respondents heard about health insurance schemes. Two hundred and sixty four respondents had the awareness on private insurance and ninety nine (24.7%) had membership in community based insurance schemes. Comparing the pay categories of respondents with their socio-demographic characteristics: monthly income, occupation, land ownership, and residence, source of income and self assessed poverty level of the respondents turned out to be statistically significant, while, age, sex, house ownerships marital status, education level, family size etc are not significantly associated.

## RESULTS OF IN-DEPTH INTERVIEWS

We present below the opinions expressed by various stakeholders at facility level through in-depth interviews. The vice president for health services expressed the opinion that *"The user fees settled in our hospital is very low compared to the hospitals run by federal Ministry of health .So we are planning to revise the fee this year itself. But there should be a window for poor people. I don't think that user fees will produce a big problem for the people because majority is getting either free treatment or exempted from the payment"*. The administrator expressed his dissatisfaction about the selection criteria for the poor. He told *"I know that many people who do not deserve are getting benefits of free card but the selection done by kebele level. Government should take necessary steps to avoid this kind of leakages."* One official from ministry pointed out the positive aspects of user fees. *"We have very good examples in our country that user fee system is working in good manner. Many hospitals run by ministry of Health are collecting significant amount of money and utilizing for the development of hospitals. Such a mechanism is needed for teaching hospitals also."*

## DISCUSSION

This study assessed the role of user fees as a health care financing mechanism in Jimma university hospital. Through this study we attempted to examine the health service utilization, revenue from user fees, utilization of revenue from user fees, assessment of free health care services etc. This hospital is governed by the Ministry of Education as a teaching hospital in the country. Total four teaching hospitals in the country under the direct control of Federal Ministry of Education. The user fee levels fixed by the Ministry of Education is less compared to the fees charged in other hospitals run by Federal Ministry of Health. Another feature of the user fee system in these hospitals is revenue from user fees is not permitted to retain and utilize at facility level for the expansion of services. The amount should be remitted to Ministry of Finance and Development. So the development of the hospital is mainly depends upon the annual budget allocated by the government and some external aids. The results of the study showed that health service utilization decreased significantly in the year of 2006-07, but this decline in utilization is not due to user fees. In depth interview with hospital authorities revealed that there are other reasons for this phenomenon. There was severe shortage of trained professionals and availability of medicines in many departments during that period. This may be the reason why health service utilization declined in that period. But again in 2007-08 the health service utilization has increased, because now many departments have the facility of residents and specialists and have the facility of modern diagnostic and therapeutic equipments. This is well noticed in the areas of dentistry and surgery. But there is a sharp decline in utilization of out patients departments providing free services. The exact reason behind this is not clear, but a community health center which is functioning in Jimma town is retaining user fees at facility level and functioning well. The access for free health services like immunization, ART, TB and MCH services are available in this facility also.

The study shows that the total budget allocated and used by the hospital is increasing but it is not enough to cater to the health care demand of the growing population in the area. In-depth interview with the officials of Jimma University Hospital revealed that many times they are in financial crisis and facing difficulties for purchasing medicines and maintenance of bio-medical equipments. The results reveal that revenue from user fees is increasing significantly compared the other countries of Sub-Saharan average. But when compared to the percentage of total budget allocated to the hospital the revenue from user fees is declining. Leakages and under coverage is common phenomena, because the criteria for exemption from user fees is decided at kebele level. Hospital authorities don't have any direct control on this matter.

Another factor is the revenue from user fees is not utilized for the quality improvements of the hospital. There is no updated guideline or training for the staff. No incentives for encouraging staff to collect more money, so they are less motivated and accountable for the collection of money from patients. Proper recording system is also needed to improve the situation. Though all key informants appreciated the role importance of user fees in public health facilities, most have reinforced the need to grant free health care for poorer sections of the society. However, as it has been seen in other studies in other countries the problem lies on the absence of clearly stated criteria and means testing while grant fee waivers.

This particular study examined the free health care provision in Jimma University Hospital through an exit interview among 401 respondents. Out of the total exit interview respondents two hundred and forty four [60.8%] paid for the services and one hundred and fifty three [38.2%] claimed that they got free treatment from the facility. The proportion of respondents who are aware of free health care for poor was 97% and 92.3 % for urban and rural respectively. The sources of information for majority are from their kebele and only 4.5 % are from facility level. One hundred and forty three [35.7%] of respondents claimed that they are facing problems to get free treatment card from kebele. Forty six.9% of the respondents reported the possibility of the under coverage while 52% claimed a possible leakage in the free health care system. This could imply the failure of equity goals, which are the primary aims of exemption policies. This problem could possibly be alleviated by setting up a transparent and organized free health care provision. Three hundred and three respondents [76.1%] believed that the cost of health care is high so there is a need for health care financing system while two hundred and sixty four respondents had awareness on private insurance and ninety nine known about community based insurance schemes. Expanding community health insurance mechanism [Edir] is one of the strategies of health care financing in Ethiopia, so the awareness on this issue can be seen as a great achievement of government policy. In this study the socio-demographic variables such as income, occupation, landownership, source of income etc are found to be associated statistically significant with free treatment and waivers. Very interestingly self assessed poverty level show highly significant association with free treatment. This may show that despite the absence of clear guidelines for selection criteria, people who deserve have got the service.

## CONCLUSION

The results of the study thrown light on the finding that neither theory nor analysis offers any clear evidence of the impact of user fees on service utilization. This could also be attributed to deficiency in data sets that we used. There is no evidence on the impact of user fees on health service utilization. However other factors like the availability of health professionals and medicines are affecting the health service utilization. Although the fees structure was remained unchanged for many years, the cost of health services remains an important reason for low level of utilization of health services in Ethiopia. The study shows the clear evidence that the revenue from user charges is increasing continuously. There is 7.8% increase in the revenue from user fees in the year of 2008, but the public health budget has increased this period while a 4.7% increase was witnessed in 2008. This is the reason behind the decline in percentage of user charges to the allocated budget of the hospital. If the revenue is allowed to utilize for the expansion of services one can expect the quality of services to improve and along with improve health services utilization. But before setting an optimal strategy on user fees there are certain key areas which should be considered. *First* the identification of beneficiaries for free services and exemptions schemes. If potential beneficiaries are identified and considered, the equity part of user fees will be taken care. *Secondly* the protection of households against financial risk associated with illnesses requires attention. Some health insurance mechanism in the form of social or community insurance is needed to address the risk related to catastrophic illness of the poor and certainly help to improve the health care utilization. Now the government of Ethiopia is planning to increase the user fees in public health facilities. A significant increase in user fees may reduce the demand for health care or place an additional burden for household budgets. While restructuring of user fee system will be appropriate only if accompanied by other efforts simultaneously increase the demand for health care services and level of utilization of public health facilities.

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**EXPORT GROWTH OF NON – OIL SECTOR IN OMAN: THE ERA OF LIBERALIZATION****DR. THRESIAMMA VARGHESE****ASST. PROFESSOR****FACULTY OF BUSINESS****SOHAR UNIVERSITY****SULTANATE OF OMAN****ABSTRACT**

*Sultanate of Oman has seen many economic changes and developments in Oman economy during the post liberalization era. His Majesty Sultan Qaboos attaches great attention to economic diversification strategy, which aims at developing the non-oil sectors, expanding production base and reliance on high value added products that target export. In this context, a number of major projects have been approved and are under way. A major change in the economy is the share of hydrocarbon sector in the overall nominal GDP declined from 50.5% in 2008 to 40.9% in 2009, while the share of non –petroleum GDP increased from 50.6% to 61.3% during the same period. (CBO, Oman, 2009). Oman government's one major plan is to reinforce its non-oil sectors' contribution and increase its share to the national economy. The main aim of this paper is an evaluation of export growth of non-oil sectors of Oman. This paper will identify the crucial non-oil export commodities in Oman and its main trade partners. One of the main areas which have covered in this paper is the volume of trade and the trend of growth of non-oil exports, a comparison between pre & post liberalization in Oman. Here we have made an attempt to find out the targeted growth of non-oil export sector in Oman during 2010.*

**JEL CLASSIFICATION**

C33, Q13, Q32, Q33

**KEYWORDS**

Compound Annual Growth Rate, Foreign Trade, Globalization, Liberalization, Non-Oil Export.

**INTRODUCTION**

**W**e have seen many economic changes and developments in Oman economy after liberalization. His Majesty Sultan Qaboos attaches great attention to economic diversification strategy, which aims at developing the non-oil sectors, expanding production base and reliance on high value added products that target export. In this context, a number of major projects have been approved and are under way. His Majesty underlined the current developmental seventh Five-Year Plan (2006-2010) that has ambitious objectives of achieving an annual growth rate of not less than three per cent for fixed prices, as well as improving the standard of living of nationals and establishment of a number of major industrial and tourism projects. The plan also focuses on generating more jobs and setting up the principles of the economy that depend on knowledge and development of the role of the private sector in the national economy and increasing direct foreign investment. It also aims at spreading and developing the educational, health, clean water, electrical, housing and environmental services as well as the state administrative apparatus. A liberal trade regime has been integral to Oman's economic performance over the past few years, with high real GDP growth, low inflation, and surpluses in both its overall fiscal position and external current account. Despite the global financial crisis, the macroeconomic performance of the Omani economy in 2009 has been strong (CBO, Oman). This is very clear from the increase in the government expenditure by over 11 per cent to meet the requirements of the development projects. Still nominal GDP contracted by 23.5% in 2009 as against an impressive growth of five consecutive years since 2004. Another major change in the economy is the share of hydrocarbon sector in the overall nominal GDP declined from 50.5% in 2008 to 40.9% in 2009, while share of non –petroleum GDP increased from 50.6% to 61.3% during the same period. (CBO, Oman, 2009). Measures were also taken to reduce inflation from 12.4 per cent in 2008 to 3.6 per cent in 2009. The Omani government plans to reinforce its non-oil sectors' contribution and increase its contribution to the national economy. Oman aims at increasing the national industrial production by the year 2020 (Vision 2020 plan, Oman.). During 2008-2009 Oman has seen signifying high degree of trade openness.

**REVIEW OF LITERATURE**

Trade has always been a major force in economic relations among nations. In the World Economic and Social Survey conducted by the United Nations, international merchandise trade amounted to about 15 per cent of the world's GDP (Henderson 1998). The advantages of international trade have been discussed in many research publications. Put simply, trade enables a nation to specialize in those goods it can produce more efficiently and sell such goods that are surplus to its own requirements. Trade also enables a country to consume more than it would be able to produce if it depended solely on its own resources, and encourages economic development by increasing the size of markets (Husted and Melvin 1993). The tremendous growth of international trade over the past several decades has been both a primary cause and an effect of globalization. The volume of world trade since 1950 has increased by 20-fold from US\$320 billion to US\$6.8 trillion (World Bank Report, 2008).

A large part of the opening of domestic economies can be attributed to unilateral decisions, as in China and India (World Bank Report, 2007). World trade has exploded since the early 1960s. World exports have grown from just under US\$1 trillion a year (in dollars, year 2000 value) to nearly US\$10 trillion a year, that is, annualized growth of some 5.5% per year. Exports are clearly outpacing global output, which increased at some 3.1% per year over the same period. Between 1970 and 2004, the share of Exports relative to global output have more than doubled and is now over 25%.

World Bank has taken a study on Trade in services and found out that it has been growing at a pace similar to trade in goods at the global level because of liberalization of trade. Rising from US\$358 billion in 1984 to US\$2,000 billion in 2004, the share of services exports in total exports of goods and services has advanced modestly from 16% to 17.5% (World Bank Report, 2007).

WTO analyzed the world trade between 1970 and 2004, and reported that exports as a proportion of world output doubled to more than 25%; new technologies have diffused rapidly across the globe, and the total private financing of developing countries reached nearly US\$1,000 billion in 2004. Globalization is likely to remain a driving force, with exports as a proportion of world output likely rising to 34% by 2030 (World Bank, 2007). World merchandise exports rose 13% in 2005, for the first time exceeding the US\$10 trillion mark. Commercial services exports rose by 11% to US\$2.4 trillion in 2005 (WTO Report, 2006).

A study has been done in Brunei (Anaman, Kwabena, 2003) using compound annual growth rate (CAGR) of ten macroeconomic variables over the two periods and it shows that the growth was modest for total non-oil exports over the period. Since the mid 1990s, the Sultanate of Oman has been implementing a development strategy centered on a liberal trade regime and aimed at, inter alia, reducing its high dependence on crude oil and natural gas (almost 50% of its GDP, 65% of government income, and over 90% of merchandise exports). To this end, Oman is promoting downstream industries and tourism; improving education and health services; modernizing its infrastructure; and addressing some structural problems, including the privatization of state-owned enterprises (National Economy of Oman, 2008).



## THE OBJECTIVES OF THE STUDY

As the Omani government plans to reinforce its non-oil sectors' contribution and increase its contribution to the national economy, it would be good to evaluate the contributions of non-oil sectors to the Oman economy so far. Our main objectives are:

- 1) To evaluate the non-oil export growth of Oman.
- 2) To identify the major non-oil export commodities and strategies for non-oil export in Oman.
- 3) To find out the volume of export of non –oil sectors and identify the major export partners of Oman

## METHODOLOGY

This study has mainly taken a qualitative methodology. However, this also used quantitative methodology also by analyzed the non-oil export data of Oman since 1996(secondary data) and calculated the compounded annual growth rate of non-oil export sector in Oman.

## VOLUME OF EXPORT OF NON-OIL EXPORTS IN OMAN

We can see from the Table .1 that, despite slump in global demand, total non-oil exports of Omani Origin registered only a modest decline of 5.8% to RO 1849.5 million in 2009 from RO.1962.9 million in 2008.

**TABLE 1: VALUE OF NON-OIL EXPORTS OF OMANI ORIGIN (RO million)**

Classification	2005	2006	2007	2008	2009	% change 2009/2008
Live animals and animal products	90.6	74.5	86.9	174.7	126.2	-27.8
Vegetable products	16.1	12.9	15.4	24.5	21.0	-14.3
Animal or vegetable fats & oil	28.5	28.8	36.2	77.5	64.6	-16.6
Foodstuffs, beverage, tobacco & related products	35.5	32.1	38.1	48.5	60.7	25.2
Mineral products	50.5	216.1	450.1	623.8	400.9	-35.7
Products of chemicals and allied industries	89.2	138.7	176.7	307.2	376.7	23.6
Plastic, Rubber & articles thereof	33.0	31.9	112.9	187.3	250.5	33.7
Textiles & articles thereof	14.2	10.9	7.2	4.6	3.5	-23.9
Base metals & Articles thereof	95.8	123.7	120.7	164.8	367.2	122.8
Others	101.9	142.7	246.5	350.0	175.2	-49.9
Total	555.3	812.3	1290.7	1962.9	1849.5	-5.8

Source: Directorate General of Customs and Ministry of National Economy, Oman, 2009.

While exports receipts from mineral products & live animals ,animal products declined by 35.7% and 27.8% respectively in 2009. Base metals ,plastic and rubber articles & products of chemicals recorded growth of 122.8%,33.7% and 23.6%, respectively (Table.1). The increase in receipts from non-oil exports of certain commodities during 2009 was mainly attributed to start –up of operations (at full capacity) at several industrial projects ,including Sohar aluminum, Sohar international urea & chemical industries etc. (CBO, Oman, 2009).

## DESTINATIONS OF NON-OIL EXPORTS FROM OMAN

Even though Oman's non-oil exports market is quite broad based, the concentration is very high. UAE and India together accounted for almost 55 per cent of the country's non-oil exports in 2009. According to the CBO report, the share of UAE in total non-oil exports increased further from 34.9 percent in 2005 to 39.5 percent in 2006.

**TABLE 2: DESTINATIONS OF NON-OIL EXPORTS OF OMANI-ORIGIN (RO Million)**

Country	2006		2007		2008		2009	
	Non-oil export	% of total	Non-oil export	% of total	Non-oil export	% of total	Non-oil export	% of total
UAE	320.9	39.5	522.7	40.5	635.9	32.4	485.9	26.3
Saudi Arabia	49.0	6.0	59.2	4.6	163.9	8.3	130.6	7.1
U.S.A	15.6	1.9	19.5	1.5	54.2	2.8	68.3	3.7
Jordan	4.4	.6	4.3	.3	8.9	.5	11.1	.6
Yemen	20.9	2.6	27.5	2.1	25.9	1.3	25.2	1.4
Kuwait	15.7	1.9	17.1	1.3	30.0	1.5	16.4	.9
Qatar	31.9	3.9	51.2	4.0	98.0	5.0	72.1	3.9
Iraq	11.2	1.4	16.2	1.3	70.1	3.6	41.3	2.2
Pakistan	16.0	2.0	35.2	2.7	36.0	1.8	61.9	3.3
Syria	3.0	.4	10.1	.8	8.1	.4	11.4	.6
India	124.5	15.3	175.9	13.6	247.4	12.6	264.3	14.3
Somalia	16.3	2.0	14.4	1.1	18.2	.9	23.4	1.3
Bahrain	6.6	.8	9.3	.7	17.6	.9	14.2	.8
Taiwan	8.0	1.0	26.3	2.0	41.4	2.1	16.3	.9
Iran	12.2	1.5	7.3	.6	20.9	1.1	5.6	.3
Others	156.2	19.2	294.5	22.8	486.4	24.8	601.5	32.5
Total	812.4	100	1290.7	100	1962.9	100	1849.5	100.0

Source: Directorate General of Customs and Ministry of National Economy, Oman, 2009.

India emerged as the second most important market for Oman in 2005 with a share of 12.7 per cent, which further increased to 15.3 per cent in 2006 on account of higher export of fertilizer by OMIFCO. The Table.2 shows that trade with UAE it is showing less improvement of 26.3% in 2009 but in India on the same time shows a little improvement by a growth of 14.3% in 2009 while it was 12.7% in 2008. Despite the growth in trade between the US and Oman, the share of the US in Oman's total non-oil exports has been going down. From 7.6 per cent in 2004, it declined to 3.4 per cent in 2005, further to just 1.9 per cent in 2006. But, we can find out little improvement in Oman-US non-oil export in 2009 with 3.7%. It is because of the US-Oman FTA, this trend is expected to continue as more Omani exporters will target the US market. Similarly, exports to other advanced countries, whose currencies had exhibited significant cumulative appreciation against the US dollar since 2002 (such as the Euro-area and the UK), did not show much increase. These were also not the leading destinations for Oman's non-oil exports. In fact, the potential competitive advantages that should have arisen following the sustained depreciation of the US dollar were not there, as is made clear by the country-wise information on Omani exports.

## STRATEGIES FOR NON-OIL OMANI –ORIGIN EXPORT SECTOR

Oman government has started OCIPED which is trying to promote the non-oil sectors growth & it is trying to promote the SMES more because it will definitely give development to the Oman economy. Directorate General of Export Development (DGED) of Omani Centre for Investment Promotion and Export Development (OCIPED) whose role is to develop non-oil exports of Omani origin, has hailed the significant growth achieved in non-oil Omani origin exports during the first ten months of 2008. In ancient days, Oman, then known as Majan, was at the forefront of international maritime trade as Omani dates, traditional handicraft and fragrances were very popular in Africa, Middle East, Europe and Asia. With the discovery of hydrocarbon reserves in the 20th century, like rest of the other Gulf States, Oman's economy shifted focus to the oil and gas sector. However, with the increased stress on diversification of the economy, Omani products across different categories are coming to the fore and gaining wider acceptability in the international market. In accordance with Oman's long-term development strategy (Vision 1996-2020), the contribution of agriculture and manufacturing to GDP are expected to increase, respectively, from 2.8% to 5%, and from 7% to 29% during the period, whereas the shares of services, and oil and natural gas are to fall to 7% (52.3% in 1996), and 19% (over 40% in 1996), respectively. The value of non-oil Omani origin exports touched RO 1,962 million during January-October 2008 as against RO 1290 million during the same period in 2007 registering an impressive growth rate. But in 2009 the trade figure shows little less than 2008 that is RO.1849.

In fact, the strong growth recorded by exports of non-oil products of Omani origin has been one of the most impressive aspects of the country's macroeconomic performance in 2006. Growing by 46.3 3 per cent over 2005, the value of non-oil exports (excluding re- exports) stood at RO812.3 million in 2006. In 2002, these were worth just RO261.6 million.

It is clear from the table that in 2009 growth was driven to a large extent by the 400 .0 per cent increases in exports of mineral products (cable pipes, iron and steel products, etc.). It was followed by the chemicals and allied industries sector, which registered a growth of 376.7 per cent in 2009, over and above the 307.6 per cent growth seen in 2008. The strong performance of this sector was primarily due to the export of fertilizers by Oman India Fertilizer Company (OMIFCO), which was initiated in 2005. On the other hand product categories, the Bank said, "in the non-oil export basket, most of the other items, such as live animals and animal products, vegetable products, foodstuffs, etc., exhibited negative growth, reflecting the growing demand within the economy for such items in the face of rising inflation. Export of textiles and articles thereof continued to exhibit the negative trend that started in 2004, reflecting primarily the impact of termination of the multi fiber agreement (MFA) related quotas under the WTO. (WTO, 2006).

However, it is the changing portfolio of the non-oil exports' basket that indicates the shift in the economy's thrust on manufacturing industries the main strategies which OCIPED is following: firstly they are Identifying the thrust products and target markets.and then Find opportunities to leverage various trade pacts.Then Fix export targets and monitor them. Extend support services.Identify thrust products and target markets,find opportunities to leverage various trade pacts is their next attempt.They are also Fixing export targets and monitor them, and also Extending support services.Oman Now we are having Trade Statistics for International Business Developments through Trade Map and Business information for going global through Product Map. Oman has a Comprehensive source of tariffs and market access measures through Market Access Map. If anybody wants know about a country profile we will get it from country map. Oman is first country in GCC and second in the Arab states to establish a trade map &it is also the first country in GCC & Arab states to establish product map covering 72 non –oil sectors.(OCIPED,2008).Oman provides customs duty for 500 products in 180 countries. (OCIPED, 2008). It is also available a generalized System of Preferences for Omani Products and market Reports for select products in target countries. . The Omani Center for Investment Promotion and Export Development (OCIPED) has developed a comprehensive export development strategy for non-oil products of Omani origin.

Free trade agreements and exchanges of services involve the transfer of patents or duties on new products or new forms of production, are accelerating the corporate penetration of new technologies from numerous countries. This is also fostering a rapid rise in the cross-border flow of information that is economic and technological, but also political and cultural, which could lead us to a form of the "global village" (Marshal McLuhan, 1968) .This flow is fostered in particular by new discoveries in telemetric and new forms of information organization using exchanges of computerized documents. (OECD,1991).So in Oman the non-oil export opportunities to leverage the GCC Customs Union and various FTAs ,signed / on the anvil Arab FTA, FTA with USA, GCC-EU FTA and GCC- India like that collaborations.

On its part, OCIPED has chalked out a strategic framework to achieve this target. OCIPED have prioritized the products for a focused approach. The products in the thrust area have been segmented into four categories." The first, high-value products whose exports are valued at RO50 million and above. Urea comes in this category. The second is of medium-value products, whose exports are worth RO5-50 million. They are likely to grow rapidly and may need support initiatives that are generic like infrastructure, trade pacts, etc, electric cables, steel tubes, marble, vegetable oil, steel bars and rods, BOPP films and products, aluminum profiles, lead acid, copper wire, detergents, biscuits and other cocoa products, potato chips and condiments, among other fall in this category.

The third category is of low-value products, whose exports are between RO3 and 5 million. They have the potential to graduate to the medium band and may need product-specific support from OCIPED and other entities. Products in this category include steel billets, ceramic tiles, metal furniture, plastic tableware and kitchenware, rubber and plastic mattresses, and air conditioners, among others. The last is a special category comprising products whose exports are currently between RO1 and 3 million but which have a good growth opportunity. Frozen fish, dates, glass containers, canned tuna, surgical gloves, tomato paste, switchgears, transformers, electric heaters and mushroom are part of this category. This export performance have been in line with the export strategy adopted by OCIPED, which has identified thrust products and target markets for the period 2006 – 2010. Omani manufacturers today export products that range from steel, cement and fine ceramic tiles to foodstuffs, fibre-optic and electrical cables, and from electrical transformers, industrial packaging materials and fertilizer to world-famous perfume. Here are some of Oman's most successful non-oil exports.

## ANALYSIS AND DISCUSSION

The growth of non-oil export is showing different pattern of growth because of the economic scenarios prevailed in particular years. The non-oil Omani origin exports increased from RO. 173 million during the year 1996 to RO. 1850 million in 2009.

TABLE 3: NON-OIL EXPORTS OF OMAN (RO Million) -1996-2009

Year	Non-oil export of Oman(RO Million)
1996	173
1997	203
1998	199
1999	201
2000	247
2001	266
2002	261
2003	304
2004	420
2005	555
2006	812
2007	1291
2008	1963
2008	1963

Source: Directorate General of Customs and Ministry of National Economy, Oman, 2009.

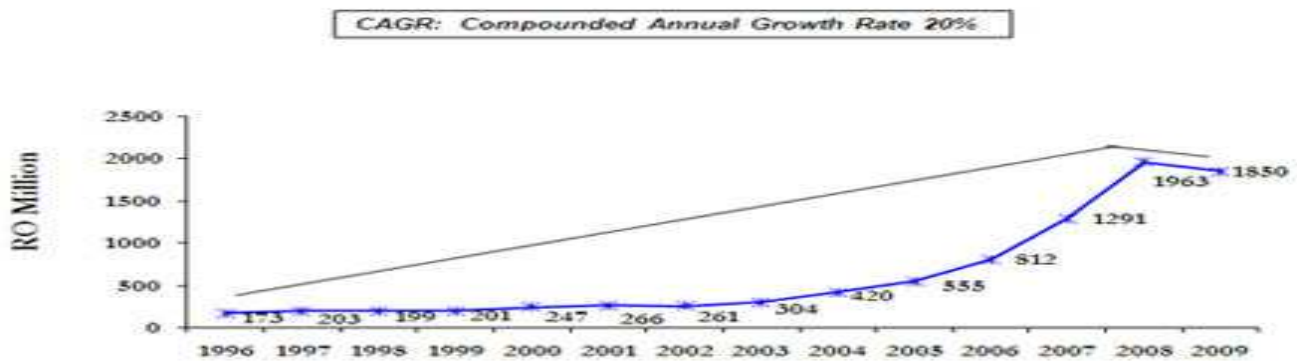
The Table .3 is showing the trend of growth of 10 years, 1996-2009. The compound growth rate, directly tracks how the value of exports, imports or trade is changing over time. This is one of the most common indicators used when assessing the progress of an economy in any area of economic activity. (Krugman.P.R.2000). Often the rate is calculated at the level of product groups to identify 'dynamic sectors' or at the regional level to indicate 'dynamic regions.' The compound growth rate is the annual growth rate required to generate a given total growth over a period of length n. If n is equal to 1, this is simply the percentage change in exports. The growth rate may also be calculated for a subset of destinations, or for a subset of products, with appropriate modification. The growth rate can also be calculated for imports and/or trade (imports plus exports). The formula for finding out the compounded annual growth rate (CAGR) is

$$\{x1w/x0w\}^{1/n-1}100$$

where X1 is the export flow in the end period & X0 is the total export flow in the start period. 'n' is the number of periods (not including the start).

The Graph .1 below is showing the compounded annual growth of non-oil sector of Oman since 1996 registering a Compounded Annual Growth Rate of 20%.

GRAPH 1: THE COMPOUNDED ANNUAL GROWTH RATE OF NON-OIL SECTOR IN OMAN



Source- Computed using the secondary data.

It is clear from the Graph.1 that during 1997 to 1998 the growth of export is showing no growth at all. It was RO 203 in 1997 and it reduced to RO.199 in 1999. This trend is same in the year 2001 and 2002. During 2001 the volume of export was RO.266 but it reduced to RO.261 in 2002. Because of global recession year 2009 has seen a slump in non-oil export in Oman (OR.1850 Million) While it was OR 1963 Million during 2008. All other years it has been showing an increasing trend of growth of non-oil export in Oman. Compounded Annual growth is showing a rate of 20% it is a good sign for Oman's non-oil sector. This growth trend is mainly because of the globalization & trade liberalization in Oman.

## CONCLUSION

The Oman's non-oil export sector's growth patterns discussed above been helpful for Oman economy's total growth. Oman non-oil sector has learned to sustain and keep its pace in global world and is growing smoothly. The flexibility and innovativeness of this sector has made this sector to prosper and flourish with a high share of GDP of overall economy. Oman's non-oil export products compete on markets spanning more than 80 countries in Asia, Africa, the European Union and the Americas. Oman demands an exacting performance from its private sector: regulations laid down for Omani products are on par with the strictest worldwide. Thus it can be inferred that Oman's non-oil sector has effectively made an impact and created its market in rest of the world. As per projections made by the Omani Centre for Investment Promotion & Export Development (OCIPED), Oman is targeting non-oil exports to touch RO 2,750 million by the end of the year 2010. That means an almost five-fold growth in the period 2005-2010, with a compounded annual growth rate (CAGR) of 38 per cent. It is encouraging to note that growth has achieved consistency and uniformity in most of the cases. It means that this sector has started organizing itself in tune with the globalization, which is a healthy sign.

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**CORPORATE SOCIAL RESPONSIBILITY: ORGANIZATIONAL COMMITMENT IN THEORY & PRACTISE****DR. QADAR BAKHSH BALOCH****ASST. PROFESSOR****DEPARTMENT OF MANAGEMENT SCIENCES****ISLAMIA COLLEGE UNIVERSITY****PESHAWAR****PAKISTAN****IMRAN ULLANH KHAN****CHANCELLOR****ABASYN UNIVERSITY****PESHAWAR****PAKISTAN****SHAHED JAN****RESEARCH SCHOLAR****QURTUBA UNIVERSITY OF SCIENCE & INFORMATION TECHNOLOGY****PESHAWAR****PAKISTAN****ABSTRACT**

*Corporate Social Responsibility (CSR) is a phenomenon that evolves from charity and stewardship principle reflects about business and society relationship over time. The concept of CSR entails unilaterally and voluntarily adoption of socio-environmental policies of good governance that accommodate socio-moral and ethical concerns. Amongst the industries being criticized on having under performed in CSR sector in Pakistan does include Pharmaceutical sector that has otherwise very important role to play in increasing availability of medicines to the marginalized and underprivileged groups. The phenomenal relationship between pharmaceutical industry and the human life where business and the health interests run parallel, calls for an in-depth investigation to measure true impact of CSR related obligations fulfilled by the pharmaceuticals industry in Pakistan. The article was undertaken to unearth true perspective of CSR practices in pharmaceutical industry of Pakistan with a view to formulate a befitting response that is fully socially driven and leading to the ultimate well being of the society. Hence, the research study is aimed at exploring and describing the level of knowledge, degree of attitude and practices with regards to corporate social responsibilities and ethics being practiced by the pharmaceutical industry in Pakistan.*

**KEYWORDS**

CSR, Pharmaceutical, Industry, Governance.

**INTRODUCTION**

Corporate Social Responsibility (CSR) is the latest management fad that has permeated field of managing organizations (Guthey, Langer & Morsing, 2006) (CSR) as a business response to the growing public concerns about its socio-moral responsibility towards the well beings of society. The concept of CSR has acquired such significance that today it is strategically driven, operationally designed and tactically practiced in global business environment. The constant debate and pressures has prompted some organizations to introduce ethical codes of conduct and engage society through social endeavors beyond organization's economic interest (Lewin, 1983; White & Montgomery, 1980). However, the concept of CSR seems to be slow, unsustainable and at its nascent stage of the development. CSR encompasses those responsibilities that multi national companies and other national and international business concerns owe towards the society they operate around. The responsibility calls for the role they are morally and ethically obliged to play in reducing some of the inequalities between rich and poor, down trodden and the elite classes, privileged and the marginalized groups so on and so forth. Over the years there has been increasing interests amongst the businesses on the concept of CSR on the ground that businesses are part of society and they have obligations towards its welfare and wellbeing as they survive because of it (Jones, 1980; Kok et. al, 2001).

The intensive debate on the concept of CSR gave birth to variety of definitions. However; all of them commonly agree that the philosophy of the concept revolves around the relationship of business and society over time. The wide ranging dimensions of the concept has gradually overlapped various activities and today it fits in various managerial previews like HRM, Marketing, industrial relations, business ethics, total quality management, finance and business communication, motivation and human rights at work place etc. Literature reviewed helped in tabulating some of the often quoted definitions of CSR as evolved over period of time as follow:



TABLE 2.1: EVOLVING DEFINITIONS OF CSR

Literature Reference	Definitions of CSR
Drucker, 1942, <i>The Future of Industrial Man</i>	The economic purpose of the existence of any business company is maximization of profit and this end is achieved only through realization of social dimension that is customer satisfaction. Therefore, social stability and social health of any industrial society is one of the dependent variables corporation's responsibilities besides its economic targets.
Drucker, 1946	Survival of any enterprise is outcome of the harmony between the company's objectives, objectives of the state system and the people. Any conflict between the objectives of these three interactive players would stuck the business firm in the middle of the road. Therefore, corporations are responsible for worker's human dignity and status, and worker's training and development as corporation's resource and not cost.
Drucker, 1946	The fundamental question of the present society is not that we want a big business but what do we expect out of it? It means how the organization s are going to serve the wishes and demands of the society while ensuring their organizational goal of maximization of profit? To ensure a harmonious balance between profit maximization and social benefits like high employment, social contributions and provision of social good the government must deliver its policy to control this all. ( <i>Concept of the Corporation, p.18</i> )
Bowen & Howard, 1953	Businesses are obliged to make and pursue those policies decisions which are desirable to social values of the community. (Cited in Carrol, 1999)
Davis, & Kieth, 1960	Execution of the businesses policies shall not be restricted to the firm's corporate interests only rather it should also cater for the socio-legal aspects as well.
Davis, 1973	Firm's response to, issues beyond the narrow economic, Technical, and legal requirements of the firm.
Zenisek, 1979	The "fit" between society's expectations of the business and the ethics of business.
Archie Carroll, 1979	The social responsibility is set of economic, legal, ethical and discretionary expectations of society towards the business organizations operating with in its premises
Bradshaw, 1981	The overriding role of corporate management is to meet people's needs with professional skills, continue to respond to the market place, produce quality goods at the lowest possible cost by efficient and sustainable use of resources.
Bradshaw & Vogal, 1981	The social performance of a large corporation hinges upon three corporate tiers; philanthropy, responsibility and policy.
Epstein, 1989	The business organizations have societal obligations of earning reasonable profits for their owners.
Nelson, 1996	Ethics has evolved that the business is obliged to function as per the dictates of the law, provide employment to the society, obey code of conduct and pay taxes.
Kilcullen & Kolstra, 1999	The degree of moral obligation that may be ascribed to corporations beyond simple obedience to the laws of the state.
Hick, 2000	CSR revolves around the relationship between the business and the society. It indicates the responsibilities and determines the business behavior towards its stakeholders.
Kok et al, 2001	The business is ethically and morally obliged to benefit its society. To achieve this, the business besides capitalizing on its economic goals, it shall commit its resources for the well being of the society and its people.
David Vogel, 2005	CSR is a very important dimension of corporate strategy and not a precondition for business success. The businesses must find a viable course of action between what is socially and ethically rights and what is economically profitable. ((CSR) is business response to the growing public concerns which revolves around its socio- moral responsibility towards the well beings of society.
Lord Holme and Richard Watts, 2007	CSR calls for the ethically right behavior from the business while pursuing its economic goals. The ethical behavior calls for business moral responsibility for improvement in workers life quality and well beings of their family and social groups. (Cited in Kazim Sherbano, 2010)
Philip Kotler, 2008	Kotler holds the view that a firm, besides satisfying immediate needs and wants of target market, shall also deliver value to the customer in a way that maintains or improves consumer's and the society's well-being for a long term as well.

**CONCEPTUAL FRAMEWORK OF THE CSR**

According to Bradshaw and Vogal (1981) there are three pillars or contributors that add to the social performance of any business concern. These three pillars are; corporate policy, corporate philanthropy, and corporate responsibility. *Corporate philanthropy* includes donations for some social cause or for the welfare of marginalized social groups, having no direct link to its business promotion or economic goals. Corporate philanthropy mostly focuses on delivering monetary contributions to support the causes like; education, child care, health, religious or community welfare and development. The famous management Guru Prof. Michael Porter and marker (2002) call it a most cost effective way for a firm to improve its competitive advantage. *Corporate responsibility* denotes behavioral pattern of the corporation while it is pursuing its corporate goal of maximization of profits. Whereas, the *Corporate Policy* defines firm's approach towards the issues of public concerns –capable of affecting business life and the well being of the society as well. There are number of models that provide framework of the CSR however, Carroll's CSR Pyramid' has been validated by a number of research studies (Pinkston& Carroll, 1996).





## PRINCIPLES OF CORPORATE SOCIAL RESPONSIBILITY

A set of CSR principles which are commonly being followed by the most of business firm in designing, formulating, implementing and evaluating their CSR strategies is listed below:

- *Respect for Human Rights:* Ensuring that none of the step of business operation starting from its conception to the deliver phase is in contradiction to the obligations and principles enshrined in the Universal Declaration of Human Rights-1948.
- *Valuing & Managing Diversity:* The organization must respect intrinsic values of each culture and ensure non-discrimination on the basis of gender, faith, blood, race, ethnicity, language, culture, political or social affiliations, marital status, and demographic variants.
- *Dialogue:* Encourage and ensure dialogue with all stakeholders and keep line of communication open with the community so as to meet local conditions and generate positive benefits both for community and the firm.
- Maintaining high standard of Integrity and fairness in all type of dealings, and practices
- Ensuring sustainability of business practices contributing long term socio-economic welfare and development of community and the environment.
- Social insight and community knowledge: Architecting and managing good CSR practices hinges upon the deep insight of the community, its values, and needs and cross cultural understanding of the society.
- Ability to assess Social Impact: The firm shall be able to assess long term social consequences due to its old and new business operational activities so as to rightly facilitate its decision making process.

## RESEARCH METHODOLOGY

Functional/ operational level management cadre of Multinationals and national pharmaceutical firms located at NWFP was served with questionnaire. The questionnaire (attached as annexure-A) was served to the 48 functional managers of the 24 pharmaceutical firms including multinationals and national both. Considering the relevance of the questions with the functional area of the firms these two functional managers were comprised of HR manager and the Marketing manager. The questionnaire was focused on gathering data about the hygienic provisions at work place, firm's contributions in socio-cultural development of the community, ethical dimensions of marketing practices and the environment protection responses of the pharmaceutical industry. It took almost one month to distribute the questionnaires and four months to get back the completed questionnaires. 48 questionnaires were distributed and 42 returned showing a return rate of 87 percent. The responses were tabulate and statistically analyzed using Chi-Square with the help of SPSS.

## RESEARCH FINDINGS

Findings related to the functional dimensions of the CSR practices are derived from the responses obtained from the functional managers (Human Resource Manager and Marketing Manager) of the sampled pharmaceuticals firms operating in KPK, Pakistan. The research investigation from functional managers was aimed to determine whether the work place and other environment are hygienic and ethical or otherwise? The functional management approach towards the work place and work force, leadership attitude and interactions are in conformity to the ethical or CSR dimensions or otherwise?

*Workplace Provisions (Hygiene Policies):* being provided in the pharmaceuticals firms are satisfactory and need to be improved in their different dimensions as follows:

- In more than 71% firms there exists formal training and performance management system to improve the work related skills of their employees current needs and organization's future requirements.
- 61.9 % employees believe that their organizations care for their social welfare, health cover and security needs whereas, 31% of these employees termed these provisions temporary and occasional instances.
- 45.2 % managers believe that equality of the work force diversity at work place is being managed successfully against any kind of discrimination or inequality. However, 41 % managers are of the opinion that culture of equality at work place is occasional / not common and there is need for improvement in controlling the discriminatory practices which are occurring on the ethnic, racial, disability or minority or gender bases.
- Work force empowerment with regards to their input in organization's decision making process is below then satisfactory. Hardly 28.6% managers claimed that work force is duly empowered to participate in decision making process. Whereas, over 54% managers regards this type of empowerment an occasional feature based on whimsical behavior. Remaining 17 % have almost negative perception or no perception at all.
- Only 43% believe that their firms do respect for human rights and labor standards at work place whereas over 40% disagree and opine that respect for human rights and labour standards is occasional phenomenon that varies with time and space and person to person.

*Company's Involvement in Community Welfare / Social Development of Local Sector:* Research finds varying responses to different aspects of this dimension. However, the overall response could be graded just satisfactory and calling for improvement in different dimensions as follow:

- Over 88% firms do offer skill development or job opportunities to the local people.
- Over 95 % companies were found having social initiative contributing in improvement of public health and labeling of food and non-toxic chemicals.
- Over 59% companies prefer purchase of local raw material and other stores for their production or maintenance operations.
- The organizational culture lacks participation in local social activities and has poor record of sponsoring holding of social events. Over 88% confess that they participate in community social events occasionally and don not follow it as a permanent feature of their organization's culture. Only 9% firms claim to have culture of participation in local social events and sponsoring them. Therefore, the research finds poor record of the firm in fulfilling this obligation of CSR.
- Another critical area of firm ethical or CSR is with regard to their waste disposal and environment protection practices. Hardly 2.4 % respondents take credit of taking local community in to confidence in waste disposal, and other environmental policies. Research finds that nearly 42.9 % companies occasionally take local community in to confidence and over 55% have negative practice in this regard.
- Only 4.8 % companies regularly invest in the improvement of social sector development in the area of generating economic activities and 19 % invests occasionally. Whereas, over 73.8 % don't have any such investment to improve the social sector or the society from where they earn their business profit.
- The research finds that the companies have very poor record of integrating local labour markets and inclusion of disadvantaged groups while recruiting employees for their operations. Only 11.9 % were found regular in fulfilling this obligation and 21.4 % were found occasional performer. However over 64 % has totally negative response or compliance to this ethical / CSR obligation.

*Environment Protection and Preservation:* Organizations have mixed response towards environment protection and preservation obligations. The overall standard is just satisfactory and needs lot of improvement in many areas as follows:

- 31% follow energy conservation policies and nearly 55% companies have either no such programs / priorities or they don't know what to do in this regard.
- Only 40% firms are minimizing their industrial waste through recycling process and most of them are multinationals. Over 55% don't have any recycling system of their chemical/ industrial waste which is harming the society and degrading environment badly.
- Over 28% firms have some sort of system in place to prevent pollution by controlling discharge of contaminated material, fume/ smoke emission in to air etc. Whereas, over 66% firms either don't have any such system or they don't have priority or knowledge of their importance for the society and socio-ecological environment.
- Similarly 19% firms have adopted green field practices to protect and preserve the natural environment and consider potential environmental impact while developing new product. However, over 70% pharmaceuticals firms do not follow any such practice which is very alarming.

**Market Policies & Practices:** The research also found that firms are not consistent in following socially responsible market policies and practices and calls for improvement in following areas:

- Over 53% companies do not provide information and labeling about their products and lack transparency in their post sale obligations - warranties/ guarantees.
- On the other hand, 79 % of these firms claim to be following fair, transparent and honest purchasing policies, and quality practices and procedures while dealing in all its supply chain contracts, and advertising.

**Organizational Culture:** The research found that core values and organizational culture of most of the companies are dubbed with ethics and CSR policies as follows:

- 85.7 % companies follow well defined socially constructed values and ethical practices.
- 76 % internal stakeholders and 57 % external stake holders well aware of company's values
- 96.7% companies follow a well chalked out plan to train its employees on the company's values, and conduct ethics.
- 85.7 % firms claim that their core values related to ethics and CSR are formulated in consultation with stakeholders and approved by the Board.
- 76 % firms claim to share health related burden of the marginalized or disadvantaged people out of their profit

## ACCRUING BENEFITS

The research contends that if the practices of CSR are followed in true letter and spirit in any industry than there are likely chances of following benefits as outcomes the business:

- **Human Resource at Work Place:** Motivation, pride and loyalty at work place, right man at right place at right time, increase in productivity and decline in turnover and absenteeism.
- **Marketing Gains and Control over Operational Cost:** CSR organization are benefited with increase in sales because of customers satisfaction, loyalty, retention and referrals, environmental savings. Respect and adherence to laws and regulation would reduce regulatory and legal cost of inconsistent practices, and environmental savings.
- **Availability of Finance:** Socially responsible organization earn good reputation because of their fair, transparent reporting and accounting, gain trust of the community and produce productivity out of the good governance. This results in to availability of reliable and loyal investors on one hand and dependable creditors and financial institutions on the other hand.
- **Minimizing Risk:** A socially responsible business is respected by the all components of a society. Resultantly risk of legal liabilities, media backlash or protests and strikes is reduced considerably. Rather because of its better impact on society and the environment its brand loyalty is not only protected rather promoted to manifolds.

## SUGGESTIONS FOR IMPROVEMENT

**Satisfaction of Customers, Clients and Consumers:** The famous business phrase that 'customer is king' shall be taken as benchmark for business practices. If the customer is satisfied at given point in time than it can increase sales and generate profit but if he is cared on long term bases then his loyalty becomes source of brand loyalty and retention of market share for long. Therefore, there is need to practice relationship management, ideal humanized behavior and humane treatment, long term interests of customers, respecting their culture, values, norms, belief and dialects.

**Suppliers & Investors:** CSR needs to give similar value to the suppliers and investors as of the customers or clients. Compromising CSR standards at supply or investment side of the business is going to damage the quality of the business and turn the responsible organization into irresponsible ones. Hence there is need for good governance, transparency, strict monitoring of procurement, production and distribution process, reporting/ disclosing of information and managing / valuing diversity in compliance to the laid down standards.

**Product & Production Industry:** The nature, material, design, quality, price, and feature of the product must be in confirmation to the socially responsible standards/ expectations. The product must also be friendly to the environment including energy, water, air, soil, wild life, and green fields. Nature of existing products. The product and production account must be controlled through clean books, and disclosed as per the law of the land. Fair and free competitive environment are the hallmarks of the corporate social responsibility.

**Community Development:** The fair, true and transparent reporting of financial earnings and revenues and tax reporting, avoidance of corruption, bribery and corrupt practices, affirmation to the laws and regulations is not the only social or legal process expected out of businesses. The society also expects that the business firm would continue social philanthropy, social investing, community development by allocating out of the earned profit from the community for the purpose of adding up to its socio-economic life.

**Ethical Marketing Practices:** There is no denying the fact that pharmaceutical industry is morally and obligatorily responsible to keep health professionals updated about the accurate and detailed information of its products so as to enable them for clear and sound prescriptions. This awareness is done through promotional activities that is vital health professionals and society to be timely aware of the newly developed medicines. It is expected that pharmaceutical firms shall maintain high ethical standards when conducting promotional activities and comply with legal, regulatory and professional framework. But research revealed that the currently most of the employed promotion practices are questionable on moral and ethical grounds.

The pharmaceutical industry's unethical marketing practices as concluded by the research expose society to unusual health risks; add up to patient's expenditure, extra visits to doctors, and prolonged poor health. Should these practices of unhealthy or unethical influences of the industry be allowed to continue unchecked the patients would end up suffering from unreliable medical care and treatments resulting in to unhealthy society. Therefore, there is a dire need to check these unethical and immoral practices and initiate corrective measures without further delay of time. The International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) Code of Pharmaceutical Marketing Practices can be right help in this regard. However, few of the suggestions in this regard are:

- Medicines promotion plans and practices shall be in consonance with ethical and CSR norms –taking care of stakeholders benefits –especially the patients.
- The practices of physicians target marketing or doctors / students recruitment to influence doctors prescriptions, shall be shunned forthwith in true letter and spirit. The practice of donations, gifts and other financial/ non financial incentives to doctors on prescriptions etc shall be ceased with.
- Furthermore, direct-to-consumer advertising, data manipulation or biased research trials etc shall also be declared banned with immediate effect.
- Personal incentives to prescribe are prohibited.
- Medical representatives and other sales agents of the firms shall be given appropriate training and product knowledge/ information and asked to strictly adhere to code of conduct designed in this regard.

## CONCLUSION

CSR is set of ethical, legal and socio-economic expectations of society towards the business organizations operating within its premises. It is an on going process that deals with firm's obligations to protect, preserve, promote and improve welfare of the organization stakeholders alike and not only its shareholders. It encompasses business and social actions, and ensures procedural and distributive justice in delivering sustainable benefits to its stakeholders. CSR also serves as a tool to achieve competitive edge and maintain sustainability of competitive advantage in the rapidly changing business environment.

The research article concludes that despite remarkable contributions of pharmaceutical industry towards human welfare via treatment of heart diseases, cancer, AIDS, there still exist tension between the industry and the public. The state of CSR in pharmaceuticals industry in Pakistan is still in its infancy and the industry is quite short of meeting its social obligations. The predominant reason for such under performance lack of awareness and will amongst the local businesses.

**ANNEXURE**

**ANNEXURE A: CORPORATE SOCIAL RESPONSIBILITY (INTERNAL CONTROL QUESTIONNAIRE)**

**RESPONDENTS:** HR & Marketing managers/ team Leaders

**1. Workplace Provisions (Hygiene Policies):**

1.1 Do you peruse employees under your command to improve their work related skills, plan and develop their future career through long-term careers through performance management system and training courses?

YES	Occasionally	No	Don't Know	Not Applicable
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1.2 Does your organizational work place environment provide sufficient welfare, health cover, and physical security measures for the employee.

YES	Occasionally	No	Don't Know	Not Applicable
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1.3 Do you manage equality at the work place against all manifestations of discrimination with reference to work force diversity (gender inequality, ethnic or racial diversity, minorities or disabled people marginalized at work place).

YES	Occasionally	No	Don't Know	Not Applicable
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1.4 Do you allow under command employees to help participate in decision making process by welcoming their input on important issue having direct effect to their work out put.

YES	Occasionally	No	Don't Know	Not Applicable
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1.5 Does your company's work place offer greater respect for human rights, core labour standards:

YES	Occasionally	No	Don't Know	Not Applicable
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**2. Company's involvement in community welfare / social development of local sector:**

2.1 Does your company offer skill development or job opportunities to the local people?

YES	Occasionally	No	Don't Know	Not Applicable
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2.2 Does your company purchase raw material and other stores locally?

YES	Occasionally	No	Don't Know	Not Applicable
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2.3 Does your organization encourage participation in local social activities or sponsor holding of social events?

YES	Occasionally	No	Don't Know	Not Applicable
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2.4 Does your company take local community in to confidence and with regards to waste disposal, and other environmental policies?

YES	Occasionally	No	Don't Know	Not Applicable
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2.5 Does your company invest in the improvement of social sector development in the area or generating economic activities?

YES	Occasionally	No	Don't Know	Not Applicable
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2.6 Does your company ensure integrated local labour markets and higher levels of social inclusion of disadvantaged groups while recruiting employees?

YES	Occasionally	No	Don't Know	Not Applicable
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2.7 Does your company contribute in improving public health through its voluntary social initiatives and by enterprises in labeling of food and non-toxic chemicals?

YES	Occasionally	No	Don't Know	Not Applicable
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**3. Environment Protection Responses:** Did you attempt to prevent/ reduce environmental degradation by controlling organizational impact on:

3.1 Energy conservation:

YES	Occasionally	No	Don't Know	Not Applicable
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3.2 Minimizing waste through recycling:

YES	Occasionally	No	Don't Know	Not Applicable
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3.3 Preventing pollution by controlling effluent discharge of contaminated material, fume/ smoke emission in to air etc.

YES	Occasionally	No	Don't Know	Not Applicable
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3.4 Protection of natural environment by adopting green field practices and considering potential environmental impact while developing new product:

YES	Occasionally	No	Don't Know	Not Applicable
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3.5 Does your organization communicate clearly and accurately environmental information on its products to its all stake holders including; suppliers, partners, producers, customers, suppliers, medical practitioners etc?

YES	Occasionally	No	Don't Know	Not Applicable
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**4. Socially Responsible Market Policies and Practices:**

4.1 Does your company provide information and labeling about your products including its post sale obligations in the shape of warranties/ guarantees?

YES	Occasionally	No	Don't Know	Not Applicable
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4.2 Does your company follow fair, transparent and honest purchasing policies, and adopt quality practices and procedures while dealing in all its supply chain contracts, and advertising?

YES	Occasionally	No	Don't Know	Not Applicable
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4.3 Does your organization ensure timely clearance of supplier's bills?

YES	Occasionally	No	Don't Know	Not Applicable
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4.4 Does your organization place an effective and timely feed back system from suppliers, clients, distributors/ retailers and customers?

YES	Occasionally	No	Don't Know	Not Applicable
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4.54 Does your organization follow a reliable system of recording, resolving and satisfying complaints from suppliers, distributors, users or customers etc.?

YES	Occasionally	No	Don't Know	Not Applicable
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5. **Company's Ethics Policies/ Core Values & Organizational Culture:**

5.1 Does your company follow well defined socially constructed values and ethical practices?

YES	Occasionally	No	Don't Know	Not Applicable
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5.2 Are all external stake holders well aware of company's values to them?

YES	Occasionally	No	Don't Know	Not Applicable
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5.3 Are your all internal stake holders are well aware of company's values to them?

YES	Occasionally	No	Don't Know	Not Applicable
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5.4 Does company follow a well chalked out plan to train its employees on the company's values, ethics of conduct?

YES	Occasionally	No	Don't Know	Not Applicable
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5.5 Are the core values related to corporate social responsibility formulated in consultation with stakeholders and approved by the Board?

YES	Occasionally	No	Don't Know	Not Applicable
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5.6 Does company share's health related burden of the marginalized or disadvantaged people out of its profit.

YES	Occasionally	No	Don't Know	Not Applicable
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## CORPORATE GOVERNANCE AND PERFORMANCE OF PAKISTANI LISTED COMPANIES (A CASE STUDY OF SUGAR SECTOR)

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### ABSTRACT

*This study intends to examine the link between Corporate Governance and corporate performance in sugar industry of Pakistan. A set of listed companies has been investigated to analyze the relationship for the financial year 2009. At the end, conclusion shows that better governed firms are relatively more profitable, more valuable, and pay out comparative extra dividend to their shareholders and most prominently ensure sustainability. In line with the studies of Gimpers, Ishii & Metrick (2003) and Brown & Caylor (2004) and international best practices in corporate governance, a Corporate Governance Index (CGI) has been created to measure the accessible level of corporate governance practices being followed by the listed companies in Pakistan.*

### KEYWORDS

Corporate Governance; Corporate Performance; Sugar Industry, Pakistan.

### INTRODUCTION

Corporate Governance in terms of the "organization of the management and the control of a company aiming at balancing the interests between the involved stakeholders" (Witt, 2003) has attracted interest in theoretical as well as practical areas over the last years (Gillan, 2006; Benz & Frey, 2007). In addition to huge scandals such as Enron, Arthur Andersen or Parmalat, theoretical discussion about the validity of arguments (Lubatkin, 2007) or the sound theory applied (Zahra, 2007) have questioned the ubiquitous point of view.

La Porta, et al. (2000) Defined, "Corporate governance is, to a certain extent, a set of mechanisms through which outside investors protect themselves against expropriation by the insiders."

Corporate Governance developed as a way of ensuring that Owners of funds receive a return on their investment by protecting against management expropriation or use of the investment capital to finance pitiable projects. Specifically, corporate governance deals with the ways in which suppliers of equity finance to corporations assure themselves of getting a return on their investment in a ethical and bare way (Shleifer and Vishy 1997: 737). On the other hand, Hart (1995) suggests, necessitates the need for corporate governance for the inability to create perfect contracts. Corporate Governance issues arise wherever contracts are incomplete / immature and agency problems exist.

According to OECD "Corporate governance is only part of the larger economic context in which firms operate that includes, for example, macroeconomic policies and the degree of competition in product and factor markets. The corporate governance framework also depends on the legal, regulatory, and institutional environment. In addition, factors such as business ethics and corporate awareness of the environmental and societal interests of the communities in which a company operates can also have an impact on its reputation and its long-term success.

While a variety of factors affect the governance and decision making processes of firms, and are important to their long-term success, the Principles focus on governance problems that result from the separation of ownership and control. However, this is not simply an issue of the relationship between shareholders and management, although that is indeed the central element. In some jurisdictions, governance issues also arise from the power of certain controlling shareholders over minority shareholders. In other countries, employees have important legal rights irrespective of their ownership rights. The Principles therefore have to be complementary to a broader approach to the operation of checks and balances. Some of the other issues relevant to a company's decision making processes, such as environmental, anti-corruption or ethical concerns."

The code of corporate governance was initially introduced by Securities and Exchange Commission of Pakistan in early 2002 is the major step in corporate governance reforms in Pakistan. The major areas of enforcement include reforms of board of directors in order to make it accountable to all shareholders and better disclosure including improved internal and external audits for listed companies.

### SUGAR PRODUCTION IN PAKISTAN

Sugarcane is an important industrial and cash crop in Pakistan. Pakistan is an important sugarcane producing country and is ranked fifth in terms of area under sugar cultivation, 60th in yield and 15th in sugar production. Sugarcane is grown on over a million hectares and provides the raw material for Pakistan's 84 sugar mills which comprise the country's second largest agro-industry after textiles. The sugar sector constitutes 4.2% of manufacturing. In size, the sugar sector matches the cement sector. Sugar industry has an indirect socio-economic impact in overall terms which is significantly larger than its direct contribution to GDP because of its backward (sugarcane growers) and forward linkages (food processors) in the economy.

The country's annual sugar consumption fluctuates between 3.6 to 4.2 million tons, but industry's officials say it has gone down since October 2009, because of higher prices and an economic slowdown that resulted in lower demand from industries such as drink producers. According to farmers association, the area under sugarcane cultivation has gone down slightly, but they are expecting better yield because of the better varieties of seeds. With this scenario, Pakistan has to import sugar which exposes it to the effects of shortage and rising prices in the world.

### LITERATURE SURVEY

There are three main theories to explain corporate governance mechanism:

1. Agency theory
2. Stewardship theory
3. Resource dependence theory.

Agency theory has two main features, first, the effect of the board organization on firm's performance and second, the effect of board leadership structure (i.e., duality) on firm's performance (Nicholson & Kiel, 2007). Board of directors supervises primarily corporate operation as representative of Principal (Shareholders). However outside directors can supervise corporate managers to prevent them from pursuing their own interests as an effective check and balance system between principal and agent.

Stewardship theory considers managers as reliable, high-level executives who will not exhibit behaviors that would be unfavorable for shareholders, therefore inside directors can achieve better firm's performance and create more profit for shareholders.

Resource dependence theory suggests that board members have connections to important external resources and can maximize the firm's performance (Nicholson & Kiel, 2007).

The existing studies to find the relationship between corporate governance and firm performance elucidate totally outlandish results. One study shows that corporate governance having positive correlation with operating performance and preventing fraud (Yeh, Lee, and Ko, 2002). It is important to note that the

issue has also been evidenced that the performance of a firm is directly related to good corporate governance. Corporations with better corporate governance have better operating performance than those companies with poor corporate governance (Black, Jang, and Kan, 2002) which was concurrent with the view that better governed firms might have more efficient operations, resulting in higher expected returns (Jensen and Meckling, 1976). It is also believed that good corporate governance helps to generate investor goodwill and confidence. Another study had demonstrated that the likelihood of bankruptcy is related to poor corporate governance characteristics (Daily and Dalton, 1994).

Baysinger & Butler (1985) and Rosenstein & Wyatt (1990) show that the market rewards firms for appointing independent / non-executive directors in board. Several studies in which financial statement data and Tobin's Q used, find no link between board independence and firm performance, while those using stock returns data or bond yield data find a positive correlation. The relation between the proportion of outside directors, a proxy for board independence, and firm performance is marvelously mixed.

However limiting board size is believed to improve firm performance because the benefits by larger boards increased monitoring are outweighed by the poorer communication and decision making of larger groups Lipton and Lorsch (1992); Jensen (1993). Consistent with this notion, Yermack (1996) documents an inverse relation between board size and profitability, asset utilization, and Tobin's Q.

Klein (2002) finds a negative relation between earnings management and audit committee independence, and Anderson et al. (2004) find that entirely independent audit committees have lower debt financing costs. Frankel, Johnson and Nelson (2002) show a negative relation between earnings management and auditor independence (based on audit versus non-audit fees), but Ashbaugh, Lafond and Mayhew (2003) and Larcker and Richardson (2004) dispute their evidence. Kinney, Palmrose and Scholz (2004) find no relation between earnings restatements and fees paid for financial information systems design and implementation or internal audit services, and Agrawal and Chadha (2005) find no relation between either audit committee independence or the extent auditors provide non-audit services with the probability a firm restates its earnings.

In order to ascertain which hypothesis should be tested in the Pakistani environment, a number of research papers were studied in detail to arrive at a hypothesis which could be tested on domestic companies. Gompers, Ishii and Metrick (2003) in their study of corporate governance and equity prices, created a 'Governance-Index' to ascertain the level of shareholders' rights in an entity. For this index, 24 corporate governance indexes divided into the following categories were used: Delaying hostile bidders, Voting rights, Director/Officer protection, Takeover defenses, and State Laws.

Brown and Caylor (2004) in their study on corporate governance and firm performance calculated a 'Gov-Score' comprising of 51 scoring factors. These governance factors were spread over the 8 categories: Audit, Board of Directors, Charter/Bylaws, Director Education, Executive & Director Compensation, Ownership, Progressive Practices, and State of Incorporation and calculated a Gov-Score for 2,327 firms and tested the association of these governance factors as against the performance of the firm. The performance measures used in this regard were: Return on Equity, Net Profit Margin, Sales Growth, Tobin's Q, Dividend Yield, and Share Repurchases. Their study concludes that good governance is related to good performance the vast majority of time.

Ghani and Ashraf (2005) examine corporate governance in Business groups operating in Pakistan and stated that business groups, as an organizational form, are more prone to expropriation of minority shareholders. These authors have examined three broad research questions related to business groups and minority shareholders expropriation in Pakistan.

- What are the key characteristics of business group firms that are different from those of non-business group firms?
- Are firms affiliated with business groups more profitable than unaffiliated firms?
- How does the stock market value group firms as compared to non-group firms?

## HYPOTHESIS

*H0: Strong Corporate Governance practices result in strong corporate performance.*

*H1: Strong Corporate Governance practices do not result in better corporate performance.*

By utilizing the similar research already conducted by Gompers, Ishii and Metrick in 2003 and Brown, Caylor in 2004 and Mubbashir in 2009, I conducted similar research on Sugar Industry operating in the Pakistani environment.

## METHODOLOGY

To test these hypotheses, a Corporate Governance Index (CGI) has been created to measure the level disclosures of corporate governance practices being followed by the listed companies in Pakistan. This index has been created in such a manner that a CGI score can be assigned to an entity based on the information which can be extracted from the annual reports of the company or from their corporate websites.

For the developments of the index, specifically with regards to the factors to be considered, assistance was taken from the Corporate Governance Survey carried out the JCR-VIS Credit Rating Company in March 2005. By increasing the factors taken in that survey through review of international papers and other resources, a scoring mechanism better suited for the local environment was developed, which was used to assign a CGI score to the sample entities taken for hypothesis testing. The CGI constituted of the following areas:

1. Shareholders Rights (defined and protected)
2. Equity Structure
3. Board Composition
4. Transparency & Disclosure

The CGI comprised of 40 elements in total of which the four major areas constituted the bulk. Of these elements, 25% pertained to shareholders rights, 25% Equity structure, another 25% to Board Composition and last 25% were to Transparency and Disclosure.

The correlation of CGI with firm performance measures of the respective firms was computed to test the viability of the hypothesis.

The population was taken from Sugar Sector of Pakistan, listed in Karachi Stock Exchange (KSE), that is the biggest and most liquid exchange and has been declared as the "Best Performing Stock Market of the World for the year 2002". As on December 31, 2007, 654 companies were listed with the market capitalization of Rs. 4,329,909.79 billion (US \$ 70.177) having listed capital of Rs. 671.269 billion (US \$ 10.880 billion).

The sample size to test the hypothesis was taken only one sector of KSE. The reason for choosing a single sector as against samples from various sectors was that entities operating in a single sector would in general face similar opportunities and threats. Accordingly, testing them against CGI and its correlation with performance measures should apparently not give skewed results due to similarities in the working environment.

In the Pakistani economy some important sectors are financial, Sugar, energy, cement, fertilizer, telecommunication and textile sectors. Sugar sector has a considerable number of listed entities, 32; this whole sector was chosen to test the hypothesis. However, the actual sample size was reduced due to non-availability of the financial statements and website of four entities. Accordingly the sample size was reduced to 28 entities.

The selected sample from the Sugar companies listed on the KSE amounted to 28 companies. Sugar Industry is one the leading sector in Pakistan and considered the largest sector of Pakistan after textile sector. The country is passing through some very turbulent times. The global recession has a major impact on Pakistan's economy. In addition to terrorism threats and power shortages have been other major challenges of time. Therefore economic growth has remained muted in the 2009 and these were hard times being faced by world economies.

Financial data is taken of sample companies and their corporate governance disclosures from their annual reports for 2009 available on the website of Karachi Stock Exchange. The annual reports used for extraction of data was the last completed financial year i.e. FY2009. These reports were used to extract data both for creation of CGI and factors constituting firm performance. In addition certain data pertaining to share prices was extracted from the Karachi Stock Exchange website from historical data section.

Experts argue that the stock prices are related to governance practices. If their contentions are valid, a market premium should exist for relatively well-governed firms. Gompers et al. (2003), Bebchuk and Cohen (2004) and Bebchuk, Cohen and Ferrell (2004) show that firms with stronger stockholder rights have higher Tobin Q's (the same has been used in this analysis to measure valuation).

Arnott and Asnes (2003) find that firms with relatively smaller dividend payouts have relatively lower earnings growth, suggesting that better-governed firms pay out more cash to shareholders, the third measure for firm performance in this analysis.

The correlation of CGI with firm performance measures of the respective firms was computed to test the viability of the hypothesis. The firm performance was measured using almost similar factors as used by Brown and Caylor in 2004, spread across three categories: operating performance, valuation and shareholder payout.

Similar measures (return on equity, profit margin and sales growth) have also been used by Gompers, Ishii and Metrick (2003). They had also used Tobin's Q to measure firm's valuation, as had previously been considered by others (e.g., Demsetz and Lehn (1985); Morck, Shleifer and Vishny 1988; Bebchuk and Cohen (2003); Bebchuk, Cohen and Ferrell (2004)). The measure of shareholder payout (dividend yield) has previously also been used by Fenn and Liang (2001) and Dittmar (2000).

The following performance measures are used in this analysis:

#### OPERATING PERFORMANCE

$$\text{Return on Equity} = \frac{\text{Net Profit Generated During the Year}}{\text{Average Equity of the Firm at Year End}} \%$$

$$\text{Net Profit Margin} = \frac{\text{Net Profit Generated During the Year}}{\text{Total Revenue of the Firm at Year End}} \%$$

$$\text{Sales Growth} = \frac{\text{Current Year's Total Revenue} - \text{Last Year's Total Revenue}}{\text{Last Year's Total Revenue}} \%$$

#### VALUATION

$$\text{Tobin's Q} = \frac{(\text{Total Assets} + (\text{Share Price} \times \text{Share Issued}) - \text{Total Equity} - \text{Deferred Taxes})}{\text{Total Taxes}} \%$$

$$\text{Dividend Yield} = \frac{\text{Dividend per Share Declared for the Year}}{\text{Market Value of Share}} \%$$

Three types of cross-sectional analyses are performed, similar to Brown and Caylor (2004). I first correlate CGI Score with each variable using Pearson correlation. To assess which categories and factors are associated with good or bad performance, I secondly correlate the four performance measures with the four governance categories using Pearson correlation and lastly all the 40 factors are correlated with the five performance measures using Pearson correlation."

#### DATA ANALYSIS & EMPIRICAL FINDINGS

The score index (CGI) which had 40 elements could result in a maximum score of 100.00 as 100%. However, in terms of the actual score achieved, the overall results were not too good with a minimum score of only 41.5 and a maximum of 64, which results in a mean value of 52.38 (that in percentage terms is only a score of 52%), range is 22.5, and Mean deviation is 4.5804 and a standard deviation of 5.65.

The total CGI score of each company in descending order is displayed in the table below: There are only three companies which scored more than 60% being Faran Sugar Mills Limited, Tandlianwala Sugar Mills Limited and JDW Sugar Mills Limited.

However, Chashma Sugar Mills Limited got the lowest score (CGI=41.5). This clearly depicting that on an average the corporate governance disclosure by sugar sector is not of high quality. The areas scored through the CGI were:

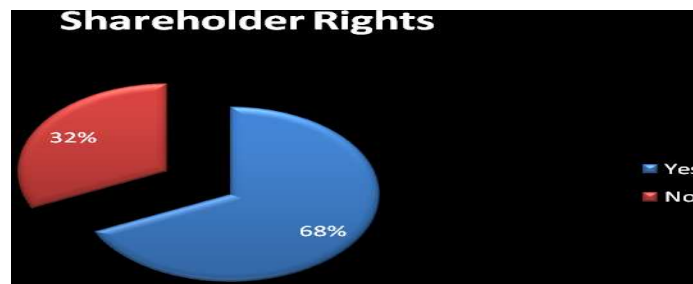
- Shareholders Rights
- Equity Structure
- Board Composition
- Transparency & Disclosure

TABLE 1: CGI SCORE OF COMPANIES IN ASCENDING ORDER

No.	Company	Total Score	Score Gained from			
			Shareholders Rights	Equity Structure	Board Composition	Transparency & Disclosure
1.	Faran Sugar Mills Limited	64.0	20.0	7.5	16.5	20
2.	Tandlianwala Sugar Mills Limited	62.5	20.0	10.0	15.0	18
3.	J. D. W. Sugar Mills Limited	61.0	20.0	7.5	13.5	20
4.	Mirza Sugar Mills Limited	59.0	20.0	12.5	9.0	18
5.	Shahtaj Sugar Mills Limited	59.0	20.0	7.5	14.0	18
6.	Haseeb Waqas Sugar Mills Limited	57.0	20.0	7.5	12.0	18
7.	Habib Sugar Mills Limited	56.5	15.0	7.5	14.0	20
8.	Mehran Sugar Mills Limited	56.5	20.0	5.0	11.5	20
9.	The Thal Industries Corporation Ltd.	55.0	15.0	11.0	9.0	20
10.	AL-Abbas Sugar Mills Limited	54.0	17.5	7.5	14.0	15
11.	Ansari Sugar Mills Limited	54.0	15.0	7.5	11.5	20
12.	Premier Sugar Mills	54.0	15.0	5.0	14.0	20
13.	Frontier Sugar Mills Limited	52.5	15.0	7.5	10.0	20
14.	Fecto Sugar Mills Limited	51.5	15.0	7.5	9.0	20
15.	Kohinoor Sugar Mills Limited	51.5	17.5	7.5	6.5	20
16.	Sakrand Sugar Mills Limited	51.0	17.5	7.5	8.5	18
17.	Noon Sugar Mills Limited	50.0	17.5	5.0	7.5	20
18.	Colony Sugar Mills	49.5	15.0	0.0	17	18
19.	Abdullah Shah Ghazi Sugar Mills Ltd.	49.0	15.0	5.0	9.0	20
20.	Adam Sugar Mills Limited	49.0	17.5	7.5	6.5	18
21.	Pangrio Sugar Mills Limited	49.0	15.0	7.5	9.0	18
22.	Al-Noor Sugar Mills Limited	48.5	20.0	2.5	6.0	20
23.	Crescent Sugar Mills Limited	48.5	15.0	5.0	13.5	15
24.	Hussein Sugar Mills Limited	47.5	15.0	5.0	7.5	20
25.	Bawany Sugar Mills Limited	46.5	15.0	7.5	6.5	18
26.	Dewan Sugar Mills Limited	44.5	15.0	2.5	7.0	20
27.	Baba Farid Sugar Mills Limited	44.0	15.0	5.0	9.0	15
28.	Chashma Sugar Mills Limited	41.5	15.0	5.0	4.0	18

In first section there was 10 specific elements regarding Shareholders rights and their implementation and each element was allotted 2.5 score.

FIGURE 1: SHARE HOLDERS RIGHTS - DEFINED AND PROTECTED



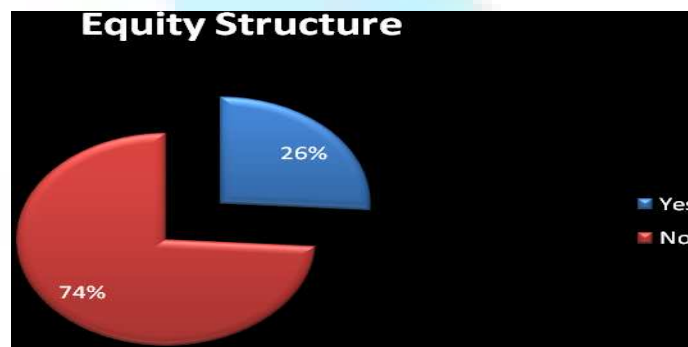
In Pakistan basic shareholders rights are protected by regulatory authority. The following basic shareholders rights and strongly observed in Pakistan (Reported by World Bank Survey 2005)

1. Secure method of ownership registration
2. Convey or Transfer of shares
3. Obtain relevant and material company information on a timely and regular basis
4. Participate and vote in general shareholder meetings
5. Elect and remove board members
6. Share in profits of the corporation

Registration is secured and in the process of being dematerialized through the CDC. Shareholders can demand a variety of information from company directly and have a clear right to participate in the annual general meeting of shareholders (AGM). Directors are elected by shareholders voting and can be removed through shareholders' resolution anytime. Change to company's basic documents like article of association, increasing authorized capital and sale of major corporate assets all require shareholder consent.

Due to strong application of shareholders rights and their protection in Pakistan the scoring in first section i.e 'YES' score was 68% that is second largest after transparency and disclosure.

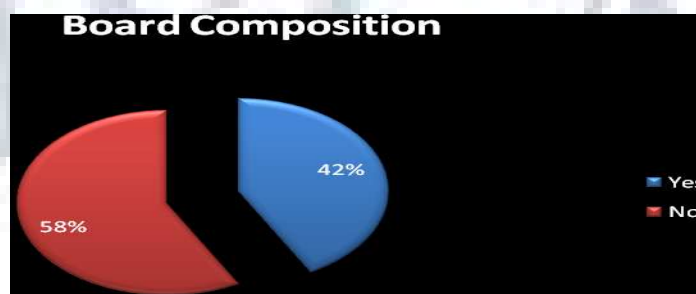
FIGURE 2: EQUITY STRUCTURE



The lowest scored area was related to the equity structure in public listed company that was 26%. Ownership is concentrated in Pakistan; principal controlling shareholders are State, Families and foreign multinational companies. Families make extensive use of pyramiding to maintain control over their business groups. This ownership structure combined with high thresholds to initiate corporate actions, having limited effective protection of external investors and minority shareholders.

Historically the role of institutional investors has been limited, despite the fact that government owned investment funds were often represented on the boards of their portfolio companies but from last 5 years the role of institutional investor is mounting and has been observed an optimistic indication.

FIGURE 3: BOARD COMPOSITION



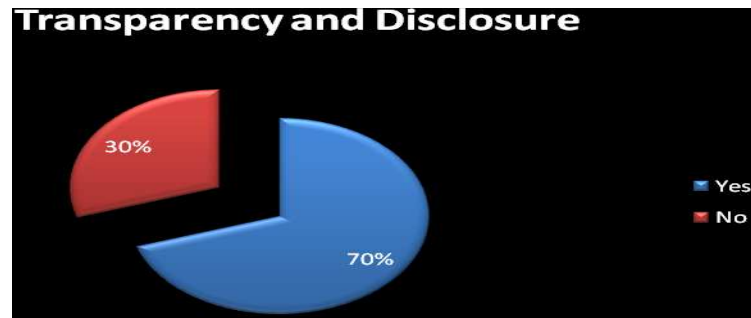
In business groups, boards are dominated by executive and non-executive members of the controlling families and by proxy directors appointed to act on their behalf. Inter-locking directorship is often used to retain majority control. Family dominated boards are less able to protect minority shareholders, and risk a loss of competitiveness as other boards become more professional.

One of the objectives of the Code is to revitalize the role of boards in the governance of firms. The Code strengthens the role of non-executive directors, restricting the percentage of executive directors to 75 percent in non-financial firms and recommending that institutional investors be represented.

In this section, comprising of 10 specific elements, the consolidated average 'YES' score was 42%.



FIGURE 4: TRANSPARENCY AND DISCLOSURE



Transparency and Disclosure section gained highest score and gained "70". It is generally agreed that the quality and timeliness of financial disclosure has improved over the past few years. This is in part attributed to the increasing monitoring role of the SECP and to the requirements of the new Code. Law and regulation require the disclosure of most non-financial items recommended by the OECD Principles. Stated Bank of Pakistan (SBP) mandates comprehensive disclosure for banks and Development Financial Institutions.

Shareholders owning 10% or more of voting shares must disclose their ownership and the annual report includes the pattern of major shareholders. Pakistan follows IAS 24 and there is general agreement that actual disclosure of related party transactions leaves much to be desired. The SECP issued a specific guideline to have more information on related party transactions. The disclosure about remuneration of chief executive and other executives and the board is mandatory separately.

The data with regards to firm performance of the sample firms has had varied results. Five (5) companies in the sample having negative equity, due to accumulated loss in previous year their equity and reserve sections was showing negative results. Of the remaining 23 companies, 21 had made profits and their returns ranged between 1–64% with five companies having returns on equity in double figures.

TABLE 2: RETURN ON EQUITY

CGI	Company Name	ROE (%)
64.0	Faran Sugar Mills Limited	19.16
62.5	Tandlianwala Sugar Mills Limited	3.05
61.0	J. D. W. Sugar Mills Limited	27.03
59.0	Mirza Sugar Mills Limited	25.48
59.0	Shahtaj Sugar Mills Limited	3.19
57.0	Haseeb Waqas Sugar Mills Limited	15.07
56.5	Habib Sugar Mills Limited	24.62
56.5	Mehran Sugar Mills Limited	52.72
55.0	The Thal Industries Corporation Limited	37.59
54.0	AL-Abbas Sugar Mills Limited	25.0
54.0	Ansari Sugar Mills Limited	12.0
54.0	Premier Sugar Mills	36.58
52.5	Frontier Sugar Mills Limited	19.96
51.5	Fecto Sugar Mills Limited	-13.36
51.5	Kohinoor Sugar Mills Limited	51.75
51.0	Sakrand Sugar Mills Limited	60.29
50.0	Noon Sugar Mills Limited	5.49
49.5	Colony Sugar Mills	23.05
49.0	Abdullah Shah Ghazi Sugar Mills Limited	64.23
49.0	Adam Sugar Mills Limited	26.0
49.0	Pangrio Sugar Mills Limited	-31.68
48.5	Al-Noor Sugar Mills Limited	14.0
48.5	Crescent Sugar Mills Limited	-12.67
47.5	Hussein Sugar Mills Limited	-24.71
46.5	Bawany Sugar Mills Limited	-15.74
44.5	Dewan Sugar Mills Limited	-24.22
44.0	Baba Farid Sugar Mills Limited	-46.0
41.5	Chashma Sugar Mills Limited	0.82

Twenty One (21) of the Twenty eight (28) sample companies were in profit and the net profit margins of these 21 companies ranged between 1–43%. Ten of the sample companies managed to attain a net profit margin in double digits thirteen (13) companies earn profit in one digit.

TABLE 3: NET PROFIT MARGIN

CGI	Company Name	Net Profit Margin (%)
64.0	Faran Sugar Mills Limited	30.96
62.5	Tandlianwala Sugar Mills Limited	0.65
61.0	J. D. W. Sugar Mills Limited	6.63
59.0	Mirza Sugar Mills Limited	24.96
59.0	Shahtaj Sugar Mills Limited	1.77
57.0	Haseeb Waqas Sugar Mills Limited	3.54
56.5	Habib Sugar Mills Limited	12.48
56.5	Mehran Sugar Mills Limited	6.53
55.0	The Thal Industries Corporation Limited	5.15
54.0	AL-Abbas Sugar Mills Limited	6.78
54.0	Ansari Sugar Mills Limited	40.67
54.0	Premier Sugar Mills	42.88
52.5	Frontier Sugar Mills Limited	10.68
51.5	Fecto Sugar Mills Limited	-6.58
51.5	Kohinoor Sugar Mills Limited	0.90
51.0	Sakrand Sugar Mills Limited	28.39
50.0	Noon Sugar Mills Limited	8.76
49.5	Colony Sugar Mills	7.71
49.0	Abdullah Shah Ghazi Sugar Mills Limited	11.85
49.0	Adam Sugar Mills Limited	4.19
49.0	Pangrio Sugar Mills Limited	31.81
48.5	Al-Noor Sugar Mills Limited	2.82
48.5	Crescent Sugar Mills Limited	-6.81
47.5	Hussein Sugar Mills Limited	-5.07
46.5	Bawany Sugar Mills Limited	38.50
44.5	Dewan Sugar Mills Limited	-9.58
44.0	Baba Farid Sugar Mills Limited	-18.28
41.5	Chashma Sugar Mills Limited	3.50

In the long run frame, a company can show good performance if it has a steady sales growth as this helps it in enhancing its market positioning amongst other factors. As FY2009 was not a good year for the economy due to energy crises in Pakistan, natural disaster and terrorist activities but sugar sector showing growth in sales.

TABLE 4: SALES GROWTH

CGI	Company Name	Sales Growth (%)
64.0	Faran Sugar Mills Limited	64%
62.5	Tandlianwala Sugar Mills Limited	145%
61.0	J. D. W. Sugar Mills Limited	-13%
59.0	Mirza Sugar Mills Limited	4%
59.0	Shahtaj Sugar Mills Limited	42%
57.0	Haseeb Waqas Sugar Mills Limited	3%
56.5	Habib Sugar Mills Limited	7%
56.5	Mehran Sugar Mills Limited	87%
55.0	The Thal Industries Corporation Limited	3%
54.0	AL-Abbas Sugar Mills Limited	4%
54.0	Ansari Sugar Mills Limited	-0.15%
54.0	Premier Sugar Mills	5%
52.5	Frontier Sugar Mills Limited	15%
51.5	Fecto Sugar Mills Limited	19%
51.5	Kohinoor Sugar Mills Limited	45%
51.0	Sakrand Sugar Mills Limited	8%
50.0	Noon Sugar Mills Limited	15%
49.5	Colony Sugar Mills	7%
49.0	Abdullah Shah Ghazi Sugar Mills Limited	102%
49.0	Adam Sugar Mills Limited	62%
49.0	Pangrio Sugar Mills Limited	-8%
48.5	Al-Noor Sugar Mills Limited	39%
48.5	Crescent Sugar Mills Limited	-2%
47.5	Hussein Sugar Mills Limited	-11%
46.5	Bawany Sugar Mills Limited	2%
44.5	Dewan Sugar Mills Limited	-47%
44.0	Baba Farid Sugar Mills Limited	-50%
41.5	Chashma Sugar Mills Limited	-1%

TABLE 5: TOBIN'S Q

CGI	Company Name	Tobin Q (%)
64.0	Faran Sugar Mills Limited	625
62.5	Tandlianwala Sugar Mills Limited	153
61.0	J. D. W. Sugar Mills Limited	1285
59.0	Mirza Sugar Mills Limited	909
59.0	Shahtaj Sugar Mills Limited	863
57.0	Haseeb Waqas Sugar Mills Limited	976
56.5	Habib Sugar Mills Limited	708
56.5	Mehran Sugar Mills Limited	2819
55.0	The Thal Industries Corporation Limited	314
54.0	AL-Abbas Sugar Mills Limited	713
54.0	Ansari Sugar Mills Limited	630
54.0	Premier Sugar Mills	929
52.5	Frontier Sugar Mills Limited	1087
51.5	Fecto Sugar Mills Limited	1600
51.5	Kohinoor Sugar Mills Limited	1156
51.0	Sakrand Sugar Mills Limited	1668
50.0	Noon Sugar Mills Limited	1002
49.5	Colony Sugar Mills	297
49.0	Abdullah Shah Ghazi Sugar Mills Limited	912
49.0	Adam Sugar Mills Limited	423
49.0	Pangrio Sugar Mills Limited	358
48.5	Al-Noor Sugar Mills Limited	791
48.5	Crescent Sugar Mills Limited	190
47.5	Hussein Sugar Mills Limited	1075
46.5	Bawany Sugar Mills Limited	285
44.5	Dewan Sugar Mills Limited	665
44.0	Baba Farid Sugar Mills Limited	1309
41.5	Chashma Sugar Mills Limited	777

The Tobin's Q ratio compares the market value of a company against the company's assets. A higher ratio indicates that the market value of the company is greater than that of its assets while a ratio of less than one indicates that the market value is less than the value of the company's assets. In the sample 28 companies, all had a positive ratio.

TABLE 6: DIVIDEND YIELD

CGI	Company Name	Dividend Yield (%)
64.0	Faran Sugar Mills Limited	57
62.5	Tandlianwala Sugar Mills Limited	0
61.0	J. D. W. Sugar Mills Limited	127
59.0	Mirza Sugar Mills Limited	81
59.0	Shahtaj Sugar Mills Limited	121
57.0	Haseeb Waqas Sugar Mills Limited	0
56.5	Habib Sugar Mills Limited	155
56.5	Mehran Sugar Mills Limited	64
55.0	The Thal Industries Corporation Limited	170
54.0	AL-Abbas Sugar Mills Limited	194
54.0	Ansari Sugar Mills Limited	0
54.0	Premier Sugar Mills	0
52.5	Frontier Sugar Mills Limited	147
51.5	Fecto Sugar Mills Limited	0
51.5	Kohinoor Sugar Mills Limited	134
51.0	Sakrand Sugar Mills Limited	161
50.0	Noon Sugar Mills Limited	80
49.5	Colony Sugar Mills	0
49.0	Abdullah Shah Ghazi Sugar Mills Limited	0
49.0	Adam Sugar Mills Limited	82
49.0	Pangrio Sugar Mills Limited	0
48.5	Al-Noor Sugar Mills Limited	18.07
48.5	Crescent Sugar Mills Limited	0
47.5	Hussein Sugar Mills Limited	0
46.5	Bawany Sugar Mills Limited	0
44.5	Dewan Sugar Mills Limited	0
44.0	Baba Farid Sugar Mills Limited	0
41.5	Chashma Sugar Mills Limited	0

The dividend yield ratio compares the latest dividend received with the current market value of the share as an indicator of the return being earned on the shares. With FY2009 being a year with negative sales growth in many sectors in general, the profitability position also suffered. Out of the 28 sample companies, Twelve (20) companies managed to improve upon their previous year's sales and accordingly 23 companies made profits with 5 making losses. This negative impact on the profitability leads to low dividend declaration in the sugar industries during FY2009, with only 14 companies announcing a dividend. Dividend ranged between Rs. 1.81 per share to Rs. 19.40 per share with Al-Abbas Sugar Mills Limited declaring the highest dividend.

I performed various cross-sectional analyses, similar to Brown and Caylor (2004). I first correlated CGI Score with each variable using Pearson correlations. The three variables under operating performance i.e. return on Equity, Net Profit Margin and Sales Growth has a positive association with CGI score. The strongest association amongst all factors is that of Sales growth with companies having a higher score 0.45.

In valuation, Tobin's Q, has very small association with the CGI score with a value of 0.08. This confirms the common perception prevalent in the country that good governance practices are not adding much to the value of a firm and listed concerns are only following the corporate governance regulations to conform with regulations and not for the betterment of the company in particular and the business segment in general.

Under shareholder payout, dividend Yield also has positive association with the CGI score. With FY2009, being a bad year for Pakistani economy, profitability levels are barely positive for a number of companies in the sector and accordingly, dividend payout was low resulting in a low dividend yield across the country.

## CONCLUSION

The aim of this paper is to analyze the link between the corporate governance quality and performance of Pakistani listed firms.

I analyze the performance effects of corporate governance quality with reference to both valuation and operating performance. I prepare a Corporate Governance Index with the help of 40 indicators in for sectors of corporate governance (Shareholder Rights, Equity Structure, Board Composition and Transparency and Disclosure). I compare CGI with Operating performance and valuation and finds positive results.

The factor which was present in the annual reports of all the 28 companies was the presence of a Mission and Vision statement, Corporate Strategy Statement while those found completely lacking were: Profile of directors and length of their association with the company specially non executive directors, Board's governing principles, Scope of Board Committees, CEO's review in Annual report, Profiles of the Executive Management, and Executive Management Committees and their scope.

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## STATE OF FLEXIBLE CAREERS FOR THE WOMAN PROFESSIONAL IN INDIA

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### ABSTRACT

The reaction/response to the concept of Flexi-Working from the point of view of two stakeholders of Flexi-Working – 1) Corporates which have/don't have Flexi-Working policy and 2) Individuals, more specifically women, who are beneficiaries/requirees of Flexi-working reveals very clearly the status of this employee welfare measure in India. Women account for 28% of the workforce in India. Almost 18% of these women leave the workforce every year citing work-life reasons, which causes a huge drain on the investment made on their education, training and work exposure. The single most important reason why women abandon their careers half way is due to the Indian cultural milieu which urges the woman to focus more on the home rather than the career. The off-ramping on account of child-bearing and child-rearing by women between the ages of 25-40 invariably creates a huge drain in the talent pipeline. This study which covered the responses of 341 senior women professionals across India as well as the policies and practices around flexi-working followed by 101 organizations, using a self-constructed questionnaire method revealed that 91% of the women surveyed had resorted to flexi-working at some point of time in their careers, but only 25% had availed this through a policy offered by their employers. The remaining had negotiated it informally through discussions with their supervisors and mentors. But a full complement of 100% of all respondents believed that Flexi-Working was essential for women to build sustainable careers. The study also highlights that Corporates realize the need for gender diversity across every level, with over 61% believing that there is robust business case in support of flexible working. But they are apprehensive about instituting a flexi-work policy because it demands change not only in the minds of the managers but also in the very culture of the organization.

### KEYWORDS

Career, Women Professional, India, Flexi-Working.

### PREFACE

It has often been said that the Indian Woman Professional (IWP) views her career very differently. In many ways the IWP's rationale and criteria for career planning, is diametrically diverse from the career management style of her western and South Asian counterparts. While a majority of women from across the world would choose individual self-actualization as a key criteria in career choices, the IWP looks at creating more intrinsic value for the family and community<sup>1</sup>. A few key aspects which complicate career choices for the IWP are the Indian joint Family system, Indian society's collectivist outlook and the fact that the average age at which Indian children leave home<sup>2</sup> is among the highest in the world. The need to be 'dual-centric' is much more evident in the IWP, leading her to seek out ways and means whereby she can stay true to society's expectation from her of being the real Indian mother, while also pursuing career aspirations which education and exposure have ingrained in her.

By investing time and technology in making the IWP a productive and contributing member of the workforce, Corporate India gains in a hugely significant measure.

Today, Flexibility at the workplace is a universal need for all – men, women, old and young. It is a gender-neutral initiative, the rationale for which is driven powerfully by the changing roles of men and women, of caregivers and of nurturers. However, in the case of women, it is a sustaining force, a panacea which ensures that the pitfalls and speedbreakers in a woman's career journey do not result in permanent damage.

After interviews with over 442 respondents, it is the belief of the author that Flexi-careers if implemented successfully can transform not only the career destinies of women in India, but also address very effectively the talent needs of the growing organization.

### INTRODUCTION

In the past 60 plus years when Indian women have begun to populate the workplace, they have grown very rapidly to catch up with their male counterparts.

Facing a myriad of challenges during the course of charting their careers, IWP's have earned their rightful place in the Indian corporate world, becoming synonymous with excellence, professionalism, dedication and focus. Along the way, family values have not been compromised, with Indian divorce rates<sup>3</sup> (at 1%) still among the lowest in the world. The strain though, that a double career household places on the IWP cannot be under-emphasised. Sociologists are in the process of discovering interesting decision-connects such as whether a working woman's husband having a blue- or white-collar job leads to significant differences in the extent to which problems are created within the family unit. White-collar husbands with achieving wives are seen as more prone to lower levels of Job satisfaction<sup>4</sup> than blue-collar husbands, leading to interpersonal conflict and pressure within the marriage.

These and other challenges such as the crying lack of adequate day care, influence the IWP to give up her career aspirations mid way, since she finds it too much of a battle to manage the 3 stakeholders of her position in society – 1) her family, 2) her community and 3) her employer.

While family and community play out the roles with respect to expectations from women that they have been conditioned to in the past several decades, centuries even, the employer too is not without his share of complexity in deciding the future of the IWP. This is mainly because, the Indian workplace is today unprepared to fully integrate women into sustainable long-term careers. The typical career model has been created keeping in mind the male, who with a full-time homemaker to support, can rise in the corporate ranks by working with single-minded focus on his career. The workplace celebrates men and women who have risen to the top by dedicating their lives to the pursuit of success. The new stereotype of a woman who manages both work and home is missing. Infrastructural support which can be provided by the workplace to ease the burden of the working mother is sadly lacking. This leads to an outflow of about 18% of women in middle managerial positions every year out of the Indian workplace<sup>5</sup>.

### CURRENT CONTEXT

Organizations while being aware and appreciative of the role which women play both in the workplace and at home, have not yet arrived at a 'Burning Platform' attitude to change status quo. When AVTAR first started India's network of women professionals seeking flexiwork options, it was a revelation to most organizations that there was such a large talent pool of women professionals and managers who had quit their current job not for higher pay, position or prestige, but just because their home responsibilities forbade them from pursuing a long term career.

The HR head of one of India's iconic IT firms has this to say, "The number of occasions I have had a top performing women manager come up to me and say that I'm quitting because my maid has quit and I have no one to take care of my young child are too numerous to be even counted". The guilt which an IWP feels on account of her nebulous commitment to the workplace is usually assuaged by quitting the career never to return.

Flexibility is sometimes negotiated by women professionals through direct dialogue with immediate supervisors and bosses, but it is usually a 'reward' for a good performer or a loyal employee. It is not the benefit of a positive cultural mindset which accepts the undulating nature of a woman's career and allows for a path that meanders around the hurdles.

IWP's who seek out the Flexi-Careers network of AVTAR are passionate about their work, committed to their roles as mothers and caregivers and take very difficult decisions to make sure they manage their personal and professional lives. This stretch by the IWP to reach her aspirations (which desire in the case of an equivalent male is encouraged and empowered) is an unfair pressure, an unnecessary load which can be alleviated smartly by a few swift and easy measures.

Flexible working is a solution which is universally accepted as a powerful one, capable of changing dramatically the fortunes of women in the Indian workplace. The UN's Gender Balance agenda mentions Flexible working as a means by which organizations can ensure that equal representation of women is achieved<sup>6</sup>.

In a study conducted by NASSCOM<sup>7</sup> the following got the top 3 ranks for the best practices to support women at work

- Anti sexual harassment policy
- Flexible work schedules / hours
- Flexible Leave Policy

Many corporates have begun to value the need for flexibility in ensuring that the investments made in women don't end up creating non-performing assets. "Flexible working for women professionals is very important as an enabler to balance women's personal needs and professional aspirations. It is becoming increasingly critical for organizations to retain its female talent pool and not lose them to personal obligations that may arise. More flexibility leads to enhanced productivity" says Rajashree Nambiar, General Manager – Distribution and Diversity Champion, Standard Chartered Bank.

In a Outlook Business-AVTAR research report<sup>8</sup>, 68.7% opined that with flexible working, women have a better chance to stay engaged to the workplace and therefore rise to leadership positions.

In an October 2010 survey of 3,300 employees across the globe in, consultancy firm Bain & Company found that effective implementation of a flexible work model can increase the retention of women by 40 per cent and even of men by 25 per cent. Further, 87 per cent of women and 74 per cent of men surveyed expressed an interest in using flexible job options<sup>9</sup>.

With such an unequivocal support of Flexibility, it is indeed surprising that only a handful of organizations in India espouse the cause of flexible working and include it in their employee agenda. Even fewer companies actually put in place policies which empower women to go the flexi-way. A dipstick study revealed a large number of mindset issues which cause problems in implementing Flexi-career solutions.

The objective of this study is therefore to understand how organizations and women professionals in India respond to Flexi-working arrangements as also Flexi-Careers.

**The Business Case for Gender Diversity & therefore Flexible Working**

There is increasing evidence of link between gender diversity and company performance. According to a Sunday Economic Times study<sup>10</sup>, nine listed Companies managed by prominent women promoters fared better than the top 30 firms listed in the Bombay Stock Exchange in year-on-year growth rates for the last five years.

A report by Catalyst, a research and advisory organisation revealed, "Companies that have higher women's representation on their top management teams financially outperformed those companies that have lower women's representation."<sup>11</sup>

A study by NASSCOM further reinforces the need for gender diversity in the workplace. On the question on what it can mean for business: Rewards for addressing gender inclusivity in an enterprise, the following factors got the top rank<sup>12</sup>.

- Build an employer brand
- Higher employee productivity and profits

Top reasons for leaving organisation

Women	Men	Common
Marriage	Better Job Profile	Growth Opportunities
Family / Children	Better Compensation	Education

Source: Mercer NASSCOM Gender Inclusivity and Empowerment Study 2008

There are 2 primary factors which make the workplace more welcoming for women.

- Workplace which is sensitive to their needs, provides them a safe and healthy work environment
- Since women don the twin roles of being professionals and care-givers, the need for accommodating personal priorities during the pursuit of a career becomes critical.

Work-life balance is one of the most critical factors which serves as a powerful engagement driver for women professionals. Hence any Gender Diversity agenda focusing on increasing representation of women at the work-place must begin with the laying of the foundation for organizational change towards Work-life balance.

The two major reasons for the dysfunctional work-life balance at the workplace are as follows:

- Non-availability of alternative work arrangements to pursue a career while also managing family commitments
- Inherent lack of understanding or awareness in managers to handle and tackle the legitimate WLB (Work Life Balance) need of women and thereby inadvertently creating a woman-unfriendly workplace.

In its April 2006 article, The Economist decried the fact that "women remain the world's most under-utilized resource." "To make full use of their national pools of female talent," the article stated, "governments need to remove obstacles that make it hard for women to combine work with having children," such as "parental leave and child care, allowing more flexible working hours, and reforming tax and social-security systems that create disincentives for women to work."<sup>13</sup>

**The Corporate perspective towards Flexi-Working**

1. Please select the statement that best describes your experience about flexible working		%
a.	No idea about flexible working	2
b.	Understand flexible working conceptually but never worked in any organization which had flexi-working arrangement	33
c.	Understand flexible working since it is / was available where I am working / worked	37
d.	Have very good understanding about flexi-working	8

- **97% of the people are aware or exposed to flexible working**

2. Please select the option with regard to flexible working in your organization		%
a.	Not available in my organization	37
b.	Offered only under unavoidable situations	21
c.	Available as part of organization policy but not encouraged	7
d.	Available as part of the organization policy but not successful due to various factors	7
e.	Available as part of organization policy and effectively used in the organization	26
f.	No response	2

- **Flexible working as a policy is not available in 58% of the organisations. Flexible working is available and used effectively in 26% of the organisations**

3. How is flexibility negotiated in your organisation?	%
a. Through a direct discussion with immediate supervisor	40
b. Availing a Flex-Working Policy	23
c. Requesting the support of HR	12
d. Dialoguing with CEO/top management	35
e. No response	9

- **23% use the flexi-working policy for negotiating flexible working. Otherwise, it is availed through one on one negotiation with the supervisor, top management and HR in the same order**

Will you use flexible working option, if it is offered to you?	%
a. Yes	81
b. No	2
c. May be	16

- **Overwhelming response of 81% for are interested in using flexible working**

Do you think there is a business case for flexible working?	%
a. Yes	61
b. No	9
c. May be	30

- **61% think that flexible working makes business sense and with 30% saying may be, the case for flexible working will become stronger with time and success stories**

If you think there is a business case for flexible working, please choose the business case.	%
a. To reach out to and employ more women managers in my organization	21
b. To retain existing women talent	30
c. To hire people on flexible working basis to meet business contingencies	33
d. To hire people on flexible working since it's a cost effective solution compared to hiring a full-time employee	28
e. Others, Please mention _____	

- **The above response indicates that there is more than one good reason for promoting flexible working.**

In your opinion, who is / are most likely to oppose Flexible working?	%
a. Male employees	7
b. Female employees	7
c. All employees	21
d. HR Managers	12
e. Line Managers	49
f. Top Management	35
g. No response	5

- **The line managers and top management in the same order are the most likely to oppose flexible working as they are directly responsible for business and service delivery and feel that flexi-working professionals might not deliver to the same extent of productivity as a full-time resource**

If flexible working is offered in your organization, how many people will be interested in availing it?	%
a. 0 to 5% of the employees	9
b. 6 to 10% of the employees	21
c. 11 to 20% of the employees	23
d. 21 to 40% of the employees	19
e. More than 40% of the employees	28

- **The above responses indicate a very strong interest in flexible working and if proved successful will probably become the future style of working in many organization.**

Do you believe that more female employees will use flexible working systems rather than male employees?	%
a. Yes	60
b. No	14
c. May be	26

- **Women will use flexible working more since they have a pressing need to balance their professional and personal interest as the primary stakeholder of family responsibilities**

Performance Change in pursuing flexible working in organisations: Increase in productivity	%
a. Agree	60
b. Neutral	26
c. Disagree	7
d. No response	7

- **Positive response to flexible working with 60% feeling that it will improve productivity**

Performance Change in pursuing flexible working in organisations: Decrease in productivity	%
a. Agree	9
b. Neutral	49
c. Disagree	40
d. No response	2

- **On the question of Decrease in Flexibility, 49% of the respondents do not have an opinion indicating doubts or lack of knowledge about flexible working**

Performance Change in pursuing flexible working in organisations: Increase in Supervision time	%
a. Agree	35
b. Neutral	47
c. Disagree	14
d. No response	5

- 35% of the Respondents feel that the supervision time will increase with flexible working and again a sizeable majority (47%) are neutral indicating apprehensions about flexible working

Performance Change in pursuing flexible working in organisations: Decrease in Supervision time		%
a. Agree		12
<b>b. Neutral</b>		<b>42</b>
c. Disagree		40
d. No response		7

- 42% are undecided whether it will decrease supervision time

Performance Change in pursuing flexible working in organisations: Additional work for full-time employee for every flexible employee		%
a. Agree		16
b. Neutral		40
c. Disagree		40
d. No response		5

- 40% of the respondents do not think that flexible working leads to additional work for full-time employees but the same % number of respondents is not sure about this.

Performance Change in pursuing flexible working in organisations: Training provided to manage flexible workers		%
a. Agree		53
b. Neutral		16
c. Disagree		23
d. No response		7

- There is a strong training need for managing flexible workers. The training programs will probably help in removing some of the stigmas and uncertainties about flexible working to relating productivity and supervision

Additional infrastructure (Systems, workstations)		%
a. Agree		47
b. Neutral		23
c. Disagree		26
d. No response		5

- Respondents feel that additional infrastructure would be required for flexible working. This could be secured communication lines and laptops

Where do you think flexible working is easily applicable?		%
a. At senior management level (GM, AVP, VP, Sr. VP)		56
b. At middle management level (Mgr, Senior Mgr, DGM, AGM)		65
c. At junior management level (Team lead, AM level)		37
d. At entry level (Executive, Sr. Executive)		28
e. No response		7

- At the middle and senior management level, the bulk of the work being less transactional and more of strategy and management, flexible working can be easily applicable.
- Having said this, Flexible working can also be applied at the entry and junior management level if job analysis tools are employed for assessing their suitability for flexible working

What do you think is critical for implementing flexible working in your organization?		%
a. Getting top management's buy in		60
b. Line manager's acceptance to flexible working		33
c. Employees' acceptance to flexible working		14
d. Identifying jobs that can be done Flexibly		42
e. Identify the type of flexible working that will suit the organization and the Job		49
f. Integrating flexi-working jobs and flexi-working employees into existing working arrangements		53
g. No response		5

- Top management buy in ever so crucial for any change management initiative is quite evident from the response
- The fact that flexible working cannot be done in an ad hoc method is also reflected in the survey. The need for a systematic flexible working framework is clearly felt with more than 40% of the respondents indicating that Identifying jobs, Identifying type of flexible working and Integration of flexible working in the main stream is critical for implementing flexible working

Do you think flexible working is crucial for women to stay engaged in their careers?		%
a. Yes		60
b. No		12
c. May be		26
d. No response		2

- Again a strong indicator that flexible working is required for women to stay engaged in their careers

Where do you think your organization needs maximum support for implementing flexible working?		%
a. Analyzing and Identifying jobs for flexible working		28
b. Analyzing and identifying type of flexible working suitable for the job and the organization		60
c. Information about benefits of Flexible working, flexible-working policies and practices		44
d. Training on flexible working		21
e. No response		7



- **Organisations need maximum support for analysing and identifying types of flexible working suited for the job and organisation. This is one of the biggest challenge organisations faces when they embark on a flexible working program. In most cases, the flexi-working initiatives fail due to lack of jobs which can be done on flexible basis which is directly related to organisations not investing in doing a job study.**

Do you think flexible working is a viable option in India	%
a. Not sure about the effectiveness of Flexible working	28
b. Convinced that flexible working will not suit Indian working conditions	12
c. Convinced that flexible working is here to stay and will suit Indian working conditions	60

- **60% of the respondents think that flexible work will suit Indian working conditions**

If you think flexible working is not viable in India, please choose the reasons	%
a. Flexible working will affect Employee performance	20
b. Flexible working cannot be applied across all functions, business units, jobs	100
c. Flexible working cannot be offered to all employees and therefore may give room for bias or unfair practice	20
d. Flexible working leads to increase in cost	
e. Other reasons, please mention _____	

- **This is out of the 12% respondents who felt that Flexible working is not viable in India.**

If you think flexible working is viable in India, please choose the reasons	%
a. Better employee performance	54
b. Helps in attracting and retaining talent	81
c. Contributes to overall health of the employee	58
d. Helps in reducing cost	58
e. Other reasons, Please mention _____	
f. No response	11

- **80% of the respondents agree that it helps in attracting and retaining talent. The fact that more than 50% of the respondents agree that flexible working results in better employee performance, improves employee health and reduces cost indicates the overall benefit that flexible working will bring to the organisation**

In the coming years, do you think all employees across levels will require flexibility in their jobs and careers?	%
a. Yes	65
b. No	12
c. May be	21
d. No response	2

- **Strong indication that flexible working will be the future style of working in many organizations**

**The Indian Woman Professional's Career worldview**

**01. Will you use flexible working option, if it is offered to you?**

Will you use a flexible working option, if it is offered to you?	%
Yes	100
No	0

**02. When did you begin work flexibly?**

Life Stage	% respondents
Parenthood (Child 0 to 5 years)	41.38
Bachelorhood	18.97
During and after pregnancy	18.97
Parenthood of young adults	12.07
Other reasons	12.07
Health Reasons	3.45
Courtship period	1.72
Just Married	1.72
Just retirement	1.72
Elder Care	1.72
Studying	1.72

It is not surprising that most women started working flexibly when their child was aged between 0 to 5 years. This is a very crucial period for child's development and this when they need full-time attention. Women move to full time working when the child starts going to full-time school. The other reason could be due to lack of child care infrastructure / Day care facilities.

**03. Longest period that you worked in a flexible manner**

Time period	% respondents
0 – 6 months	37.93
1 - 2 year	15.52
2 - 5 years	15.52
5 years & above	15.52
No response	8.62
6 months - 1 year	5.17
As and When needed	1.72

**Almost every woman needs flexible working. 46% of the respondents have worked flexibly for more than 1 year.**

**04. Types of flexibility you have used in the past**

Types	% respondents
Temporal	80.36
Location	51.79
Career	19.64

Temporal flexibility is the common method of flexi-working. Working from home has some limitations due to Technology / Connectivity limitations, Data Security and face time expectations.

**05. Flavour of flexi-working that you have used the most**

Types	% respondents
Work from home	68
Flexi-working	32
Staggered hours	28
Part-time working	20
Tele-commuting	18
Compressed work week	8
Term-time working	2

Out of those who have worked flexibly, work from Home was used the most. This is most preferred. There is also healthy usage of other types – Flexible work timings, staggered hours, part-time working and telecommuting

**06. How is flexibility negotiated**

Types	% respondents
Through a direct discussion with immediate supervisor	79.63
Dialoguing with your CEO/top management	29.63
Availing a Flex-Working Policy	24.07
Requesting the support of HR	18.52

24% of the respondents stated have used the flexible working policy available in the organization, all the rest had to negotiate with their immediate supervisors / Top management / HR Managers for their flexi-working requirement. This can be attributed to 2 reasons – unavailability of flexi-working policy or the fact that flexi-working policy is not available in many organizations shows that either they do not acknowledge their employees need or unwilling to tread the flexi-working path due to their skepticism on flexible working.

**07. Problems you faced when working flexibly or attempting a FWA?**

Problems	% respondents
Flexible working being perceived as under-performance	49.02
Lack of successful women role models who have worked flexibly and been showcased for their effectiveness	43.14
Lack of a flexible culture within the organization	35.29
Lack of infrastructure in the organization to enable flexi-working	31.37
Resentful attitude of full-time working colleagues	25.49
Lack of support for the concept from top management	19.61
No Problem	19.61
Administering of FWA being seen as 'problematic' by HR Admin	15.69
'Presenteesim' mindset of immediate supervisor	13.73

Only 19% of the respondents expressed that they did not face or foresee any problems while working flexibly. The rest 81% experience or experienced one or more challenges while working flexible. The number one challenged faced by them was perception of equating flexible working with under performance. This is followed by lack of women role models, flexi-working culture and flexi-working infrastructure.

**08. Have you taken break in your career?**

Types	% respondents
Yes	44.83
No	55.17

44% out of the 341 Women managers surveyed had to take a break in their career due to family responsibilities. The fact that 77% of these women did not join the organization that they were working would further rankle the organizations.

**09. How long was the period of the break?**

Duration of the break	%
1 year – 5 years	38.46
6 months – 1 year	23.08
0 – 3 months	19.23
5 years – 10 years	11.54
3 – 6 months	7.69

1 to 5 years ties in with the when women need the flexible working the most, parenthood (child 0 to 5 years)

**CONCLUSION**

The study has thrown up some interesting pointers which will be useful for organizations planning to incorporate flexible working in their work environment. Corporates realize the importance of flexible working, with over 61% believing that there is robust business case in support of flexible working. There is also a very strong message that women require flexible working the most and is important for them to stay engaged in their careers. But they are apprehensive about instituting a flexi-work policy because it demands change not only in the minds of the managers but also in the very culture of the organization.

Only 26% of the organizations surveyed have formal flexi-working policies, others manage to get around through informal negotiations with their immediate supervisors, Senior Management and HR. The study also shows that flexible working has a practice require awareness, job analysis and a systematic process and action plan to make it work. The fact that flexible working may not be offered to all or applicable to all job functions seems to be working on the minds of the decision makers. Coupled with this is the fact that sizable population of the respondents is not clear about its impact on productivity and supervision time. In the study, 48.4% and 35% of the respondents responded that their line mangers and top management were the first to oppose flexible working.

Majority of the respondents feel that top management buy in, identifying jobs that can be done flexibly and identifying the type of flexible working suitable for the job and the organization are critical factors for implementing flexible working. Organisations will do well to invest time and effort in this direction with nearly 65% of the respondents feeling that employees across all levels will require flexible working in the coming years.

44% out of the 341 Women managers surveyed had to take a break in their career due to family responsibilities. The fact that 77% of these women did not join the organization that they were working for previously is a significant pointer. They either joined organizations that offered flexible working or joined new organizations when they could resume full-time working.

With the change in fabric of the Indian homes (Nuclear and double income families), the need for working women to spend that much more time at home is no more a desire but a reality and a necessity especially during the child care period.

According to the UN Gender Gap Report, the Nordic economies have made it possible for parents to combine work and family, resulting in high female participation rates, more shared participation in childcare, more equitable distribution of labour at home, better work-life balance for both women and men and in some cases a boost to declining fertility rates. Policies applied in these countries include mandatory paternal leave in combination with maternity leave,

generous federally mandated parental leave benefits provided by a combination of social insurance funds and employers, tax incentives and post-maternity re-entry programmes. By focusing on home and family equality, these countries have managed to improve the status of women and close participation gaps in politics and the workplace.

An important shift for working mothers across the world is what global consulting major Deloitte calls MCC – Mass Career Customization. This is based on the philosophy that not all employees are keen on a linear march to the top. As Cathy Benko and Andrew Liakopoulos of Deloitte, say in their article, *The Corporate Lattice*<sup>14</sup>, “The corporate ladder emerged at the start of the Industrial Age as a model for maximizing efficiencies and economies of scale. It proffers a worldview in which power, rewards and access to information are tied to the rung which rung each employee occupies. It defines career success as a linear climb to the top and assumes that employees are more alike than different and that they all want and need the same things to deliver results”. The MCC model avers that based on the 4 dimensions of role, pace, schedule and workload, careers can be customized. As such, each employee can choose a different path – each with its own set of implications in career development.

This type of path is what Carol Evans refers to as the Flex-Track in her book, *This Is How We Do It: The Working Mothers' Manifesto*. Evans, CEO of Working Mother Media, believes in a broad definition of flexibility. “Women are flexing their entire careers, not just their days or weeks,” she says<sup>15</sup>.

During the many conversations which the authors of this report had with corporates in India as part of this research, it is evident that employers realize the value that a Diverse workforce plays at many levels in the organization. Even more obvious is the fact that organizations appreciate the fact that the average career is spread across several decades and the long haul is as important as the short one.

When the talent manager considers the knowledge and skills that a professional accrues over a span of between ten to thirty years, and needless to mention, how invaluable all that knowledge capital is to a resource-thirsty organization, it actually seems irrelevant if by the individual's own choice, linear growth takes, say, 3 more years rather than the mandatory fast track time. With this mindset, career breaks become less ‘full-stop’ and more ‘comma’. Women who wish to take breaks in career or seek to work flexi are seen as important repositories of information and future leadership potential. The work world which values this aspect of human capital also recognizes that retaining talent is as important as attracting it.

Hence, the intelligent talent manager understands that different people pursue different career models and the workplace of today demands an additional discretionary effort in creating distinct employee segments.

In simple words it is about breaking old ideologies and allowing creativity and innovation to take the place of moth-eaten policies. It's about valuing diversity and recognizing that our world has changed irrevocably in the past 10 years. Not all employees fit the same mould any more than all customers use the same products. When an organization crosses these ideological thresholds, all kinds of changes start to happen organically. New ways of working are seen as a strategic decision which adds to the top line and not as an accommodation to ‘special’ workers. A culture of flexibility becomes ingrained in a company's DNA unobtrusively and is no longer a largesse provided to a working mother. Flexi-Careers then are seen a tool for improving productivity and work/life balance not just for the present, but well into the future.

## GLOSSARY

The following is a list of terms commonly used in the repertoire of Flexi-Career practices. The author wishes to state that not all of them find a place in this report.

IWP : Refers to the Indian Woman Professional who works in white collar jobs in the Indian workplace

Full-time: This refers to an individual working the full complement of 8 hours or 9 hours as applicable from the office premises.

Flexi-time: This refers to an arrangement whereby the individual works flexibly for the same number of hours, but has the option of varying the start/end time as also the location of work (for eg, from home, from a remote location or from a designated third-party office).

FWA : Flexible Working Arrangements – refers to any means whereby an individual works flexibly

Part-time: This refers to an arrangement whereby an individual works either from home or within office premises, but works for a reduced number of hours. This could be 50% or 60% of the full-time working hours.

Flexi-Careers: Careers which demonstrate one of three types of Flexibility: 1) Temporal or Time-led Flexibility, 2) Location or Place-led Flexibility and 3) Career or Skill-Led Flexibility

Home based Non family care giver: a domestic help/maid who looks after the child/elder at home

Home based family member care giver: a family member such as the parents or the parents-in-law of the employee provides child care at home

Day Care Services: a facility in the care of which the employee can leave her child/children

Organization Provided Crèche : A day-care/child-care center provided by the organization either within the premises or outside the premises of the office

Self - initiated skill building programs: Training/Developmental programs initiated and paid for by

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## WHAT DRIVES THE PERFORMANCE OF COMMERCIAL BANKS IN ETHIOPIA?

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### ABSTRACT

*This paper investigates the impact of macroeconomic factors, financial system, banking sector variables and bank-specific characteristics on Ethiopian commercial banks' profits measured using return on assets (ROA) measure of profit during the period of 2001 to 2008. The random effect panel data regression result shows that the capital strength, bank intermediation and size measures have a positive and dominant influence on their profitability. The other significant factors being efficiency in expense management measured by overhead has negative and significant on profit measures. Thus, overhead, capital strength, bank intermediation and size measures are important determinants of bank profits in Ethiopia.*

### KEYWORDS

Banking, Finance, performance.

### INTRODUCTION

Ethiopia's financial sector remains closed and is much less developed than its neighbours. Ethiopia has no capital market and very limited informal investing in shares of private companies. A series of financial sector reforms has been introduced since 1994, when private banks were allowed to be re-established. But the three large state-owned banks continue to dominate the market in terms of capital, deposits and assets. Ethiopian financial system is highly bank dominated. From 2001 to 2008, the banking sector constitutes 95 percent of assets, 96.53 percent of deposits, 94 percent of loans and deposits and 76.78 percent of equity of the financial sector on average.

As banks dominate the financial sector in Ethiopia, ensuring the financial health of them can be considered as an indication of the performance of the financial system of the country. The financial system is an important ingredient in any economic environment of a country. The very function of this particular sector has an immense impact on the economic system. Hence, it is very much essential for a country to look after its financial system continuously. The soundness and safety of the financial system could be done by assessing the performance and determinants of performance and act accordingly to curve the situation to the benefit of the individual institutions, financial system and to the economy at large. In this regard, the study to investigate determinant factors of profit performance of Ethiopian commercial banks.

Considering the nature and objective of the present study, we have used return on assets (ROA) as performance measures of profit performance and external and internal variables as independent variables are used. The effects of the independent variables on the profit measurement variables are analyzed using random effects panel data regression model as it is favored by the Hausman specification test.

The rest of the paper is structured as follows: Section II provides a brief review of the literature of previous research relating to determinants of bank performance. Section III discusses the set of variables used for assessing the determinants of performance of banks. Section IV describes the data and methodology. Section V presents the empirical results, and Section VI concludes.

### LITERATURE REVIEW ON THE DETERMINANTS OF BANK PERFORMANCE

Studies on the determinants of banks' interest margin and profitability have focused whether on a particular country (Kosmidou, Tanna and Pasiouras; Wong et al, (2007); Guru et al., 2002; Barajas et al., 2001; Naceur and Goiaed, 2003) and on a panel of countries (Abreu and Mendes, 2002; Demerguc- Kunt and Huizingha, 1999).

The empirical evidence due to; Naceur and Goiaed(2001); Guru et al. (2002) ;Wong et al (2007) and Kosmidou, Tanna and Pasiouras and are among the literatures assessed in Single Country Studies category.

Naceur and Goiaed(2001) in their paper termed The Determinants of Commercial Bank Interest Margin and Profitability: Evidence from Tunisia have found that individual bank characteristics explain a substantial part of the within-country variation in bank interest margins and net profitability. High net interest margin and profitability tend to be associated with banks that hold a relatively high amount of capital, and with large overheads. Second, the paper finds that the inflation has a positive impact on banks' net interest margin while economic growth has no incidence. Third, turning to financial structure and its impact on banks' interest margin and profitability, concentration is less beneficial to the Tunisian commercial banks than competition. Stock market development has a positive effect on bank profitability. This reflects the complementarities between bank and stock market growth. The disintermediation of the Tunisian financial system is favorable to the banking sector profitability. They investigated the impact of banks' characteristics, financial structure and macroeconomic indicators on banks' net interest margins and profitability in the Tunisian banking industry for the 1980-2000 period using panel data regression.

Guru et al. (2002) attempt to identify the determinants of successful deposit banks in order to provide practical guides for improved profitability performance of these institutions. The study is based on a sample of seventeen Malaysian commercial banks over the 1986-1995 period. The profitability determinants were divided in two main categories, namely the internal determinants (liquidity, capital adequacy and expenses management) and the external determinants (ownership, firm size and external economic conditions). The findings of this study revealed that efficient expenses management was one of the most significant factors in explaining high bank profitability. Among the macro indicators, high interest ratio was associated with low bank profitability and inflation was found to have a positive effect on bank performance.

Wong et al (2007) in their research article titled determinants of the performance of banks in Hong Kong have found that in Hong Kong's case, market structure, such as market concentration and market shares of banks, is not a major contributory factor of a bank's profit and the general level of profitability of a banking market. Cost efficiency of banks, which measures the ability of banks to optimize their input mix for producing outputs, is a major determinant of banks'



profitability. This paper develops a model to identify the major determinants of a bank's profit, and the general level of profitability of a banking market. The paper employed the Berger-Hannan (1993) approach and a panel dataset of retail banks in Hong Kong covering the period 1991-2005 to examine how banks' performance is determined, by including direct measures of efficiency in the empirical analysis, along with variables representing market structures and other controlling factors. The bank performance is proxied by return on assets.

A research article in 2008 titled The Determinants of Bank Performance in China suggested economic value added and the net interest margin do better than the more conventional measures of profitability, namely return on average equity (ROAE) and return on average assets (ROAA). Some macroeconomic variables and financial ratios are significant with the expected signs. Though the type of bank is influential, bank size is not. Neither the percentage of foreign ownership nor bank listings has a discernable effect. The original sample includes 76 banking institutions based in China between 1999 and 2006. The study has used regression analysis and the dependent variables include return on average equity (ROAE), return on average assets (ROAA), economic value added and net interest margin and the independent variables include bank specific (cost to income, equity to total assets, liquid assets to deposits, loan loss reserves to gross loans, total assets, net loans to total assets, other operating assets to average assets) and macroeconomic (inflation, annual real GDP growth, annual unemployment rate). Kosmidou, Tanna and Pasiouras have found that the capital strength, efficiency in expenses management and bank size of UK banks has a positive and dominant influence on their profitability. Naceur and Goaid (2003) have found that individual bank characteristics explain a substantial part of the within-country variation in bank interest margins and net profitability. High net interest margin and profitability tend to be associated with banks that hold a relatively high amount of capital, and with large overheads. The inflation has a positive impact on banks' net interest margin while economic growth has no incidence. Concentration is less beneficial to the Tunisian commercial banks than competition. Stock market development has a positive effect on bank profitability. The disintermediation of the Tunisian financial system is favorable to the banking sector profitability.

## PERFORMANCE MEASURES AND DETERMINANTS

The primary focus of the following variables is to uncover the impact of performance determinants on profit performance measures in Ethiopia.

### 1. PERFORMANCE MEASURES

In line with earlier studies that examined the determinants of banks' profits or profitability, the study relies on the return on assets (ROA), calculated as net profit after tax divided by average total assets. This is probably the most important measure used in comparing the operating performance of banks, and the average value is used in order to control for differences that occur in assets during the fiscal year. ROA measures the profit earned per dollar of assets and reflects how well bank management use the banks' real investment resources to generate profits.

Table 1 gives a brief description of the variables used to measure the profit performance of Ethiopian banks.

[Insert Table 1]

### 2. INDEPENDENT VARIABLES

#### EXTERNAL DETERMINANTS

Turning to the external determinants, four measures are considered, two of which represent the influence of macroeconomic conditions, one of financial sector development (size of financial system) and one of banking structure (CONC). The rate of GDP per capita growth (GROWTH) and inflation (INF) are the two macroeconomic variables. GROWTH reflects the state of the economic cycle and is expected to have an impact on the demand for banks loans. Inflation affects the real value of costs and revenues although it may have a positive or negative effect on profitability depending on whether it is anticipated or unanticipated (Perry, 1992).

The size of the financial sector is represented by financial assets to gross domestic product (FAGDP) and the structure of the banking industry is represented by concentration (CONC). FAGDP is expressed as the ratio of financial system assets to GDP of the country, and provides an indication of the size of the financial sector or financial development in the economy which is measured by the ratio of total assets of the financial system to GDP and is intended to measure the importance of bank financing in the economy. It is expected to influence positively bank performance. Since the stock markets are virtually nonexistent in Ethiopia, stock market development is not dealt with.

CONC is calculated by dividing the total assets of the largest bank (CBE) in the market with the total assets of all banks operating in the market. A positive effect of this variable would signify a high degree of concentration since, according to the Structure-Conduct Performance (SCP) hypothesis, banks in highly concentrated markets tend to collude and therefore earn monopoly profits (Short, 1979; Gilbert, 1984; Molyneux et al., 1996). However, not all studies have found evidence to support the SCP hypothesis. From the 45 studies reviewed by Gilbert (1984) only 27 provided evidence that the SCP paradigm holds.

As potential determinants of Ethiopian commercial banks' profits, two measures representing the influence of macroeconomic conditions, two measures of banking and market structure and six bank-specific measures are considered.

#### INTERNAL DETERMINANTS

The six measures used as internal determinants of performance are: the excess of noninterest expense over total noninterest income to net interest income ratio (OH) as an indicator of efficiency in expenses management; ratio of equity to total assets (CA) to represent capital strength; ratio of Nonperforming assets (loans) to total loans and advances (NPL) as an indicator of banks' asset quality; ratio of Banks' loans to total assets (LA); representing bank intermediation, the total assets of a bank representing its size (SIZE) and time to see the changes through time.

The excess of noninterest expense over total noninterest income to net interest income ratio (OVERHEAD, OH) measures the overhead or costs of running the bank, as percentage of net interest income. It is typically used as an indicator of management's ability to control costs. Since higher expenses normally mean lower profits and vice versa. It also measures the burden of non interest earning on interest income. It also is used to provide information on variation in bank costs over the banking system. Overhead is expected to have a negative impact on performance because efficient banks are expected to operate at lower costs. Equity to total assets (CA) measures of capital strength (capital management ability). It is also expected that the higher equity-to-asset ratio, the lower the need to external funding and therefore higher profitability. It also a sign that well capitalized bank face lower costs of ongoing bankrupt and then cost of funding is reduced.

Nonperforming assets (loans) to total loans and advances (NPL) is a measure of bank asset quality. The amount of nonperforming assets has a direct implication in the profitability of the bank, that is if the proportion of the non performing assets in relation to total loans increase the profitability will be decreased and vice versa

Bank loans (LA) are expected to be the main source of income and are expected to have a positive impact on bank performance. Other things constant, the more deposits are transformed into loans, the higher the interest margin and profits. However, if a bank needs to increase risk to have a higher loan-to-asset ratio, then profits may decrease. In addition, as bank loans are the principal source of income, it is expected that non-interest bearing assets impact negatively on profits.

The size of the bank is also included as an independent variable to account for size related economies (scale economies with reduced costs, or scope economies that result in loan and product diversification, thus providing access to markets that a small bank cannot entry) and diseconomies of scale. In most of the finance literature, the total assets and total shareholders' equity of the banks are used as a proxy for bank size. However, since most of the variables in the models were deflated by total assets it would be appropriate to log total assets before including it in the model.

## DATA AND METHODOLOGY

### DATA

Financial data for the commercial banks were obtained from the individual banks financial statements (annual balance sheet and income statements), supplemented by macroeconomic, financial and banking structure from annual reports of National Bank of Ethiopia (the central bank in Ethiopia). All commercial

banks which were operational within Ethiopia in the study period are included. The time period of the study is from 2001 to 2008. The fiscal year ends on July 7 of each year. This yielded a balanced panel data for 8 commercial banks, consisting of 62 observations.

Table 2 shows the results of multicollinearity diagnostics using variable inflation factor (VIF) the VIF value of concentration is 19.25 and concentration is dropped as the value of its VIF is greater than 10. As a rule of thumb, if the VIF of a variable exceeds 10, that variable is said to be highly collinear (Gujrati and Sangeetha, 2008). (Insert Table 2 here). And in order to study the impact of concentration on the performance of banks, the random effects regression including concentration but excluding the variable that had higher correlation with concentration has been used. Inflation had the highest inflation with concentration variables partial regressions have been used to identify correlations among the independent. (Insert Table 5 here).

#### METHODOLOGY

Random and fixed effects panel data regression equations are used to examine the determinants of the profits or profit performance of Ethiopian commercial banks. Performance is examined as a function of bank specific factors, macro economic factors and financial sector factors.

$$Y_{it} = (\alpha_i + u_i) + \beta_i X_{it}$$

Where;  $Y_{it}$  is the performance of a given bank at a specified time measured in terms of ROA; where  $i$ =banks and  $t$ = time

$(\alpha_i + u_i)$  is the error term

$\beta_i$  is the coefficient for that independent variables

$X_{it}$  represents a vector of independent variables for each bank ( $i$ ) and at time ( $j$ ).

Independent variables consist of Macroeconomic factors, financial structure factors and bank specific factors. Macro economic factors include GDP per capita growth rate and inflation; financial sector factors include total financial assets of in the economy to GDP and Bank concentration; Bank characteristics indicators include profitability, efficiency, capital management, asset quality, intermediation and size measures.

The preference for a random effects model over a fixed effects model was based on the use of the Hausman test (Baltagi, 2001). Thus, The Hausman specification test is used to discriminate between the fixed and random effects in the panel data. The Hausman specification test shows that there is no significant differences in the coefficients estimated using fixed and random effects regression ( $\chi^2(5) = 6.87, \text{Prob} > \chi^2 = 0.23$ ). Thus random effect regression is favored.

Test for random effects: it is made using Breusch and Pagan Lagrangian multiplier test for random effects:  $\chi^2(1) = 2.17, \text{Prob} > \chi^2 = 0.1407$ . Thus the data is fit for the random effects regression.

Autocorrelation and heteroscedasticity is controlled by using robust clustered standard errors in the random effects model.

The normality of the error term is checked by Shapiro-Wilk test for normal data and is found normal, as  $p$  value is greater than  $> 0.05$ . (See Table 4)

#### RESULTS

Since random effect regression is favored for the panel data regression using ROA as profit performance measure, the interpretation is made using random effects model.

#### INTERPRETATION

The dependent variable ROA was modeled as a function of a number of explanatory variables. The dataset contains 62 "observations", which is 8 banks each observed, on average, on 7.8 different years. An observation in the data is a bank in a given year. The data contains variable  $i$  identifying the banks; the  $i$  index in  $x [i, t]$ .

A model test for random effect regression is checked by the wald test (Wald  $\chi^2(6) = 6097.87, \text{Prob} > \chi^2 = 0.0000$ ). The null hypothesis is all coefficients of regressors in the model have a value of zero. As it is less than .05, the model is fit for our purpose showing the ability of explanatory variables to determine the dependent variable. The differences across units are uncorrelated with the regressors' ( $\text{Corr}(u_i, X = 0$  (assumed)).

Coefficients of explanatory variables show that the average effects of explanatory variables over ROA when explanatory variables changes across time and between banks by one unit.

Z values test the hypothesis that each coefficient is different from 0. To reject it should be greater than 1.96 for 95 percent confidence level or  $P$  values should be less than .05 to reject the hypothesis. Thus, OH, CA, LA and LOGA values greater than 1.96 Z values (less than or equal to 0.05  $P$  values), that is the coefficient values are different from zero, that is, they are determinants of ROA.

#### EXTERNAL FACTORS

When we look the effects of external factors on banking performance measured in terms of ROA, all of them were not significant. Economic growth could have a positive, negative and no effect on the financial sector performance. GROWTH has no significant effect on the profitability of Ethiopian banks.

The other macroeconomic indicator variable inflation (INF) has a positive association between inflation and bank profitability considering the findings of previous studies (e.g. Claessens et al., 1998; Demirguc-Kunt and Huizinga, 1999). The positive association is related to the theory that inflation was anticipated giving banks the opportunity to adjust interest rates accordingly, resulting in revenues that increased faster than costs, thus implying higher profits. But, inflation has no significant effect on the profitability of Ethiopian banks. One reason for this could be the interest rate spread is not responding with the economic condition of the country, and the positive association of inflation and profitability could be due to non interest related activities.

TAGDP and CONC have no any significant effect on the profitability of Ethiopian banks. This implies that the effect of financial sector development and completion among the banking sector have no significant impact on the profitability of Ethiopian banks.

#### INTERNAL FACTORS

As expected the coefficient of the noninterest expense over noninterest income to net interest income ratio (OH) is negative on Ethiopian bank profits. This ratio has a negative effect and significant on ROA. Thus, it suggests that efficiency in expenses management is a determinant of Ethiopian bank profits. Guru et al. (1999), Kosmidou (2006) and Pasiouras et al. (2006) also confirm this inverse relationship for Malaysia, Greece and Australia respectively.

Capital strength makes a significant contribution to the profitability of the Ethiopian banks, as the relatively high coefficient of the equity to assets ratio (EQAS) shows. The ratio is positive and significant. This finding is consistent with previous studies (Berger, 1995; Demirguc-Kunt and Huizinga, 1999; Ben Nacuer, 2003; Kosmidou, 2006; Pasiouras et al., 2006) and indicates that well capitalized banks face lower costs of going bankrupt, which suggests reduced cost of funding or lower need for external funding, implying higher profits.

As expected the coefficient of nonperforming loans and advances to the total loans and advances ratio (NPL) is negative on Ethiopian bank profits but not significant at  $P$  is greater than 0.05 but it was significant at 10 percent level as the  $P$  value is less than 0.1.

Next, it is found a direct relationship between intermediation and profitability. When the effect of intermediation is considered, as expected the coefficient of total loans and advances to total assets ratio (LA) is positive and significant on Ethiopian bank profits. Thus, it suggests that efficiency in intermediation activities is a determinant factor of Ethiopian bank profits. At last, it is also found a direct and significant relationship between bank size and profitability. This implies that large banks have the greater potential to earn more profits in Ethiopia.

#### CONCLUSIONS

This study investigates the impact of bank-specific characteristics, macroeconomic conditions and financial market structure on Ethiopian owned commercial banks' profits, measured by return on average assets (ROA). A balanced panel data set of 62 observations, covering the period 2001-2008, provided the basis for the econometric analysis.

The results show that capital strength, represented by the equity to assets ratio, bank intermediation ratio represented by banks loans to total assets and bank size represented by assets, are the main determinants of Ethiopian banks profits. This provides support to the argument that well capitalized banks face lower

costs of external financing, which reduces their costs and enhances profits. Studies for other countries also support this finding (Berger, 1995; Demirguc-Kunt and Huizinga, 1999; Ben Nacuer, 2003; Pasiouras and Kosmidou, 2006; Pasiouras et al. 2006). Size measures have a positive effect on profitability supporting the economies of scale argument. The impact of overhead to net interest income and nonperforming loan ratios are negative and significant. When we assess the external factors, they have a relatively small impact on the profitability of Ethiopian banks. None of these measures were significant. Thus, overhead, capital strength and bank intermediation and size measures are important determinants of bank profits in Ethiopia. This shows that the key for success in profit for banks rely on individual bank characteristics implying proper management of activities by individual banks is indispensable to be profitable.

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**TABLES**

**TABLE 1- VARIABLES DESCRIPTION**

**DEPENDENT**

1. ROA: The return on average total assets of Ethiopian Commercial banks (Net income after taxes to average assets).

**INDEPENDENT**

Macroeconomic and Financial Structure (External Factors)

Macroeconomic factors

- 1. RGPCG (Growth): Economic growth proxied by real GDP per capita growth rate.
- 2. INF The annual inflation rate

Financial Structure factors

- 1. FAGDP(Total financial assets to GDP): This variable serves as a proxy of financial development.
- 2. CONC: The C1 concentration measure calculated by dividing the assets of the one largest bank(The Commercial Bank of Ethiopia) with the assets of all banks operating in the market. This variable serves as the proxy of competition in the banking sector.

Banks characteristics or bank specific variables (Internals Factors)

- 1. OH: This is the excess of noninterest expense over total noninterest income to net interest income ratio. It provides information on the efficiency of the management regarding expenses relative to the revenues it generates. Higher ratio implies less efficient management.
- 2. CAP: This is a measure of capital strength (management), calculated as equity to total assets. High ratio implies low leverage and therefore lower risk.
- 3. NPL: it shows the extent of nonperforming loans and advances out of the total loans and advances provided by banks. It is measured by Nonperforming assets (loans) to total loans and advances; proxy for bank Asset quality and risk. The higher the ratio the poorer the quality and therefore the higher the risk of the loan portfolio.
- 4. LA it is Bank's loans to total assets (BLOAN); proxy for intermediation. Other things constant, the more deposits are transformed into loans, the higher the interest margin and profits and
- 5. LOGA (Size): Bank total assets; proxy for size measures.

A Table that provides a description of all the variables considered in this study, indicating also their likely association with bank performance.

**TABLE 2: MULTICOLLINEARITY DIAGNOSTICS: VIF AND 1/VIF VALUES OF INDEPENDENT VARIABLES**

Variable	VIF	1/VIF
conc	19.25	0.051950
inf	5.58	0.179058
loga	4.51	0.221776
npl	3.29	0.304233
la	3.15	0.316961
fagdp	2.93	0.341643
rgpcg	2.86	0.349212
ca	2.82	0.355155
oh	1.91	0.522633
Mean VIF	5.14	

TABLE 3: RESULTS OF RANDOM EFFECTS WITH ROBUST- CLUSTERED STANDARD ERRORS TAKING ROA AS PERFORMANCE MEASURE OF BANKS

Independent Variables	Dependent Variable ROA	
	Coef.	P > z
RGPCG	-0.011	0.326
INF	-0.012	0.57
TAGDP	-0.004	0.578
CONC	-0.027	0.621
OH	-0.031	0
CA	0.072	0.035
NPL	-0.039	0.08
LA	0.051	0
LOGA	0.636	0.027
_CONS	-2.644	0.235
Number of observations	62	
Model Fitness test	Wald chi2(6) = 6097.87 Prob > Chi2 = 0.000	
Breusch and Pagan Lagrangian multiplier test	chi2(1) = 2.17, Prob > chi2 = 0.14	
Rho	0	
The Hausman test	Chi2 (5) = 6.87, Prob>chi2 = 0.231	
Corr(U_i,Xb)	0	

Notes: 8 Banks, period 2001-2008, No. of observations = 64; observations in each group or bank is : min = 7, Avg = 7.8 and Max = 8, significance values of p at the 5 % level.

TABLE 4: NORMALITY TEST OF THE ERROR TERM

Shapiro-Wilk test for normal data

variable	Obs	z	Prob>Z
U_it	62	0.349	0.363

obs=64)

TABLE 5: PARTIAL CORRELATION OF CONC WITH

Variable	Corr.	Sig.
rgpcg	-0.6644	0.000
inf	-0.7050	0.000
fagdp	0.5106	0.000
oh	0.0386	0.775
ca	-0.1090	0.420
npl	0.2392	0.073
la	-0.3764	0.004
loga	0.5783	0.000



## NEEDS ASSESSMENT OF EMOTIONAL INTELLIGENCE IN BUSINESS EDUCATION

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### ABSTRACT

*Emotional intelligence is a fairly new, but rapidly growing, area of research. The concept of emotional intelligence has been developed, adopted and embraced by the business world and more recently, by academics. Research relating to the emotional intelligence programmes indicates an improvement in many academic and personal areas which proves that teaching the subject matter is, in fact, increasing the capacity and ability to be emotionally intelligent. Besides, students graduating from business schools will need to be prepared to integrate their technical competency with their emotional intelligence if they are to be successful in the corporate world. This paper explores the importance and inclusion of emotional intelligence competency areas in the existing business curriculum as envisioned by the business educators. It also outlines how emotional intelligence can be integrated into the business curriculum. The study revealed that teaching emotional intelligence in the business school must be made a priority and should be considered as a core learning experience for all business students.*

### KEYWORDS

Business curriculum, business education, competency, emotional intelligence, needs assessment.

### INTRODUCTION

Across the globe, business education is known for providing a competitive edge in a variety of industries. In India, business education has a long history dating back to the 19<sup>th</sup> century. The rapid growth of business schools offering programmes at both undergraduate and graduate levels resulted when the Indian government liberalized the business education market over the 1990s (Gupta, 2003). There are over 950 business schools approved by the All India Council for Technical Education (A.I.C.T.E) in various categories, including the Indian Institutes of Management (IIM's), university departments, and autonomous private institutes (Joshi, 2006). Business education is now one of the most respected and sought after professional educations in the country.

One primary objective of graduate business education is to prepare students to be outstanding managers and leaders. Research has revealed that emotional intelligence skills help to bring about or predict outstanding manager or leader performance (Goleman, 1998b). Besides, emotional intelligence will be of increasing importance to managers and leaders in the days to come because of current changes in the business environment.

Emotional Intelligence (EI) is an elusive construct that has been developed, adopted and embraced by the business world and more recently, by academics. It is to be emphasized that it was Aristotle who was the first to mention the importance of emotions in human interaction (Langley, 2000). Aristotle held the view that those who possess the rare skill to be angry with the right person, to the right degree, at the right time, for the right purpose, and in the right way are at an advantage in any domain of life (Goleman, 1995).

The roots of emotional intelligence can be traced back to 1920 when Thorndike, an influential psychologist in the areas of learning, education and intelligence, proposed the term social intelligence. He defined social intelligence as "the ability to understand and manage men and women, boys and girls - to act wisely in human relations" (Thorndike, 1920, p.228). Later, Gardner (1983) introduced the concepts of intrapersonal and interpersonal intelligences. Intrapersonal intelligence, which is the key to self-knowledge, is the ability to access one's own feelings, discriminate among them and draw upon them to guide behaviour while interpersonal intelligence denotes the capacity to discern and respond appropriately to the moods, temperaments, motivations, and desires of other people. His research focused on the idea that intrapersonal and interpersonal intelligences are as important as the type of intelligence typically measured by intelligence quotient (IQ) and related tests (Gardner, 1983).

Ever since the publication of Daniel Goleman's groundbreaking book *Emotional Intelligence: Why it can matter more than IQ* in 1995, the topic of emotional intelligence has witnessed widespread interest. This book brought to the public's attention the importance of a person's emotional lives (Jensen, 1998). However, the emotional intelligence construct was first conceptualized by U.S psychologists Salovey and Mayer in 1990. 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" (Salovey and Mayer, 1990, p.189). In 1997, they revised their definition of emotional intelligence which is now most widely accepted. Emotional intelligence is thus defined as "the ability to perceive accurately, appraise and express emotions; 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 and Salovey, 1997, p.10).

Reuven Bar-On (1997) developed one of the first measures of emotional intelligence that used the term Emotion Quotient (EQ). Bar-On's model of emotional intelligence focuses on an array of emotional and social abilities, including the ability to be aware of, understand and express oneself; the ability to be aware of, understand and relate to others; the ability to deal with strong emotions and control one's impulses; and the ability to adapt to change and solve problems of a social or personal nature. He characterized emotionally intelligent people as being optimistic, flexible, realistic, successful at solving problems and coping with stress, without losing control (Bar-On, 1997).

According to Goleman (1998b, p.375), emotional intelligence is "the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions well in ourselves and in our relationships". He points out that some individuals are born with a general emotional intelligence that determines their potential for learning emotional competencies. Emotional competencies are learned capabilities that must be worked on and developed to achieve outstanding performance (Goleman, 1998b).

Goleman (2001) suggests four fundamental constructs of emotional intelligence and associated competencies that build on those fundamentals. The first construct, self-awareness, is the ability to know one's internal states, preferences, resources and intuitions. Self-awareness is the vital foundation skill for three

emotional competencies such as emotional self-awareness, accurate self-assessment and self-confidence. The second construct, self-management, involves controlling one's emotions and impulses and adapting to changing circumstances. The six emotional competencies of this construct are self-control, trustworthiness, conscientiousness, adaptability, achievement drive and initiative. The third construct, social awareness, includes the ability to sense, understand and react to other's emotions while comprehending social networks. The three emotional competencies of the social awareness construct are empathy, service orientation and organisational awareness. Relationship Management, the fourth construct, entails the ability to inspire, influence and develop others while managing conflict. The eight emotional competencies of this construct are developing others, influence, communication, conflict management, leadership, change catalyst, building bonds as well as teamwork and collaboration. Later, Boyatzis (2007) included only twelve competencies such as emotional self-awareness, emotional self-control, adaptability, achievement orientation, positive outlook, empathy, organisational awareness, coach and mentor, inspirational leadership, influence, conflict management and teamwork under the four fundamental areas.

The interest in EQ has grown out of a desire to more fully understand what predicts success. It is seen that high test scores in college do not help to predict salary, productivity, status, life satisfaction, or happiness with friendship, family, and romantic relationship (Ekman, 1992). Hence the traditional constructs of intelligence have little to do with emotional intelligence or success in life (Sutarso et al, 1996). Goleman (1995) has claimed that emotional intelligence predicts as much as 80 per cent of a person's success in life, whereas the traditional measure, IQ, predicts about 20 per cent. The concept of EQ supports the theory that cognitive skills alone do not hold the key to success in life. This theory has been supported by studies comparing the relationship between IQ and EQ on job performance. Even though the majority of studies found no direct correlation between IQ and EQ, they did find significant correlations between specific EQ competencies and successful job performance (Goleman, 1998b). In reviewing EQ, Dulewicz and Higgs (2000) are also of the opinion that a major driver of interest has been the failure of IQ tests to account for sufficient variance in success criteria both in an educational and organisational context.

Goleman and his colleagues further adopted the concept of emotional intelligence to the business world by describing its importance as an essential ingredient for business success (Goleman, Boyatzis, and McKee, 2002). Emotional intelligence skills have been strongly associated with both dynamic leadership and satisfying personal life experiences (Goleman, 1995). Williams and Sternberg (1988) provided empirical evidence to show the importance of emotional intelligence with respect to effective leadership or team functioning. They found that even one overly zealous or domineering member in a group can significantly inhibit the quality of that group's performance. Research conducted at a large beverage and food company revealed that division heads with strengths in emotional intelligence competencies outperformed their targets by 15 to 20 per cent, while those who lacked them underperformed by almost 20 per cent (McClelland, 1998). Goleman (1998a) reported that truly effective leaders are distinguished by a high degree of emotional intelligence from his research involving almost 200 large, global companies.

Several authors have stressed that one aspect of emotional intelligence, self-awareness, is vital to transformational leadership effectiveness (Bennis, 1989; Sosik & Megerian, 1999). Multisource data collected from 63 managers (who responded about their emotional intelligence and transformational leadership behaviour), 192 subordinates (who rated their manager's transformational leadership behaviour and performance outcomes), and 63 superiors of focal managers (who rated managerial performance) indicated that correlations between emotional intelligence aspects, leader behaviour, and performance varied based on the self-awareness of managers (Sosik & Megerian, 1999).

Goleman (2000) demonstrated the link between emotional intelligence and leadership by drawing on the experiences of over 3000 executives and concluded that leaders can increase their quotient of leadership styles by understanding which emotional intelligence competencies underlie the leadership styles they are lacking and working to develop them. Smigla and Pastoria (2000) are also of the opinion that emotional intelligence is crucial to excel at the job or assume a leadership role. Wolff, Pescosolido and Druskat (2002), after conducting a longitudinal study of 382 team members comprising 48 self-managing teams, proved that empathy precedes and enables specific cognitive processes and skills that support the emergence of leadership. Overall, their results suggest that emotional intelligence, particularly empathic competency, is a dominant factor of the leadership emergence in self-managed teams.

The corporate world has been emphasizing the need for higher levels of personal and interpersonal skills among the business school graduates they hire (Porter and McKibbin, 1988). Studies have found empirical data that support the connection between emotional intelligence and adequate interpersonal relationships (Brackett et al., 2006). Staw and Barsade (1993) after examining the relationship between affect and performance found that people who are positive in disposition make more accurate decisions and are more interpersonally effective in a leaderless group discussion. To deal with rapid technological and social change, the interpersonal competencies included in the emotional intelligence construct are required (Schmidt, 1997).

According to Boyatzis (1982) influence is one of the competencies that most strongly distinguishes superior managers from others. It is particularly important for all levels of management (Cherniss and Adler, 2000). Besides this, research studies have demonstrated the contributions of emotional intelligence and trait affect to interview success. Fox and Spector (2000) conducted a study with college students wherein they found that empathy, self-regulation of mood, and self-presentation; affective traits (positive and negative affectivity); and general and practical intelligence were related to job interview performance.

Researchers such as Gardner (1993), Goleman (1995) and Salovey and Sluyter (1997) have all worked to impress upon educators the importance of emotional intelligence. Besides, research also suggests that emotional intelligence is not fixed at birth but can be developed through education and training (Pasi, 1997).

Reiff, Gerber and Ginsberg (1994) contend that components of their model of employment success, which contains many elements of emotional intelligence, can be systematically taught and used in the classroom. Greenberg et al (1995) reported on a programme that led to improved classroom behaviour of special needs students in frustration tolerance, assertive social skills, task orientation and peer sociability. These students also decreased their levels of anxiety and depression. Kelly and Moon (1998) argue that educators have come to realize that academic excellence alone does not contribute to creating a successful life. Emotional and social intelligence of a person is equally important. Research studies have also focused on the importance of emotional intelligence competencies in predicting success of students (Stein and Book, 2000).

Education of the affective domain, while important to all schools or in all spheres of life, is particularly significant in the case of a business school. It is seen that substantial changes made to an entire MBA programme have been found to increase emotional intelligence in students. A series of longitudinal studies conducted at the Weatherhead School of Management of Case Western Reserve University have shown that the complex set of competencies that distinguish outstanding performers in management and professions can be changed and that the behavioural improvements will last for years. After going through the change process, the MBA graduates showed 47 per cent improvement on self-awareness competencies like self-confidence and on self-management competencies such as the drive to achieve and adaptability for up to two years compared to when they first entered the course. When it came to social awareness and relationship management skills, they showed 75 per cent improvement on competencies such as empathy and team leadership. These gains were found to be in stark contrast to those from standard MBA programmes where there is no attempt to enhance emotional intelligence abilities (Boyatzis, 2002).

Rozell, Pettijohn and Parker (2002), after examining the emotional intelligence in a sample of 295 undergraduate business majors, concluded that emotional intelligence should be included within the core skills taught in training and development programmes at university. However, few business school curricula adequately address the requirement of emotional intelligence skills as a means to provide opportunities to the business graduates to better understand how emotions affect their performance and to develop their emotional competencies. This has resulted in calls for the incorporation of emotional intelligence skills in the business curriculum. This study examines the importance and inclusion of emotional intelligence competency areas in the existing business curriculum as envisioned by the business educators and provides suggestions for the integration of emotional intelligence in the business curriculum.

To accomplish the objective of this study, a matrix analysis recommended by Witkin (1984) for assessing needs in social and educational programmes was used. Witkin and Altschuld (1995, p.4) broadly defined needs assessment as "a systematic set of procedures undertaken for the purpose of setting priorities and making decisions about programme or organisational improvement and allocation of resources. The priorities are based on identified needs". According to Witkin & Altschuld (1995), for needs assessment, three levels of need are taken into account. The first or primary level represents the service receivers. These include the people for which the system ultimately exists such as students, clients, information users, commuters, or potential customers. In this study, the service receivers are the students in the business school. Level two, or the secondary level, represents the service providers and policymakers. Those in level two

provide information, services, training or nurture or they perform planning, technical assistance, or oversight functions that affect those in level two as well as indirectly affect those in level one (Witkin & Altschuld, 1995). Business educators belong to this level in this study. The final level is the tertiary level. This level represents the resources or solutions. This includes buildings, facilities, equipment, supplies, technology, programmes, class size, surgical procedures, information retrieval systems, transportation, salaries and benefits, programme delivery systems, time allocation and working conditions (Witkin & Altschuld, 1995). In this study, level three is representative of the business curriculum. Although the prime target for needs assessments is level one, needs assessments can also be performed at level two or at level three (Witkin & Altschuld, 1995).

## METHODOLOGY

### SAMPLE AND QUESTIONNAIRE

The participants were business educators, teaching as part of the core faculty members, in the Department of Management of the University of Kerala in India, its extension centres and the business schools affiliated to the University. A list of 76 business educators was compiled for administering the questionnaire. For the selection of business educators, the purposive sampling method was adopted. The questionnaires were sent to 50 business educators. A total of 32 participants responded to the questionnaire (64 per cent response rate). 62.5 per cent of the participants were male. Out of the 32 participants, 12 were female. The average age of the educators was 33 years, with the youngest being 27 years and the oldest being 53 years. The mean years of teaching experience for the participants was 8.12 years.

The questionnaire used for the study comprised of twelve emotional intelligence competency areas to be rated on the level of importance and inclusion using a five point Likert type scale. For the level of importance, the responses on the Likert scale range from 1 = *very low importance* to 5 = *very high importance* and for the level of inclusion, the responses on the Likert scale range from 1 = *hardly ever* to 5 = *almost always*. The participants were instructed to indicate the extent to which they believe that the competency area is important and the extent to which it is being included in the curriculum.

### ANALYSIS PROCEDURE

For needs assessment, a matrix analysis is used wherein, initially, the grand mean score for importance and the grand mean score for inclusion are calculated. The scores are then plotted using the "X" and "Y" axis as a point on a four-quadrant graph. The mean of importance and inclusion should be plotted for each of the individual items. Items in quadrant four (critical need) are those of high importance but of low inclusion. Items in quadrant three (low-level need) have both a low level of importance and a low level of inclusion. Items in quadrant two (low-level successful ability) have a low level of importance but have a high level of inclusion. Finally, items falling into quadrant one (high level successful ability) have a high level of importance as well as a high level of inclusion.

## RESULTS

Table 1 shows the means and standard deviations of the twelve emotional intelligence competency areas such as Emotional Self-Awareness, Emotional Self-Control, Adaptability, Achievement Orientation, Positive Outlook, Empathy, Organisational Awareness, Coach and Mentor, Inspirational Leadership, Influence, Conflict Management and Teamwork.

**TABLE 1: MEANS AND STANDARD DEVIATIONS OF COMPETENCY AREAS INCLUDED IN THE STUDY**

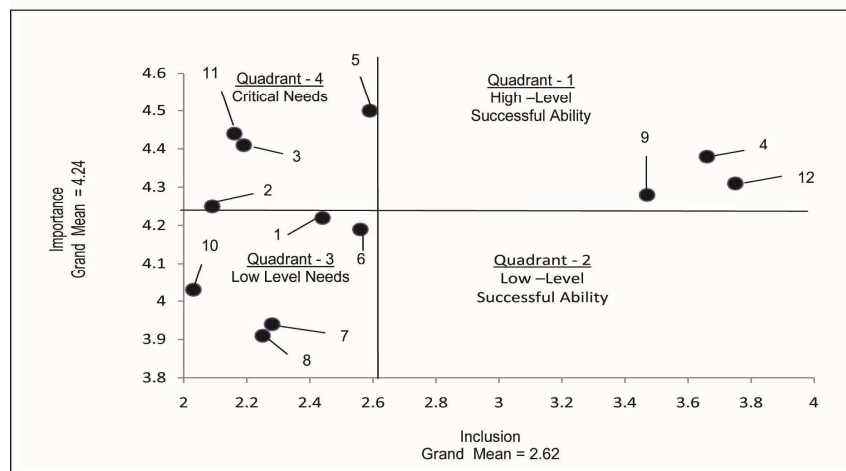
Competency Areas	Importance		Inclusion	
	Mean	SD	Mean	SD
Emotional Self-Awareness	4.22	0.79	2.44	0.56
Emotional Self-Control	4.25	0.62	2.09	0.82
Adaptability	4.41	0.76	2.19	0.74
Achievement Orientation	4.38	0.55	3.66	0.65
Positive Outlook	4.50	0.57	2.59	0.95
Empathy	4.19	0.59	2.56	0.76
Organisational Awareness	3.94	0.80	2.28	0.63
Coach and Mentor	3.91	0.78	2.25	0.76
Inspirational Leadership	4.28	0.63	3.47	0.51
Influence	4.03	0.47	2.03	0.18
Conflict Management	4.44	0.76	2.16	0.68
Teamwork	4.31	0.59	3.75	0.67
<b>Note : N = 32</b>				

Source: Survey data

The result of the Needs Assessment Matrix Analysis for determining the curricular needs of emotional intelligence competency areas in business education as perceived by the business educators is shown in Figure 1.



Figure 1 Emotional Intelligence Needs Assessment



1	Emotional Self – Awareness	7	Organisational Awareness
2	Emotional Self Control	8	Coach and Mentor
3	Adaptability	9	Inspirational Leadership
4	Achievement Orientation	10	Influence
5	Positive Outlook	11	Conflict Management
6	Empathy	12	Teamwork

Source: Survey data

By plotting the grand means (GM) for importance and inclusion (4.24 and 2.62 respectively), four quadrants emerged. Using the mean scores for importance and inclusion, the twelve competency areas were plotted on the matrix with Emotional Self-Control, Adaptability, Positive Outlook and Conflict Management being classified as critical needs, Achievement Orientation, Inspirational Leadership and Teamwork being classified as high level successful abilities and Emotional Self-Awareness, Empathy, Organisational Awareness, Coach and Mentor and Influence being classified as low-level needs.

**DISCUSSION**

In this study, the researchers determined the importance and inclusion of emotional intelligence competency areas in the existing business curriculum as perceived by the business educators.

The business educators identified four emotional intelligence competency areas as critical needs. This indicates that they believe Emotional Self-Control, Adaptability, Positive Outlook and Conflict Management are important but they are not currently included in the curriculum. Three out of twelve emotional intelligence competency areas were identified as high-level successful abilities. This means that the business educators believe Achievement Orientation, Inspirational Leadership and Teamwork are important and they are including them in the curriculum. Five of the twelve emotional intelligence competency areas were identified as low-level needs. This indicates that the business educators do not believe Emotional Self-Awareness, Empathy, Organisational Awareness, Coach and Mentor and Influence are important and they are not being included in the curriculum.

The current study provides evidence that business education as it is currently practiced cannot be expected to increase the emotional intelligence of students. To improve the emotional intelligence of students, appropriate training should be provided to the business educators to help them integrate Emotional Self-Control, Adaptability, Positive Outlook and Conflict Management into their curriculum. The business education students will also be benefited if an emotional intelligence course is incorporated into the study programme specifically to provide growth opportunities in recognizing, discussing and appropriately managing emotions.

The emotional intelligence course should be designed to help students understand the emotional intelligence concepts on a theoretical as well as on a practical level. It should also be made compulsory for all students irrespective of their specialization areas. The course objectives may include discussion of theoretical bases and research relating to the emotional intelligence concept; identifying the importance of emotional intelligence in work, academic success, family and relationships; assessing and understanding own levels of emotional intelligence; and preparing action plans for enhancing selected aspects of one’s emotional intelligence. While teaching emotional intelligence, emphasis should be given to practice, training and improvement and not so much on verbal instruction. The application of emotional intelligence to interpersonal relationships as well as its application on an organisational or institutional level should be stressed upon. During the course, the critical needs identified in this study should be given top priority, the low level needs should be given second priority as they may require action at a later time and the high-level successful abilities should be monitored to ensure continued excellence.

In this course, the students will be required to complete an emotional intelligence assessment, develop a personal plan for intrapersonal and interpersonal improvement, submit weekly journal entries that detail progress toward their plan’s goals and develop their skills through role-practice and discussion. The emotional intelligence assessment will help students to identify their current level of emotional skills and then discuss various steps for improvement with their teacher. Each student should be made part of a “support group,” organized by self-change topics and in which they participate in periodically throughout each session. These support groups should be given time in class to discuss the day’s lesson, report the progress of their plans, and brainstorm strategies together for those students who are facing obstacles in achieving their plans. These groups are designed to give students the opportunity to talk about issues which they feel uncomfortable to discuss in the larger group.

Students can be given scenarios drawn from the workplace to discuss in groups and then role-practice as the characters in the scenario to gain more insight into how emotional intelligence can be applied. Exercises like emotional charades, case studies, rating and describing emotions to each other and discussing the influence of one’s thoughts on feelings can be used in class to train the students. Thus, this course will enable students to explore emotional intelligence concepts both intrapersonally and interpersonally and also lay a foundation to work on the concepts for enhanced long-term memory and application.

Further research should be conducted by taking into consideration other stakeholders such as students, parents and prospective employers. It is also recommended that the research be performed on a larger sample from a wider geographical area. Studies can be also undertaken on a state-by-state basis to determine if there are different viewpoints of teachers based on importance and inclusion. Research can also focus on determining the correlation between various demographics and the level of importance and inclusion of emotional intelligence competency areas in the existing business curriculum. There is also a need to replicate this study with business experts to determine if there is an agreement between the experts and the business educators regarding the importance and inclusion of the emotional intelligence competencies. A study on the costs and benefits of incorporating emotional intelligence into the



curriculum is also warranted. Further research can explore the long-term effects of the emotional intelligence curriculum. Additional research can be conducted placing emphasis on how the course is being taught in the classrooms instead of the content that is being taught.

## CONCLUSION

The traditional paradigm of business schools, with its strong focus on analytical models and reductionism, is not well suited to handle the ambiguity and high rate of change facing many industries today (Schoemaker, 2008). Bennis and O'Toole (2005) opine that business schools are graduating students who are ill-equipped to wrangle with complex, unquantifiable issues - in other words the stuff of management. Besides, business organisations are not run as a scientific experiment but rather like a problem solving endeavor which has to take into consideration the social and human factors so as to arrive at a decision. Hence, the onus is on the business educators to begin to create learning experiences for students that address these issues. This can be brought about by incorporating emotional intelligence in the business curriculum so that the emotional intelligence of graduates is improved along with their cognitive skills and technical competence which will ultimately help them to achieve success in the corporate world.

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## CREDIT MANAGEMENT OF INDIAN COMMERCIAL VEHICLE INDUSTRY

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### ABSTRACT

*Receivable constitutes substantial portion of current assets of several firms. In India, trade debtors after inventories are the major components of current assets. They form about one-third of current assets. As substantial amounts are tied-up in trade debtors, it needs careful analysis and proper management. The prime aim of this study is to examine the trade credit of Indian commercial vehicle industry.*

### KEYWORDS

Credit, Commercial Vehicle, Working Capital, Industry.

### INTRODUCTION

All the firms by their very nature are involved in selling either goods or services. Although some of these sales will be for cash, a large portion will involve credit. In such a situation, trade credit is an essential marketing tool of the firms to protect its sales from the competitors and to attract the potential customers.

Receivables or book debts has three features such as risk, economic value, futurity. First it involves with risk, second, economic value of goods and services passes immediately to the buyer, third the seller can get money in future period.

The size of investment in accounts receivable is determined by several factors. These factors are bifurcated under following heads: 1. Non decision variable and 2. Decision variable.

Level of sales, percentage of credit sales to total sales and level of credit sales are not within the control of the financial manager. The nature of business tends to determine the blend between credit sales and cash sales. But the firm can take a decision regarding collection period, monitoring and evaluating customers regularly. This paper focuses on how the Indian commercial vehicle industry, monitoring and evaluating their customers.

### LITERATURE REVIEW

**Niranjan Mandal, Dr. B. N. Dutta Smriti Mahavidyalaya, (2010)** in their study makes an attempt to provide an insight into the conceptual side of working capital and to assess the impact of working capital management on liquidity, profitability and non-insurable risk of ONGC, a leading public sector enterprise in India over a 9 year period (i.e. from 1998-99 to 2006-07). It also makes an endeavor to observe and test the liquidity and profitability position of the enterprise and to study the correlation between liquidity and profitability as well as between profitability and risk. They may be concluded that working capital management is very much useful to ensure better productive capacity, good profitability and sound liquidity of an enterprise, specifically the PSE in India, for managerial decision making regarding the creation of sufficient surplus for its growth and survival stability in the present competitive and complex environment.

**Dr. T. Koti Reddy and Shri Raghav Baheti (2010)** in their study seeks to examine current policies and practices of working capital management at Saregama India Limited and tries to identify the strengths and weaknesses of the company; the opportunities it has and the threats it faces. It contains a detailed analysis of the various factors affecting the working capital requirements of the company and the impact they have on its profitability. The study concludes by suggesting solutions to address the concern areas that have been identified. The company is recommended to focus on digital sales, incentivize cash sales, follow a forecasting model that captures the tastes and preferences of consumers and strictly implement its credit policy.

**Russell P Boisjoly (2009)** in his study discussed receivable turnover, payable turnover, inventory turnover, cash flow and working capital per share, and investment ratio for 50 of the largest non-bank corporations over the period 1990-2004 to determine whether their management practices had an impact on their financial ratios and distributions. Aggressive management of working capital and significant increases in productivity resulted in significant improvements in cash flow per share and reduced corporate reinvestment. Furthermore, it found that the distribution of cash flow per share became more positively skewed and working capital per share became less positively skewed during the study period.

**Shri. Abdul Raheman and Shri. Mohamed Nasr (2007)** in their study discussed about the Working Capital Management has its effect on liquidity as well on profitability of the firm. In this research, they have selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of 6 years from 1999 – 2004. The main objective of the study is to find out relationship between working capital management and profitability and debt used by the firms and its profitability. The results show that there is a strong negative relationship between variables of the working capital management and profitability of the firm. It means that as the cash conversion cycle increases it will lead to decreasing profitability of the firm, and managers can create a positive value for the shareholders by reducing the cash conversion cycle to a possible minimum level. We find that there is a significant negative relationship between liquidity and profitability. We also find that there is a positive relationship between size of the firm and its profitability. There is also a significant negative relationship between debt used by the firm and its profitability.

**Shri. G. Sudharsana Reddy and Shri. S. Raghutha Reddy (2005)** in their study attempted to evaluate the receivables management practices in the selected small scale industries at Peenya industrial estate in Bangalore. The major findings of the study are: prime reason for granting credit facility is as sales promotion technique, bills receivables are the main form of credit sales. The credit worthiness of customers is judged based on their past association with the customers. Units collect dues from the customers directly and also through representatives and units do not prefer to the court of law in regard to defaulting customers.

**Shri. Amit K.Mallik, Shri. Debasish Sur and Shri. Debdas Rakshit (2005)** examined the relationship between working capital and profitability of some selected companies in Indian pharmaceutical industry during the period 1990-91 to 2001-02. The study concluded that the joint influence of the liquidity, inventory management and credit management on the profitability were very significant in the selected companies for the study.

**Shri. Reddy and Patkar (2004)** studied the size and its components and liquidity management in factoring companies. They also studied the correlation between liquidity and profitability of factoring companies. They concluded that the study debtors and amount due to creditors are the major components of current assets and current liabilities respectively in determining the size of the working capital.

**Dr. G. Sudarsana Reddy, Shri. C. Sivarami Reddy and Shri. P. Mohan Reddy (2004)** in their study evaluated the performance of the debtors' management of the paper industry in Andhra Pradesh. For this purpose, the analysis of trends in sales and debtors, debtors' size, turnover, collection period and aging of receivables had been carried out. The forgoing analysis reveals that the sample mills adopted liberal credit policy, which had a favorable effect on sales with the exception of Sirpur. The size of trade debtors as a percentage of current assets have shown declining trend. But the collection period of debtors slowly increased in all the mills except in Sirpur. The increasing debtors' collection period was an indication of slackness in collection efforts of the mills. To reduce the collection period, the collection and follow up efforts of trade debtors shall be rationalized and the slackness should altogether be removed.

**Shri. N.R. Parasuram (2004)** studied the working capital practices in leading pharmaceutical companies- a view of the credit policy and profitability. The main objective of the study is to understand the relationship between credit period given by companies and their actual performance in terms of sales and profitability. He concluded that the top pharmaceutical companies strategize on their working capital policy to relax the credit policy to achieve greater sales and greater profits. And, he added thus the working capital management practices are seen to be quite different for the larger companies (companies with larger turnover) compared to others.

**Shri. Khatik and Shri. Pradeep Kumar Singh (2003)** in their study made an attempt to examine the liquidity position of Eicher Limited by using various financial ratios. The results of the study showed that the liquidity management of Eicher Limited was not satisfactory due to poor current assets management. The company should give special attention to management of current assets and debtors collection period, because debtor directly affects liquidity position of the company. The study suggested that all the techniques of current assets management should be employed by the company to maintain overall control over liquidity position.

## PRESENT STATUS OF THE INDIAN AUTOMOBILE INDUSTRY

Indian automobile industry is nearly six decades old. The industry encompasses commercial vehicles, multi-utility vehicles, passenger cars, two wheelers, three wheelers, tractors and auto components. Out of 262 total number of companies, 220 Auto ancillaries, 7 commercial vehicle companies, 5 motor cycles / moped companies, 8 passenger car manufacturers 12 scooter and three wheeler companies and 10 tractor manufacturing companies. It employs 4, 50,000 people directly and 100, 00,000 people indirectly and is now inhabited by global majors in keen contention.

India manufactures about 38,00,000 two wheelers, 5,70,000 passenger cars, 1,25,000 Multi Utility Vehicle, 1,70,000 Commercial Vehicles and 2,60,000 tractors annually. Today, the Indian automobile industry is ranked first in the world in the production of three wheelers, second in the production of two wheelers, fourth in the production of commercial vehicles and ninth in passenger vehicles.

## SELECTION OF SAMPLE COMPANIES

The study concentrates on Indian commercial vehicle Industry which includes Light Commercial Vehicles (LCV), Medium Commercial Vehicle Industry (MCV) and Heavy Commercial Vehicle (HCV). There are seven players in the Industry and five companies only were selected. The companies include Ashok Leyland Ltd., Tata Motors Ltd., Force Motors Ltd., Eicher Motors Ltd. and Swaraj Mazda Ltd.

## THE RESEARCH PROBLEM

Generally, the higher the degree of competition influences more credit sales. Thus, the firm's credit policy is one of the factors to determine the size of the working finance. In the inflationary trend it is very difficult to determine the optimum working finance to the firms especially in the manufacturing sectors. It is not exception to the Indian commercial vehicle industry. Besides this, liquidity position of company has been tied up with different factors like inventory management, debtors' management and cash management. This paper examines the credit / receivables management of Indian commercial vehicle industry.

## OBJECTIVES OF THE STUDY

The present study attempts to achieve the following objectives.

1. To study the debtors position and credit policy of the selected units in Indian commercial vehicle Industry.
2. To examine the efficiency of credit management in these units.
3. To offer suggestions and recommendations for better management of debtors.

## HYPOTHESES OF THE STUDY

The study proposes to test the following hypotheses.

1. Average ratio of debtors to sales of Indian commercial vehicle industry does not differ significantly.
2. Average debtors collection period of Indian commercial vehicle industry does not differ significantly.
3. Average debtors turnover ratio of Indian commercial vehicle industry does not differ significantly.

## PERIOD OF THE STUDY

The period of the study selected only ten years from 1998-1999 to 2007-2008.

## METHODOLOGY

The study is analytical in nature. The data used for the study is secondary data. The required data for the commercial vehicle manufacturing companies were collected from the compilation made by the Centre for Monitoring Indian Economy (CMIE) for the period 1998-99 to 2007-08. Prowess database of CMIE is the most reliable and empowered corporate database. It contains a highly normalized database built on a sound understanding of disclosures on over 7000 companies in India. Some of the data collected from journals, websites, books etc. Editing, classification and tabulation of the financial data, which will be collected from the above-mentioned sources, will be done as per the requirements of the study.

## FINANCIAL AND STATISTICAL TOOLS

Ratio analysis technique is used to evaluate the credit management of the Indian commercial vehicle Industry. Cross sectional analysis is done to identify the best performance of the company. Arithmetic mean, standard deviation (S.D) and co-efficient of variation (C.V) are used to study the nature of ratios. By using multiple discriminant analysis differentiate good customers from bad customers.

## LIMITATIONS OF THE STUDY

The data used in this study have been taken only from secondary sources and as such its findings depends entirely on the accuracy of such data.

## RESULTS AND DISCUSSIONS

### RATIO OF DEBTORS' TO SALES (IN %)

This ratio is computed by dividing debtors by total sales. The higher the percentage of the ratio shows inefficiency of management. Lower the percentage of the ratio indicates that sound credit management of the company.



Debtors to sales ratios of Indian commercial vehicle Industry is depicted in table 1. The debtor to sales ratios of Indian commercial vehicle industry is varied from 0.35 per cent to 0.91 per cent. The mean value (99-08) of all units in the commercial vehicle industry is less than that of Industry mean 0.52, which reflects that Tata Motors Ltd. (0.09) and Eicher Motors Ltd. (0.09) has better control over the credit management followed by Force Motors (0.1) then Ashok Leyland Ltd. (0.185) and Swaraj Mazda Ltd. (0.26). The Standard deviation and co-variance of the commercial vehicle industry is 0.17 and 0.33 respectively. The C.V. values of Tata Motors Ltd, Ashok Leyland Ltd. are greater than industry C.V, which shows that effective control over the debtors.

The average debtors to sales ratio of selected companies have been compared using one-way ANOVA and are tested by the following hypothesis. The results are shown in table 2.

$H_0$  : The average debtors to sales ratio of Ashok Leyland Ltd., Tata Motors Ltd., Force Motors Ltd., Eicher Motors Ltd. and Swaraj Mazda Ltd. do not differ significantly.

Inference: since  $F_{cal} > F_{crit}$  the average debtors to sales ratio of selected companies differ significantly.

#### RATIO OF DEBTORS COLLECTION PERIOD (IN DAYS)

This ratio indicates the efficiency of the debt collection period and the extent to which the debt have been converted into cash. It is very helpful to the management because it represents the average debt collection period. This ratio can be computed as follows

**Debt Collection Period Ratio = Average Accounts Receivable / Net credit sales for the year \* Days in a year**

The shorter debt collection period indicates that prompt payment by debtors. Similarly, higher collection period implies that payment by trade debtors is delayed.

Ratio of Debtors collection period of Indian commercial vehicle Industry is presented in table 3. The debtors' collection period of Indian commercial vehicle industry is varied from 110.13 days to 225.69 days. The mean value (99-08) of commercial vehicle industry is 154.47 days. The mean values (99-08) of all units in the commercial vehicle industry are less than industry average. It reflects that efficient management of debtors by the selected units in the Indian commercial vehicle industry. Tata Motors Ltd. (0.09 days) is very sound in the management of debtors than others. The Standard deviation and co-variance of the aggregate industry is 36.85 days and 0.24 days respectively. The C.V of Eicher Motors Ltd. is below than the industry which highlights that very good management of debtors than others.

The average debtors collection period of selected companies have been compared using one-way ANOVA and are tested by the following hypothesis. The results are shown in table 4.

$H_0$  : The average debtors collection period of Ashok Leyland Ltd., Tata Motors Ltd. Force Motors Ltd. Eicher Motors Ltd and Swaraj Mazda Ltd do not differ significantly.

Inference: since  $F_{cal} > F_{crit}$  the average debtors collection period of selected companies differ significantly.

#### DEBTORS TURNOVER RATIO (TIMES)

Debtor's turnover ratio indicates that number of times the receivables are turned over in business during a particular period. Receivables and Debtors represent the uncollected portion of credit sales. It is also termed as Debtors' velocity. It is used to measure the liquidity position of a concern. It is calculated as

**Debtors Turnover Ratio = Net Credit Sales / Average Receivables**

The higher turnover ratio indicates prompt payment by debtors. Like lower turnover ratio implies that payment by trade debtors are delayed.

Debtors' turnover ratio presented in the Table 5. Debtors turnover ratio of Indian commercial vehicle Industry is fluctuating trend in the period from 1998-99 to 2007-08. The Debtors turnover ratio of Indian commercial vehicle Industry is 14.53. The mean value of Indian commercial vehicle Industry is less than that of Mean (1999-2003) value (13.85) which indicates that very fast payment of debtors during the period than the first five years of the study period. The mean values of units in the Indian commercial vehicle industry are greater than industry mean which shows that prompt payment by debtors. The standard deviation and C.V of Indian commercial vehicle Industry is 3.93 and 0.36 respectively. The C.V. of Eicher is less than the Industry C.V, Which indicates that very good administration of debtors.

The average debtors turnover ratio of selected companies have been compared using one-way ANOVA and are tested by the following hypothesis. The results are shown in table 6.

$H_0$  : The average debtors turnover ratio of Ashok Leyland Ltd., Tata Motors Ltd. Force Motors Ltd. Eicher Motors Ltd and Swaraj Mazda Ltd do not differ significantly.

Inference: since  $F_{cal} > F_{crit}$  the average debtors turnover ratio of selected companies differ significantly.

#### CONCLUSION

As receivables occupy a dominant position, its efficient management will play a vital role in any organization. It constitutes the part of total current assets, its prudent management is of paramount important in working capital management. The study reveals that all the units in the Indian commercial vehicle industry is very good in management of debtors. In case of debtors to sales ratio of Tata Motors Ltd and Ashok Leyland Ltd. are having minimum ratio, which shows that sound credit management. Eicher Motors Ltd. is very efficient in collection of money from debtors. Moreover, debtors of Tata motors Ltd. and Eicher Motors Ltd. are very prompt in their payment.

Force Motors Ltd. and Swaraj Mazda Ltd. are also very good in the management of debtors, while comparing with others in the Indian Commercial vehicle Industry, they should concentrate their credit policy and credit terms to compete with others. The application of one-way ANOVA revealed that the mean ratios of debtors' sales, mean ratios of debtors' collection period, mean ratios of debtors' turnover of all selected units in the Indian commercial vehicle Industry are differ significantly.

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## APPENDIX

## RATIO DEBTORS' TO SALES OF INDIAN COMMERCIAL VEHICLES INDUSTRY (in %)

TABLE NO. 1

Year	Ashok Leyland Ltd.	Tata Motors Ltd.	Force Motors Ltd.	Eicher Motors Ltd.	Swaraj Mazda Ltd.	Industry
1998-99	0.41	0.28	0.05	0.13	0.2	0.91
1999-00	0.32	0.12	0.05	0.09	0.24	0.63
2000-01	0.29	0.11	0.09	0.08	0.25	0.62
2001-02	0.21	0.11	0.12	0.11	0.22	0.59
2002-03	0.19	0.11	0.11	0.08	0.17	0.52
2003-04	0.12	0.05	0.12	0.11	0.22	0.44
2004-05	0.11	0.05	0.09	0.08	0.28	0.39
2005-06	0.08	0.04	0.11	0.07	0.42	0.38
2006-07	0.07	0.03	0.12	0.1	0.32	0.38
2007-08	0.05	0.04	0.14	0.06	0.28	0.35
Mean(all)	0.185	0.09	0.1	0.09	0.26	0.52
Mean (99-03)	0.284	0.15	0.08	0.1	0.216	0.66
Mean (04-08)	0.086	0.04	0.12	0.08	0.304	0.39
S.D	0.12	0.07	0.03	0.02	0.07	0.17
C.V	0.66	0.79	0.3	0.23	0.27	0.33

Source: Annual reports of the concerned company

## RATIO OF DEBTORS' TO SALES RATIO (ANOVA)

TABLE NO. 2

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	0.22362	4	0.055905	10.46562	4.44E-06	2.578739
Within Groups	0.24038	45	0.005342			
Total	0.464	49				

Source: computed data from the Annual reports of the concerned company

## RATIO OF DEBTORS COLLECTION PERIOD (IN DAYS)

TABLE NO. 3

Year	Ashok Leyland Ltd.	Tata Motors Ltd.	Force Motors Ltd.	Eicher Motors Ltd.	Swaraj Mazda Ltd.	Industry
1998-99	146.02	0.28	17.98	47.25	70.78	225.69
1999-00	116.78	0.12	19.63	33.15	86.88	187.06
2000-01	103.87	0.11	31.65	29.81	91.65	183.77
2001-02	76.23	0.11	43.36	37.82	77.53	173.03
2002-03	67.65	0.11	39.68	29.83	62.05	149.68
2003-04	42.44	0.05	42.9	40.9	78.75	142.04
2004-05	38.88	0.05	32.06	28.71	100.55	119.81
2005-06	28.66	0.04	41.2	25.85	149.51	125.65
2006-07	25.71	0.03	44.21	34.9	114.96	127.84
2007-08	17.08	0.04	49.77	23.15	100.47	110.13
Mean(all)	66.332	0.09	36.24	33.14	93.313	154.47
Mean (99-03)	102.11	0.15	30.46	35.57	77.778	183.84
Mean (04-08)	30.554	0.04	42.03	30.7	108.848	125.10
S.D	43.75	0.07	10.68	7.29	25.21	36.85
C.V	0.66	0.79	0.29	0.22	0.27	0.24

Source: Annual reports of the concerned company

## DEBT COLLECTION PERIOD RATIO (ANOVA)

TABLE NO. 4

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	50197.52	4	12549.38	23.09782	2E-10	2.578739
Within Groups	24449.15	45	543.3145			
Total	74646.67	49				

Source: computed data from the Annual reports of the concerned company

## DEBTORS TURNOVER RATIO (TIMES) OF INDIAN COMMERCIAL VEHICLE INDUSTRY

TABLE NO. 5

Year	Ashok Leyland Ltd	Tata Motors Ltd	Force Motors Ltd	Eicher Motors Ltd	Swaraj Mazda Ltd	Industry
1998-99	2.46	3.52	20.02	7.61	5.08	7.74
1999-00	3.08	8.32	18.33	10.86	4.14	8.95
2000-01	3.46	8.75	11.37	12.07	3.92	7.91
2001-02	4.72	9.27	8.3	9.51	4.64	7.29
2002-03	5.59	9.34	9.07	12.06	5.8	8.37
2003-04	8.48	20.96	8.39	8.8	4.57	10.24
2004-05	9.25	21.39	11.22	12.54	3.58	11.60
2005-06	12.56	28.32	8.73	13.92	2.4	13.19
2006-07	14	34.75	8.14	10.31	31.31	19.70
2007-08	21.07	25.23	7.23	15.55	3.58	14.53
<b>Mean</b>	8.47	16.99	11.08	11.32	6.90	10.95
Mean (99-03)	3.86	7.84	13.42	10.42	4.72	8.05
Mean (04-08)	13.07	26.13	8.74	12.22	9.09	13.85
<b>S.D</b>	5.96	10.49	4.48	2.40	8.63	3.93
<b>C.V</b>	0.70	0.62	0.40	0.21	1.25	0.36

Source: Annual reports of the concerned company

## DEBTORS TURNOVER RATIO (ANOVA)

TABLE NO. 6

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	591.2884	4	147.8221	3.008732	0.027772	2.578739
Within Groups	2210.896	45	49.13102			
Total	2802.184	49				

Source: computed data from the Annual reports of the concerned company

## EVALUATION OF PASSENGER SATISFACTION AND SERVICE QUALITY IN INDIAN RAILWAYS - A CASE STUDY OF SOUTH CENTRAL RAILWAY USING RAILQUAL

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### ABSTRACT

Indian Railway Passenger Services today faces consumer challenges, competition from Super Luxury Bus Services and Low cost Air Lines and with these challenges a related and equally important issue has emerged – Service quality and evaluating the service encounter. Using Railway Passenger Services as the primary study setting, We explore the concept of Rail Transportation Services quality and its evaluation from both the Passenger and Railway perspectives. Standard scale of SERVQUAL developed by Parasuraman et al has been used with modified attributes to suit the Railway passenger Services used to conduct the survey. The findings provide special empirical insights on the gaps in the services provided by Railways. The five dimensions used to measure Service Quality are Tangibles, Reliability, Responsiveness, Assurance and Empathy. This Study gives useful insights to boost customer satisfaction towards Railways customer Satisfaction Measurement.

### KEYWORDS

Passenger satisfaction, Railway service quality, Railqual.

### INTRODUCTION

Quality changes the nature of business competition and, perhaps more than any other factor, it dictated how companies make products or deliver services. In the global economy quality is just the entry ticket. It is recognized that high quality service is essential for organizations that want to be successful in their business (Parasuraman et al 1988; Rust and Oliver, 1994). The organization has to battle many competitors who have attained it. The next step is figuring out how to differentiate you. This differentiating and improving is possible only through service quality measurement. In general research on service quality address two types of problems which are Instrument for measuring service quality and evaluation of service quality in separate framework of study indicating that it is highly desirable to incorporate both problems in a comprehensive manner. While there are a number of studies on rail passenger service quality (eg. Disney, 1988, 1999; Hann and Drea 1998; Drea and Hanna 2000; Tripp and Drea 2002), there is very little published literature that reports the use of SERVQUAL in the assessment of railway passenger service quality.

To understand service quality there are an array of factors or determinants. A number of researchers have provided lists of quality determinants, but the best known determinants emanate from Parasuraman and colleagues from USA, who found five dimensions of service quality namely tangibles, reliability, responsiveness, assurance and empathy and used these as the basis for their service quality measurement instrument, SERVQUAL (Parasuraman et al 1988; Zeithaml et al., 1990). The result was the development of SERVQUAL instrument based on the gap model. The central idea in this model is that service quality is a function of the difference scores or gaps between expectations and perceptions. An important advantage of the SERVQUAL instrument is that it has been proven valid and reliable across a large range of service contexts. However, while the SERVQUAL instrument has been widely used, it has been subjected certain criticisms as well. It has been suggested that for some services the SERVQUAL instrument needs considerable adaptation (Dabholkar et al., 1996) and that items used to measure service quality should reflect the specific service setting under investigation, and that it is necessary in this regard to modify some of the items and add or delete items as required (Carman, 1990).

Satisfaction is defined as a customer's perception of a single service experience, whereas quality is the accumulation of the satisfaction for many customers over many service experiences. Such past evaluative experiences perhaps lead overtime to a more general attitude. Moreover, Services is equal to the perception of a Single Service as received and measured against the expected service received. The difference in the degree, direction and discrepancy between the perceptions and expectations of a Customer results in a level of satisfaction or dissatisfaction. (Hill, 1992:44)

Satisfaction and Service quality are often treated together as functions of a customer's perceptions and expectations. The simplest model is the two concept equation defined as  $Q = P - E$ . When perceptions (P) are equal to expectation (E), Service Quality (Q) is satisfactory. If expectation are higher than actual perceptions, a customer's rating become negative (Cattle, 1990, pp-22-23)

Passenger Satisfaction in the field of Public Transportation is related to the Perceived discrepancy between actual ideal levels of service. Therefore both perceptions and expectations of service are being measured on the other hand the measurement and understanding of passenger satisfaction with services incorporates both customer provider issues (Oliver, 1997), Parasuraman et al 1985, Rust and Oliver 1997)

In the hand book of measuring customer satisfaction and service quality (Transportation Research Board, 1999), Five gaps have been identified, Consumer expectation – management perception gap, Management perception – Service quality specification gap, Service Quality Specification – Service delivery gap, Service delivery – External communication gap and Expected Service – Perceived Gap, which also indicate the sequence of quality management from monitoring to remedial actions and finally assessment.

Service Quality has been described as a form of attitude, related but not equivalent to satisfaction which results from comparison of expectations with performance (Parasuraman et al 1988). Service Quality involves a comparison of expectations with performance. It is a measure of how well the service level delivered matches customer expectations on a consistent basis. Service quality has been conceptualized as a function of consumer expectations towards the service situation and process, and of the output quality they perceived themselves to have received.

## SIGNIFICANCE OF THE STUDY

### NEED TO CHANGE FOR INDIAN RAILWAYS

The organizational justification for this study comes from the compelling need to change for the Indian Railways made time and again (Sondhi n.d.). It needs to change in order to survive. In this case, the old systems remain untouched and they continue to generate the same behaviors. However, we believe that it is possible to bring about a change in such a manner and in such areas of Indian Railways which is acceptable to different stakeholders and therefore implementable. In the context of Indian Railways, action choices emanating from changes in such factors as ownership and structure have the risk of antagonizing the three important stake holders - the government, the railway personnel and even the customers – who would like to see the Indian Railways more as a not-for-profit organization. Thus it can make them withdraw from or oppose the proposed change. However a change in such factors as system, culture, leadership and industrial relations are not necessarily threatening to them and a beginning can be made to initiate change in these areas. Thus the intent of this research is to use Service Quality route as the over-arching method for bringing about change in the Indian Railways.

### LOSS OF MARKET SHARE IN PASSENGER BUSINESS

IR provides the most energy efficient and economical mode of transportation in India. In spite of this, IR lost its market share in Freight and Passenger segment due to lack of customer responsiveness and poor public perception Passenger service constitutes 60% of the transport output but contribute only 32% of the revenue. 60% of the suburban passenger traffic adds only 10% to the passenger earnings. The upper class travelers - though comprise only 1% of the originating passengers - account for around 20% of passenger revenues. The ratio of average passenger fares per passenger kilometer (pkm) to average freight tariffs per net ton (ntkm) is very low in IR compared with other countries. The ratio of 0.3 for India compares with 1.2 in China, 2.2 in Japan, 0.7 in Thailand and 0.5 in Bangladesh. In passenger segment IR share is 68% in the year 1951 to roads 32% where as it is a mere 13% share in a total of 87% for Roadways now. As of now, many academicians and practitioners have undertaken various works on other areas of management on Indian Railways but very limited work has been done in Service operations management. This study will examine the service quality measurement in various services of IR.

## RESEARCH OBJECTIVE

A study of the application of the SERVQUAL scale with modified attributes to suit the Railway services to assess Customers perceptions of the Service Quality offered by Indian Railways is appropriate as there is a general feeling in the minds of Rail Travelers that the quality is not up to the mark . Hence this study aims to identify the areas where attention needs to be given by the Indian Railway authorities in order to increase the satisfaction of its customers.

## METHODOLOGY

### RESEARCH DESIGN AND PROCEDURE

A descriptive research design was used to gain an insight into consumer's perception about the services offered by Indian Railways with respect to five dimensions of SERVQUAL scale.

### SOURCE OF DATA AND SURVEY INSTRUMENT

Primary data were collected for the research. An undisguised structured questionnaire, SERVQUAL , by Parasuraman et al with modified attributes to suit Railway Services was used for the research. The respondents were asked to provide belief rating for services offered by Indian Railways, using seven-point rating scale ranging from 1(low) to 7(high)

### THE SAMPLE

The sample size used was 100. The respondents were selected on the basis of purposive sampling at Secunderabad city .The sampling units are passengers of Indian Railways with Rail Travel exposure.

## RESULTS

The standard scale of SERVQUAL was administered to 100 respondents. Primary data was analyzed using mean average. Gap analysis was done by calculating the average mean for individual statements and dimensions namely: reliability, assurance, tangibility, empathy and responsiveness (Table 1 ) and Figures 1-7)

TABLE 1: MEAN SCORES OF 26 STATEMENTS

Attributes	Expectations (E)	Perceptions (P)	Gaps (E)-(P)	% of Satisfaction
Clarity of Information given in timetables	6.2	5.4	0.9	86.2
Clarity of Information given at stations	6.2	5.8	0.4	93.1
Cleanliness at stations	6.5	4.2	2.4	63.8
Modern appearance station	5.2	3.5	1.7	67.4
Cleanliness in train	5.4	4.0	1.5	73.1
Overall appearance - train	5.3	4.3	1.0	81.5
A neat professional appearance of staff	6.3	4.8	1.5	76.0
Willingness to help	6.7	2.2	4.5	32.6
Prompt service	6.3	3.8	2.5	60.9
Availability of staff in handling your requests	5.9	2.9	3.0	49.4
Maintaining the frequency of trains as scheduled	5.5	3.2	2.3	58.2
Providing on time train services	6.7	4.4	2.4	64.9
Dependability in handling your service problems	6.0	3.8	2.2	63.1
Performing services right at first time	5.7	2.9	2.8	50.5
Dealing with you in caring fashion	5.8	2.9	3.0	49.0
Understanding your needs when you make inquiries	4.9	3.8	1.1	77.5
Having your best interest at heart	6.9	4.1	2.8	59.7
Courtesy of staff on train	6.2	4.4	1.8	71.5
Being informed if there are delays	6.8	3.5	3.3	51.6
Personal safety at station	6.6	3.9	2.7	58.7
Personal safety on train	7.0	4.7	2.3	67.0
Staff at ticket office	5.8	3.9	2.0	66.2
Having knowledge to answer your questions	5.2	4.0	1.3	75.8
On train information about delays	5.6	4.8	0.7	86.9



Dimention	Expectations (E)	Perceptions (P)	Gaps (E)-(P)	% of Satisfaction
Tangibility	5.9	4.6	1.3	77.5
Reliability	6.0	3.6	2.4	59.4
Responsiveness	6.3	3.0	3.3	47.3
Assurance	6.2	4.2	2.0	67.5
Empathy	5.8	3.6	2.2	61.6
Overall Results	6.0	4.1	2.0	67.6

FIGURE 1 - PERCENTAGE OF SATISFACTIONS

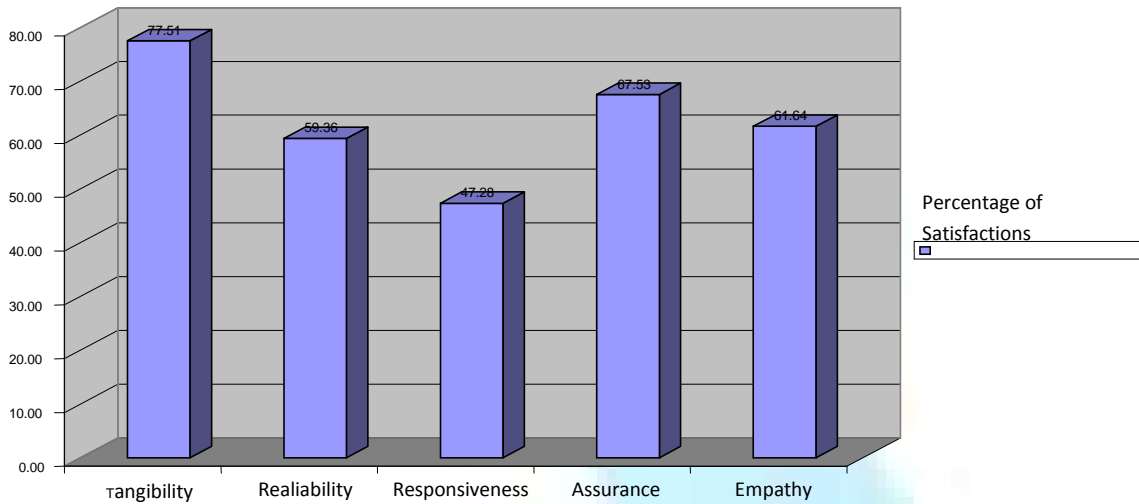


FIGURE 2: GAPS IN FIVE DIMENSIONS OF SERVICE QUALITY

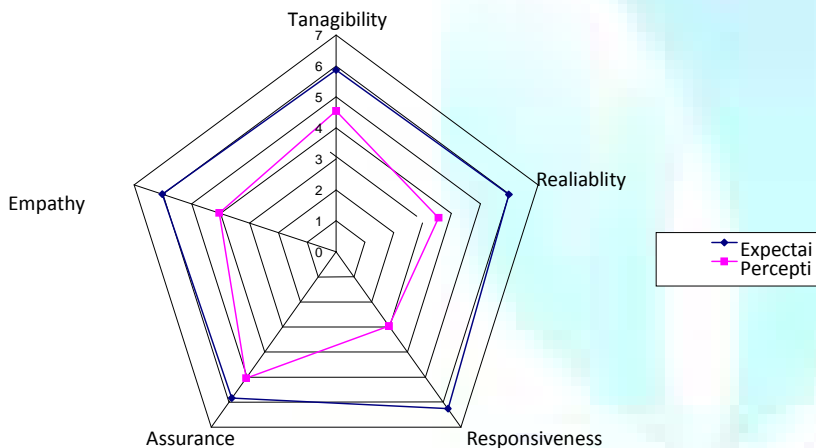


FIGURE 3: GAPS IN TANGIBILITY

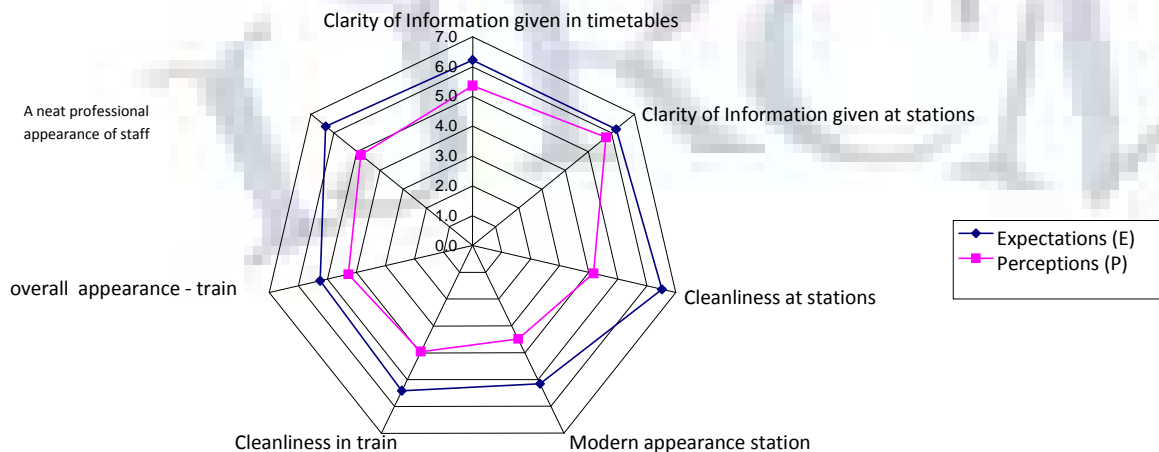
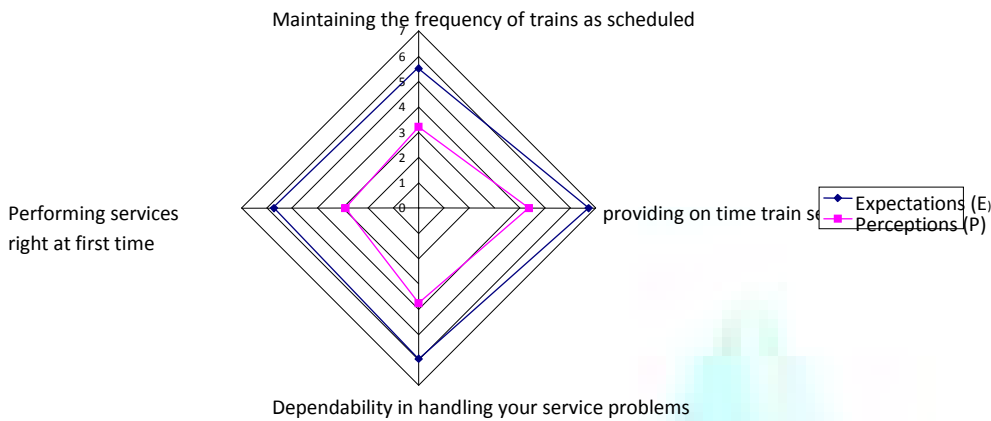


FIGURE 4: GAPS IN RELIABILITY



Willingness to help

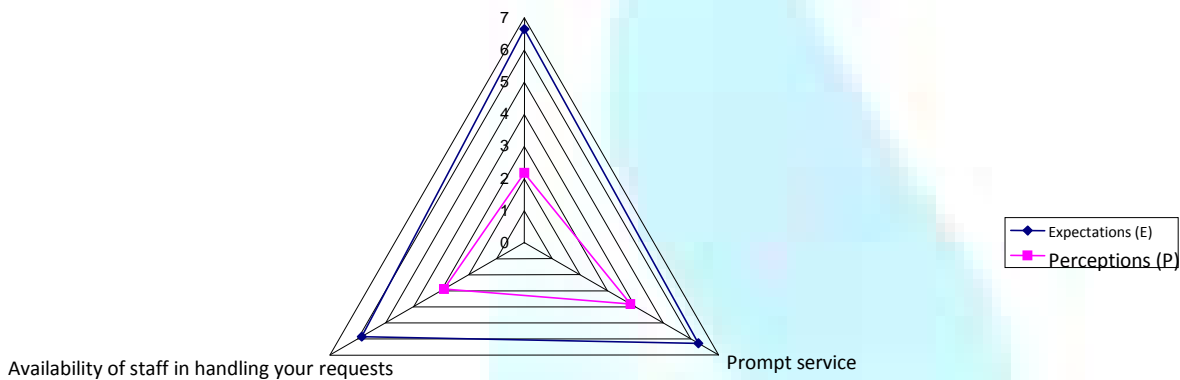
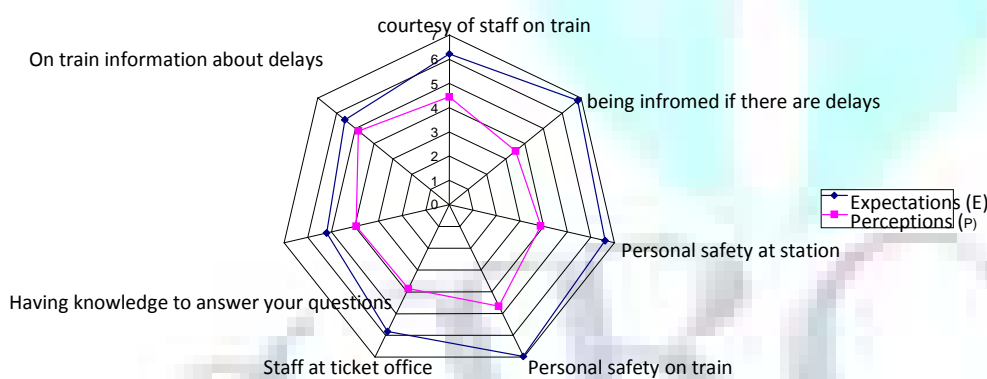


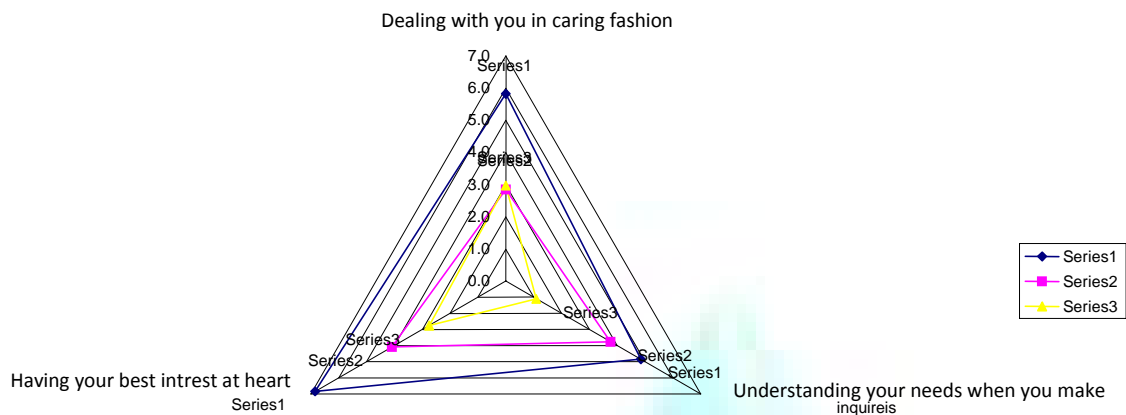
FIGURE 6: GAPS IN ASSURANCE



**DISCUSSION ON RESULTS**

Quality is critical success factor in Service industries. The research measuring service quality has focused primarily on how to meet or exceed the external customer's expectations and views service quality as a measure of how the delivered service level matches consumer's expectations. These perspectives can also be applied to the employees of the firm and in this case, other major gaps can be closed in service quality gaps model

FIGURE 7 - EMPATHY



On the basis of mean score calculated for individual dimensions, It is found that tangibility dimension of Railways Passenger Service has less gap. Then its Assurance as second and empathy as third in the list where as reliability has more gap and the gap is more in case of responsiveness. Overall the gap in reliability and responsiveness are more in service quality in Indian Railways which need to be taken care.

The satisfaction level is as follows. The overall satisfaction is 67.6 % which means its 2/3rd of the satisfaction level and Railways needs to improve further by 1/3rd of their service quality aspects to get cent percent satisfied organization. If we look at individual dimensions the Responsiveness dimension is only at 47.3% level followed by Reliability which is only at 59.4 %. The Railways have to improve in these two dimensions so that their overall satisfaction level reaches a minimum of 90% satisfaction level.

If we look at individual attributes clarity of information given at stations and timetables have got 93.1% and 86.2% respectively. Where as it's the willingness to help got only at 32.6 % and availability of staff in handling requests got only 49.4 %.

## CONCLUSION

Improving the quality of service is one of the ways to improve the competitiveness of Railway Passenger Business. In all the trains and stations the above questionnaire can be used for collecting the feedback from passengers. The results point towards the need for South Central Railway to formulate management policies such as training of staff so as Staff has to be more responsive to customers needs. Bureaucracy in SCR has to be reduced or eliminated as it's a government department with less dynamism. Hence the human touch is more required as we can see in Airlines services which we are missing in Indian Railway Passenger Services. If this aspect is improved there will be definitely improvement in the satisfaction levels of the Passengers.

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## A STUDY OF TERTIARY EDUCATION AND SHIFTS IN GLOBALLY MOBILE STUDENTS

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### ABSTRACT

*Globalisation has impacted almost every aspect of human life. It has manifested itself in the form of internationalization in the field of higher education. Before the winds of globalisation blew over the global economy, there were a few nations which were exporting higher education to a wide range of nationals across the globe. Today both the numbers and stakes have gone up in attracting and retaining mobile students. Globalization is a multifaceted process with economic, social, political and cultural implications for higher education. It poses new challenges at a time when nation-states are no longer the sole providers of higher education. (UNESCO 2004) Global trade negotiations were restricted to goods only for a pretty long time. However, with ever increasing contribution of services in the share of GDP, GATS (General Agreement on Trade in Services) was introduced in WTO. GATS include trade in educational services as agreed to and committed by member countries. Since India had proved it's strength in IT sector, it was thought that the nation had a huge scope and potential to export higher education. However, there have been very few changes in the ranking and composition of countries leading in the export of higher education. This paper tries to portray the developed nations which are global leaders in the export of higher education. An attempt is made to understand the broad reasons for their success in achieving and sustaining leadership position for a fairly long period of time. The focus of the study is on the type of shifts that are taking place in the global mobility of students and their enrollments.*

### KEYWORDS

Tertiary education, Students, Developed Nations.

### BACKGROUND

One can ascribe various reasons why students chose to abroad for higher studies. A certain specialized course may not be available with in the country and hence some students may seek out a foreign land where this is offered-a 'push' factor. There are others who prefer an over seas destination as it gives a broader horizon, a richer cultural understanding or simply a different experience.

There could also be 'pull' factors responsible for some nations and universities leading in export of higher education. Some of the best known universities and institutes attract learners from far and wide. Recession notwithstanding, there are nations which aim at retaining talented and highly skilled professionals. Since most institutions charge higher tuition from the foreign students, there is an incentive for the host institutions to attract students from abroad. Demographic factors may also 'pull' students to countries where natural growth in population has hit the rock bottom or even turned negative. Generally speaking, most of the first world nations are in this league whereas a large number of third world countries are facing problems of uninhibited growth in population.

### OBJECTIVES

1. To study the trends in growth of tertiary education by broad geographical regions.
2. To study the cross border mobility of students and analyse data with regard to sending and receiving countries
3. To find out broad shifts taking place in the global arena in respect of student's mobility.
4. To analyse the possible reasons why certain countries lead the global market in respect of export of higher education.

### METHODOLOGY

Secondary data is used for this analysis. Some of the data which is available is not useful for making international comparisons. Further, getting authentic data is also a challenge. As far as possible, data is collected from UNESCO, World Bank and other reputed national and international agencies for the study. A period of 8 years, that is from 1999 to 2007 is selected for the study. The year 2007 is the latest period for which globally comparable data is available. Eight years is long enough as it can iron out variations and give out a representative average. In some cases, data is collated for a longer period that is from 1970.

#### Growth in tertiary education

Globally the number of students enrolled in higher education has skyrocketed over the past 37 years, growing five-fold from 28.6 million in 1970 to 152.5 million in 2007. In effect, this means an average annual increase of 4.6%; with the average number of students in higher education doubling every 15 years. However, the expansion in tertiary education has been particularly rapid since 2000, with 51.7 million fresh tertiary students enrolled around the world in time span of just seven years.

The sub Saharan Africa has experienced the highest average regional growth rate. In the past thirty years, student numbers have risen by an average of 8.6% each year. Between 2000 and 2005, expansion reached a peak level with an annual growth rate reaching 10%. Despite this remarkable achievement, the region as a whole still lags behind other regions in the world in terms of total tertiary student numbers. Even the speed with which tertiary numbers have increased has been slow, seen in the context of some other regions where the growth took place quite rapidly. Whereas it took 37 years to achieve these numbers in sub-Saharan Africa, such additions happened in recent years on an average every two years in China or five years in Latin America and the Caribbean. Since the year 2000, the number of students in tertiary education has gone up by an average of 19% every year.

Rapid growth has also been reported in East Asia and the Pacific, where the number of students has risen twelve-fold, from 3.9 million in 1970 to 46.7 million in 2007. After the year 2000, the region became the global leader in terms of student numbers in higher education, surpassing North America and Western Europe. This has been primarily due to huge surge in student numbers in China.

Student numbers also rose in Latin America and the Caribbean by ten-fold since 1970, reaching 11th level of 7.8 million in 2007. While growth in enrolment in this region was rapid between 1970 and 1980 with an annual rate of 11%, it slowed down between 1980 and 2000. Since 2000, enrolment growth in the region has again accelerated, reaching an annual rate of 6.8%.



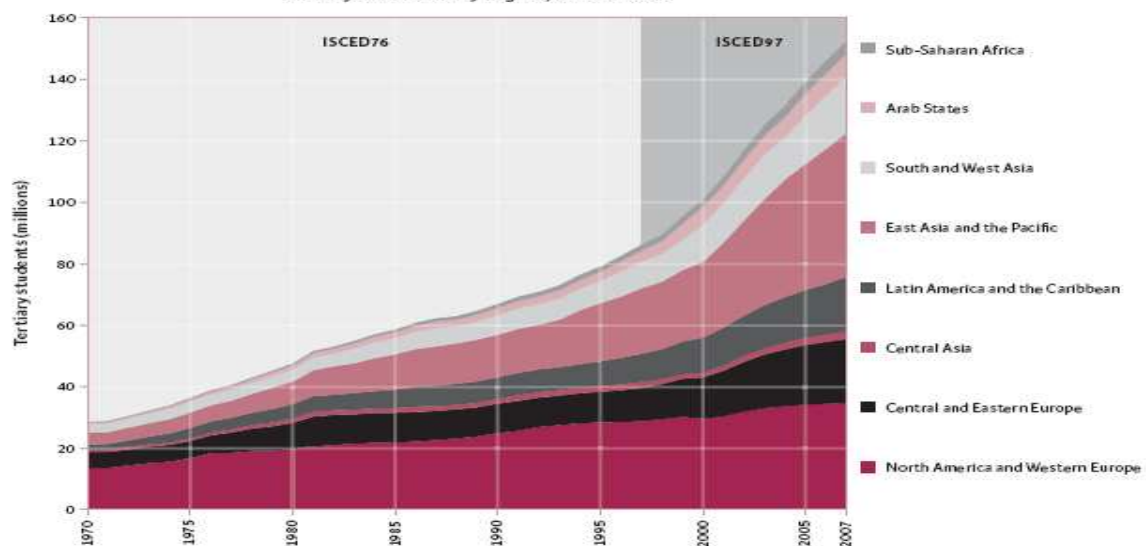
The expansion has been markedly slower in South and West Asia with an average annual growth rate of 5.2%. The region experienced a peak of 7% growth during the 1990s but rates have actually fallen since 2000 – in contrast to trends in other regions. Overall, the student population has grown almost six-fold from 2.8 million to 18.5 million between 1970 and 2007.

The slowest rate of growth in terms of net additions to student numbers in the tertiary sector was recorded in North America and Western Europe. This is not surprising. Nations in these regions have experienced historically high participation ratios in tertiary sector. Since the decade of 1970's they have been affected by falling birth rates. When making regional and international comparisons, it is useful to take in to account the total time required for student numbers to double. As per average growth rates reported since 1970, this occurred every 27 years in North America and Western Europe. Compare this with 8.4 years in sub-Saharan Africa and 9.3 years in the Arab States, one gets a picture in perspective. Student numbers doubled every 10 years in East Asia and the Pacific as well as in Latin America and the Caribbean. Further, the growth rate has been slower comparatively in South and West Asia, where it took 13.6 years for student numbers in higher education to double. The pronounced differences in growth rates across regions, especially between North America and Europe and the rest of the world, has had two significant impacts. One, the distribution of the world's tertiary education students has got skewed in favour of developing countries. And second, rich countries have started relying more on international students for their enrollments.

In 1970 almost every second tertiary student in the world studied in North America or Western Europe. But now, it has fallen to one out of every four students. In effect, the regional share in global enrollment has gone down from 48% to 23% between 1970 and 2007-which is a fall of more than 50%. (Graph 2) The distribution of tertiary students globally is shifting from high income nations to low and middle income nations. Today, a large majority of higher education students live in low and middle income countries. In 1970 57% of tertiary students lived in a small group of high income nations; now 42% of the total is from low middle income countries. (Graph 3) In 1970's too, high income countries has relatively much less population in the relevant age group-just one-fifth of the global numbers; rest of the students studying came from overseas. The low income nations are unable to sustain the expansion in their tertiary enrollments; hence they are unable to keep pace with rising population.

GRAPH - 1

How did the absolute number of tertiary students change over the last decades?  
Tertiary enrolment by region, 1970 to 2007

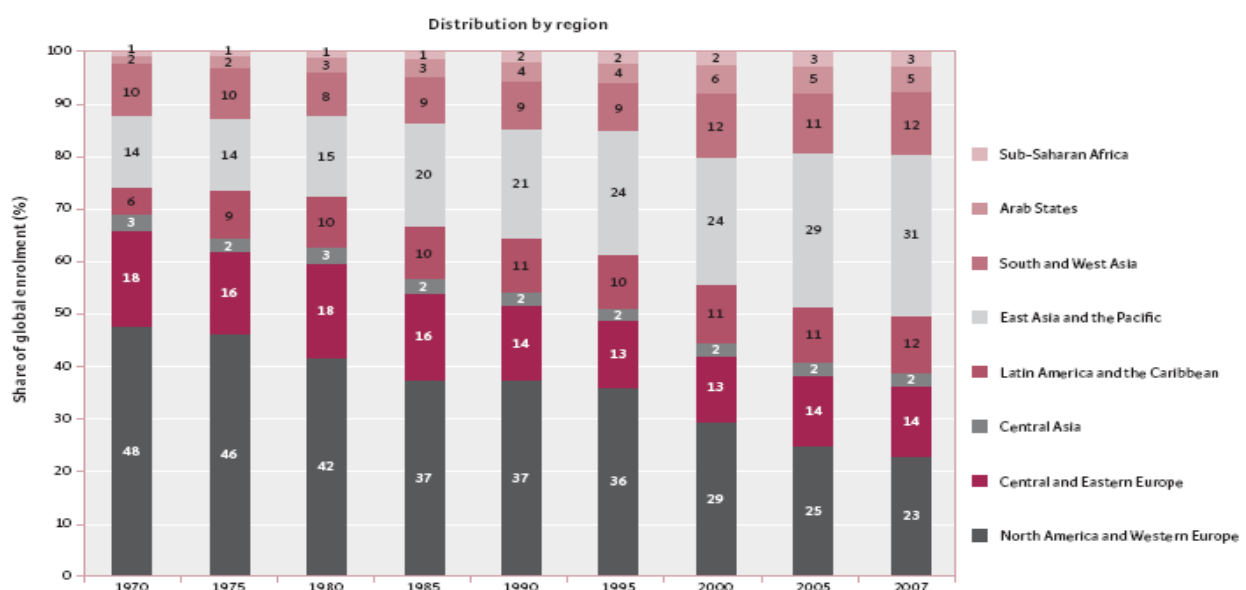


Source: UNESCO Institute of Statistics, Time series data

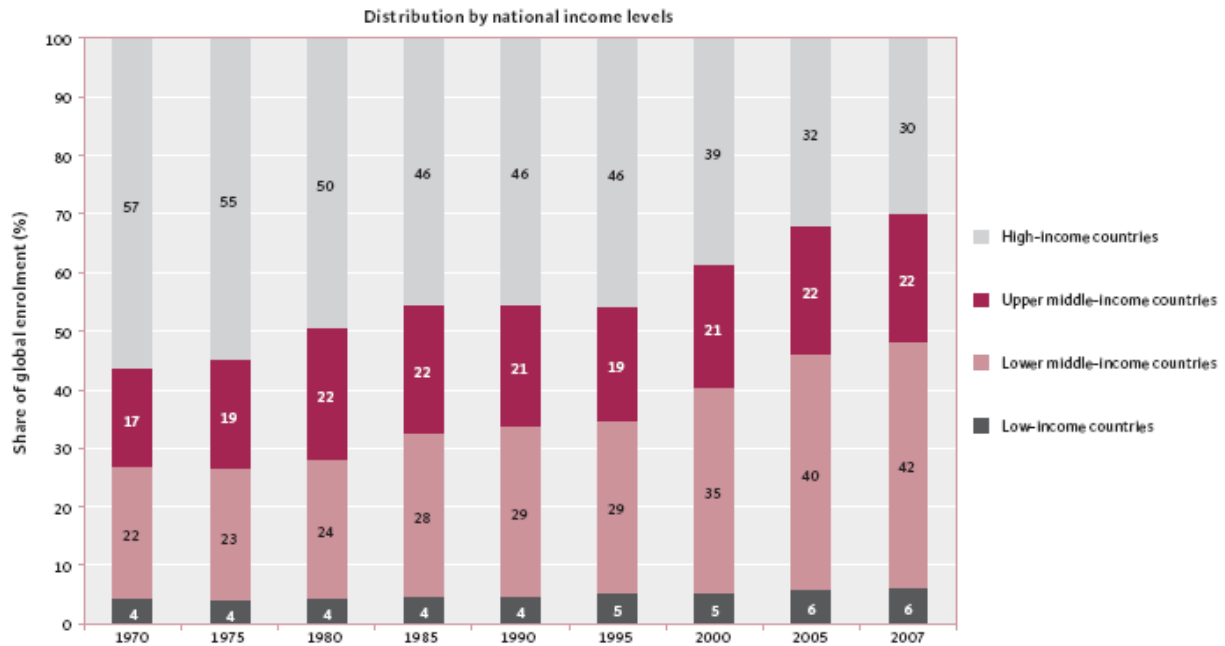
As can be seen from the above graph, Sub-Saharan Africa is the fastest growing in terms of tertiary enrollments followed by Arab States and South and West Asia. North America and Western Europe, as a region, is the slowest growing in terms of absolute higher education enrollments.

GRAPH 2

Tertiary enrolment by region as a percentage of global enrolment, 1970 to 2007



GRAPH - 3



Source: UNESCO Institute of Statistics, Time series data

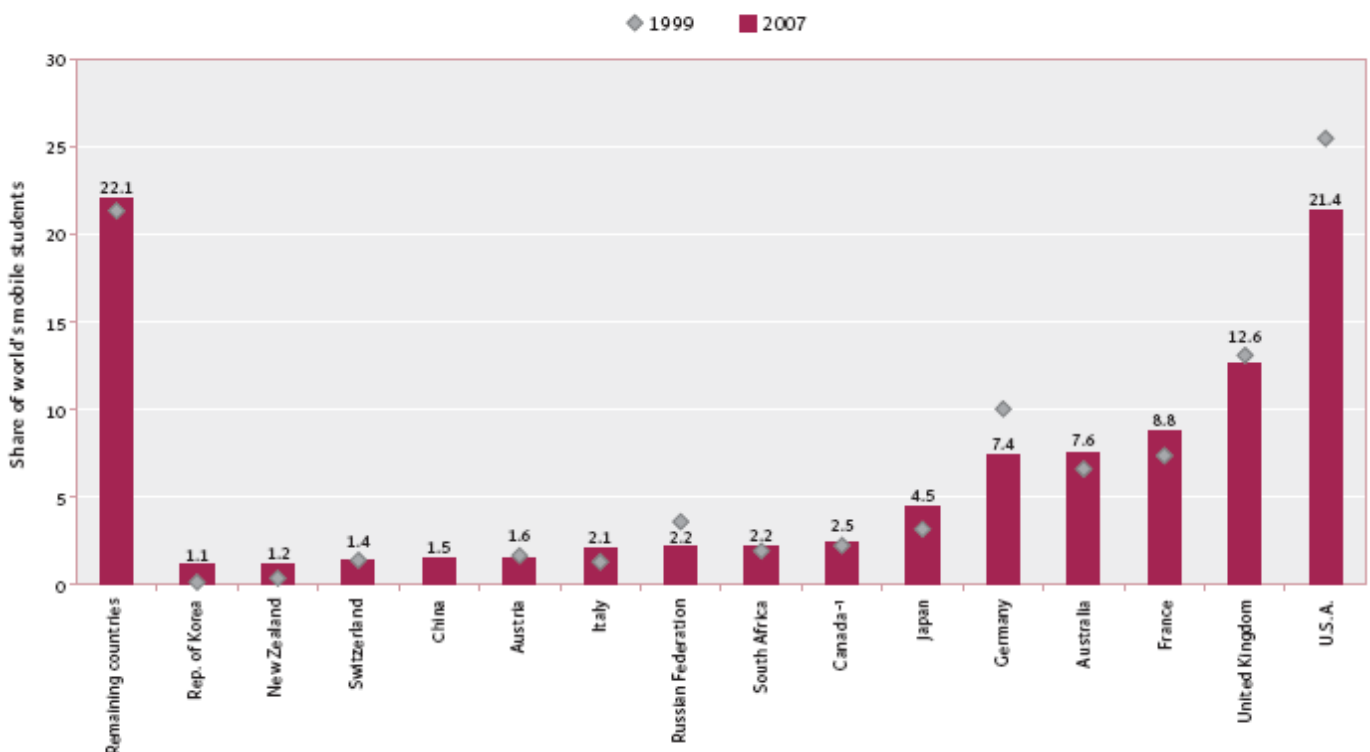
Low income countries have very low gross enrollments at 6% and they are not growing. Low middle-income nations registered rapid increase in GER between 1995 and 2005 but are now projected to grow slower than earlier. There has not been much change in the status of upper middle-income countries. There is a definite shift from high income countries over this period as can be seen from Graph 3.

In 2007, there were 2.8 million students who were enrolled in tertiary education in overseas countries. This was 4.6% higher than those who had registered in the year 2006. Between 1999 and 2007 the percentage increase in students enrolled outside the countries of their origin was 55%, with an average annual growth rate of 5.5%. The share of female students has risen from a percentage of 46 in 1999 to 49 in 2007.

China sent the maximum numbers of students overseas for higher education- 4,21,000; though this growth rate is now falling as more Chinese prefer to stay at home for further studies. India is second in the list with about 1,53,00 students going abroad every year for higher studies. The percentage growth is increasing in case of India. Korea, Germany, Japan, France, USA, Malaysia, Canada and Russia are the other nations, in that order, sending highest numbers of students abroad for higher education. These ten countries account for 37.5% for the global mobile students for which data is available from 153 countries with UNESCO.

GRAPH - 4

Percentage of mobile students by country of destination, 1999 and 2007

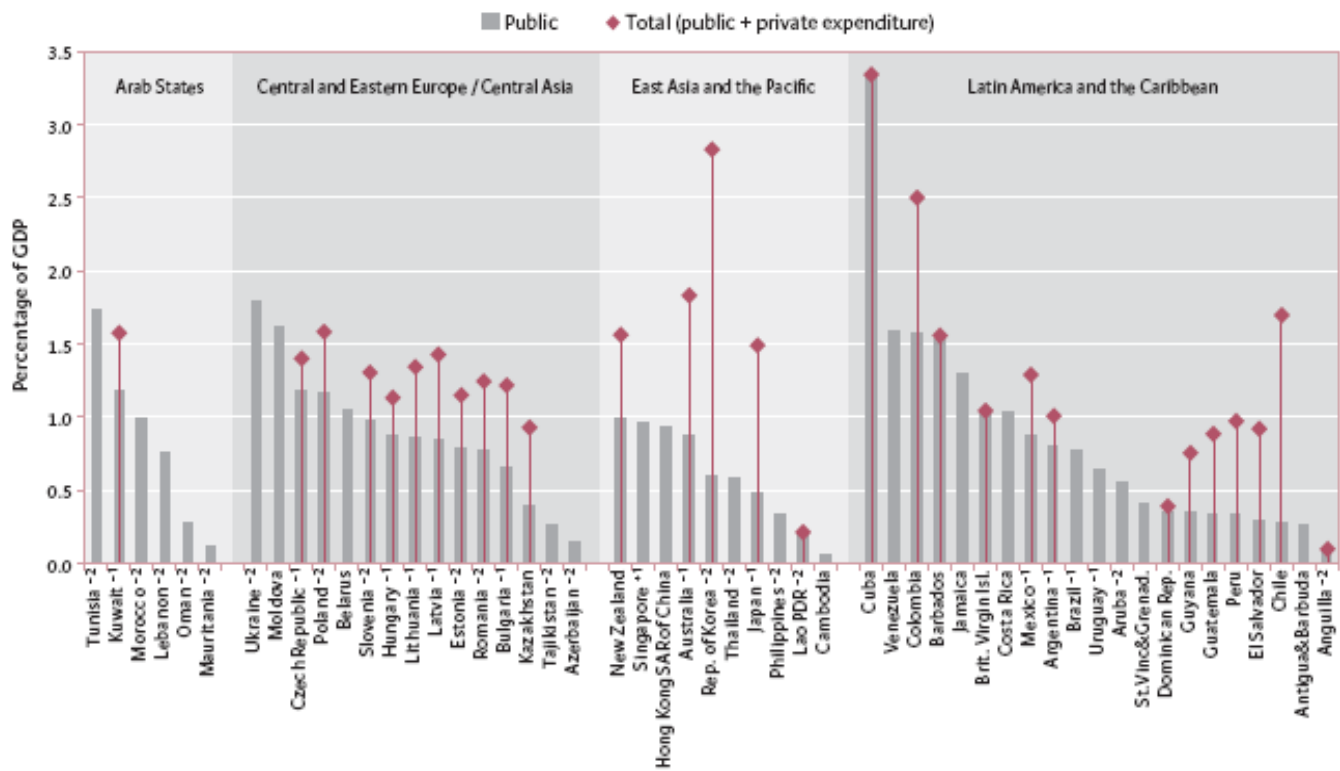


Source: UNESCO Institute of Statistics, Time series data.

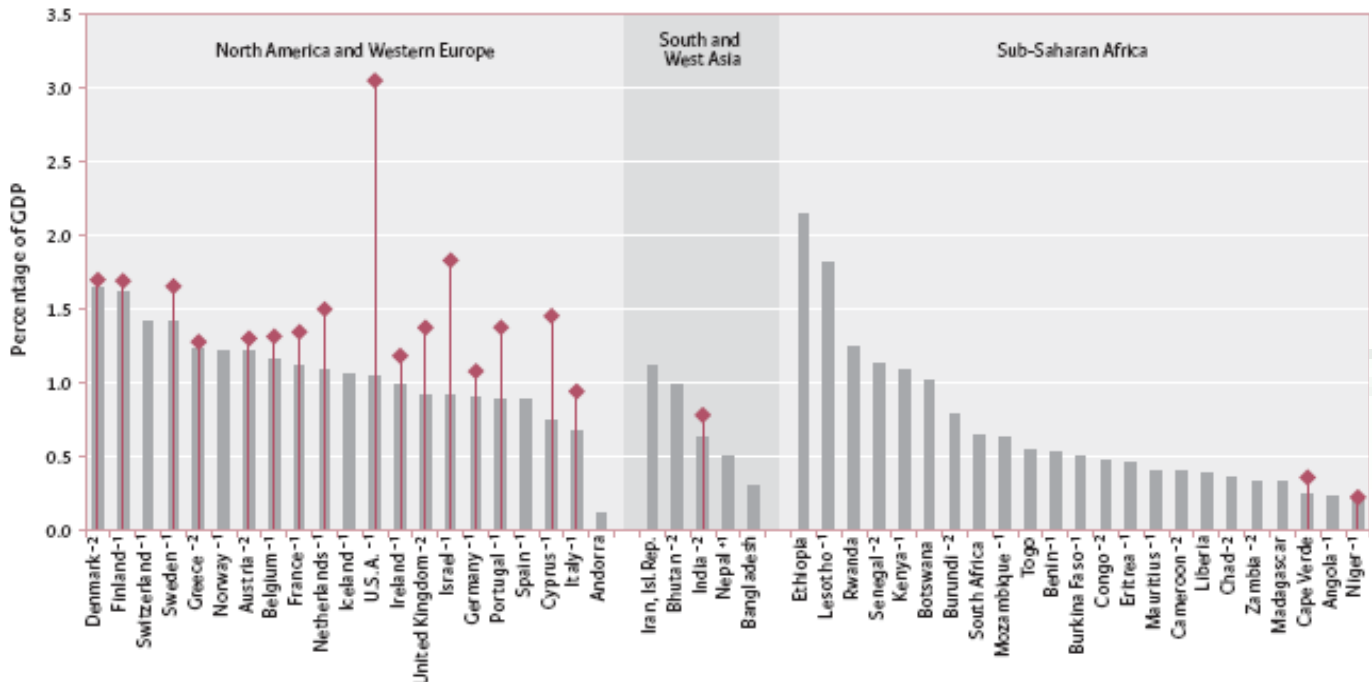
USA and U.K. have been top attractions for internationally mobile students. The USA gets nearly 22% of global students opting to study abroad whereas the U.K. is preferred by about 13% for higher studies. Australia, Canada and Germany have also been in the forefront in attracting foreign students in large numbers. Whereas the global top destinations have remained more or less in tact, there are interesting shifts which have begun to take place. USA is seeing its global share decline by almost 4% in the period between 1999 and 2007 whereas U.K. has barely managed to retain its share. Germany has also lost some of its sheen in the said period.

China was not in the race in 1999; but now has emerged with a 1.5% share of globally mobile students in 2007. Republic of Korea and New Zealand have increased their market share in the said period.

**GRAPH - 5**  
Public and total expenditures in tertiary education as a percentage of GDP, 2007



**GRAPH - 6**



Shifts taking place in global mobility of students has a basis in huge investments made in higher educational institutions by some of these nations in the last few years. The leading position of USA is directly attributable to high level of expenditure, more than 3% of GDP of which the public expenditure is almost 1% , in tertiary education. U.K. spends nearly 2% of GDP on tertiary education.

The Republic of Korea is surging ahead with its ambitious program on higher education. Its total expenditure on tertiary education is almost touching 3% of GDP, mostly led by private investments as Government spending is a little higher than 0.5% of GDP. China along with Hong Kong is emerging as the new

destination for globally mobile students. It is driven mostly public expenditure amounting to almost half of total expenditure. In stark contrast, Indian spend on higher education is very small; in the 11<sup>th</sup> five year plan Government has set ambitious plans to set up world class universities, new IIT's, IIM and Indian Institutes of Information Technology. The Central Government is setting up 12 more Central Universities and has set aside Rs.3,280 Crores or \$73 million. This may appear to be a lot of money-especially in the contest of funds-starved Indian higher education. But the amount is grossly inadequate. Setting up of a large research-intensive world class university in China cost \$700 million plus an annual budget of \$400 million (Altbach and Jayaram 2009).

#### GLOBAL RANKINGS OF UNIVERSITIES

Amongst the global universities and Institutes, there is intense competition to secure top rankings. In the age of information and technology, rankings do influence even more the choice of internationally mobile students. The USA has the highest number of universities and institutes in top one and two hundred institutions.

NATIONAL PRIDE: TOP INSTITUTIONS OF EACH COUNTRY REPRESENTED IN THE TOP 200			
Country	Number of institutions	Best institution	World rank
US	72	Harvard University	1
UK	29	University of Oxford and University of Cambridge	-6
Germany	14	University of Göttingen	-43
Netherlands	10	Eindhoven University of Technology	114
Canada	9	University of Toronto	17
Australia	7	University of Melbourne	36
Switzerland	6	Swiss Federal Institute of Technology, Zurich	-15
China	6	Peking University	37
Sweden	6	Karolinska Institute	-43
Japan	5	University of Tokyo	26
Hong Kong	4	University of Hong Kong	21
South Korea	4	Pohang University of Science and Technology	28
France	4	École Polytechnique, Paris	39
Taiwan	4	National Tsing Hua University	-107
Denmark	3	Technical University of Denmark	-122
Singapore	2	National University of Singapore	34
Ireland	2	Trinity College Dublin	76
Turkey	2	Bilkent University	-112
Belgium	2	Katholieke Universiteit Leuven	119
Spain	2	University of Barcelona	142
Austria	2	University of Innsbruck	-187
Finland	1	University of Helsinki	102
South Africa	1	University of Cape Town	-107
Norway	1	University of Bergen	135
New Zealand	1	University of Auckland	-145
Egypt	1	Alexandria University	-147

Source: Times Higher Education 2009

The US has as many as 72 in the top 200 global universities and institutes. That is more than twice the number that the nearest rival U.K. with 29 has in the global rankings. The USA also bags all the top five slots. Germany and Netherlands are the only remaining two nations to have scores in double digits. India does not have a single institution to show in the list of top 200 universities. In the last year's rankings, two Indian IIT's were a part of this elite list. Nations, much smaller in size such as Turkey, Singapore and Spain have two institutions each in the top bracket. South Africa and even Egypt have one each in the above list.

Predominance of US universities and institutions is not with out reason. As a nation USA spends 3.1% of GDP annually on tertiary education. Recession and financial crisis not withstanding, academic salaries are about the highest in the world. In most of the top ranking universities, the atmosphere is cosmopolitan-all of which help in attracting and retaining the best talent. The US universities score especially on the research parameter. Several Professors take up editorship of journals and magazines; they decide what gets published. Institutions in US know how to nurture research.

IIE (Institute of International Education) promotes US higher educational institutes abroad in a big way. It held its annual U.S. Higher Education Fair series in six countries and 11 cities across Asia; the region that sends the maximum students to the United States. More than 10,000 prospective students, parents, educators and media representatives participated the fairs. Over 150 U.S. institutions took part in these fairs, getting one to one interface with a large and growing numbers of well-prepared students eager to study in the US. (IIE Annual Report 2009)

China including Hog Kong has 10 institutions in the list. China has made huge investments in recent years in it's tertiary education. At the place of 21, University of Hong Kong, is the third highest ranked university outside USA and U.K. The numbers of Chinese nationals going abroad for higher education peaked some time back and is now declining. According to the latest reports, China has emerged as one of the six preferred destination for globally mobile students.

#### WHO LEADS THE RACE FOR GRANT OF PATENTS

	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Filed	12613	17466	24505	28940	35218
Examined	10709	14813	11569	14119	11751
Granted	2469	1911	4320	7539	15261

Source: Indian patent office.

#### PATENT APPLICATIONS

The number of applications for patents filed in 2007-2008 was 35,218 compared to 28,940 applications in 2006-2007 representing an increase of about 22 % in the filing. 11 applications were filed as patent of addition.

The number of applications for patents which originated in India were 6,040 contributing approximately 17% of the total number of applications filed during the year.

Out of the said applications, which originated in India Maharashtra accounted for the maximum number, followed by Karnataka, Delhi, Andhra Pradesh, West Bengal and Gujarat. The State / Union Territory wise break up figure is as shown in brackets: Maharashtra (1936), Karnataka (814), Delhi (812), Andhra Pradesh (414), West Bengal (303), Gujarat (286), Uttar Pradesh (161), Kerala (123), Haryana (123), Jharkhand (85), Madhya Pradesh (50), Punjab (44), Rajasthan (36), Chandigarh (33), Uttarakhand (25), Bihar (21), Assam (16), Chattisgarh (15), Himachal Pradesh (15) etc.

It is important to note that the leading states are also leading the country in terms of better developed higher education infrastructure in relative terms, for instance, States of Maharashtra, Karnataka and Andhra Pradesh. Conversely, states which are lagging behind the 'knowledge race' are those where there is higher scope for immediate growth of higher education both in quantitative as well as qualitative terms. These are U.P., Himachal Pradesh and Madhya Pradesh.



## NO. OF PATENTS GRANTED BY U.S. STATE AND FOREIGN COUNTRY OF ORIGIN 2008

NAME OF THE COUNTRY	NO. OF PATENTS
USA	1,85,244
US-ORIGIN	92,000
FOREIGN ORIGIN	93,244
JAPAN	30,679
GERMANY	10,086
S. KOREA	8,731
TAIWAN	7,779
U.K	3,843
FRANCE	3,813
INDIA	672

Source: US Patent and Trade mark Office.

The above table clearly brings out the great global 'knowledge divide'. The USA leads the list of Patents granted in U.S. Not surprisingly, America is also the home for a large majority of inventions, discoveries and innovations. It also encourages filing of applications and granting of patents to foreigners and entities from abroad. In fact, as can be seen from the above table, the number of patents granted to those of foreign origin is higher than those of US origin. Smaller nations such as Taiwan and South Korea score over U.K. and India in terms of numbers of patents granted in US. The US. has one of the finest systems of higher education and is the biggest exporter of the same.

Perhaps, the biggest economic gain to the society at large is the innovation facilitated by higher education. Today, in a globalised world nations are ranked on the basis of patent rights that they register and enable their industries to use them profitably. With out a base of a largely public funded higher education program, it is difficult to envisage the emergence of a vigorous R & D effort.

### CONCLUSION

In conclusion, it is clear that the US and U.K. would continue to dominate the world in export of higher education in the foreseeable future. This dominance is due to better rated universities and institutes in these nations. There are several world class universities in these nations and they have been in existence for a very long period of time. Most of them have nurtured research and faculty pay is also better than any where else in the world.

There are definite shifts taking place in global students' mobility seeking avenues for higher educational services. These early trends and it takes years of hard work to establish academic and research capability. Though Asia is on the radar in this race, sadly, India, at present, is nowhere in the picture. One hopes that it would change a bit with the establishment of more Central and world class universities.

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## DIMENSION OF FINANCIAL PERFORMANCE OF CEMENT UNITS IN SOUTH INDIA - AN EMPIRICAL STUDY (Z SCORE ANALYSIS)

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### ABSTRACT

*The industrial growth of industrial output for the year 2010-11 is found to be 8.6 percent and that of the manufacturing sector registers a growth of 9.1 percent. The cement industry is one of the key industries in India. The production and consumption of cement to a large extent indicate country's progress. It is a capital-intensive industry, which means that competition is confined mainly to a small group of large industrial houses. The economic progress can be achieved by increasing the production coupled with improvement in the ways and means of productivity. This industry has recorded continuous growth since planning began. The government has a complete control over the Production, distribution and price of cement and this has dampened the Growth of the cement industry. The involvement of corporate managers, executives in decision making process would augment financial performance of the cement sectors in south India. Managers in cement industries have a variety of tools at their disposal to analyze the impact of alternative courses of action on costs, revenues, and profits. In this study, the Z-score uses multiple corporate income and balance sheet values is used to measure the financial health of Fourteen south Indian Cement industries. Three modes (Altman, Springate and Fulmer Model) of z-score are used in the present study in order to Measure the 'Fiscal-Fitness' of these companies. According to all three methods, few companies that are rated as failure from the sample of fourteen south Indian companies are: Rain Commodities Ltd. and Zuari Cement Ltd.*

### KEYWORDS

Cement sector, corporate failure, financial distress, financial health, productivity, Z-score.

### INTRODUCTION

The considerations involved in the economic performance and achievement of the nation are wealth of the country, Gross Domestic Product (GDP), national income, per capita income and standard of living. Corporate sector play a vital role in contributing GDP. It is evinced that, the recent data on industrial production shows an improvement in the industrial growth over the previous year. Growth in the industrial sector was buoyant during the first two quarters (April- June, July-September) of 2010. The manufacturing sector, in particular, showed a remarkable robustness, growing at rates of 12.6 percent and 9.9 percent respectively, during these two quarters. Thereafter industrial output growth has begun to moderate. This compares with global trends as global manufacturing continued to rebound post crisis till the first half of 2010 and has thereafter moderated. India's post recovery industrial output growth has been largely driven by a few sectors such as the automotive sector along with a revival in cotton textiles, leather, food products, and metal products. A higher base effect had adverse impact on the industrial growth rate in the Q3 (October-December 2010) and accordingly may moderate the industrial sector's contribution to the gross domestic product (GDP) in Q3 of the current financial year.

Manufacturing growth rate declined to 5.1 per cent in Q1 (October-December) of 2010. This is a moderate performance compared to the peak growth of 16.8 per cent achieved during Q4 (January-March) of the last financial year. Within the manufacturing sector, the capital goods segment has been the main driver of growth though it has shown extreme volatility as it registered a growth of 3.5 percent in Q1 of 2009-10 and surged up to 45.7 per cent during Q4 of the last financial year and continued to be in double digit till Q2 and moderated further to 3.8 per cent during Q3 of the current financial year. The manufacturing sector, which has a weight of 79.36 per cent in the IIP, is its key driver. Manufacturing output growth has dipped from a peak of 18 per cent in April 2010 to 1.0 per cent in December 2010, as a result of which IIP growth has also come down from 16.6 per cent in April 2010 to 1.6 per cent in December 2010. However, this slowdown is in a large part driven by the base effect. Despite wide fluctuations, the April-December 2010 cumulative growth rate has remained at a robust 9.1 per cent for the manufacturing sector and 8.6 per cent for the industrial sector, investment intentions indicated in the Industrial Entrepreneur Memorandums (IEMs) filed are lead indicators of likely investment flow to industry and of entrepreneurs' perception. The investment intentions also provide the sectoral preferences of investors and shifts in these preferences over time. During 2001-09, overall investment indicated in the IEMs filed increased at an average annual rate of 35.5 per cent. There was, as expected, a decline in investment intentions in 2009, but investment intentions in 2010 (January-November) indicate revival of business sentiment and an improvement in entrepreneurs' perception. Metals, machinery, cement, chemicals, and the auto sector continue to dominate as the preferred industries. This is consistent with the growth of these industries

In line with the above, The Indian cement industry is number two in the world behind China and has left behind developed markets such as the US and Japan. With just a meager per capita consumption of 28 kg in the 1980's, now it has risen to 99 kg in the 2000's and further in 2010 it has reached to 164kg. This sounds like an impressive growth but in terms of per capita consumption, India is still well behind the global average and this process of catching up with international averages will drive future growth in the Indian cement industry.

With huge investments planned in the Indian Infrastructure both by government and private sector, booming housing construction and expansion in corporate production facilities is likely to fast forward the growth in the Indian cement industry. For cement companies based in India, South-East Asia and the Middle East there are potential and lucrative export markets. Low cost technology and extensive restructuring have made some of the Indian cement companies the most efficient across global majors. Despite some consolidation, the industry remains somewhat fragmented and merger and acquisition possibilities are strong. Investment norms including guidelines for foreign direct investment (FDI) are investor-friendly. All these factors present a strong case for investing in the Indian market.

Of all the other sectors, the production growth slowed down compared to growth logged in last year. There was a strong slippage in the production of crude petroleum during these four months. Manufacturing inflation so far has been benign compared to overall inflation. Point to point manufactured products inflation rate for the month of December 2010 was 4.46 per cent as compared to 3.61 per cent a year ago. But the domestic prices of minerals, mineral oil, electricity, and other inputs (except coal) are on the rise partly due to the hardening of international commodity prices. Persistent high inflation is also leading to rise in average wages and this may impact labour-intensive industries such as textiles and leather etc. In the short to medium term, rising input costs may undermine the competitiveness of some sectors and also dampen domestic and foreign demand. Overall production of the six core industries, namely crude oil,

petroleum refinery products, coal, electricity, cement, and finished steel, has marginally gone up so far during this financial year but there is a huge gap in terms of the required capacity addition needed to catch up with the projected demand in some sectors. While this is the general state of the economy in India in the pre and post global melt-down, the Indian cement industry accounts for approximately 1.3 per cent of GDP and employs over 0.15 million people. From the glowing picture of India's current trends in various sectors, it is clear that corporate India should make use of the resources effectively in order to manage the situation without any difficulty. No doubt, economic affluence largely depends on the efficiency of the corporate sector. Hence it is imperative to evaluate the performance of corporate sector. The performance of a company can be analyzed in many ways. It can be judged in respect to market place, technology adoption, competitiveness, environmental protection and strategic positioning. The performance of a company in the above area would naturally reflect the financial stability and growth of the respective company. Financial statements are the summary of various financial activities which provide information in convenient form. By analyzing these financial statements and evaluating the relationship between the various components, a firm's financial position and performance could be easily interpreted. Financial performance is the operating efficiency of a company in terms of the financial parameter. The financial efficiency of a corporation can be measured in terms of solvency, stability, liquidity, capitalization, turnover ability, coverage ability, profitability, leverages, cost of capital and operating cycle. Being cement industry one of the core manufacturing sectors, it is essential to know the extent to which the sector was affected by the global financial crisis. If the financial stability is not significantly affected, then it is equally important to know the various attributes that account for the cement sector withstanding ability amidst this global recession.

## STATEMENT OF THE PROBLEM

In terms of distribution of industries in manufacturing sector, the cement industry is one of the most significant industries. It is the third highest contributor in terms of excise duty over Rs.4000 crores in a year. Sales taxes yield around Rs. 3500 crores to state governments. Royalties, Octroi and other Cesses add another Rs.1800 crores. The industry employs a work force of over 2 lakh persons and supports a further compliment of 12 lakh people engaged indirectly. The cement industry is selected for research due to several important reasons. Cement is a basic core product, essential for building our nation and its growth is intrinsically linked with the overall growth of the economy and more importantly with the growth of the infrastructure sector. The lack of adequate roads, port, power, and other infrastructure could prove to be a big hindrance to the rapid growth of the country.

The profitability of the business depends on the cost incurred for the production of goods. If the cost increases, the profit of the business is reduced and ultimately the business may go to the liquidation stage. Moreover the future development programme of the company can be designed according to the expenses and investment level. Future budgeting planning is based on the cost aspect of the companies. Therefore, the analysis of the cost structure of the selected cement companies in India gets importance in the present day context.

The efficiency of the business is measured by the amount of profit generated during the particular financial year. The profit of a business may be measured by the studying the profitability of investment in it. Hence, an attempt has been made to study the profitability of cement companies in India. Corporate liability is a vital factor in business. If sufficient liability is not maintained, the enterprise is technically involved and at least faces the financial embarrassment of renegotiating its obligations to creditors. The present study also aims to analyze the liquidity position of the selected cement companies.

In the company form of organization the real owners are the equity shareholders. They invest their money in equity shares of a company with the primary motive of achieving good capital appreciation and regular and stable return, (i.e., dividend.) The investor's objectives are purely based on the profitability and financial performance of the company. So, investors before taking their investment decisions consider several factors which influence the corporate performance. For measuring the corporate financial performance, accounting profitability measures and shareholders' value based measures are to be considered. Accounting profitability measures include Return on Investment (ROI), Return on Equity (ROE), Earning per Share (EPS), Return on Capital Employed (ROCE) and Dividend per Share (DPS) and shareholders' value based measures include Economic Value Added (EVA) and Market Value Added (MVA). Hence an attempt has been made to study the value creation of selected cement companies in India to its shareholders.

The sample companies will be selected on the basis of size of the company. Several variables can be used as the measure the firm's size. Some of them are net profit, total assets, gross profit, total share capital and net sales. Each variable cannot represent the exact firm size in isolation to other variables. That is each variable has its own limitations. The great advantage of the total assets as a measure of the firm size is that this variable can represent the overall size of the firm compared to other variables. Moreover, figures for total assets are readily available from company's balance sheets, which the entire firms have to publish. Based on this, the size has been determined on the basis of the investment in total assets of a company during the end of the study period. **Those companies which have invested more than Rs.1000 crore in total assets during the last year of the study period have been selected for the present study.**

The Z-score analysis is used in many fields to predict corporate defaults and an easy-to-calculate control measure for the financial distress status of companies in academic studies. One specific case study by M. SelvamW et.al., (2004) was done to study the financial health on cement industry. The study predicts the financial health of India Cements Ltd using 'Z' score - the altman model for a period of five years. Another case study by Mansur.A.Mulla (2002) uses the Z score analysis for Evaluation of Financial Health of Textile Mills. On the above background, this paper is employed to evaluate the financial health of 14 south Indian cement industries. The rest of the paper is organized as follows: - Section 2 presents the methodology of the study. Empirical results and discussion are presented in Section 3. Finally, the concluding remarks are presented in Section 4.

## METHODOLOGY

This study is mainly based on the secondary data. The required data was collected from PROWESS database of Centre for Monitoring Indian Economy (CMIE). Companies having Assets greater than 1000 Crores as on 2009, is chosen as the sample size. For the period 2005 to 2009 fourteen companies are chosen as samples they are: A C C Ltd., Chettinad Cement Corpn. Ltd., Dalmia Bharat Sugar & Inds. Ltd., Heidelberg Cement India Ltd., India Cements Ltd., Jaiprakash Associates Ltd., Kesoram Industries Ltd., Madras Cements Ltd., My Home Inds. Ltd., Orient Paper & Inds. Ltd., Penna Cement Inds. Ltd., Rain Commodities Ltd., Ultratech Cement Ltd., and Zuari Cement Ltd. The Financial Health of Cement industry in South India is analysed using the Z-Score Financial Analysis Tool.

## Z-SCORE FINANCIAL ANALYSIS TOOL

A common statistical way of standardizing data on one scale so a comparison can take place is using a z-score. The z-score is like a common yard stick for all types of data. Each z-score corresponds to a point in a normal distribution and as such is sometimes called a normal deviate since a z-score will describe how much a point deviates from a mean or specification point. Z-score means statistical measure that quantifies the distance a data point is from the mean of a data set. In a more financial sense, Z-score is the output from a credit-strength test that gauges the likelihood of bankruptcy. The formula may be used to predict the probability that a firm will go into bankruptcy within two years. Z-scores are used to predict corporate defaults and an easy-to-calculate control measure for the financial distress status of companies in academic studies. The Z-score uses multiple corporate income and balance sheet values to measure the financial health of a company.

The z-score represents a point in time. As such, the z-scores should be examined over time. Consistently low scores each year are more of a concern than a onetime low score. The Z score has proven successful in the real world. It correctly predicted 72% of bankruptcies two years prior to the event. Z score profiles for failing businesses often indicate a consistent downward trend as they approach bankruptcy.

## ESTIMATION OF THE FORMULA

The Z-score is a linear combination of four or five common business ratios, weighted by coefficients. The coefficients were estimated by identifying a set of firms which had declared bankruptcy and then collecting a matched sample of firms which had survived, with matching by industry and approximate size (assets). Altman applied the statistical method of discriminant analysis to a dataset of publicly held manufacturers. The estimation was originally based on data from

publicly held manufacturers, but has since been re-estimated based on other datasets for private manufacturing, non-manufacturing and service companies. From about 1985 onwards, the Z-scores gained wide acceptance by auditors, management accountants, courts, and database systems used for loan evaluation (Eidleman). The formula's approach has been used in a variety of contexts and countries, although it was designed originally for publicly held manufacturing companies with assets of more than \$1 million. Later variations by Altman were designed to be applicable to privately held companies (the Altman Z'-Score) and non-manufacturing companies (the Altman Z''-Score). All developers of prediction models warn that the technique should be considered as just another tool of the analyst and that it is not intended to replace experienced and informed personal evaluation. Perhaps the best use of any of these models is as a "filter" to identify companies requiring further review or to establish a trend for a company over a number of years. If, for example, the trend for a company over a number of years is downward then that company has problems, that if caught in time, could be corrected to allow the company to survive. Three modes of this z-score are used in the present study in order to Measure the 'Fiscal-Fitness' of a company. They are: Altman Model, Springate Model and Fulmer Model.

### 1. ALTMAN MODEL (U.S. - 1968)

The Z-score formula for predicting bankruptcy was published in 1968 by Edward I. Altman, who was, at the time, an Assistant Professor of Finance at New York University. He is the dean of insolvency predictors. He was the first person to successfully use step-wise multiple discriminate analyses to develop a prediction model with a high degree of accuracy. This can also be called as a company failure or bankruptcy prediction method. A company's Z score is a positive function of five factors:

(net working capital) / (total assets) (retained earnings) / (total assets) (EBIT) / (total assets) (market value of common and preferred) / (book value of debt) (sales) / (total assets).

Although the weights are not equal, the higher each ratio, the higher the Z score and the lower the probability of bankruptcy. Also called Zeta. Using the sample of 66 companies, 33 failed and 33 successful, Altman's model achieved an accuracy rate of 95.0%. Altman's model takes the following form -:

$$Z = 1.2A + 1.4B + 3.3C + 0.6D + .999E \dots\dots\dots(1)$$

Where, A = Working Capital/Total Assets  
B = Retained Earnings/Total Assets  
C = Earnings before Interest and Taxes/Total Assets  
D = Market Value of Equity/Book Value of Total Debt  
E = Sales/Total Assets

if  $Z < 2.675$ ; then the firm is classified as "failed"

### PRECEDENTS

Altman's work built upon research by accounting researcher William Beaver and others. In the 1930s and on, Mervyn and others had collected matched samples and assessed that various accounting ratios appeared to be valuable in predicting bankruptcy. William Beaver's work, published in 1966 and 1968, was the first to apply a statistical method, t-tests to predict bankruptcy for a pair-matched sample of firms. Beaver applied this method to evaluate the importance of each of several accounting ratios based on univariate analysis, using each accounting ratio one at a time. Altman's primary improvement was to apply a statistical method, discriminant analysis, which could take into account multiple variables simultaneously.

### 2. SPRINGATE (CANADIAN - 1978)

This model was developed in 1978 at S.F.U. by Gordon L.V. Springate, following procedures developed by Altman in the U.S. Springate used step-wise multiple discriminate analyses to select four out of 19 popular financial ratios that best distinguished between sound business and those that actually failed. The Springate model takes the following form -:

$$Z = 1.03A + 3.07B + 0.66C + 0.4D \dots\dots\dots(2)$$

Where, A = Working Capital/Total Assets  
B = Net Profit before Interest and Taxes/Total Assets  
C = Net Profit before Taxes/Current Liabilities  
D = Sales/Total Assets

if  $Z < 0.862$ ; then the firm is classified as "failed"

This model achieved an accuracy rate of 92.5% using the 40 companies tested by Springate. Botheras (1979) tested the Springate Model on 50 companies with an average asset size of \$2.5 million and found an 88.0% accuracy rate. Sands (1980) tested the Springate Model on 24 companies with an average asset size of \$63.4 million and found an accuracy rate of 83.3%.

### 3. FULMER MODEL (U.S. - 1984)

Fulmer (1984) used step-wise multiple discriminate analysis to evaluate 40 financial ratios applied to a sample of 60 companies -30 failed and 30 successful. The average asset size of these firms was \$455,000.

The model takes the following form -:

$$H = 5.528 (V1) + 0.212 (V2) + 0.073 (V3) + 1.270 (V4) - 0.120 (V5) + 2.335 (V6) + 0.575 (V7) + 1.083 (V8) + 0.894 (V9) - 6.075 \dots\dots\dots(3)$$

Where, V1 = Retained Earning/Total Assets  
V2 = Sales/Total Assets  
V3 = EBT/Equity  
V4 = Cash Flow/Total Debt  
V5 = Debt/Total Assets  
V6 = Current Liabilities/Total Assets  
V7 = Log Tangible Total Assets  
V8 = Working Capital/Total Debt  
V9 = Log EBIT/Interest

if  $H < 0$ ; then the firm is classified as "failed"

Fulmer reported a 98% accuracy rate in classifying the test companies one year prior to failure and an 81% accuracy rate more than one year prior to bankruptcy.

## EMPIRICAL RESULTS AND DISCUSSION

### 1. ALTMAN MODEL (U.S. - 1968)

The Altman Z-Score has become one of the most accepted and tested predictors of bankruptcy potential for a firm. The result of the Financial Health of Cement industry in fourteen South Indian companies using the Z-Score Financial Analysis Tool is presented in table 1.



**TABLE 1: ALTMAN Z-SCORE ANALYSIS FOR 14 SOUTH INDIAN CEMENT INDUSTRIES**

Company Name	2005	2006	2007	2008	2009
A C C Ltd.	1.63	2.39	2.28	1.81	1.73
Chettinad Cement Corpn. Ltd.	2.68	2.53	2.72	2.43	2.65
Dalmia Bharat Sugar & Inds. Ltd.	1.98	2.14	2.04	2.10	2.03
Heidelberg Cement India Ltd.	-5.79	1.93	2.68	1.97	2.00
India Cements Ltd.	4.07	1.86	2.13	1.70	1.52
Jaiprakash Associates Ltd.	2.59	2.29	2.09	2.00	1.96
Kesoram Industries Ltd.	2.57	2.70	3.05	2.84	2.73
Madras Cements Ltd.	2.29	2.24	2.67	2.66	2.50
My Home Inds. Ltd.	2.51	2.32	2.79	3.51	2.71
Orient Paper & Inds. Ltd.	15.11	8.14	4.39	3.45	2.65
Penna Cement Inds. Ltd.	2.70	2.93	3.26	2.92	2.63
Rain Commodities Ltd.	-0.07	1.92	1.38	2.18	1.95
Ultratech Cement Ltd.	1.83	2.36	2.66	2.43	2.08
Zuari Cement Ltd.	0.82	1.11	0.86	1.62	1.41

Source: computed from PROWESS

A firm is considered to be financially safe if the Z-score is greater than 2.99 and a firm can be said to perform marginally if the Z-score lies between 2.71 and 2.98. The chance of bankruptcy is expected in next two years for the firms which has the Z-score to lie between 1.8 and 2.70 and a firm is graded as financially weak if the Z-score falls below 1. Hence, from the above table the following result can be inferred: i.e., for the companies like the Kesoram Industries Ltd., My Home Inds. Ltd., Orient Paper & Inds. Ltd. and Penna Cement Inds. Ltd., performs better than other companies.

And the companies which are considered to perform slightly better are the Ultratech Cement Ltd. and A C C Ltd. The companies which have the chance of bankruptcy in next two years are listed below: Dalmia Bharat Sugar & Inds. Ltd., Heidelberg Cement India Ltd., India Cements Ltd.,(from 2006 onwards) Jaiprakash Associates Ltd., Madras Cements Ltd., and Chettinad Cement Corpn. Ltd. Finally, the companies which are graded as financially weak are the Rain Commodities Ltd. and Zuari Cement Ltd.

### 2. SPRINGGATE (CANADIAN - 1978)

The result of the Springgate model for the fourteen South Indian companies is presented in table 2.

**TABLE 2: SPRINGGATE MODEL FOR 14 SOUTH INDIAN CEMENT INDUSTRIES**

Company Name	2005	2006	2007	2008	2009
A C C Ltd.	1.09	1.95	1.75	1.43	1.46
Chettinad Cement Corpn. Ltd.	1.13	1.29	1.72	1.50	0.51
Dalmia Bharat Sugar & Inds. Ltd.	0.62	0.87	1.01	1.28	0.77
Heidelberg Cement India Ltd.	0.40	1.31	1.92	1.39	1.53
India Cements Ltd.	0.34	0.53	1.47	1.39	1.05
Jaiprakash Associates Ltd.	0.84	1.03	0.65	0.59	0.63
Kesoram Industries Ltd.	1.05	1.18	1.71	1.73	1.32
Madras Cements Ltd.	0.84	1.06	1.76	2.02	1.63
My Home Inds. Ltd.	2.49	1.11	1.57	4.03	3.52
Orient Paper & Inds. Ltd.	0.92	1.19	2.29	2.90	2.04
Penna Cement Inds. Ltd.	1.00	1.19	1.94	2.11	1.94
Rain Commodities Ltd.	-0.49	1.20	0.55	1.29	1.50
Ultratech Cement Ltd.	0.41	1.13	2.02	1.96	1.69
Zuari Cement Ltd.	-0.01	0.68	0.15	1.27	1.00

Source: computed from PROWESS

According to the Z- score model the companies which are considered to be failed are listed below: Dalmia Bharat Sugar & Inds. Ltd., Jaiprakash Associates Ltd.(for most of the years),Rain Commodities Ltd.and Zuari Cement Ltd.(for first few years).

### 3. FULMER MODEL (U.S. - 1984)

The result of the Fulmer model for the fourteen South Indian companies is presented in table 3.

**TABLE 3: FULMER MODEL FOR 14 SOUTH INDIAN CEMENT INDUSTRIES**

Company Name	2005	2006	2007	2008	2009
A C C Ltd.	14.31	1.43	1.09	0.93	1.09
Chettinad Cement Corpn. Ltd.	0	1.39	1.38	0.11	-0.58
Dalmia Bharat Sugar & Inds. Ltd.	26.67	-0.62	-0.16	-0.17	-0.37
Heidelberg Cement India Ltd.	26.86	-1.19	3.86	1.49	1.45
India Cements Ltd.	10.24	-0.64	-0.04	0.29	0.16
Jaiprakash Associates Ltd.	22.80	0.31	0.58	0.64	1.24
Kesoram Industries Ltd.	54.35	0.29	1.17	1.77	0.17
Madras Cements Ltd.	31.92	-0.56	0.33	0.10	-0.01
My Home Inds. Ltd.	20.04	-1.21	-0.37	0.09	0.04
Orient Paper & Inds. Ltd.	60.16	0.72	0.08	0.45	0.00
Penna Cement Inds. Ltd.	15.70	-0.87	0.99	1.60	0.48
Rain Commodities Ltd.	0	0	-1.28	-1.01	-0.47
Ultratech Cement Ltd.	16.70	0.09	0.81	1.01	0.72
Zuari Cement Ltd.	0	0	0	0	0

Source: computed from PROWESS

The companies which have negative score are considered to be failure firms. Accordingly, Dalmia Bharat Sugar & Inds. Ltd., Rain Commodities Ltd.and Zuari Cement Ltd is considered to be failure firms. Also, it can be noted that few companies for at least one or two year have negative score.

**CONCLUDING REMARKS**

Insolvency prediction has long been confined to academics, with most of the published material restricted to business and accounting journals specializing in esoteric and complicated subjects. A possible reason why insolvency prediction models have not gained greater use in the business community is because it has been difficult to calculate the results. With the wide spread use of personal computers and the internet, the utilization of an insolvency prediction model is now practical and available to all. All the three models reviewed here give weights to financial ratios used to best differentiate or discriminate between failed and successful companies. Fourteen south Indian Cement industries are taken as the sample size to compute this methodology. According to all three methods, few companies that are rated as failure from the sample of fourteen south Indian companies are: Rain Commodities Ltd. and Zuari Cement Ltd.

The possible reasons for a company to be rated as failure may be excess debt and excess working capital, that may weaken the financial health of that particular company.

Based on the above results few suggestions may be (i) avoid excess working capital which may help to improve the operating profit. (ii) the target must be fixed, and the sales must be achieved accordingly. And (iii) maximum utilization of the available capacity. All these may help to keep a company (or the entire cement industry) financial fit.

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## AN EMPIRICAL ANALYSIS OF FINANCIAL LEVERAGE, EARNINGS AND DIVIDEND: A CASE STUDY OF MARUTI SUZUKI INDIA LTD.

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### ABSTRACT

*This paper attempts to make an analytical study of theoretical approaches and practical application of financial leverage, earnings per share and dividend per share of Maruti Udyog Ltd. with data for the period of 2001-02 to 2008-09. For the purpose of analysis, researcher has used ratio techniques and to test hypothesis for correlation-co-efficient 't' has been used. The result of the study indicates that there is a correlation between DFL and EPS and the difference is insignificant where as result of correlation coefficient at 5% level of significance showed that the difference is significant between DFL and DPS and EPS and DPS.*

### KEYWORDS

Financial Leverage, Dividend, Earnings.

### INTRODUCTION

Liberalisation, globalisation and privatization are the important issues to the entrepreneur and corporate threatening the existence of a firm. In such a complex corporate environment, it is the challenge to the finance manager to survive the firm in long- run perspective with the objective of maximizing the owner's wealth. With a view to achieve this objective, finance manager is required to pay his due attention on investment decision, financing decision and dividend decision. Assuming that sound investment policy and portunity are there, it is my intention in this paper to optimize the financing decision and dividend decision in the context of achieving the stated objective. Financing decision refers to the selection of appropriate financing-mix and so it relates to the capital structure or leverage. Capital structure refers to the proportion of long- term debt capital and equity capital required to finance investment proposal. There should be an optimum capital structure, which can be attained by the judicious exercise of financial leverage. This paper mainly concentrates on the exercise of financial leverage in the context of understanding its impact on earnings and dividend per share

#### FINANCIAL LEVERAGE

Financial leverage is primarily concerned with the financial activities which involve raising of funds from the sources for which a firm has to bear a fixed charge. These sources include long-term debt (e.g. bonds, debentures etc.) and preference share capital. Long-term debts capital carries a contractual fixed rate of interest and its payment is obligatory. As the debt providers have prior claim on income and assets of a firm over equity shareholders, their rate of interest is generally lower than the expected return on equity shareholders. Further interest on debt capital is a tax deductible expense. These two phenomena lead to the magnification of rate of return on equity capital and hence EPS. It goes without saying that the effect of changes in EBIT on the earnings per share is shown by the financial leverage. Financial leverage can best be described as "the ability of a firm to use fixed financial charges to magnify the effect of changes in EBIT on the firm's earning per share."

#### EARNINGS PER SHARE IN THE CONTEXT OF OPTIMUM CAPITAL STRUCTURE

Earnings per share are the reward of an investor for making his investment and it is the best measure of performance of a firm. "The bottom line of Income Statement is an indicator of performance of 'think tank' or 'top level' of the company". Ordinary investors lacking in-depth knowledge and inside information mainly based on EPS to make their investment decision. So it should be the objective of financial management to maximize the EPS from the view point of both the investor and owners. Again the objective of financial management is maximization of value measure in terms of market price of equity share of a corporate entity. Given the objective of the firm to maximize the value of equity share, a firm should select a desired combination of financing mix or capital structure to achieve the goal. Theoretically, optimum capital structure implies that combination of debt and equity at which overall cost of capital is minimum and value of the firm is maximum. The prevailing view is that the value maximization criterion as a criterion of optimal capital structure is measured in terms of market price of equity share i.e. the value of the firm is maximized when the market price of equity share is maximized. So, according to this view, maximization of market price of equity share leading to the maximization of value of the firm is a criterion of optimum capital structure. But I beg to differ. Market price of equity share though basically depends on firm's earnings per share, it also depends to a great extent on many external factors such as government monetary and economic policies, political stability, state of economy, speculative trends etc. and it may be contended that market price of share has no direct bearing on the optimum capital structure. In this context an example of a firm may be drawn which is running with optimum debt-equity combination. Now due to the influence of some external factors i.e. sudden political change or something like this, the market price of its equity shares started decreasing and as a result value of the firm went on decreasing. Due to the downward movement of the value of the firm, its capital structure will not become optimum further and will need restructuring to become optimum again. In practice, change in market price of equity share may occur very rapidly and hence it is very difficult to change the composition of capital structure accordingly. Capital structure decision is an internal decision of the firm. So what I really think is that increase in market price of equity share due to the influence of external factors leading to the maximization of the value of the firm should not be a criterion of optimum capital structure. Rather 'EPS may be a better substitute as a criterion of value maximization in respect of optimum capital structure,<sup>3</sup> and as such maximizing EPS should be the main slogan or mul-mantra of a firm in order to realize the objective of maintaining an appropriate capital structure.

#### DIVIDEND POLICY DECISION

Dividend decision is the major decision area of financial management. A firm is to decide what portion of earnings would be distributed to the shareholders by way of dividend and what portion of the same would be retained in the firm for its future growth. Both dividend and retention are desirable but they are conflicting to each other. A finance manager should be able to formulate a suitable dividend policy, which will satisfy the shareholders without hampering future progress of the firm. It is common that higher the earnings, higher will be the amount of dividend and vice-versa.

## FINANCIAL LEVERAGE, EARNINGS AND DIVIDEND

Use of fixed cost bearing capital in the capital structure is termed as financial leverage. Such capital especially debt is cheaper than the equity as the cost of debt is generally lower than that of equity and a tax advantage is attached with its use. In this circumstances, if total capital employed remains constant, increase in the financial leverage or use of debt implies that a relatively cheaper source of fund replaces a source of fund having relatively higher cost. Now if a company follows this practice its net return will be attributable to the low base of equity shareholders (lower base being due to the increase in financial leverage). As a result it will lead to the magnification of return to the equity and thus EPS. But one should keep in mind that the same holds good in favourable business environment where the company is able to earn a rate of return on investment being higher than its cost of financing. So long this situation continues the return on equity or EPS will increase with the increase in financial leverage. The excess of the rate of return on investment over the fixed rate of interest and pref. dividend will go to the equity shareholders. However, during the period of adversity when the company is not in a position to earn greater (at least equal) rate of return than the cost of debt and pref. share, its return on equity and EPS, instead of increase, will actually decrease, with the increase in the financial leverage. As higher earnings would result in higher dividend, the above discussion follows that increase in the use of financial leverage increases the earnings per share and thus dividend per share. Conversely decrease in the use of financial leverage decreases the earnings and dividend per share. Keeping these theoretical backgrounds in view, it is my humble effort to draw the attention of readers regarding subjectivity of this paper and its applicability into real corporate practice. For this purpose a case study has been introduced in the next section considering the case of Maruti Udyog Limited, a leading automobile company in India. Now it is proposed to present brief profile of the company in the subsequent paragraph.

## COMPANY PROFILE

Maruti Suzuki India Ltd (formerly Maruti Udyog Ltd) is India's largest passenger car company, accounting for over 50 per cent of the domestic car market. The company offers full range of cars from entry level Maruti 800 & Alto to stylish hatchback Ritz, A-star, Swift, Wagon R, Estilo and sedans DZire, SX4 and Sports Utility vehicle Grand Vitara. The company is a subsidiary of Suzuki Motor Corporation of Japan. The company is engaged in the business of manufacturing, purchase and sale of motor vehicles and spare parts (automobiles). The other activities of the company include facilitation of pre-owned car sales, fleet management and car financing. They have four plants, three located at Palam Gurgaon Road, Gurgaon, Haryana and one located at Manesar Industrial Town, Gurgaon, Haryana. The company has seven subsidiary companies, namely Maruti Insurance Business Agency Ltd, Maruti Insurance Distribution Services Ltd, Maruti Insurance Agency Solutions Ltd, Maruti Insurance Agency Network Ltd, Maruti Insurance Agency Services Ltd, Maruti Insurance Agency Logistics Ltd and True Value Solutions Ltd. The first six subsidiaries are engaged in the business of selling motor insurance policies to owners of Maruti Suzuki vehicles and seventh subsidiary, True Value Solutions Ltd is engaged in the business of sale of certified pre-owned cars under the brand 'Maruti True Value'. Maruti Suzuki India Ltd was incorporated on February 24, 1981 with the name Maruti Udyog Ltd. The company was formed as a government company, with Suzuki as a minor partner, to make a people's car for middle class India. Over the years, the company's product range has widened, ownership has changed hands and the customer has evolved. In October 2, 1982, the company signed the license and joint venture agreement with Suzuki Motor Corporation, Japan. In the year 1983, the company started their productions and launched Maruti 800. In the year 1984, they introduced Maruti Omni and during the next year, they launched Maruti Gypsy in the market. In the year 1987, the company forayed into the foreign market by exporting first lot of 500 cars to Hungary. In the year 1990, the company launched India's first three-box car, Sedan. In the year 1992, Suzuki Motor Corporation, Japan increased their stake in the company to 50%. In the year 1993, they introduced the Maruti Zen and in the next year they launched Maruti Esteem in the market. In the year 1995, the company commenced their second plant. In the year 1997, they started Maruti Service Master as model workshop in India to look after sales services. In the year 1999, the third plant with new press, paint and assembly shops became operational. In the year 2000, the company launched Maruti Alto in the market. In the year 2002, Suzuki Motor Corporation increased their stake in the company to 54.2%. In January 2002, the company introduced 10 finance companies (8 + 2JVs) in Mumbai. Also, they found one new business segment, Maruti True Value for sales, purchase and trade of pre-owned cars in India. In the year 2005, the company launched the first world strategic model from Suzuki Motor Corporation 'the SWIFT' in India. In the year 2006, they launched WagonR Duo with LPG and also the New Zen Estilo. During the year 2006-07, the company commenced operations in the new car plant and the diesel engine facility at Manesar, Haryana. In November 2006, they inaugurated a new institute of Driving Training and Research (IDTR), which was set up as a collaborative project with Delhi Government at Sarai Kale Khan in South Delhi. During the year 2007-08, the company signed an agreement with the Adani group for exporting 200,000 units annually through the Mundra port in Gujarat. They launched Swift Diesel and SX4- Luxury Sedan with Tag line 'MEN ARE BACK' during the year. In July 2007, the company launched the new Grand Vitara, a stylish, muscular and 5-seater in the MUV segment. The company changed their name from Maruti Udyog Ltd to Maruti Suzuki India Ltd with effect from September 17, 2007. During the year, the company entered into a joint venture agreement with Magneti Marelli Powertrain SpA and formed Magneti Marelli Powertrain India Pvt Ltd for manufacturing Electric Control Units. Also they entered into another joint venture agreement with Futaba Industrial Co Ltd and formed FMI Automotive Components Ltd for manufacturing Exhaust Systems Components. During the year, the company made pact with Shriram City Union Finance Ltd, a part of Shriram Group, Chennai, to offer easy, transparent and hassle-free car finance to their customers, particularly in semi urban and rural markets. The agreement is a joint initiative of the two companies for providing competitive car finance to people in Tier-II and Tier-III cities across the country. During the year 2008-09, the company launched a new A2 segment car, branded the A-star in India and in Europe as the new Alto. They raised their production capacity to a landmark 1 million cars. In June 2008, the company launched Maruti 800 Duo, which is a dual fuel (LPG-cum- petrol) model car. In March 2009, the company launched A-star or Suzuki Alto at Geneva Motor Show sales begin at EU. In April 2009, the company revealed new Ritz K12M engine at Gurgaon plant. The company plans to modernize some part of their Gurgaon plant, expand their K-series capacity, invest further in new model development and take the projects of test track and crash course facility and Brand Centres further.

## OBJECTIVES OF STUDY

The objectives of the study are as under:

1. To study the methods of raising finance and financial leverage practice of the company
2. To Examine the impact of financial leverage on EPS
3. To know about the dividend policy of the company
4. To assess the inter relationship between degree of financial leverage (DFL), earnings per share (EPS) and dividend per share (DPS)
5. To summaries main finding of the study and offer some suggestion, if any, for improving EPS by the use of financial leverage

## HYPOTHESIS

In order to realize the above objectives, the following hypothesis has been formulated.

1. The company uses debt as a cheaper source of finance than equity
2. The company is able to earn a higher rate of return on investment than the cost of financing investment.
3. DFL and EPS are positively correlated in such a manner that increase in financial leverage leads to increase in the EPS
4. DFL is positively correlated with DPS.
5. EPS is positive correlated with DPS

## RESEARCH METHODOLOGY

### COLLECTION OF DATA

The data of Maruti Udyog Ltd. have been collected from the annual reports of the company and capitaline data base. The data collected from this source have been used and compiled with due care as per requirement of the study.



**PERIOD OF STUDY**

The present study covers a period of eight years from 2001-02 to 2008-09.

**TECHNIQUES OF ANALYSIS**

The study has been made by converting the collected data in to relative measures such as ratios, percentages rather than absolute one. For analyzing the degree of association between DFL, EPS and DPS, statistical technique of Pearson's correlation analysis has been used to judge whether the calculated correlation coefficient are significant or not.

**EMPIRICAL ANALYSIS****TABLE -1: COMPUTATIONS OF EBIT, EBT & EAT**

year	Total capital	Long term employed	Equity share capital	Reserve \$ surplus	Net worth	EBIT	Interest	Earning before tax (EBT)	Earning dividend	After tax (EAT)
2001-02	3363.3	656	132.3	2575	2707.3	195.3	77	118.3	39.7	118.3
2002-03	3554	456	144.5	2953.5	3098	334.8	52.7	282.1	42.7	282.1
2003-04	3903.1	311.9	144.5	3446.7	3591.2	813.2	43.4	769.8	43.3	769.8
2004-05	4686.4	307.6	144.5	4234.3	4378.8	1340.9	36	1304.9	57.8	1304.9
2005-06	5524.3	71.7	144.5	5308.1	5452.6	1770.4	20.4	1750	101.1	1750
2006-07	7484.7	630.8	144.5	6709.4	6853.9	2317.4	37.6	2279.8	130	2279.8
2007-08	9315.6	900.2	144.5	8270.9	8415.4	2562.6	59.6	2503	144.5	2503
2008-09	10043.8	698.9	144.5	9200.4	9344.9	1726.8	51	1675.8	101.1	1675.8

Source: Annual reports of Maruti Udyog Ltd.

**TABLE -2: COMPUTATION OF DFL, EPS, DPS, DIP RATIO, COST OF DEBT, COST OF EQUITY AND RATE OF RETURN ON INVESTMENT**

year	DFL	EPS (Rs.)	DPS (Rs.)	Dividend pay-out ratio%	Rate of Interest (%)	Cost of Debt (%)	Cost of equity (%)	Rate of return on investment (%)
2001-02	1.65	78.99	30.01	37.99	6.8	4.7	1.50	3.5
2002-03	1.19	4.88	1.48	30.31	11.7	8.1	1.58	7.9
2003-04	1.06	18.56	1.50	8.07	11.6	8.0	1.40	19.7
2004-05	1.03	29.25	2.00	6.84	13.9	9.6	1.61	27.8
2005-06	1.01	40.65	3.50	8.6	11.7	8.1	2.31	31.7
2006-07	1.02	53.29	4.50	8.44	28.5	19.6	2.38	30.5
2007-08	1.02	59.03	5.00	8.47	6.0	4.1	2.11	26.9
2008-09	1.03	41.57	3.50	8.41	6.6	4.6	1.20	16.7

Source: Annual reports of Maruti Udyog Ltd.

**NOTES AND EXPLANATIONS**

1. DFL = Degree of Financial Leverage = EBIT / EBT
2. EPS = EAT / No. of Equity Shares.
3. DPS = Dividend / No. of Equity Shares.
4. DIP Ratio = DPS / EPS x 100
5. Rate of Interest = (Interest / Long-term debt) X 100
6. Interest on debt capital is an allowable expenditure for income tax purpose and it qualifies for deduction in computing taxable income. So it reduces effective cost of debt in the following way: Cost of debt (%) = Rate of Interest (1 - tax rate). Tax rate varied over the years with the changes in Tax Legislations. Tax rate being not available has been computed by approximating it to be equivalent of tax provisions. So an average tax rate has been approximated as (Total of 8 years' provision for tax + Total of 8 years' profit before tax) X 100, which comes 31% approx. in case of Maruti Udyog Ltd.
7. The return expected by the equity shareholders may be referred to as cost of equity. There are various models for its computation. But in real term a firm has to incur cost in respect of equity shares in the form of dividend payment. So the most suitable formula is : Cost of equity (%) = (Dividend / Equity or Net worth) x 100
8. Rate of return on investment = (EAT / Total Capital Employed) x 100

**(i) Financial leverage practice and EPS of Maruti Udyog Ltd.**

From the table -2 as presented above, it is seen that Maruti Udyog Ltd. Did not find debt capital than equity capital over the period of eight years from 2001-02 to 2008-09. Maruti Udyog Ltd. had to pay higher rate of interest leading to a greater cost of debt than that of equity despite an average tax advantage attached with debt financing @ 31% over the period covered our study. Contrary to the common supposition debt being cheaper than equity, it is surprising to note that the lower cost of debt (4.1%) in 2007-08 and the greater cost of equity (2.38%) as evidence in the year of 2006-07. Maruti Udyog Ltd. enjoyed equity as a cheaper source of finance by maintaining a lower pay-out ratio. So the basic assumption of the proposition which makes leverage advantageous was not fulfilled. As a result leverage benefits did not true in case of MUL. In the year 2001-02, MUL used highest DFL (1.65) resulting higher EPS (as.78.99) over the whole period of eight years under consideration. Although this year (along with seven years prospective years) yielded lower rate of investment (3.5%) than after tax cost of debt (4.7%). It made the company conservative in using debt financing and the company started decreasing its DFL 1.19 to 1.03 during the period of next years under consideration. If one looks at the financial data of MUL, given in table-2 a declining trend to EPS with decline in DFL become evident. The table shows that EPS was increasing from 18.56 to as 59.03 with the decrease in DFL from 1.65 to 1.02 during the period of first six years from 2001-02 to 2008-09. In the year In the year 2002-03, EPS decreased to 4.88 against Rs. 78.99 in 2001-02 with the decrease in DFL from 1.65 to 1.19. This might have taken place owing to the fact that this year debt carried the higher rate of interest ((11.7%) leading to the higher cost of debt (8.1%). In the last year of consideration EPS decreased with the increased DFL. Successive EPS of last two years showed a fluctuating trend with the increase in DFL like all the preceding years.

So there is a clear conflict between the accepted leverage theorems and actual practiced in Maruti Udyog Ltd. In theory there is a positive relationship between DFL and EPS in such a way corresponding increase or decrease in DFL with the fulfillment of main two criteria – one being debt capital cheaper than equity capital and another being rate of return on investment exceeded (after-tax) cost of debt. But in case of MUL, a different relationship between DFL and EPS is evident from the data. Even MUL could not fulfill the second criterion, just indicated, for all the years, it failed to fulfill the first criterion for every year. The company could not enjoy debt as cheaper means of financing over the whole period. Particularly the Indian corporate sector enjoys equity as a cheaper source of financing since dividend payment is optional here. The case of MUL discussed in this study, just a representative one.

**CAPITAL STRUCTURE POLICY OF MUL**

The logic of capital structure policy of MUL is to increase its net worth by ploughing back of profit in this way to reduce cost of equity as a cheaper cost if its net worth is strengthened by ploughing back of profits, which is not dividend bearing. Now if we have a mark on Table-1, an increase amount of reserve and surplus included in net worth is seen all over the period of eight years. Keeping the equity capital constant throughout the period of study, the company increased its

net-worth with the utilization of reserve & surplus by the same amount. The company increased its capitalization from Rs. 3363.3 Cr. to 10043.8 Cr. with the correspondingly less increase in the use of long term debt from Rs. 656 cr. to 698.9 cr. during the study. Both the excess capitalization and slightly increase in the use of debt in each year were commensurated by the reserve and surplus i.e., by successful ploughing back of profit instead of making additional issue of equity shares. If the same was made by fresh issue of equity shares the company would not be able to reward its shareholders more in terms of return. Since reserve & surplus was not divided bearing, its utilization brought down the cost of equity and at the same time it maintained the lower base of equity share- holders resulting higher amount of EPS (lower base means lower number of equity shares).

TABLE – 3: ANALYSIS OF CAPITAL STRUCTURE

year	%of Net worth		% of Capital Employed		
	Equity capital %	Reserve & surplus (%)	Long term employed	Equity share capital	Reserve & surplus
2001-02	4.9	95.1	19.5	3.9	76.6
2002-03	4.7	95.3	12.8	4.1	83.1
2003-04	4.0	96.0	8.0	3.7	88.3
2004-05	3.3	96.7	6.6	3.1	90.4
2005-06	2.7	97.3	1.3	2.6	96.1
2006-07	2.1	97.9	8.4	1.9	89.6
2007-08	1.7	98.3	9.7	1.6	88.8
2008-09	1.5	98.5	7.0	1.4	91.6

Source: Annual reports of Maruti Udyog Ltd.

Table-3 has been prepared to reflect the relative method of finance adopted by the company. It is seen from the table – 3 that the net-worth of the company constituted equity capital and reserve & surplus and it was 4.9% of equity capital and 95.1% of reserve & surplus in the year 2001-02. In the following years the company stated increasing the proportion of reserve & surplus from 95.3% to 98.5% with decrease in the proportion of equity capital from 4.7% to 1.5% during the period from 2002-03 to 2008-09. One can observe from the table that a percentage decrease in the equity capital led to the same percentage increase in the reserve and surplus. For example 5% percentage decrease in equity capital led to 55 increases in the reserve and surplus in the second year of study and so on. Thus increase in the proportion of reserve and surplus to net worth in this way might cause reduction in the cost of equity during the study period. The same analysis may be drawn from table -3 about long-term debt, equity share capital and Reserve & surplus to capital employed.

#### DIVIDEND POLICY OF MUL

Table-2 shows that DPS of first two years of consideration is same and thereafter the company has been increasing DPS at a slow rate. The dividend payout ratio of the company is gradually decreasing during the study period. Overall, we can say that MUL is following a conservative dividend policy

#### FINANCIAL LEVERAGE, EARNING AND DIVIDEND

The first finding follows that the company has been experiencing a converse effect of financing leverage on earnings per share and as such earnings per share and as such earnings per share has been increasing with the decrease in the financial leverage. Now if we want to establish a relationship between financial leverage, earnings per share and dividend per share has been increasing with decrease in the earning per share and decrease in the degree of financial leverage with the exception of the year 2007-08 as evident from Table-2. General view is that higher the earnings, greater is the dividend and vice-versa. In the second year consideration, there is no change in the DPS through there is a slight increase in the EPS. Almost in all the remaining years there is an increase in DPS with the increase in the EPS except 2007-09. But the proportionate increase in DPS is less than that of EPS during the period of six years from 2002-03 to 2006-07. As a consequence D/P ratio has been decreasing during the study period.

#### CORRELATION ANALYSIS

TABLE – 4: RELATIONSHIP BETWEEN DFL, EPS &amp; DPS

Relationship between DFL, EPS and DPS			
		Correlation co-efficient	Calculated "t" value of r
1	DFL & EPS	0.48	1.48
2	DFL & DPS	0.93	6.28*
3	EPS & DPS	0.75	2.78*

(1) Note: Table value of (n-2) i.e 6 degree of freedom at 5% level of significance is 1.96

Source: computed with the data obtained from table-2

The co-efficient of correlation in between DFL, EPS and DPS are presented in Table-4 to assess to closeness of association between each other. It is evident from the table that the co-relation, co-efficient between DFL and EPS is 0.48. It indicates that there is a positive association between DFL and EPS supporting the explanation given earlier the value of correlation co-efficient is also found to be highly insignificant at 5% level of significance, as the calculated T value of 1.48 is lesser than the table value of 1.96. So the hypothesis that DFL and EPS are positively correlated is outright accepted. Here the data as obtained from the annual report of MUL are consistent with the assumption that the hypothesis is true. In order to assess the degree of association between DFL and DPS, correlation co-efficient between these two variables has been calculated. It is seen that correlation co-efficient between DFL and DPS is (0.96) indicating that there is a high degree of positive correlation between DFL and DPS. The value of correlation co-efficient is found to be much insignificant at 55 levels. Lastly, the co-efficient of correlation between EPS and DPS is (0.75) which is also insignificant at 5% level.

The study on the inter relationship between the degree of financial leverage, earning per share and dividend per share of MUL showed both positive and negative association. For the purposes of study, the correlation co-efficient of three sets of selected variables have been analyzed. The sign of correlation co-efficient between (i) DFL and DPS and (ii) EPS and DPS are not conformed to hypotheses that DFL is positively correlated with DPS and EPS. The data could not provide any evidence of the hypothesis. So this hypothesis is not accepted to be true case MUL. The result of correlation co-efficient between EPS and DPS is what we have not expected. So the hypothesis that EPS is positively correlated with DPS might be rejected to be false in case of MUL

#### CONCLUSION

MUL could not enjoy the benefit of accepted leverage theorem. Rather it accrued operation of financial leverage. So leverage theorem is not a general rule. The dividend policy of the company is conservative. The company has been maintaining a decreasing trend in its dividend pay-out. The company was enabling to maximize the EPS by the reverse operation of financial leverage. The company successfully pulled down the degree of financial leverage to reap the EPS advantage. Thus the objective of this paper to maximize the EPS through judicious operation of financial leverage has been fulfilled

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## SERVICES MARKETING DYNAMICS – AN EXAMINATION OF SPORTS SPONSORSHIP STRATEGIES OF U. K. MARKET

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### ABSTRACT

*The aim of this study is to explore the capabilities of sports sponsorship as a services issue which can be profitable for the company. It looks at how sports sponsorship can derive good return on investments for the firms. To understand the impact of sports sponsorship in generating superior brand and corporate images and thereby influence consumer and customer attitudes towards sponsoring brands. It explores and identifies factors that are creating challenges and influences the direction of sports sponsorship marketing. A case study research strategy has been adopted apart from other methods in collation and interpretation of data. It gives an insight on the organization's key strategic service marketing issues.*

### KEYWORDS

Sponsorship, Mega Events, Brand Tool, Ambush Marketing.

### INTRODUCTION

Sports sponsorship as a service sector industry is booming in the recent times. With the proliferation of trade and commerce, sports are becoming specialized, professional and have turned to be a recreation for people. To make the events widely circulated through advertisements, agencies are bidding, booking and selling time slots to be aired in between the regular prime time programs for the entertainment of the viewers, there by positing the quality of services (Kasper & Vries, 2000).

In today's world one of many ways to create brand awareness and advertise one's products / services is through sponsoring mega events. The current global trend seen is sponsorship of major sporting events by leading brands. Such sponsorship helps to reinforce the image of the company as a responsible corporate citizen in today's world.

Sponsorship promotion by companies, firms and brands are usually done for the specific type of products and services, which ultimately in the process of publicity gets wider exposure. In order to create an atmosphere for the company's products and services, corporations are generating awareness so as to influence the consumers and convert them as customers. They effectively target a specific consumer segment and generate consumer effects which have elements of promotional mix.

Sports sponsorship provision could include, sponsor's brand appearing in the championship title, on team shirts, cars and equipments used in the championship, PA announcements, athlete appearances in the events, rights to use photographs, official merchandise rights, VIP hospitality areas, media partnerships and sponsoring broadcasts of sport on television or radio.

This is a sector in the services industry which calls for issue based attention. The study looks at the issues affecting the organizations relating to sports and financial services. It relates to the investments made by different business organizations/firms for creating brand equity. Major focus is on U.K. based financial institutions for understanding its redefining competitiveness. The selected service company identified for the introspection is a financial institution of U.K. for a discrete analysis of market potential for investments made on sponsorships. The study looks at the marketing environment and has made an assessment of the opportunities and threats facing the sector. It stretched on a coherent analysis in discerning the communalities and differences between the current marketing strategies. The key strategic service marketing issues of sports sponsorship by firms has been looked into and assessed for an estimation of return on investment in a macro scale. It dwells on the relevant theories applicable for services marketing.

### LITERATURE REVIEW

As per the statement of some of the international event groups a definition of sponsorship could be "A cash and/or in-kind fee paid to a property in return for access to the exploitable commercial potential associated with that property". Sponsorship can also be defined as "an investment, in cash or in kind, in an activity, in return for access to the exploitable commercial potential associated with this activity".

Sponsorship provides an opportunity to differentiate brands and convey strong corporate branding messages (Roy and Cornwell, 1999; Meenaghan and Shipley, 1999 cited in Alexander 2009). Sponsorship itself of course, can take various forms ranging from a relatively crude level of financial support that has a limited association with the branding strategy of the sponsor and which might be said to border on the philanthropic (Gwinner and Swanson, 2003 cited in Alexander 2009).



Over the years, sport sponsorship has become an effective marketing strategy for many corporations and equally effective source of revenue for sport organizations. Increased competition has created a need for businesses to find ways to differentiate their products and services from the growing number of advertisers in the market place and to get more return for their promotional dollars (O'Neal, Finch, Hamilton & Hammonds, 1987 as cited in Faeed, 2006).

It is observed that sponsorship deals are different and unique in their behaviour making it almost impossible to calculate the accurate dollar value of the industry in a spectrum. As per the available statistics gathered, out of a calculated amount of around \$ 26.2 billion, 81% is specific to sports sponsorship (Lagae, 2003) while another study shows that out of around \$ 24.4 billion, approximately 67% is spent on sport sponsorship (Roy and Cornwell, 2003).

The approximate global scale and size of investment done for advertising and promotion by the sports sponsorship industry is around \$15 billion, which is in the range of £ 7 billion to around \$ 22 billion or say around £10 billion. In 2006, Ipsos / MORI data report estimates the UK market to be around £ 428 million, which is around 5% of the global industry.

Despite the economic gloom and shrinkage of marketing budgets, sponsorship spending remains positive for 2009. Growth has slowed from 15% in 2008 to 3.9% in 2009. These estimates are provided by IEG which has been tracking global sponsorship expenditure for more than 10 years.

Growth is characterised by the industry ratings earning through few players, but large sponsorship deals (Drewer, 2006). It is seen that UK sports sponsorship generate the most significant amounts of investment.

An estimation by Drewer says that the value of team sports like football, rugby and cricket is 5%, motorsports is 5%, outdoor sports like golf, cycling and climbing is 20%, equestrian is 40%, racket sports is 5%, athletics is 5% and others is 20%. The promotions and values of services market is mostly in terms of media attention and participation.

In London 2012 Olympics, athletics category is expected to get a sizeable growth because UK and other international companies are interested to invest to become a part of the sporting event. It shall be quite huge in relation to Commonwealth Games of 2002. In UK itself, currently Norwich Union is the biggest investor in athletics sponsorship.

The wide array of benefits in sponsorship is due to the services marketing and communications mix. Sponsorships shall overcome the weaknesses of services marketing techniques involved in advertising (Erdogan and Kitchen, 1998). These are built upon the media-based benefits of sponsorship and marketing benefits, which include building stronger brands through image transfer between sponsored property and sponsoring firm and improving consumer goodwill towards the sponsoring brand. Services marketing objectives could also be achieved through sponsorship. Increase in sales through impacts on consumer choice behaviour is achieved. It can be helpful by generation of additional consumer value through corporate hospitality opportunities, co-branding partnerships, ability to cut through increasing clutter, reaching fragmented audiences, direct distribution channels and enhanced customer interaction, enhancing employee morale and company pride. A large number of benefits can be harvested through well-engineered sponsorship strategy.

It is seen that sponsorship and media advertising were viewed similar in terms of effects during the early stages of the concept of development in the late 1980s. Today sponsorship is a very powerful tool with dramatic competitive capabilities. This is being increasingly utilised by firms in the range of industries to achieve services marketing and media-driven goals.

The complexity of the business has called for amendment of legislations for organizing the market turbulence. A good number of situations are being encountered by the sponsoring firms, and sponsored properties, because of the impact of dynamic competition at UK.

These changes have originated from the laws that are enacted and amended from time to time. In the European Union, stringent legislation has been framed, against tobacco and alcohol products and services for sponsorship. This has become an alternative to the banned advertising media. Though alcohol is being still advertised on television in the UK, tobacco was withdrawn from mass media in February 2003. This shifted the segment of service industry and increased sponsorship to retain market exposure and market prominence.

These restrictions shifted the business to sports sponsorship deals, from the tobacco firm advertisers. It laid extra pressure on sports events and teams. Particularly it was seen in snooker and darts competition and Formula car racing.

Recent situation in the business environment has invited ambush marketing as a significant threat to the traditional advertisement industry. Ambush marketing relate to 'any communication or activity that implies, or from which one could reasonably infer, that an organisation is associated with an event, when in fact it is not' (Payne, 1998). This refers to a surrogate market portal created to attract the customers.

Today major events of U.K. have introduced stricter advertising legislation regarding the use of official logos, phrases and associations. But studies are demonstrating the consumers feeling of it as highly unethical. Contextually ambush marketing has become a strategic move for counter balancing the refraining role of the enforced legislation. Ambush marketing has become a strategic intent to exploit the potentials in a critical moment of business. These ambush strategies include, sponsoring the media coverage of an event, sponsoring a sub-category within an event and exploit the investment aggressively, make sponsorship-related contribution to the players' pool, plan advertising that coincides with the sponsored event. It can develop imaginative ambush strategies like creating advertising extremely close to a team or event, but cannot be legislated against.

## OBJECTIVES

The objective of the study is to gain an understanding on the status of sports sponsorship on the financial service providers of U.K. and on U.K. banks, who have been major sponsors in the domestic U.K. sporting competitions. The objectives of evaluation are:

1. To understand what firms can achieve by using sports sponsorship as a service marketing activity. How firms should select events or teams to sponsor, to achieve their marketing goals.
2. To understand the activities that is potential for the firms to leverage sports sponsorship strategies, to achieve greater effect.

This study shall logic out regarding the stature of the tool of sports sponsorship to corporations around the world and particularly for developed Western markets.

## FINDINGS & DISCUSSION

As the study is related to services marketing and financial instruments and is based on banking and financial services corporation with significant global activities, it is importantly probed. It analyses the presence of sports sponsorship in domestic English football, golf and a range of other sports. The other organization/organizations which have been introspected are an U.K. based financial services company with sports sponsorship involvement in English domestic cricket. This is a relatively new sports sponsor company, but has a plenty of experience in the field of advertising.

The study reveals that, most common aspects of all the firms reflect that the purchase of sponsorship rights was an opportunistic purchase for the company to grow in brand building. The availability of the sports property prompted the organization for a swift decision to purchase and secure lucrative rights. Many organizations have taken advantage of the availability of sponsorship rights and sponsorship was intended to alter consumer perceptions and selection process. It assessed the following aspects:

1. Sponsorships reach the target consumers
2. Consumers thought about brand
3. Consumers thought about the sport or event

It has been seen that the imagery and consumer perceptions are integral to selecting the right sport in which investments can be made. It identified a trade off in the decisions regarding the selection of sports to sponsor. The company has opted for a wide-reaching sponsorship which may not be suitable in terms of brand image perceptions.

The other aspects which influence the brand objectives are exposure, image transfer and liking and favourability awareness objectives. It could be for achieving commercial objectives like ROI for example. It may look for business development like developing new business and relationships through each strategy. It could



again be for developing internal objectives like recruitment, staff retention and morale. Besides it could also be for achieving community objectives for positive social impacts. The information from the firms suggests that the objectives set for sports sponsorship deals are wide and varied, and can be very particular to certain firms in distinct situations.

It is seen that in the U.K., ownership of the sponsorship lead to innovative but cohesive activities deriving greater results for the firm. The areas of activity focus on few objective areas given below. The leveraging activities included are:

1. Mass media advertising campaign
2. Consumption-based promotions and articulation
3. Tickets given to business and high-value customers of the business
4. Development of new business through the expanding formal and informal network in the B 2 B market
5. Gaining customers within the sponsored property and being involved with investment management. It is for the sporting property which they have purchased and for the rights to sponsor.

There are many significant cases which leverage for a wide array of on- and off-site PR events, link to the press and media, corporate hospitality, develop products/services linked to the sponsorship (domestically and abroad) i.e. for example credit cards displaying football teams names. They also go for obvious benefits of brand exposure and image transfer.

In some other cases, sports sponsorship rights are used to reduce costs, attract and retain all value levels of customers. It is also to develop well- targeted and successful products into its product portfolio. Firms have similarities in the field of financial products. Dissimilarities are innumerable.

Some leverage by emphasizing and gearing towards strengthening the link between brand and sport, gaining brand exposure and breaking through the advertising clutter. A key focus in addition to this for the firm, was to ensure that the surrounding activities reached people not at the grounds only but necessarily by the watching crowds of the games on television.

If we discuss about sponsored fantasy leagues in which, in a point of time, two newspapers were identified as key media sources for their target markets. It is seen that they conducted press advertising to affirm and broaden the reach of their sponsorship. They avoided without generating the huge costs of mass media advertising because it could be lost in the clutter.

It is observed that micro methods are also good for public presence and for strategic partners. It can be done by virtue of distributing newsletters. It helps for consumer focus and can gear the interest level towards other stakeholders. It can be involved in product distribution, and internal marketing services efforts and special offers promotions.

### TENTATIVE OUTCOME OF THE STUDY

It is seen that categorization of sponsorship can be done in three ways which are similar and peculiar in their domain. They can be taken as an objective which could be achieved through obtaining of marketing of sponsorship rights. They will be useful to model the modes of operations in the business.

The categories broadly identified are media objectives on cost effectiveness and reaching target markets, corporate objectives on image related affairs and services marketing objectives on brand promotion and sales increase.

Nevertheless the study has browsed into different areas of concern. The analysis shows that the strength of sports sponsorship has the ability to cut through media clutter and to reach the fragmented audiences in the isolated pockets. This has led to the growth in the appeal of sponsorship as a communications tool and can further be compared to traditional advertising media, to see how suitable are the purchasing of sports rights in achieving media objectives. Sponsorship can essentially be used as a media extension and can create a market for the sponsoring organization to an incredible limit.

It is noticed that sports sponsorship utilises the globalisation of sport as a vehicle to transmit branding around the whole world (Lagae, 2003), encouraging the use of sports sponsorship rights as a valuable asset for trans-national brands.

### CONFLICTING ISSUES OF SPORTS SPONSORING

It is seen that in U.K., increasing satellite and pay-per-view coverage is creating a conflict between sponsors and sports governing agencies. There is a clear clash of interests in sports bodies reach to Sky TV, which is by far the main satellite broadcaster in U.K. In order to generate increased television revenue, sponsors encourage sports to be shown on terrestrial channels like BBC and ITV, wherein levels of exposure are far higher.

Moreover, using sponsorship as a method of achieving media objectives is not cost-effective in one way. In order to achieve media goals, well-targeted mass media is advisable, wherein greater media control can be possible for business. As an example, to purchase the shirt sponsorship rights to place Vodafone logo on the shirt of Manchester United, it shall cost Vodafone approximately £30m over a period of 2 years. To avail that level of exposure Vodafone should potentially purchased 6 NFL Superbowl advertising slots, the most expensive in the firmament of business.

Studies have demonstrated that mere exposure effects on consumers' attitudes or behaviours towards a brand can sometimes be very weak for high familiarity brands which consumers are already aware of. Therefore strategic sensitive radar designs are important for detailed understanding of the wave of the brand flow. There are several cases of advertisers in the U.K. using the sponsorship of sporting programmes to achieve cost-effective brand and image-related goals. Example of using small scale campaigns to great effect in recent years are Dromona-Dale Farm Dairy. It was noticed that Dromona sponsored local athletes and sports participants to create 4 million exposures to brand imagery based upon £22,000 worth of advertising spend in addition to the sports. Similarly another company named Specsavers was able to boost national sales by 22% through their sponsorship of the Referees Association for the Scottish Premier Division. These cases are unique and instances to replicate.

### SPONSORSHIP IMAGE TRANSFER AND CUSTOMER PERCEPTION

In essence, the 'softer side' of sponsorship-image transfer and consumer perception has been tested against tangible effects of customer behaviour and purchase intentions, which express the true value of sports sponsorship. As a matter of fact sports sponsorship is able to display firms in all manner of industries as good corporate citizens and increasing general consumer perceptions of the sponsor's image. It makes their image as a sportive character ready to services marketing business. Services Marketing looks into the essential need of softer access into the customer psychology. Entering into the mind of a potential customer is done through mind-tree positioning, drawing self-reference criteria (Zeithmal & Bitner, 2003).

It is seen that, change in consumer attitudes and perceptions can happen towards a brand, when it is based on sports sponsorship. Array of studies have demonstrated that effective sponsorship can result not only in superior brand association and a more favourable corporate identity, but sponsorship can achieve goals such as improved purchase intentions which fits succinctly into services marketing.

Interestingly it is seen that modern studies have expanded upon sales on revenue-based objectives which can be achieved via sports sponsorship. This sponsorship has sizeable impacts on internal marketing and in the recruitment market, due to the company stature. CRM can be used in conjunction to sports sponsorship in order to fuse brand and sports together to support strongest image transfer.

### COMPARING SPORT AND BRAND

The study uses the premise of comparing descriptors about sport and brand, to find where they have links and fissures. It scoops in to spot and identify the image change in the brand via sponsorship. Examples are many and are applicable in the sports sponsorship market at U.K. and in the global market places.

In U.K. examples of image-based similarity include, Cadillac Automobiles & Masters Golf Tournament as prestige image, Barclay's Bank & English Football League as modernising and adventurous and Norwich Union & UK Athletics as preparing for the future theme between insurance and funding youth athletics

development. Apart from that Adidas & New Zealand Rugby Team had the core shared values of tradition, authenticity and inspiration which laid the foundations for later co-branding success.

### SPORTS SPONSORSHIP AND CO-BRANDING

Co-branding is an important organ of business development. Co-branding as such is defined in the literature as 'a form of co-operation between two or more brands with significant customer recognition, in which all the participants' brand names are retained' (Blackett and Boad, 1999). It is where image transfer management focuses on creating a 'symbiotic relationship' which allows values to transfer between sport and sponsor.

It is seen that, 'duration of link' has been used by Visa to a great amount, who have enjoyed a sponsorship relationship with the Olympics games for a number of years, to the point where consumers consider Visa, Olympic games and 'brand DNA' to be synonymous due to the level of attributes and emotions which connect the relationships. They have a bond of relationship which has strengthened over a period of 20 years.

### GAPS INEVITABLE

It becomes quite difficult to analyse co-branding. Even though a suitable link between sports sponsorship and co-branding is seen, a wider body of knowledge is missing and is under the scanner for future study. Moreover, measurement of sports sponsorship effects is critical to be measured tangibly. Detail research in the field can redress the problem of accuracy detection on the sponsorship strategies.

### CONCLUSION

The study dealt on the subject of sports sponsorship from a number of dimensions, developing relevant perspectives. It is believed that sports sponsorship is capable of achieving the target effectively. It is a springboard to enter new markets, and provides the foundation for developing new business and networking. Sports sponsorship is a significant weapon in a marketer's armoury just as television or radio advertising. For practitioners, the key issues could be outcome through sports sponsorship investments. To calculate as to how these processes can be managed to secure a return on investment, and how to increase this return through additional leveraging in a society in developed economics is ardent.

In analyzing the sports sponsorship services market, details on the organizations key strategic service marketing issues have been elucidated speculating future markets. Though the market is complex and dynamic it is found to be a booming market in the services industry wherein monetary involvement as investment can harbour promising return in terms of business prospects and profits. Theoretical principles of services marketing emphasize on the mind share and heart share of the customer and truly sports sponsorship can create an emotional market niche in the heart of the buyer.

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## NPA'S SIDE EFFECT AND IT'S CURATIVE MANTRA

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### ABSTRACT

Non-performing assets (NPAs) or bad loans, as they are commonly called, have been menace for the banking sector. Non-performing assets have been detrimental to the performance of the Indian Banks. Their continued amelioration in absolute terms proved the survival of Indian Banks very difficult. The Non-Performing Assets are the bad debts or non-recovered loans of the banks which now stands at Rs.56,668 crores as against the total advances Rs,25,07,885 crores which is 2.26% percent of total advance as on 31<sup>st</sup> March 2008 (Complied data of Money and Banking ,CMIE, November 2009). In the present study an attempt is made to analyze the various side effects of NPA and its curative mantra. It is observed that the recovery of NPAs improving since 2001-2002 in all the scheduled commercial banks. However, it is suggested that the banks should take care to ensure that they give loans to creditworthy customers as prevention is always is better than cure.

### KEYWORDS

NPA, Doubtful assets, Substandard Assets, loss assets and standard assets.

### INTRODUCTION

The word NPA is not something new to the bankers. It is regular but disguised loan asset. As everyone knows, a portion of loan assets may become NPA. An asset becomes non-performing when it ceases to generate income for the bank. Prior to 31<sup>st</sup> March, 2004 a non-performing asset was defined as a credit facility in respect of which the interest or installment of principal has remained *past due* for a specified period of time which was four quarters. Due to the improvements in payment and settlement system, recovery climate, up gradation of technology in the banking system, etc, it has been decided to dispense with *past due concept*, with effect from March 31<sup>st</sup> 2004. Accordingly, as from the date, a non-performing asset (NPA) is an advance where:

- Interest and/ or installment of principal remain overdue for a period of more than 90 days in respect of term loans.
- The account remains out of order for a period or more than 90 days, in respect of an overdraft/ cash credit (OD/ CC).
- The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted.
- Interest and /or installment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purpose and
- Any amount to be received remains overdue for a period of more than 90 days.

**TABLE 1: OVERVIEW OF NPA CLASSIFICATION IN INDIA**

<b>Sub- standard Asset</b>	NPA for a period less than or equal to 12 months.
<b>Doubtful Asset</b>	NPA for a period exceeding 12 months.
<b>Loss Asset</b>	An asset where loss has been identified by the bank or internal or external auditors or by the RBI inspection.
<b>Standard Asset</b>	It does not create any problem while paying interest/ installments of the principal. It usually carries more than normal risk attached to the business.

### OBJECTIVE OF THE STUDY

The question of NPAs in banks is a cause of worry to all concerned, may it may be the management of banks, the government, industry federations or the public at large. The study aims at assessing the magnitude of non-performing assets of various Banks. Moreover, NPAs are a serious strain on the profitability as, on the one hand, banks cannot book income on such accounts and, on the other hand, they are required to charge the funding cost and provision requirements to their profits..

The following would be the main objectives of the present research pertaining to Non-Performing Assets in particular.

- To study the factors responsible for growth of NPAs from lenders and borrowers perspective.
- Studying in problem in relation to NPAs.
- To examine the impact of NPAs on profitability and other strategic banking variables
- To give suggestions to overcome the problem of NPAs.

### LIMITATION OF THE STUDY

- The period of study is limited to January 2011 and February 2011.

- The sample size is limited it may not represent the perception of all the beneficiaries and employees.
- Two different set of attributes considered for the beneficiaries and bank staff considering the response and mind set of the participants.
- As the paper is not specific on any particular segment of NPA so the attributes limited for the purpose of collecting data after initial study for this purpose.

### SAMPLING PLAN

In support of the objective of the research there is a primary research questionnaire administration method in the field through stratified random sampling method covering the four districts of Odisha through regional, geographical, economic, cultural, lingual and settlement wise. Total 300 questionnaires served and 190 response received from the beneficiaries similarly 120 questionnaires served to the bank employees and out of that 65 persons responded. The beneficiaries includes the Gramya banks, Co-operative banks and Commercial banks. Same is the case for employees.

Particulars	Questionnaire served to beneficiaries	Response received	Questionnaire served to bank employees	Response received
Cuttack District	75	51	30	18
Puri District	75	43	30	14
Khurda District	75	64	30	20
Balasore District	75	32	30	13
Total	300	190	120	65

### REVIEW OF LITERATURE

The academic literature has mostly dealt with determinants of banking crisis, which is the most severe consequence of bad loans in a banking system. Gonzalez –Hermosillo (1999) analyzed the role of microeconomic and macroeconomic factors in five episodes of banking system problems in the US. The paper found that low capital equity and reserve coverage of problem loans ratio are the leading indicators of banking distress and failure<sup>1</sup>

Demirguc- Kunt and Detagiache (2000) employed a multivariate logic framework to develop an early warning system for banking crisis and a rating system for bank fragility<sup>2</sup>

Beck, Demirguc-Kent and Levine (2005) examined the interlink between the bank concentration and banking system fragility. The paper concluded that higher bank concentration is associated with lower probability of banking crisis. Moreover, institutions and regulations that facilitate bank competition are associated with less banking system fragility.<sup>3</sup>

Fernandez de Lis, Martinez-Pages and Saurina (2000) found that GDP growth, bank size and capital had negative effect on the NPAs while loan growth, collateral, net interest margin, debt equity, market power and regulation regime had a positive impact on NPAs<sup>4</sup>

Bloem and Gorter (2001), NPAs may be caused by wrong economic decisions or by plain bad luck.<sup>5</sup>

Rajaraman, Bhaumik and Bhatia (1999) and Rajaraman & Vasistha (2002) explained variations in NPAs across Indian banks through differences in operating efficiency, solvency and regional concentration.<sup>6,7</sup>

Das and Ghosh (2005) studied the association between risk-taking and productivity using data from public sector Indian banks over the period 1995-96 to 2000-01. They documented that capital to risk-asset ratio and loan growths have significant negative effects on NPAs.<sup>8</sup>

In another exercise, Das and Ghosh (2003) studied the determinants of NPAs in Indian public sector banks and identified macroeconomic factors such as GDP growth and microeconomic factors such as real loan growth, operating expenses, and size as a main factors associated with NPAs.<sup>9</sup>

Ranjan and Dhal (2003) found that terms of credit and different measures of bank size also affect the level of NPAs.<sup>10</sup>

Westgaard (2001) has identified different financial variables as well as other firm characteristics affecting the default probability which identified in advance can help controlling the fresh accretions in NPAs.<sup>11</sup>

Mukharjee (2003), Sharma (2002), Srivastava (2001) and Klingebiel (2000) discussed the sustainability model of asset reconstruction companies to solve the problem of NPAs.<sup>12, 13, 14 & 15</sup>

Das (1999) has compared the various efficiency measures of public sector banks by applying data envelopment analysis model and concluded that the level of NPAs has significant negative relationship with efficiency estimates.<sup>16</sup>

Verma (1999) has concluded that high level of NPAs lead to operational failure of the banks.<sup>17</sup>

Berger and Young (1997) has examined the relationship between problem loan and banks efficiency by employing Granger-causality technique and found that high level of problem loans cause banks to increase spending on monitoring, working out and /or selling off these loans and possibly become more diligent in administering the portion of their existing loan portfolio that is currently performing.<sup>18</sup>

Gupta (1997) has also concluded that NPAs affects the profitability of banks and leads to liquidity crunch and slow down in the growth in GDP etc.<sup>19</sup>

Kaveri (1995) has also examined the impact of NPAs on profitability by taking profit making and six loss making banks and concluded that loss making banks maintained higher NPAs in the loan portfolio which led them to show losses.<sup>20</sup>

### CAUSES OF NON-REPAYMENT FROM THE VIEW POINT OF BENEFICIARIES

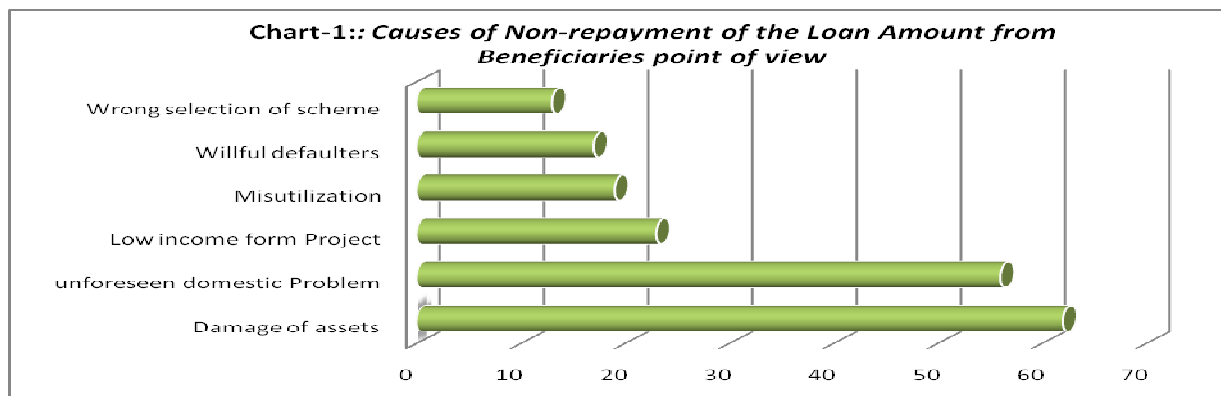
To study the problem 256 beneficiaries approached and however only 190 beneficiaries responded and they were interviewed during the field survey over last six months, with a view to ascertaining their perception about reason for defaults. The causes of default are highlighted in Table-2

TABLE 2: CAUSES OF NON-REPAYMENT OF THE LOAN AMOUNT FROM BENEFICIARIES POINT OF VIEW

Sl. No	Causes	No. of Beneficiaries (Respondents)
1	Damage of assets like disease or death or live stock, crop failure, industrial sickness, effect of natural calamities	62
2	Unforeseen domestic problems like marriage, death, birth, illness	56
3	Low income generation from the project	23
4	Misutilization	19
5	Willful defaulters	17
6	Wrong selection of scheme	13
	Total	190

Source: Compiled from field survey





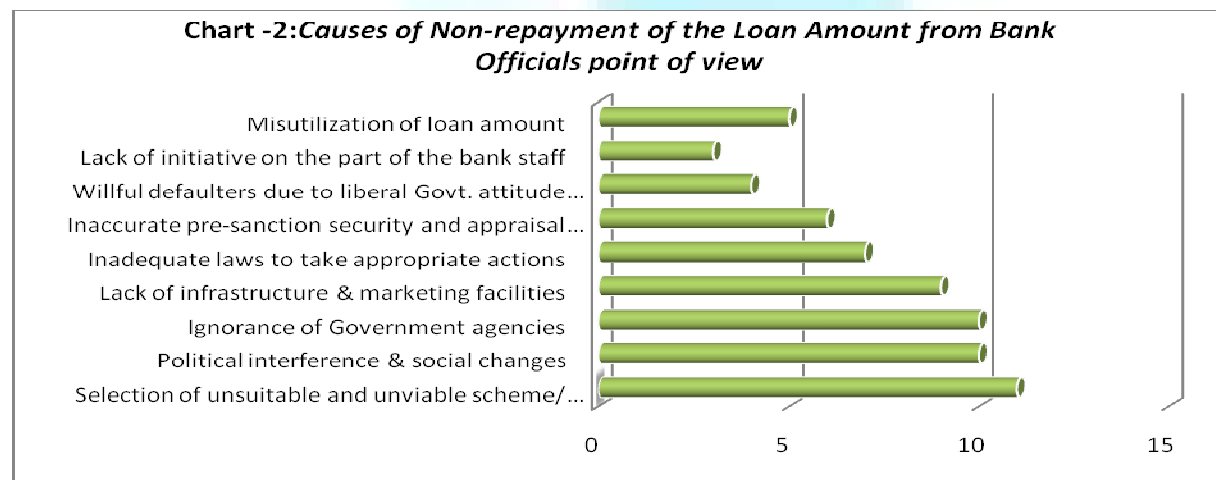
**CAUSES OF NON-REPAYMENT FROM THE POINT OF VIEW OF BANK OFFICIALS**

To assess the problems the 65 different branch officials were interviewed orally as well as through well designed questionnaires. The main reasons for poor recovery performance expressed by the bankers are presented in Table-3

**TABLE 3: CAUSES OF NON-REPAYMENT OF THE LOAN AMOUNT FROM BANK OFFICIALS POINT OF VIEW**

Sl. No	Causes for non-repayment of the loan amount	Number of bank officials
1	Selection of unsuitable and unviable scheme/ project	11
2	Political interference & social changes	10
3	Ignorance of Government agencies	10
4	Lack of infrastructure & marketing facilities	9
5	Inadequate laws to take appropriate actions	7
6	Inaccurate pre-sanction security and appraisal of the loan proposal	6
7	Willful defaulters due to liberal Govt. attitude and expectation of debt relief	4
8	Lack of initiative on the part of the bank staff	3
9	Misutilization of loan amount	5
	Total	65

Source: Compiled from the field survey



**NPA'S SIDE EFFECT**

Assets that do not earn any income to the bank adversely affect in numerous ways:

- The resources locked up in NPAs are borrowed at a cost and have to earn at least a minimum return to service this cost.
- NPAs, on the one hand, do not earn any income and, on the other hand, drain the profits earned by performing assets through the claim of provisioning requirements and hence return on assets and equity capital is adversely affected.
- Since they do not earn interest, they bring down the yield on advances and the net interest margin or the spread.
- The risk weight on these assets is a hundred percent and capital has to be blocked. These assets do not produce income to sustain the capital blocked by them, which again drains the profits earned on the other performing assets.
- As the income earned on performing assets subsidizes NPAs, the ability of the banks to offer finer spreads to good customers comes down. This in return, makes the best customers choose other cheaper financing options and banks assets portfolio quality deteriorates. This results in future NPAs.
- It also affects the ability of the bank to start other business venture. For example, RBI stipulated minimum NPA percentage for the issue of licenses for insurance business.

**CURATIVE MANTRAS**

The following curative mantras are made to control the Non Performing Assets in banks.

- General compromise settlement policy for all loan accounts.
- While making pre-lending appraisal, the repaying capability of the borrower must be ascertained by the bank employee carefully.
- In the same way, post-lending supervision and approaching the borrower at the right time for repayment may prove effective in the controlling of NPA.

- In case willful defaulters, the bank must flash their photos and warn them through the local news paper and if there is no response, stern action will have to be taken with the help of the legal authority.
- The legal system must be effective: the Government of India and /or the RBI have initiated many legal measures to recover overdue. However, as there are some flaws in each legal measure, they need improvement made in order to bring down the level of NPA.
- Dynamic people are to be recruited to collect doubtful debts and for better asset liability management.
- Political pressures are to be resisted in the operation of banks.
- Banks must operate in a democratic environment.
- Banks have to adopt professionalism and accountability in their functioning.
- New technologies should be introduced to reduce administrative costs and increase the profit margin.
- Banks must transparent in their functioning and accountable to share holders and public to maintain international standards of corporate governance.
- Sanctioning authority should not succumb to external pressure.

### CONCLUDING NOTE

NPAs have always been a big worry for the banks in India. It is just not a problem for the banks; they are bad for the economy too. This paper has analyzed the causes of NPA from borrower's point of view and bank official's point of view and its implications. In this direction concerted efforts are required at Ministry of Finance, RBI and at bank's level to control the maintenance of NPAs. Government should also not use banks as a vehicle to achieve its political objectives by lending to unviable projects, announcing loan melas and loan waiver scheme etc. The banks should not be loaded with twin objectives of profitability and social welfare which are mutually incongruent. This calls for a strong political will only then can banks be able to find satisfactory solution of the problem.

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## THE ROLE OF EMOTIONAL INTELLIGENCE IN SELF DEVELOPMENT OF DOCTORS AN EMPIRICAL STUDY

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### ABSTRACT

There are no quick fix solutions to human problems A child learns to turnover, sit up, crawl than walk and run. No step can be skipped. There are times to teach and times not to teach and not everything is taught formally. So is the case of learning by doctors. Not everything about patient's emotions management may be taught. Some they happen to learn while practicing. Self Development in doctors was studied with respect to their ability to trigger inner fire, art of leadership, power of discipline, commitment to social service, proactive nature, core competency, empathy stay calm, think win win, communication under stress, and goal orientation. The scores of the respondents were rated on likerts 3 point scales as never, sometimes and mostly to varied set of questions. Similarly self awareness levels in doctors were identified by attributes such low in patience; overestimate themselves, envious of others, selfish, frank, and humorous nature. They were measured on likerts 3 point scale as low, moderate and high based on their responses. Self Management aspects in doctors were identified by their abilities to be detail oriented, summary oriented, helpful nature, lack of time to many tasks, perfectionists' nature and hours of work. These attributes were measured on Likert 3 point scales as Disagree, Neutral and agree.

### KEYWORDS

Emotional Intelligence, Self Development, Self Awareness, and Self Management.

### INTRODUCTION

There are no quick fix solutions to human problems A child learns to turnover, sit up, crawl than walk and run. No step can be skipped. There are times to teach and times not to teach and not everything is taught formally. So is the case of learning by doctors. Not everything about patient's emotions management may be taught. Some they happen to learn while practicing.

Some typical personal cases of doctors:

1. Tremendous professional success but it cost me my family life and personal freedom is it worth it
2. Several Training programs for self as well as employees but no change Employees continue to remain dependent and irresponsible.
3. So much to do and not enough time
4. I see my friends and relatives achieve a degree of success. I smile and congratulate but inside I feel jealous
5. I have a forceful personality; I wonder what others think of me and my ideas.

Higher levels of Self Awareness and self Management leads to more fuller self development of individuals. Self Awareness and Self management are the first two dimensions of Emotional intelligence as per Daniel Goleman. This is true even in case of doctors who treat patients.

### OBJECTIVES

- How doctors learn to enhance their self awareness and self Management levels
- How Self awareness and self management levels helps doctors in their self Development
- To identify as to how doctors kindle their inner fire
- To understand and analyse as to how doctors practice art of self leadership
- To understand as to how emotional intelligence helps doctors in their core competence.

### METHODOLOGY

A Survey though structured preset questionnaire was administered to hundred doctors working in Private Nursing Homes in Hyderabad. It was on Emotional Intelligence dimensions and Stress management aspects of doctors. It was convenient random sample. Chi-square, Anova and Correlation Techniques of SPSS package were used to analyse data.

### REVIEW OF LITERATURE

**Suzy Fox, Paul E. Spector**<sup>1</sup> Emotional intelligence was conceptualized as competencies that may enable people to use emotions advantageously to achieve desired outcomes. Measures of three components of emotional intelligence (empathy, self-regulation of mood, and self-presentation) as well as affective traits (positive and negative affectivity) and general and practical intelligence were related to a major facet of work success, job interview performance. A sample of 116 undergraduates participated in a simulated job selection experience, consisting of paper and pencil tests and a videotaped structured interview. Results partially supported the proposed model for the unique contributions of emotional intelligence and trait affect to interview success.

**Kristin Akerjordet and Elisabeth severinsson**<sup>2</sup> Aim To establish a synthesis of the literature on the theoretical and empirical basis of emotional intelligence and it's linkage to nurse leadership, focusing on subjective well-being and professional development.

<sup>1</sup> Suzy Fox, Paul E. Spector Relations of emotional intelligence, practical intelligence, general intelligence, and trait affectivity with interview outcomes: it's not all just 'G' Journal of Leadership Studies Volume 1 Issue 3, Pages 57 – 66 Published Online: Nov 2007

<sup>2</sup> **Kristin Akerjordet and Elisabeth severinsson** Emotionally intelligent nurse leadership: a literature review study European Journal of Personality Volume 15 Issue 6, Pages 407 – 424 Published Online: 3 Dec. 2001

Background Emotional intelligence has been acknowledged in the literature as supporting nurse leadership that fosters a healthy work environment, creating inspiring relationships based on mutual trust. Nurse leaders who exhibit characteristics of emotional intelligence enhance organizational, staff and patient outcomes.

Emotionally intelligent nurse leadership characterized by self-awareness and supervisory skills highlights positive empowerment processes, creating a favourable work climate characterized by resilience, innovation and change.

Implications for nursing management Emotional intelligence cannot be considered a general panacea, but it may offer new ways of thinking and being for nurse leaders, as it takes the intelligence of feelings more seriously by continually reflecting, evaluating and improving leadership and supervisory skills.

**Tomas Chamorro-Premuzic, Adrian Furnham**<sup>3</sup> British university students (N = 247) completed the NEO-PI-R (Costa & McCrae, [1992]) personality inventory at the beginning of their course and took several written examinations throughout their three-year degree. Personality super-traits (especially Conscientiousness positively, and Extraversion and Neuroticism negatively) were significantly correlated with examination grades and were found to account for around 15% of the variance. Furthermore, selected primary personality traits (i.e. achievement striving, self-discipline, and activity) were found to explain almost 30% of the variance in academic examination performance. It is argued that personality inventory results may represent an important contribution to the prediction of academic success and failure in university (particularly in highly selective and competitive settings).

**Joyce E Bono, Hannah Jackson Foldes, Gregory Vinson, John P Muros**<sup>4</sup> In this experience sampling study, the authors examined the role of organizational leaders in employees' emotional experiences. Data were collected from health care workers 4 times a day for 2 weeks. Results indicate supervisors were associated with employee emotions in 3 ways: (a) Employees experienced fewer positive emotions when interacting with their supervisors as compared with interactions with coworkers and customers; (b) employees with supervisors high on transformational leadership experienced more positive emotions throughout the workday, including interactions with coworkers and customers; and (c) employees who regulated their emotions experienced decreased job satisfaction and increased stress, but those with supervisors high on transformational leadership were less likely to experience decreased job satisfaction. The results also suggest that the effects of emotional regulation on stress are long lasting (up to 2 hr) and not easily reduced by leadership behaviors.

## HYPOTHESIS

1. Self development in doctors is independent of demographic factors
2. Self Development of doctors is independent of self Awareness levels in doctors
3. Self Development of doctors is independent of Self Management levels of doctors

## SELF AWARENESS & SELF MANAGEMENT DIMENSIONS OF EMOTIONAL INTELLIGENCE

Indirect references to the dimensions of Emotional intelligence i.e self awareness and self management are observed in some of the books on management such as Seven habits of highly effective people by Steven Covey, in Chapter 8 of Fifth discipline by Peter M Senge, in chapter 13 of commentary on Bhagavtgitā and Business Gurus Speak by S N Chary. Given below is an attempt to understand the nuances of self awareness and self management as practiced by doctors in relation to the concepts delineated by such great management thinkers in their works?

Self awareness is to move from the State of dependence and to independence. According to Steven Covey, this is possible by being proactive, beginning with an end, and prioritizing.

Self management is a constant process of movement from a state of dependence in early childhood to independence in early adulthood and then to interdependence in the stage of mature adults. This is reflected even in case of self management by doctors progressively in various stages of their careers. It suggests that Private victories of self discipline are habits of self mastery by doctors. This refers to the self awareness component of emotional intelligence management by doctors. This leads to Public victories of team work, cooperation, and communication in private nursing homes of Hyderabad.

In the state of Independence people think of win/win strategies. They seek first to understand than to be understood. In the third stage of synergizing they move to the state of interdependence by sharpening their skill sets and renew their energies and redouble their efforts. This results in effectiveness which is nothing but production of desired results

Doctors do employ Stephen Covey's effective habit 2 of having an end in mind. It is certainly wrong to say that all doctors have money centered behavior. Their behavior is certainly Service centered. For them work is pleasure. They do not treat patients as friends or enemies. Their behavior is certainly not religion centered or self centered. They are neither spouse centered nor family centered. As effective people they are opportunity minded, not problem minded

Stephen Covey's Habit 4 of think win- win, helps doctors managing the emotions of the patients. They manage their own emotions before they control the emotions of patients and their relatives. Doctor's private victory precedes public victory again as suggested by Stephen Covey. Self discipline and self mastery are essential fountains of good relationships. As doctors become independent proactive, principles centered, value driven, they choose to become interdependent, building rich enduring and productive relationship with other people

Stephen Covey Habit 5 refers to understand first before being understood is very well practiced by doctors. They are very good listeners. They listen empathetically. They listen to patients suffering as if they are suffering from the ailment. This helps them in diagnosing effectively before they prescribe.

They do not select patients. In fact patients select or choose doctors. They listen from patient's point of view. They cross check their assumptions. How valid were their assumptions about the patients. They empathize with patients and feel the suffering of patients as if it is their suffering.

## PROFILE OF DOCTORS

Male	76.0
Female	24.0
Degree	11.0
PG	71.0
Phd	18.0

## EXPERIENCE

1-5 yrs	7
6-10 yrs	21
11-15 yrs	27
16-20 yrs	23
21-25 yrs	22
Total	100

<sup>3</sup> Tomas Chamorro-Premuzic, Adrian Furnham Personality traits and academic examination performance *New Directions for Adult and Continuing Education* Volume 08 Issue 1, Pages 7 - 18

Special Issue: Adult Learning and the Emotional Self Published Online: 16 Dec 2008

<sup>4</sup> **Joyce E Bono, Hannah Jackson Foldes, Gregory Vinson, John P Muros** Workplace emotions: The role of supervision and leadership, *Journal of Applied Psychology*. Washington: Sep 2007. Vol. 92, Iss. 5; pg. 1357



## SPECIALISATIONS

Cardiology	23
Gynaecology	17
Surgeon	25
Ophthalmology	8
Paediatrics	15
Others	12
Total	100

**PASSIONATELY COMMITTED TO THE GOAL OF SOCIAL SERVICE**

Hard work, they all put in; there is no doubt about it. Dr Nirmala likes to speak about her early days of 'struggle' while setting up Srinivasa Nursing home. Dr Aggarwal, in his initial years, struggled to get a telephone installed in his office. In fact, around 1990, the co-founders of Vivek nursing home were discussing liquidating the company. So bad were the days. It was Dr Murthy who opposed any such thoughts and offered to invest further. When Dr Mumtaz took over Nikhil nursing home, several were unwilling to trust this young lad of 34. He had to face much doubt, suspicion and trouble because of their different size of operations and different tactics of doing business. Dr Venu took years of effort to make his plants approach world class. For Dr Sugunakar, financing hospitals was not easy.

When asked to provide tips on building an organisation, Dr Nirmala says, 'Basically people have to be willing to work, put in effort, willing to struggle. But what she says in the same breath is striking. "She continues, 'and above all, believes in what you are doing. Don't give up what you are doing.' Once they set their respective goal, their commitment was not just 100 per cent; it was 1000 per cent, because, they strongly believed in what they were doing. Whereas, commitment is towards the cause of service to patients and the goal, therefore, keeps growing as the horizon stretches further. That is the crux of their continuing tireless efforts. Are they missionaries in a way, yes.<sup>5</sup>

**CORE COMPETENCE THEORY RE-VISITED**

*Great dreamers dreams are never fulfilled they are always transcended*

*Alfred lord whitehead*

There has been a lot of discussion in the management world regarding the 'core competence' of an organisation. Several corporations, worldwide, have remodeled themselves in accordance with their respective core competence.<sup>6</sup> When asked about it, Dr Anil says, core strength lies in its ability to implement best global practices, attract talented people and motivate them to achieve world standards. This is an organisation that has always believed in people and processes. The conventional 'core competence' theory does not seem very relevant.

**1. Firm Foundation of Values-Personal and Corporate**

Supporting the mission or rather as a corollary to the mission, highly successful organisations are built on a firm foundation of values. Dr Nirmala, in her Foundation Day Lecture at Indian Institute of Management Bangalore on 30<sup>th</sup> Oct 2001 said any business that does not have values cannot endure. This is perhaps the mother of all business Principles. Her simple principles of business values are:

Any Nursing home that cannot value its patients cannot endure.

Any doctor that does not deliver value to its customers cannot endure.

Any owner doctor that cannot create value for its stakeholders cannot endure.

Any doctor that does not value its suppliers cannot endure.

Any business that does not have values cannot endure.

For Dr Vijay the values on which any company is built are: trust, value and service. Dr Anil mentions nine core values that have been the guiding principles. These are: Honesty; Integrity; Respect, Fairness, Purposefulness, Trust, Responsibility; Citizenship and Caring. All have been built on a solid foundation of organisational values which the founders have laid right in the beginning. Values are important for them in order to ensure the survival and growth of the organisation and for the continued delivery of the mission-objectives in the years to come.

**A MOST EXTRA ORDINARY GARDEN**

I asked Dr Sharat you did not go to the plastic surgeon did you? No he smiled they only focus on the outer person I needed to be healed from within. My unbalanced chaotic lifestyle left me in great distress. Heart attack was a rupture of my inner core. Wisdom of personal change is beginning of self awareness component of emotional intelligence in doctors.

In the story garden is the symbol of mind if you care for your mind you nurture it and cultivate it like a fertile rich garden it will blossom your expectations. But if you let the weeds take the root inner deep harmony will elude you.<sup>7</sup>

To live life fullest you must stand guard at the gate of your garden and let only very best information enter. You should not afford the luxury of negative thought. Adopt a positive paradigm about their world and all that is in it.<sup>8</sup>

In an average day an average person has 60 thousand thoughts through his mind and 95 % of the thoughts are the same as the day before. Mind management is the essence of emotional intelligence management. Even the best conditioned thinkers are using only 1/100 of a percent of mental reserves. Mind is the nature's greatest gift. Mind is a wonderful servant but terrible master. Mind is like any other muscles in your body use it or lose it.

The technique of mastering the mind which towers is over four thousand years old it is called heart of rose. In a quiet room, stare at the centre of rose. Most of us live at such a frantic pace that true silence is something foreign. Either you control your mind or it controls you. This is the technique of developing self awareness dimension of emotional intelligence.

**KINDLING INNER FIRE**

The beauty of whole exercise is that as you strive to improve the lives of others your own life will be elevated into its highest dimensions.

Those who study others are wise and those who study themselves are enlightened. You will recall that in the middle of the garden is the lighthouse. This symbol will remind you of yet another ancient principle the purpose of life<sup>9</sup>

The journey of thousand miles begins with a single step. The first step is to form a clear mental image of the outcome. Step two was to get some positive pressure on myself.

<sup>5</sup> SN Chary Business Gurus Speak

<sup>6</sup> SN Chary Business Gurus Speak

<sup>7</sup> Ibid

<sup>8</sup> Ibid

<sup>9</sup> Robin Sharma, The Monk who sold his Ferrari, Jaico Publishing House 2003

Third step is never set a goal without attaching a time limit to it. Fourth is magic rule of 21 perform the new activity for twenty one days in a row. Fifth enjoy the process. They truly believed that a day without laughter was a day without life. Burning sense of passion is the fuel of your dreams. What lies behind and what lies in front of you is nothing when compared to what lies within you.

**WHAT INSPIRES DOCTORS?**

Idealism	4
Achievement	66
Work	30
Total	100

**ANCIENT ART OF SELF LEADERSHIP**

*Good people strengthen themselves ceaselessly. Confucious*

Japanese philosophy of Kaizen means constant and never ending improvement Self mastery is the DNA of life mastery. Zen tradition speaks of beginners mind: those who keep their minds open to new concepts- those whose cups are always empty. Questions are the most effective method of eliciting knowledge.

Make a written inventory of your weaknesses. Fear is nothing more than negative stream of consciousness. But when you conquer your fears you conquer your life. Kaizen is constant self expansion and progress. This is another way of increasing one own self awareness the first dimension of emotional intelligence. Given below are 10 exercises for attaining more self awareness dimension of emotional intelligence. One hour a day for 30 days is all it takes to fully install a new habit.

First strategy is ritual of solitude a mandatory period of peace. Ritual of solitude is the pit stop for the soul for self renewal immersed in beautiful blanket of silence.

Second ritual is ritual of physicality care for your body. Never miss the daily round of exercise.<sup>10</sup>To breathe properly is to live properly while most of us know how to breathe to survive we do not know how to breathe to thrive.

Third is the ritual of life nourishment. Our lethargy is due to low octane fuel. Live foods, foods that are not dead i.e. vegetarian diet is important. Most powerful animals' gorillas and elephants on the planet earth wear the badge vegetarian proudly.

Fourth is ritual of abundant knowledge. Become a student of life. Study it not just read it. Biographies of Benjamin franklin, Mahatma Gandhi, Practical philosophy of Marcus aurelius, Think and grow rich by Napoleon hill. Books should ultimately change your life.

Fifth is ritual of radiant living, habit of thinking, thinking enough to thrive. Have a written inventory and regular habit of personal introspection. The only way to improve tomorrow is to know what you did wrong today.

Sixth is the ritual of early awakening nothing in extremes and everything in moderation. Yogi Raman would never eat after 8pm .How many times an average 4 yrs old laughs in a day 300, adult 15. We don't laugh because we are not happy. We would be happy if we laugh. So start your day on a delightful footing.

Seventh ritual of radiant living is ritual of music.

Eighth ritual is that of spoken word or mantra in sanskrit, man means mind and tra means freeing

Ninth ritual is that of congruent character. Values of industry compassion, humility patience, honesty and courage contribute to self awareness aspect of emotional intelligence. Character is higher than intellect. A great soul will be strong to live as well to think.

Tenth is the ritual of simplicity. Life gives you what you have asked it is always listening. Failure is your friend. Stand your ground and follow your dreams for greater.

Thus self awareness dimension leads to self management aspect of emotional intelligence.

**YOUR PRECIOUS COMMODITY**

Failing to plan is planning to fail. Time spent enriching your non work hours is never a waste. 80 % of your results come from just 20% of your efforts. These are your high impact activities. Enlightened people are priority driven. Some people learn from errors of others. Do not let others steal your time. You must be ruthless with your time.

Develop a deathbed mentality Do not waste even a minute of your day. Expand your dreams. Do not accept a life of mediocrity when you have infinite potential. Dare to trap your greatness. This is your birthright.

As a doctor, act as if failure is impossible. Never be the prisoner of your past become the architect of your future.

**RESULTS & DISCUSSION**

Self Development in doctors was studied with respect to their ability to trigger inner fire, art of leadership, power of discipline, commitment to social service, proactive nature, core competency, empathy stay calm , think win win , communication under stress, and goal orientation. The scores of the respondents were rated on likerts 3 point scales as never, sometimes and mostly to varied set of questions. The results are tabulated as show below in table No 1.

**TABLE NO. 1: SELF DEVELOPMENT ATTRIBUTES**

Sr. No	Attrbutes	Never	Sometimes	Mostly
1	Trigger Inner fire	21	14	65
2	Urge to excel	30	38	32
3	Power of discipline	14	43	43
4	Commitment to social service	19	8	73
5	Core competency	59	33	8
6	Proactive nature	52	4	44
7	Empathy	18	31	51
8	Stay calm	31	26	43
9	Think win win	55	18	27
10	Communication under stress	35	48	17
11	Goal Orientation	32	34	34

Similarly self awareness levels in doctors were identified by attributes such low in patience; overestimate themselves, envious of others, selfish, frank, and humorous nature. They were measured on likerts 3 point scale as low, moderate and high based on their responses. The results are tabulated as below in table no 2

<sup>10</sup> Robin Sharma, The Monk who sold his Ferrari, Jaico Publishing House 2003

TABLE NO. 2: SELF AWARENESS

Sr. No.	Attribute	Disagree	Neutral	Agree
1	Lose patience	7	42	51
2	Over Estimate self	31	31	38
3	Envious	1	85	14
4	Selfish		47	53
5	Frank	1	28	71
6	Humour	27	26	47

Self Management aspects in doctors were identified by their abilities to be detail oriented, summary oriented, helpful nature, lack of time to many tasks, perfectionists' nature and hours of work. These attributes were measured on Likert 3 point scales as Disagree, Neutral and agree. The results are tabulated as below in table no 3

TABLE NO. 3: SELF MANAGEMENT

Sr. No.	Attribute	Disagree	Neutral	Agree
1	Detail Oriented	3	35	62
2	Summary oriented	4	33	63
3	Helpful	4	32	64
4	Lack of time	31	11	58
5	Perfectionist	4	80	16
6	Hours of work	53	36	11

Source Primary data

The influence of demographic factors such as gender, qualification, and specialization and experience on emotional intelligence dimensions of doctors such as self awareness , self management, social awareness and social management were analysed using Anova . It was found that there was no significant variation of self development of doctors with regard to gender, qualification and specialization. Only with reference to experience of doctors it was found to be significant as show in the table no 4 below.

ANOVA (EXPERIENCE)

		Sum of Squares	Df	Mean Square	F	Sig.
Self Development score	Between Groups	859.476	4	214.869	38.843	.000*
	Within Groups	525.514	95	5.532		
	Total	1384.990	99			

Table 4: Anova (Experience)

\*significant at 5% level of significance

Interpretation: \*As the p values is less than 0.05 it can be concluded that there exists a significant difference among doctors in self development with respect to their experience.

The following is the cross tabulation between self development levels and Self awareness levels in doctors. Chi square test is used to analyse the dependence or independence of Self Development and self awareness levels in doctors.

Self Development	Low	Moderate	High	Total	Chi-square p-value
Self Awareness					
Low	27	0	4	31	.000*
Moderate	2	18	19	39	
High	0	5	25	30	
Total	29	23	48	100	

Table 5 Self Development Vs Self Awareness  
\* Significant at 5% level of significance.  
Source: Primary data

Interpretation: As the p-value is less than 0.05, the third null hypothesis cannot be accepted and hence it can be concluded that self development in doctors is dependent on self awareness levels in doctors ( See table No 7)

The following is the cross tabulation between self development levels and Self Management levels in doctors. Chi square test is used to analyse the dependence or independence of Self development and self management levels in doctors.

Self Development	Low	Moderate	High	Total	Chi-square p-value
Self Management					
Low	28	0	3	31	.000*
Moderate	0	18	21	39	
High	0	14	16	30	
Total	28	32	40	100	

Table 6 Self Development Vs Self Management  
\* Significant at 5% level of significance.  
Source: Primary data

Interpretation: As the p-value is less than 0.05, the third null hypothesis cannot be accepted and hence it can be concluded that self development is dependent on self management levels in doctors ( See table No 7)

		Self Development	Self Awareness	Self Management
Self Development	Pearson Correlation	1	.717**	.584**
	Sig. (1-tailed)		.000	.000
	N	100	100	100

\*\* . Correlation is significant at the 0.01 level (1-tailed).

Self Development score Shows Fairly high correlation with self awareness score with p value above .7 and moderate correlation with Self management with p value of 0.584

**CONCLUSION**

**Secret of lifelong happiness**

When i admire the sunset or the moon my soul expands in worship of creator. M K Gandhi

As an emotionally intelligent doctor would appreciate that Living is now. Happiness is a journey not a destination. Life does not give you what you ask it gives you what you need. We are all here for some special reason. Everyone has potential for extraordinary achievement and small victories lead to large victories.<sup>11</sup>

Development of Self Awareness and self management dimension of doctors helps them in management of pain and anxieties of the patients.

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<sup>11</sup> Robin Sharma, The Monk who sold his Ferrari, Jaico Publishing House 2003



**RISK MINIMIZATION IN SPOT AND DERIVATIVE MARKET**

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**ABSTRACT**

Investment is the employment of funds on assets with the aim of earning income or capital appreciation. Investment has two attributes namely time and risk. The sacrifice that has to be borne is certain but the return in the future may be uncertain. The attribute of investment indicates the risk factor. Commonly, there are two approaches in the construction of the portfolio of securities viz traditional approach and Markowitz efficient frontier approach. In the traditional approach, investor’s needs in terms of income and capital appreciation are evaluated and appropriate securities are selected to meet the needs of the investors. In the modern approach, portfolios are constructed to maximize the expected return for a given level of risk. The study of spot market is carried on with the help of the technical analysis which is based on the doctrine given by Charles H. Dow in 1984. Technical analysis is a process of identifying trend reversals at an earlier stage to formulate the buying and selling strategies. With the help of several indicators they analyse the relationship between the price-volume and supply-demand for the overall market and the individual stock. The optionality characteristics of options in the derivative markets results in a non-linear payoff for options. In simple words, it means that the losses for the buyer of an option are limited however the profits are potentially unlimited. For a writer, the payoff is exactly the opposite. These non-linear payoffs are fascinating as they lend themselves to be used to generate various payoffs by using combinations of options and the underlying. Futures can be used as an effective risk-management tool. With security futures one can minimize one’s price risk. One need to do is to enter into an offsetting stock future position. Hedging does not always make money. The best that can be achieved using hedging is the removal of unwanted exposure i.e. unnecessary risk. Analysis of growth rate of sale and net profit along with the P/E ratio gives an overall view and helps in empirical valuation of stock.

**KEYWORDS**

Risk, Market, Capital, Investment.

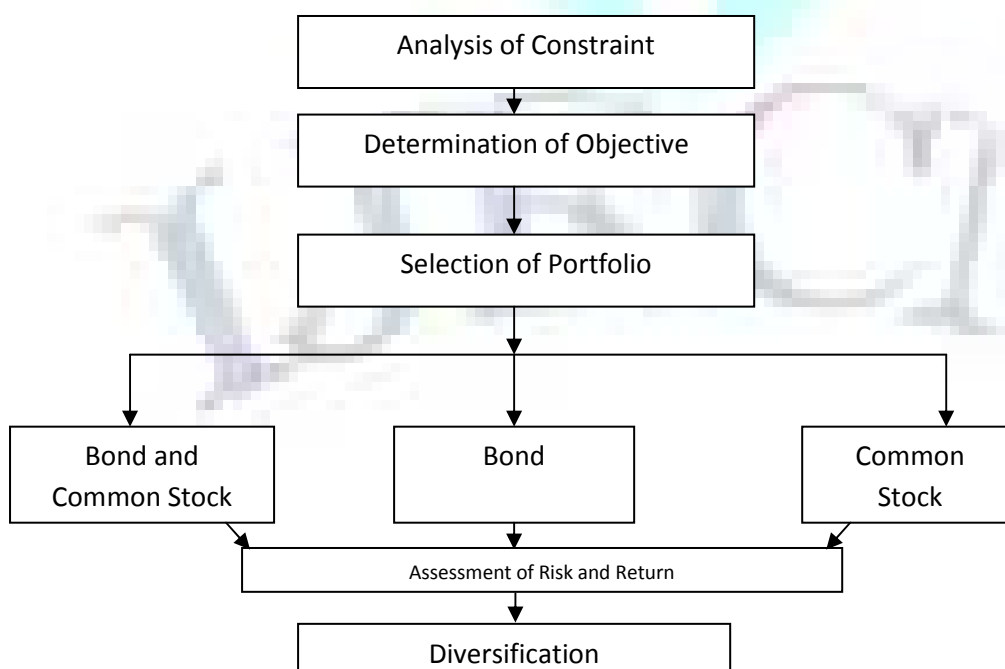
**INTRODUCTION**

Investment is the employment of funds on assets with the aim of earning income or capital appreciation. Investment has two attributes namely time and risk. Present consumption is sacrificed to get a return in the future. The sacrifice that has to be borne is certain but the return in the future may be uncertain. The attribute of investment indicates the risk factor. The risk is undertaken with a view to reap some return from the investment. Financial investment is the allocation of money to assets that are expected to yield some gain over a period of time.

**SELECTION OF EFFICIENT PORTFOLIO**

Commonly, there are two approaches in the construction of the portfolio of securities viz. traditional approach and Markowitz efficient frontier approach. In the traditional approach, investor’s needs in terms of income and capital appreciation are evaluated and appropriate securities are selected to meet the needs of the investors. The common practice in the traditional approach is to evaluate the entire financial plan of the individual.

**STEPS IN TRADITIONAL APPROACH**

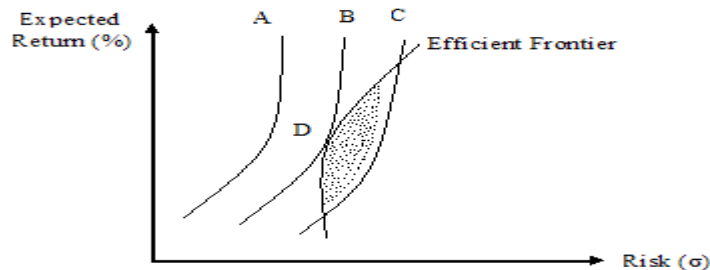


**MARKOWITZ EFFICIENT FRONTIER APPROACH**

In the modern approach, portfolios are constructed to maximize the expected return for a given level of risk. It views portfolio construction in terms of the expected return and the risk associated with obtaining the expected return.

The optimum portfolio or portfolios to select is one that should be selected in which an indifference curve touches the efficient frontier of portfolios as a tangent. In the figure 1 a portfolio D, where the indifference curve B touches the efficient frontier as a tangent, is the optimum portfolio. Any portfolio on an indifference curve to the right of curve B, such as one on curve C, would be worse than portfolio D. Thus, if we consider portfolios on the efficient frontier, no portfolio is dominated by any other. That is why; the consideration of an efficient frontier becomes paramount in optimum portfolio selection.

FIGURE 1



Optimum Portfolio Selection

**RISK MINIMIZATION IN SPOT MARKET**

The study of spot market is carried on with the help of the technical analysis which is based on the doctrine given by Charles H. Dow in 1984. He developed the theory on the basis of certain hypotheses. The first hypothesis is that, no single individual or buyer can influence the major trend of the market. His second hypothesis is that the market discounts everything. Even natural calamities get quickly discounted in the market. His third hypothesis is that the theory is not infallible. It is not a tool to beat the market but provides a way to understand it better.

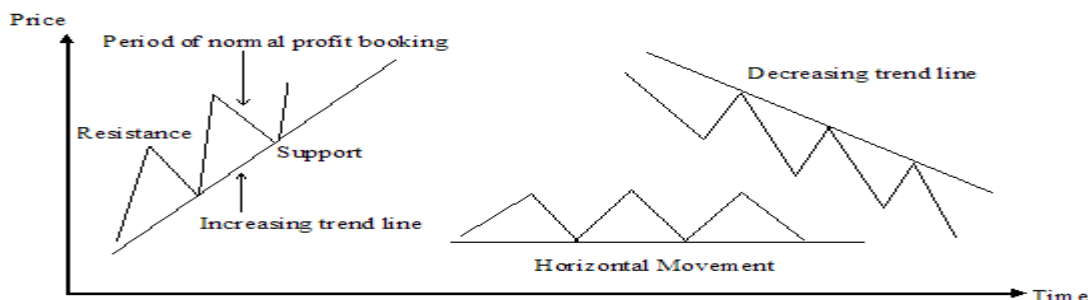
Technical analysis is a process of identifying trend reversals at an earlier stage to formulate the buying and selling strategies. With the help of several indicators they analyse the relationship between the price-volume and supply-demand for the overall market and the individual stock. Volume is favourable on the upswing i.e. the number of shares traded is greater than before and on the downside the number of shares traded dwindle. If it is the other way round, trend reversals can be expected.

PRICE VOLUME RELATIONSHIP

Price	Volume	Market Trend
↑	↑	(+)ve; market trend is positive due to buying pressure.
↑	↓	(-)ve; market trend is negative because price will decrease due to exit of traders from the market.
↓	↑	(-)ve; market trend is negative due to selling pressure.
↓	↓	(+)ve; market trend is positive in near future due to buying pressure at support price.

In Figure 2 we have drawn three trend lines indicating the significance of each point. The increasing trend line is drawn by touching two higher bottoms. From empirical analysis of the price movement of individual stock it is found that the price do not move in straight line rather it moves in zigzag way; during increasing trend once the price starts rising it will fall after some time, this phase indicates that the traders make normal profit booking and thereafter the price starts moving upward. The point from which it starts an upward movement is the support price. In the next downward swing the price decreases but what is most interesting that the lower price in the second rally will not cross the previous bottom, so this is the positive trend line that can be drawn by touching two higher bottoms. This phase is bullish in nature. During this phase both the volume and price increases.

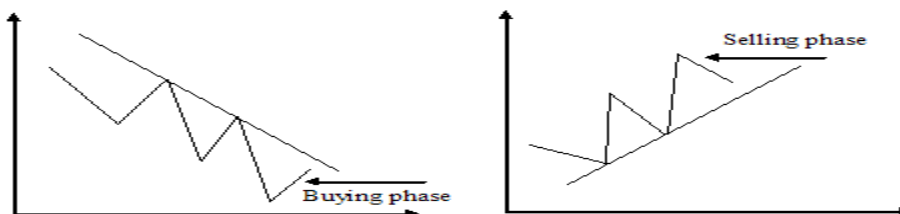
FIGURE - 2



The decreasing trend line can be drawn by touching two lower tops. During this phase once the price starts decreasing it is found that after some time the graph takes an upward swing but the interesting part here is that the price increase does not cross the previous high, as a result lower top is formed and by touching these two tops a decreasing trend line can be drawn. This phase is bearish in nature. During this phase the price and volume starts decreasing. In the horizontal movement of price no trend line can be drawn.

In all the stock exchanges these trend lines is drawn to know about the bullish or bearish phase of the market. It also indicates whether to buy the stock or to exit from the market. Empirical study shows that the market moves in these three phases in a chronological order.

From this trend analysis we can decide whether to buy the stock / hold the stock / sale the stock. When the market moves from decreasing trend and two lower tops are not formed it indicates the



buying phase of the stock. This is done after fixing a price band (say  $\pm 3\%$ ). For example say the price of the stock is Rs 90. After fixing a price band of  $\pm 3\%$  the price movement of the stock is studied. Since the current price of Rs 90 is the bottom price and if the price crosses (+3% i.e. Rs 90 + 3% of Rs 90 i.e.) Rs 93; then it indicates a buying phase. If the price moves downward and crosses (-3% i.e. Rs 90 - 3% of Rs 90 i.e.) Rs 87; it indicates that one should restrain from buying the stock and to wait and watch the price movement. Similarly when two higher bottoms are not formed then it indicates the selling phase. For example let the price of the stock is Rs 120. After fixing a price band of  $\pm 3\%$  the price movement of the stock is studied. Since the current price of Rs 120 is the top price and if the price crosses (-3% i.e. Rs 120 - 3% of Rs 120 i.e.) Rs 116; then it indicates the selling phase. If the price moves upward and crosses (+3% i.e., Rs 120 + 3% of Rs 120 i.e.) Rs 124; it indicates that one should restrain from selling the stock and to wait and watch the price movement.

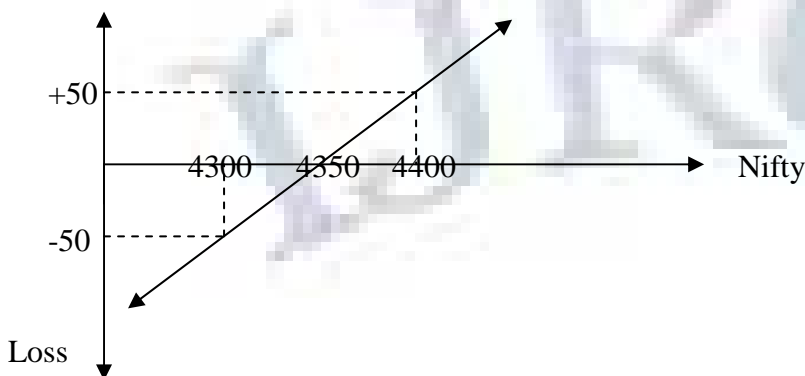
**RISK HANDLING IN THE DERIVATIVE MARKET**

The optionality characteristic of options results in a non-linear payoff for options. In simple words, it means that the losses for the buyer of an option are limited; however the profits are potentially unlimited. For a writer, the payoff is exactly the opposite. His profits are limited to the option premium; however his losses are potentially unlimited. These non-linear payoffs are fascinating as they themselves to be used to generate various payoffs by using combinations of options and the underlying. We look here at the six basic payoffs.

**1. PAYOFF PROFILE OF BUYER OF ASSET: LONG ASSET**

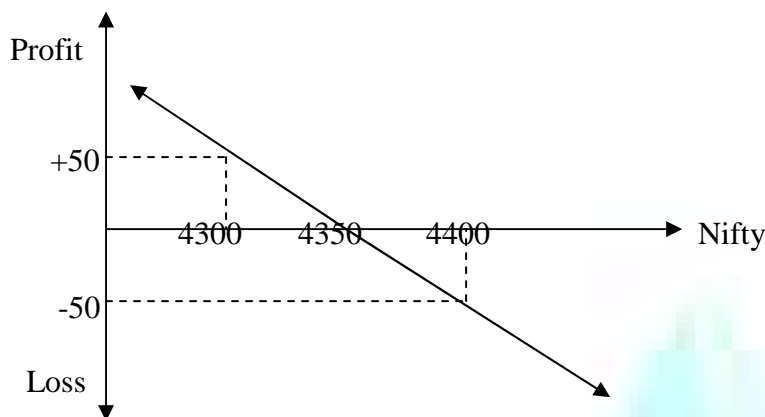
In this basic position, an investor buys the underlying asset, Nifty for instance, for 4350, and sells it at a future date at an unknown price,  $S_t$ . Once it is purchased, the investor is said to be "long" the asset.

The figure shows the profits / losses from a long position on the index. The investor bought the index at 4350. If the index goes up, he profits. If the index falls he loses.



**2. PAYOFF PROFILE FOR SELLER OF ASSET: SHORT ASSET**

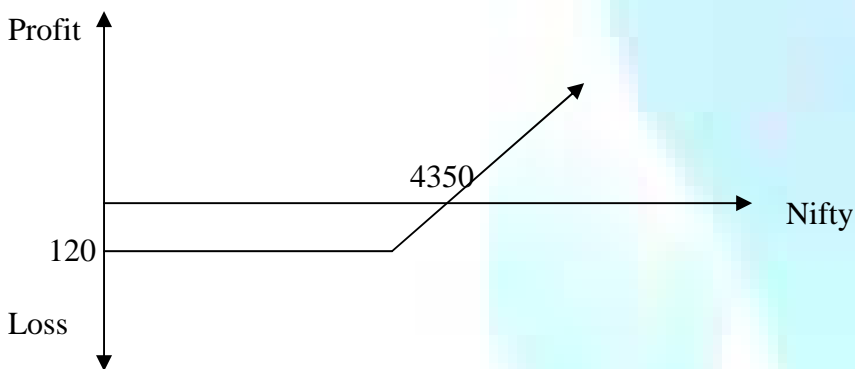
In this basic position, an investor shorts the underlying asset. Nifty for instance, for 4350, and buys it back at a future date at an unknown price,  $S_t$ . Once it is sold, the investor is said to be "short" the asset.



The figure shows the profits / losses from a short position on the index. The investor sold the index at 4350. If the index falls, he profits. If the index rises, he loses.

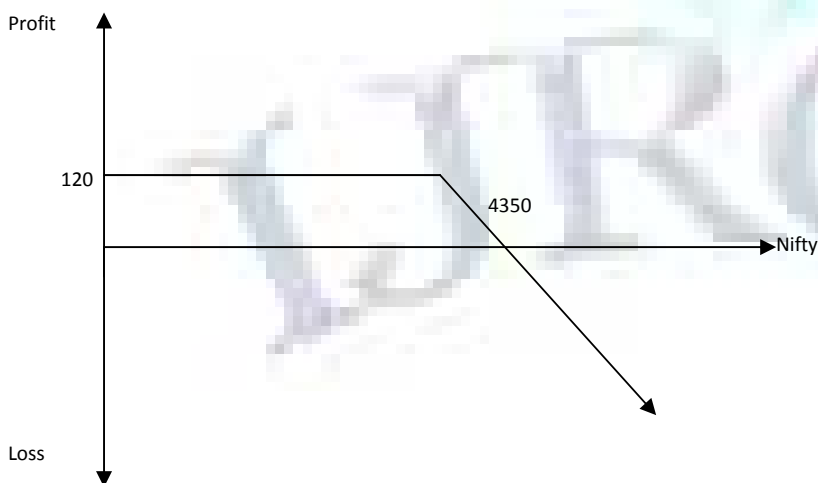
**3. PAYOFF PROFILE FOR BUYER OF CALL OPTIONS: LONG CALL**

The call option gives the buyer the right to buy the underlying asset at the strike price specified in the option. The profit / loss that the buyer makes on the option depend on the spot price of the underlying. If upon expiration, the spot price exceeds the strike price, he makes a profit. Higher the spot price more is the profit he makes. If the spot price of the underlying is less than the strike price, he lets his option expire un-exercised. His loss in this case is the premium he paid for buying the option. The figure gives the payoff for the buyer of a three month call option (often referred to a long call) with a strike price of 4350 bought at a premium of Rs 120.



**4. PAYOFF PROFILE FOR WRITER OF CALL OPTIONS: SHORT CALL**

A call option gives the buyer the right to buy the underlying asset at the strike price specified in the option. For selling the option, the writer of the option charges a premium. The profit / loss that the buyer makes on the option depend on the spot price of the underlying. Whatever is the buyer's profit is the seller's loss. If upon expiration, the spot price exceeds the strike price, the buyer will exercise the option on the writer. Hence as the spot price increases the writer of the option starts making losses. Higher the spot price more is the loss he makes. If upon expiration the spot price of the underlying is less than the strike price, the buyer lets his option expire unexercised and the writer gets to keep the premium. Figure gives the payoff for the writer of a three month call option (often referred to as short call) with a strike of 4350 sold at a premium of Rs 120.

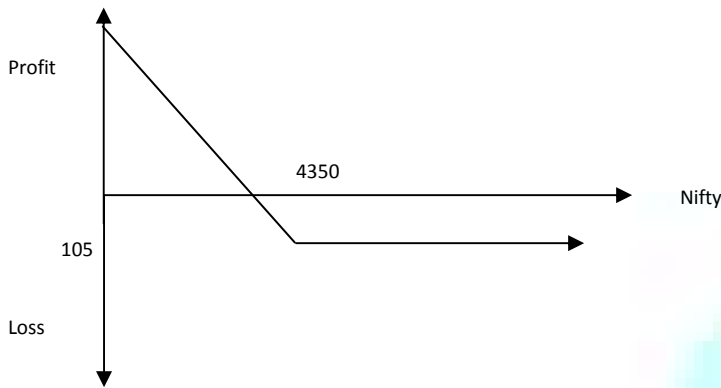


**5. PAYOFF PROFILE FOR BUYER OF PUT OPTIONS: LONG PUT**

A put option gives the buyer the right to sell the underlying asset at the strike price specified in the option. The profit / loss that the buyer makes on the option depend on the spot price of the underlying. If upon expiration, the spot price is below the strike price, he makes a profit. Lower the spot price more is the profit he makes. If the spot price of the underlying is higher than the strike price, he lets his option expire un-exercised. His loss in this case is the premium he paid for

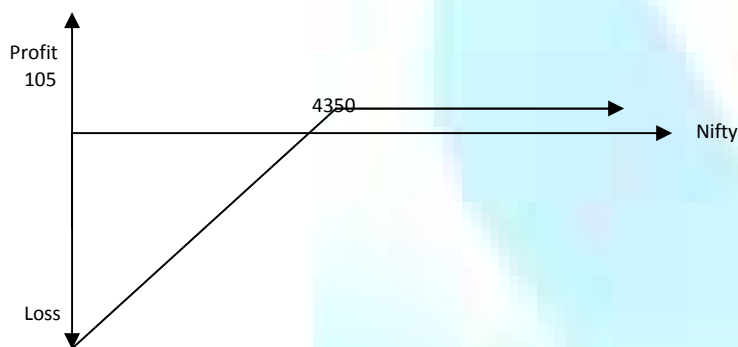


buying the option. Figure gives the payoff for the buyer of a three month put option (often referred to a long put) with a strike of 4350 bought at a premium of Rs 105



#### 6. PAYOFF PROFILE FOR WRITER OF PUT OPTIONS: SHORT PUT

A put option gives the buyer the right to sell the underlying asset at the strike price specified in the option. For selling the option, the writer of the option charges a premium. The profit / loss that the buyer makes on the option depend on the spot price of the underlying. Whatever is the buyer's profit is the seller's loss. If upon expiration, the spot price happens to be below the strike price, the buyer will exercise the option on the writer. If upon expiration the spot price of the underlying is more than the strike price, the buyer lets his option expire un-exercised and the writer gets to keep the premium. Figure gives the payoff for the writer of a three month put option (often referred to a short put) with a strike of 4350 sold at a premium of Rs 105.



#### RISK MINIMIZATION IN DERIVATIVE MARKET THROUGH HEDGING: LONG SECURITY, SELL FUTURES

Futures can be used as an effective risk management tool. Take the case of an investor who holds the shares of a company and gets uncomfortable with market movements in the short run. He sees the value of his security falling from Rs 390 to Rs 350. In the absence of stock futures, he would either suffer the discomfort of a price fall or sell the security in anticipation of a market upheaval. With security futures he can minimize his price risk. All he needs to do is to enter into an offsetting stock futures position; in this case, he has to take on a short futures position. Assume that the spot price of the security he holds is Rs 390. Two-month futures cost him Rs 402. For this he pays an initial margin. Now if the price of the security falls any further, he will suffer losses on the security he holds. However, the losses he suffers on the security, will be offset by the profits he makes on his short future position. Take for instance that the price of his security fall to Rs 350. The fall in the price of the security will result in a fall in the prices of futures. Futures will now trade at a price lower than the price at which he entered into a short futures position. Hence, his short futures position will start making profits. The loss of Rs 40 incurred on the security he holds, will be made up by the profits made on his short futures position.

Index futures in particular can be very effectively used to get rid of the market risk of a portfolio. Every portfolio contains a hidden index exposure or a market exposure. This statement is true for all portfolios, whether a portfolio is composed of index securities or not. In the case of portfolios, most of the portfolio risk is accounted for by index fluctuations (unlike individual securities, where only 30-60% of the securities risk is accounted for by index fluctuations). Hence, a position LONG PORTFOLIO + SHORT NIFTY can often become one-tenth as risky as the LONG PORTFOLIO position.

Hedging does not always make money. The best that can be achieved using hedging is the removal of unwanted exposure, i.e. unnecessary risk. The hedged position will make less profit than the unhedged position, half the time. One should not enter into a hedging strategy hoping to make excess profits for sure; all that can come out of hedging is reduced risk.

#### CONCLUSION

Risk minimization in spot and derivative market is analysed through the analysis of the current market price which reflects the future price of the company. The viability of the current market price can be done through trend analysis of the growth rate of the top line (i.e. the sales) and the growth rate of the bottom line (i.e. the net profit). This is done through the study of Earning Per Share and Price Earning Ratio. Earning Per Share (EPS) – EPS measures the profit available to the equity shareholders on a per share basis, that is, the amount that they can get on every share held. It is calculated by dividing the profits available to the shareholders by number of outstanding shares. The profits available to the ordinary shareholders are arrived at by net profit after taxes and preference dividend. Price Earning Ratio (P/E Ratio) – The P/E ratio reflects the price currently being paid by the market for each rupee of currently reported EPS. It measures investors' expectations and market appraisal of the performance of a firm.

If the growth rate of sales and profit is more than the P/E ratio or if the future prospect indicates that the growth rate of sales and profit will be more than the current P/E ratio then only the current market price is viable for selecting the stock in the portfolio. Analysis of the growth rate of the sales and net profit along with the P/E ratio gives an overall view for the price of the stock.

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## IMPORTANCE-PERFORMANCE ANALYSIS (IPA) TO EXPLORE ORGANIZATIONAL CLIMATE – EMPIRICAL EVIDENCE

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### ABSTRACT

The organizational climate plays a vital role for the excellent performance of any business. For the better positioning and improvement of any organization, it is necessary to evaluate the environment of the organization. To ensure the organizational effectiveness of the software industry, it is essential to do research on the existing organizational climate issues of the industry. This study explores and identifies the dimensions of organizational climate for a software company through Importance-Performance Analysis and Factor analysis.

### KEYWORDS

Climate, Dimensions, Explore, Importance-Performance Analysis, effectiveness.

### INTRODUCTION

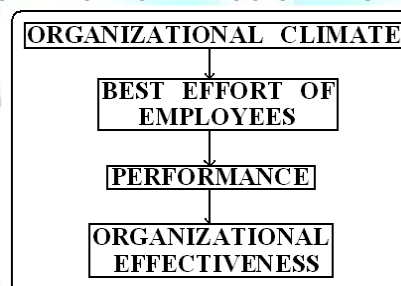
Organizational climate is often defined as the recurring patterns of behavior, attitudes and feelings that characterize life in the organization. An organizational climate study enables a successful organization to operate more efficiently through the use of worker input and satisfaction ratings. Organizational climate surveys increase productivity. It also serves as a basis for quality improvements. By identifying areas of inefficiency and acting on performance barriers identified by employees of all levels, an organization gains a fresh and different perspective. Thus, Climate have very strong influence on the

Individuals in an organization in terms of job performance, work attitudes.

Many researchers have applied Importance-Performance Analysis (IPA) to identify the critical performance attributes in customer satisfaction survey for products and services (Hawes and Rao, 1985; Yavas and Shemwell, 1997; Enright and Newton, 2004). Based on the research that's already made in the Marketing field, the researchers have applied the IPA model in the Industrial and Organizational psychology/Organizational Behaviour domain to identify the pivotal dimensions of organizational climate.

Hence, the researchers of this study have adopted this IPA model to identify the dimensions of organizational climate for a software company following an organizational climate survey. Based on this, corporates can make rational decisions about how to best use the organizational climate attributes to attain organizational effectiveness. Thus, the paper explores and identifies the areas where in the company should pay attention through Importance-Performance Analysis (IPA).

FIGURE-1: ORGANIZATIONAL CLIMATE TO ORGANIZATIONAL EFFECTIVENESS



### LITERATURE REVIEW

A considerable amount of attention in the past 30 years has been concerned with the topic of organizational climate and its effect on employees' behaviors and performance in the organization (Andrews and Kacmar, (2001) Ashkanasy et al. (2000) Carr et al. (2003); Lawler et al. (1974); Rhoades and Eisenberger (2002) Shadur et al. (1999); John J Starbuck (1976)). Carr et al. (2003) points out that Climate perception are seen as a critical determinant of individual behavior in organizations. Climate is important as it is seen as influencing day-to-day job experiences (Schneider and Hall, 1972). Forehand and Gilmer (1964) defined Organizational Climate as a 'set of characteristics that (a) describe the organization and distinguish it from other organizations (b) are relatively enduring over time and (c) influence the behaviour of people in the organization'. Gregopoulos (1963) defined Organizational Climate as a 'normative structure of attitudes and behavioural standards which provided a basis for interpreting the situations and act as a source of pressure for directing activities'.

In their extensive research work Litwin and Stringer (1968) introduced a very comprehensive framework of Organizational Climate. They provided six dimensions of Organizational Climate that include i) structure ii) responsibility iii) reward iv) risk v) warmth and vi) support. Campbell et al. (1970) gave the most appropriate definition for organizational climate as: 'set of attributes specific to a particular organization that may be induced from the organization, deals with its members and its environment'. A number of studies by Dennis Rose and colleagues (2001-2004) have found a very strong link between Organizational Climate and employee reactions such as stress levels, absenteeism, commitment and participation.

Practitioners apply IPA to analyze two dimensions of service attributes: performance level and importance to customers. Analyses of these dimension attributes are then integrated into a matrix that helps a firm to identify primary drivers of customer satisfaction and, based on these findings, set improvement priorities (Matzler et al., 2004).

**OBJECTIVE OF THE STUDY**

1. To identify the thrust of organizational climate attributes in an IPA matrix.
2. To identify the factors influencing the organizational climate.
3. To give recommendations to improve organizational climate of a software company.

**RESEARCH METHODOLOGY**

Based on the extensive literature survey, the various attributes of organizational climate are taken as base for analysis. These attributes are measured with seven point Likert Scale. The trained interviewers were provided with both oral and written instructions regarding the purpose, procedure, and the use of the results. The survey has been conducted in a software company at Chennai, Tamilnadu, India. The 25 attribute IPA questionnaire was used to collect the data from the respondents. The data was collected from employees who were at middle level in the organization. The sampling technique used was convenience sampling. The research design was descriptive in nature. The sample size is 123. The reliability is tested using Cronbach’s alpha. Then the IPA matrix is formulated and the pattern of the Importance and Performance is obtained. Also the factor Analysis is done to identify the influencing factors.

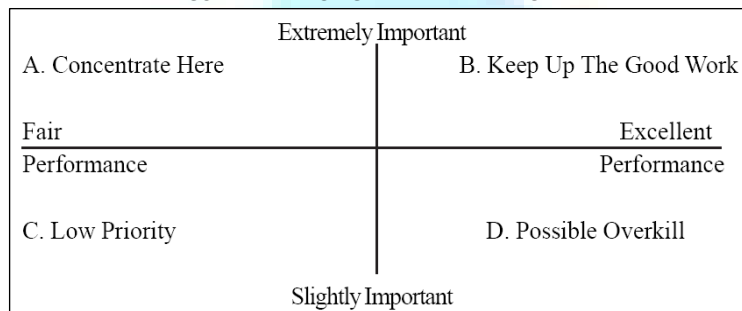
**RELIABILITY TEST**

The reliability of the importance and performance of the organizational climate scores are examined by the analyses done on the scale’s reliability. Reliability assessments are based on the internal consistency of the items, the alpha representing the same dimension of service quality as well as the overall scale. All the item-to-total correlations for the expectations scale ranged from 0.645 to 0.684. The overall Cronbach’s alpha is 0.678 which shows that the desirable levels of internal consistency at the aggregate level.

**IMPORTANCE – PERFORMANCE ANALYSIS**

Importance-performance analysis is considered to be very useful to provide management the insights to identify the strengths and weaknesses of a company. Importance-performance analysis, a two-dimensional matrix, uses importance as an x-axis and performance as a y-axis to form four quadrants as shown in Figure – 2.

**FIGURE – 2: THE ORIGINAL IPA FRAMEWORK**



Source: Martilla and James (1977)

These four quadrants are composed of “keep up the good work” (Quadrant I), “possible overkill” (Quadrant IV), “low priority” (Quadrant III), and “concentrate here” (Quadrant II). Attributes in Quadrant I have both high performance and high importance and can be considered as the opportunities to achieve more for organizations. Quadrant IV has high performance but low importance, which indicates that the resources committed to these attributes are excessive and should be deployed elsewhere. Quadrant III has the characteristics of both low performance and low importance and these attributes do not require additional efforts. Finally, attributes located in Quadrant II with low performance but high importance is viewed as major weaknesses for an organization. Immediate attention for improvement is required. Moreover, the inability to identify the attributes in Quadrant II might result in low organizational effectiveness. In fact, immediate improvement efforts should be placed in highest priority when major weaknesses are identified, while attributes in Quadrant I regarded as major strengths should be maintained, leveraged, and heavily promoted.

**TABLE – 1: IMPORTANCE – PERFORMANCE FEATURES AND THEIR SYMBOLS W.R.T ORGANIZATIONAL CLIMATE**

Symbol	Feature
1	Safe & Clean working environment
2	Cafeteria facility
3	Resources available
4	Teamwork
5	Trust
6	Reward & Recognition
7	Needs fulfillment
8	Knowledge sharing
9	Involvement
10	Work pressure
11	Time commitment
12	HR Policy & Employee benefits
13	Career advancement
14	Training
15	Learning opportunity
16	Posh working environment
17	Management support
18	Role-clarity
19	Continuance commitment
20	Autonomy
21	Job variety
22	Friendliness & warmth
23	Competency
24	Compensation/Pay
25	Organizational hierarchy



FIGURE – 3: IMPORTANCE – PERFORMANCE ANALYSIS OF ORGANIZATIONAL CLIMATE

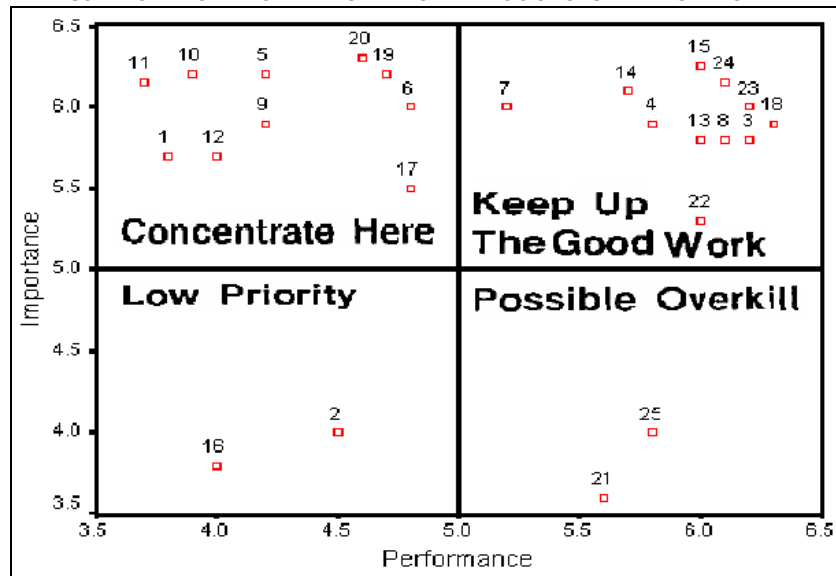


TABLE – 2: OUTPUT OF IMPORTANCE – PERFORMANCE ANALYSIS: ORGANIZATIONAL CLIMATE

“Concentrate Here” – Attributes	“Keep Up The Good Work” – Attributes
<ul style="list-style-type: none"> <li>➤ Safe &amp; Clean working environment</li> <li>➤ Needs fulfillment</li> <li>➤ Continuance commitment</li> <li>➤ Work pressure</li> <li>➤ Autonomy</li> <li>➤ Trust</li> <li>➤ Management support</li> <li>➤ Involvement</li> <li>➤ HR Policy &amp; Employee benefits</li> <li>➤ Time commitment</li> <li>➤ Reward &amp; Recognition</li> </ul>	<ul style="list-style-type: none"> <li>➤ Resources available</li> <li>➤ Teamwork</li> <li>➤ Knowledge sharing</li> <li>➤ Compensation/Pay</li> <li>➤ Friendliness &amp; warmth</li> <li>➤ Training</li> <li>➤ Competency</li> <li>➤ Role-clarity</li> <li>➤ Learning opportunity</li> <li>➤ Career advancement</li> </ul>
“Low Priority” – Attributes	“Possible Over-Kill” – Attributes
<ul style="list-style-type: none"> <li>➤ Cafeteria facility</li> <li>➤ Posh working environment</li> </ul>	<ul style="list-style-type: none"> <li>➤ Job variety</li> <li>➤ Organizational hierarchy</li> </ul>

- “Keep up the Good Work” – the upper right quadrant includes features which the employees viewed as important and have been rated with high marks on performance. Management’s responsibility is to make certain that these important features remain in this quadrant.
- “Concentrate Here” – This quadrant contains features which the employees still view as important; however, the company received rather low marks with respect to their performance. These attributes require the greatest attention.
- “Low Priority” – Features falling into this quadrant have received low marks on both the importance and performance scales. In this case, low performance marks require little or no attention since the employees do not view these items as being particularly important.
- “Possible Over-Kill” – In the final quadrant are features which have received low importance ratings and high performance ratings. It suggests that less attention could be expended.

The above IPA matrix results undoubtedly prove that the company should put more effort to improve the organizational climate.

**EXPLORATORY FACTOR ANALYSIS**

A sampling adequacy value derived from KMO Bartlett test if closer to 1 indicates the patterns of correlations are relatively compact and so the factor analysis should yield distinct and reliable factors. According to Kaiser (1974), if the measure of sampling adequacy is greater than 0.5 then accept it and proceed with factor analysis. The degree of common variance among the fifty six variables is “middling” at 0.791, which states that sampling adequacy is acceptable (refer table – 3). To scrutinize the dimensionality of the scale, the correlation matrix is analyzed by Principal Component Analysis (PCA). This PCA of performance score extracted six factors with eigen-values greater than 1.0, accounting for 58.042 percent of the total variation. Rotation results give conceptually meaningful dimensions. Factor analysis results are provided in table 6. The initial solution indicates that a single factor adequately summarizes the data on the basis of factor loadings and variance explained (refer tables – 4 and 5). Factor analysis of the difference scores provides a clear picture of meaningful factor structure. 58.042% of total variance is explained after rotations of all the attributes and six components are extracted. The four factors identified are as follows: 1. Environment, 2. Effectiveness, 3. Commitment and 4. Involvement

TABLE – 3: KMO AND BARTLETT’S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.791	
Bartlett’s Test of Sphericity	Approx. Chi-Square	1030.998
	df	105
	Sig.	.000

TABLE – 4: COMMUNALITY

	Initial	Extraction
Training	1.000	.589
Role-clarity	1.000	.696
Competency	1.000	.515
Time commitment	1.000	.590
Resources available	1.000	.502
Trust	1.000	.647
Knowledge sharing	1.000	.577
Career advancement	1.000	.569
Learning opportunity	1.000	.509
Autonomy	1.000	.538
Safe & Clean working environment	1.000	.600
Posh working environment	1.000	.615
Management support	1.000	.634
Friendliness & warmth	1.000	.519
Continuance commitment	1.000	.606

TABLE – 5: TOTAL VARIANCE EXPLAINED

Component	Initial Eigen-values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.388	29.253	29.253	4.388	29.253	29.253	2.663	17.754	17.754
2	1.588	10.587	39.840	1.588	10.587	39.840	2.539	16.928	34.683
3	1.385	9.231	49.070	1.385	9.231	49.070	1.756	11.707	46.390
4	1.346	8.972	58.042	1.346	8.972	58.042	1.748	11.652	58.042
5	.986	6.571	64.613						
6	.820	5.470	70.082						
7	.704	4.691	74.773						
8	.634	4.224	78.997						
9	.565	3.767	82.764						
10	.555	3.699	86.463						
11	.485	3.233	89.695						
12	.466	3.103	92.799						
13	.454	3.029	95.828						
14	.359	2.396	98.224						
15	.266	1.776	100.000						

TABLE – 6: ROTATED COMPONENT MATRIX

	Component			
	Environment	Effectiveness	Commitment	Involvement
Posh working environment	.748			
Safe & Clean working environment	.676			
Management support	.662			
Friendliness & warmth	.659			
Knowledge sharing		.752		
Career advancement		.669		
Resources available		.625		
Training		.528		
Competency		.505		
Learning opportunity		.452		
Time commitment			.760	
Role-clarity			.582	
Continuance commitment			.558	
Trust				.783
Autonomy				.603

**DISCUSSION**

Delivering and sustaining service excellence can be essentially the key competitive advantage for many organizations. As such, organizations have been acknowledging the role of their employees for achieving this competitive advantage. Certain areas were identified for improvement in the organizational Climate of the Software Company. It would be nice if the company concentrates more on Safe & Clean working environment, fulfilling the needs of the employees, creating loyal employees, reduce the work pressure of employees, give freedom to employees in taking decisions, trust the employees with the plans for the future of the company, pave way for leadership enriched culture and involve the employees in taking important decisions. The HR policy of the company should ensure satisfaction of employees and the company should acknowledge the employees for the contribution made by them when company goals and objectives are achieved. Thus, more emphasis should be given to the attributes that are grouped under "Concentrate here"-quadrant II.

**CONCLUSION**

The organizational climate can become conducive to develop potential and competencies of the employees and provide opportunities for fulfillment. There is a need for an enhanced role of managers who should feel responsible for building a positive, motivating work culture which would ensure optimum utilization of the capabilities of the team members leading to self and organizational effectiveness. Creating the good and effective climate will make the employees satisfied.

It can be concluded that effective climate will lead to Employee satisfaction and in turn it will enhance the performance of employees thereby paving way for Organizational effectiveness. Further research can also be made having IPA model as base for various domain.

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**GOA TOURISM: MYTHS AND REALITIES****DR. HIRANMOY ROY****ASST. PROFESSOR (SR. SCALE)****UNIVERSITY OF PETROLEUM AND ENERGY STUDIES****BIDHOLI, VIA PREMNAGAR****DEHRADUN****ABSTRACT**

*Tourism in Goa generates number of positive benefits such as increase in income, increase in employment, added revenue, and foreign exchange earnings. However, there are negative socio economic and environmental impact such as loss of mangroves, erosion, reduced fish catch, loss of species and seasonality of employment, growth of prostitution and sex-tourism associated with tourism industry which needs to be considered. These negative impacts are associated with the pattern of growth of tourism in Goa.*

**KEYWORDS**

Tourism, Goa, Beaches.

**INTRODUCTION**

*Goa is often referred to as a classic example of the evils of tourism development, yet there is relatively little substantive evidence against which to assess this claim.*<sup>12</sup> - **David Wilson, Queen's University of Belfast, UK, in April 1995.**

The state of Goa, a small bright green land on the West Coast of India, with its usual charming beauty, eye-catching beaches and temples famous for its structural design, festivals and most importantly its cordial people with a rich historical and cultural heritage, qualified for its perfect tourist profile.

Goa joined national mainstream on its liberation from Portuguese colonial rule in December 1961. The tourist arrival to Goa registered an extraordinary growth from 2 lakhs tourists in 1975 to 11.26 lakhs in 1996 of which domestic tourists consist of 8.88 lakhs and foreigners reported for 2.37 lakhs including almost 73,000 from U.K. Germany, Switzerland, Finland.

Tourism plays a significant role in the economy of Goa.<sup>13</sup> Tourism in the state generates 13.7 percent of state's net domestic product (NSDP), 7 percent of employment and 7 percent of state tax revenue (Kalidas Swakar, 1998). The state is known all over the world for its pre-independence period Gothic churches and also as the 'Pearl of the East'.<sup>14</sup> The land has large coconut groves, striking beaches, water sports, foot-tapping dance and music and age-old ruins. Predominantly influenced by the Portuguese culture, Goa is well known for its 105 km long coastline. Goa introduced to us as paradise that is a perfect holiday destination.

**IMPORTANT TOURISTS SPOTS IN GOA**

Tourism of Goa is seemingly incomplete if you do not visit the beautiful beaches with clear waters. The sea, the golden sands fringed with palms, the coconut groves and the ferry rides make these beaches an ideal destination for relaxation. Some of the important and beautiful beaches with huge tourism potential are Palolem, Agonda, Dona Paula, Cavelossim, Varca, Baga, Benaullim beaches, etc. Baga beach is the most popular beach for 'sun baths' in Goa and it is most attracted to visitors.

Having extra ordinary beaches in Goa, her wonderful weather and luscious food, Goa is most preferred destination to the tourists. There are also other reasons for flourishing tourism in Goa due to existence of pre-independence period temples and churches. Temples, beaches and churches are the beautiful ornaments of Goa making it attractive for tourism. Major temples of Goa are the Mangeshi Temple, the Shanta Durga Temple, the Ganapati Temple, the Mahalaxmi Temple, the Nagesh Maharudra Temple, and the Ananta should be on top of a tourist schedule. The churches of Goa are important heritage of Goa. It is a representative of medieval European architectural style. The famous churches of Goa are the Church of St. Francis of Assisi in old Goa, the Basilica of Bom Jesus, the St. Cajetan Church and the Chapel and Tomb of St. Francis Xavier. These churches are known for heir tranquil environment and a source of relief from the present stressful lifestyle (). Important places of tourists visits in Goa are listed below in table-1.

<sup>12</sup> David Wilson, "Paradoxes of Tourism in Goa", Queen's University of Belfast, UK, 12<sup>th</sup> April, 1995.

<sup>13</sup> Kalidas Sawkar et al, "Tourism and the Environment," 1998, <http://siteresources.worldbank.org/WBI/Resources/wbi37134.pdf>

<sup>14</sup> [www.yatraindia.com/goa-travel-guide/index.html](http://www.yatraindia.com/goa-travel-guide/index.html)



TABLE 1: IMPORTANT TOURIST DESTINATIONS IN GOA

<b>1. Pernem Taluka</b>	<b>2. Bardez Taluka</b>	<b>3. Bicholim Taluka</b>
Querim Beach	Vagator Beach	Kansarpal Temple
Tiracol fort	Chapora Fort	Sirigao Temple
Arambol Beach	Anjuna Beach	Bhagwan Math
Alarna Fort & Alarna Temple	Aguads Fort	Bicholim Masque
Mandrem Beach	Baga Beach	Shri Datta Mandir
Shri Shantadurga Temple	Carjuem Fort	Shri Saptakoteshwar Temple
Morjim Beach.	Calangute Beach	Arvalem Waterfalls
<b>4. Satari Taluka</b>	Our lady of Miracles Church	Narve Springs.
Brahama Temple	Candolim Beach	
Nanus Fort	Pomburpa Springs	
	Singuerim Beach	
	Reis Magas Fort	
	Coca Beach.	
<b>5. Ponda Taluka</b>	<b>6. Teswadi Taluka</b>	<b>7. Mormugao Taluka</b>
Marcela Temple	Miramar Beach	Marmugao Harbar
Bhoma Temple	Vainguinim Beach	Resarval Springs
Farmogudi Temple,	Lake & Bird Sanctuary	Cambariem Island
Mangueshi Temple	Siridao Beach	Church at Sancoale
Safa Masjid	Cabo Raj Bhawan	Dabolim Airport
Mahalsa Temple	Dona Paulo Old Goa	Arossim Beach
Bondla Wildlife Sanctuary	Charao Island	Pequeno Island
Mardol Temple	Divar Island	Vtarda Beach
Veling Temple	Pilar Seminary.	Bogmalo Beach
Marcaim Temple		Velsao Beach.
Nagueshi Temple		
Ramnath Temple		
Shantadurga Temple		
Shri Kamakshi Temple.		
<b>8. Salcete Taluka</b>	<b>9. Quepem Taluka</b>	<b>10. Canacona Taluka</b>
Majorda Beach	Shantadurga Temple	Cabo De Rama Fort
Lautulim Ancestral Goa Big Foot	Betul Beach	Agondo Beach
Betalbatim Beach	Canaguinim Beach.	Palolem Beach
Rachal Seminary & Museum		Goandongri Mallikarjun Temple
Colva Beach		Partagal Math
Chandar Fort		Cotigao Wildlife Sanctuary.
Benaulim Beach	<b>11. Sanguem Taluka</b>	
Chandeshwar Bhutnath Temple	Tambdi Surla Temple	
Varca Beach	Bhagvan Mahavir Wildlife sanctuary	
Chandranath Hill & Temple	Dudhsagar Waterfalls	
Cavelassim Beach	Masque at Sanguem	
Temple at Cunolim	Rivona Fort	
Mabar Beach.	Netravali Lake	
	Mamai Devi Temple	
	Damodar Temple.	

Compiled from various sources

#### TOURISM STATISTICS OF GOA

Revenue from tourism in the state is increasing over the years (refer table-2) and it is very important industry in terms of generation of revenue. In the year 2005-06, 22.72 Percentage of Govt. revenue came from tourism in Goa.

TABLE 2: REVENUE &amp; EXPENDITURE OF GOA TOURISM Rupees in lakhs

S.No.	Financial Year	Revenue	% Change	Expenditure	% Change
1	2002-03	100.00		2288.72	
2	2003-04	126.50	26.50	2845.61	24.33
3	2004-05	106.05	-16.17	2811.45	-1.20
4	2005-06	130.14	22.72	2951.58	4.98

Source: Ministry of Tourism, Govt. of India, New Delhi.

Goa accounts for 21.74 percent of India's foreign tourist arrivals and domestic share is 78.28 percent in the year 1996 (refer table-4).

TABLE 3: SHARE OF DOMESTIC AND INTERNATIONAL TOURISTS IN GOA (FIGURES IN LAKHS)

	Goa		All India		Goa's share (%)	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
2007	22.09	3.88	5265.64	132.67	0.41	2.92
2008	20.2	3.51	5269.82	141.13	0.358	2.48
2009	21.27	3.77	6500.39	137.18	0.327	2.748

Source: Ministry of Tourism, Govt. of India

TABLE 4. INTERNATIONAL TOURIST ARRIVALS IN INDIA

Year	Tourist arrivals in India (millions)	Share of Goa in total tourist arrivals in India (%)	Year	Tourist arrivals in India (millions)	Share of Goa in total tourist arrivals in India (%)
1981	1.26	2.4	1989	1.74	5.2
1982	1.29	2.3	1990	1.71	5.9
1983	1.30	2.3	1991	1.68	7.8
1984	1.21	4.9	1992	1.87	6.4
1985	1.26	7.1	1993	1.82	9.3
1986	1.45	6.2	1994	1.87	11.2
1987	1.48	6.4	1995	2.10	10.9
1988	1.59	5.9			

Source: Center for Monitoring the Indian Economy. 1995. *Basic Statistics of the Indian Economy*; and India,

Different types of tours in Goa can be grouped under the following heads-

(1) Heritage Tours of Goa, (2) Religious tours of Goa, (3) Wild tours of Goa, (4) Carnival in Goa (5) Water sports option in Goa, (6) Shopping in Goa

#### TOURISMS EARNINGS IN GOA – A MYTH

The argument that tourism revenue keeps the Goan economy solvent is

misleading<sup>15</sup>. As pointed out by a study of UN regarding the economic effects of tourism in developing countries shows that about 80% of travelers expenditures are paid to international companies by way of airline fares, hotel and tour reservations. These are the major expenses of a tourist's budget. Thus the local businesses in Goa can not be expected to gain from these revenues. There is also 'leakage' of tourism revenue in Goa either through import of resort construction materials and equipment, consumer goods like food and drink if Goa can not supply them or through exports such as foreign or beyond state investors who finance resorts, take their profits back to their country, or state.

The 'leakage' means that Govt. of Goa ultimately earns only an insignificant fraction from the supposed 'huge' revenues of tourism. As most of the hotels are foreign or beyond state Indian concerns, these earnings never remain in Goa. Therefore this does not assist the Goan economy. As per the UN statistics on an average about \$5 of each \$100 spent by the foreign tourists actually stays in developing country. Such findings for Goa may not be available, but one can assume that tourism revenue a dominant industry in Goa as projected are realized partially. The deficits in Goan economy for past years may support this proposition. Thus tourism revenue in Goa as estimated in crores remain to be a myth.

Govt. in Goa offers tax breaks to hotels and developers by sacrificing much needed investments in the important areas of education and health etc. and this has a lasting impact on development and earning potentials of future generations. By giving over emphasis on tourism over the past decade by the Govt. Goan economy has failed to diversify and thus limited the economic opportunities. The other negative socio-cultural impact of tourism in Goa are crime has risen along with child labour, prostitution and sex tourism due to unappeasable desires of the tourists. Goa needs to diversify in terms of industrialization driven by innovation and future needs of job opportunities for Goan workforce.

#### GROWTH AND IMPACT OF TOURISM IN GOA

There are two types of tourists to Goa. First the domestic tourists who comprise of 80 percent of all tourists, they come in search of a culture which is different from rest of India. The second type is foreign tourists who visit Goa for natural environments like - sun and beaches. Domestic tourists come throughout the year while foreign tourists avoid the monsoon months for their prime attraction to use beach. Various factors responsible for growth tourism are

1. Increased disposable income
2. Stress of Living in cities and towns
3. Improved employment benefits such as leave travel concession
4. Improved transportation
5. Cheap accommodation and resorts
6. Policies of state and central Govt.

#### GROWTH OF TOURISM IN GOA

TABLE 5: GROWTH OF TOURISM IN GOA

Average Annual Growth Rates (%)		
Period	Domestic	International
1981/82-86/87	7.98	27.20
1986/87-1991/92	2.75	-1.34
1991/92-95/96	3.90	31.00

Source: India, Government of Goa, Department of Tourism. Personal Communications.

Economic impacts of tourism in Goa are measured through revenue from tourism, foreign exchange earnings, creation of employment and income generation. Foreign exchange earning potential of tourism is one of the main attractions for its support by Central Govt. During 1995-98 foreign exchange earnings from tourism in Goa were US\$ 43-57<sup>16</sup> million. Tourism contributed around 13.7 percent of NSDP, 7 percent of employment and 7 percent of tax revenue. Distribution of Expenditures for International and Domestic tourists are shown in the table-6.

<sup>15</sup> Goanet, Lyrawmn, Sunday, 30<sup>th</sup> August, 2009.

<sup>16</sup> This figure is probably an underestimate, as it is record of foreign currency converted in Goa. If India's total foreign exchange earnings from tourism are considered and Goa is apportioned an amount based on the share of tourists that come to Goa, the amount rises to around US \$ 115 million.

TABLE 6: DISTRIBUTION OF EXPENDITURES FOR INTERNATIONAL AND DOMESTIC TOURISTS

Category (%)	International Tourists (%)	Domestic Tourists
Accommodations and food	53.95	58.20
Internal transport	13.63	10.40
Entertainment	2.61	1.80
Miscellaneous expenses	4.97	2.90
Average length of stay	9 days	5 days
Total amount spent per visit	US\$590	US\$110

Source: Kirloskar Consultants Ltd., 1994. *Report on Study of Tourism Industry in Goa*. December.

Food and accommodation comprises 53.95 percent which is largest component of expenditures. Backward linkage could be established through supply of local foods to tourism industry thus diversify development which was not highlighted by the policy makers. The food supply chain is not considered in Goa and thus surplus in agriculture and fishing could be integrated in this chain to generate local income.

Huge investments in tourism was made by Govt. by sacrificing investment in other critical sectors such as education and health (refer exhibit-1)

Seasonality in the Goa tourism industry is observed as October-February being industry peak and June- August being industry troughs. Unskilled labourers were hired during peak season and who are laid-off during lean season as the costs of hiring and laying-off unskilled labourers is not high and thus this segments of workers experience the up and down swings of income and employment. Scant attention was paid to this social cost of tourism industry in Goa.

The environmental impacts of tourism in Goa are

1. Loss of Mangroves
2. Reduced fish catch and species
3. Erosion
4. Siltation
5. Loss of sands
6. Loss of endangered species

The impact of tourism in Goa can be visualized clearly if we see its costs and benefits (refer Exhibit-II).

## CONCLUSION

Though tourism in Goa generates number of positive benefits such as increase in income, increase in employment, added revenue, foreign exchange earnings. However, there are negative socio economic and environmental impact such as loss of mangroves, erosion, reduced fish catch, loss of species and seasonality of employment growth of prostitution and sex-tourism associated with tourism industry which needs to be considered. These negative impacts are associated with the pattern of growth of tourism in Goa.

## EXHIBIT

### EXHIBIT-1: EXPENDITURES OF THE STATE ON TOURISM PER PLAN

Annual plan	Actual expenditures	(Rs Million)
1992-93	22.96	
1993-94	25.93	
1994-95	27.01	
1995-96	29.25	
1996-97	30.00	
EIGHT PLAN (1992-97)	135.15	

Source: India, Government of Goa, Department of Town and Country Planning and Department of Statistics and Evaluation Department.

## EXHIBIT-II: BENEFITS AND COSTS OF HETEROGENEOUS TOURISM IN GOA

Benefits	Costs
<b>Economic/Financial</b>	
* Foreign revenue earnings	* Increased local cost of living
* Funds raised from taxes, etc.	* Seasonality of income and employment
* Diversification of local employment and	* Unstable market
* Service sector employment opportunities	* Cost of enforcement/administration
* Support employment opportunities: e.g., Agriculture, Fisheries, Handicrafts,	* Cost of training guides, managers, etc.
* Agriculture, Fisheries, Handicrafts, Cottage industries	* Liability of service providers Polluter Pays Principle
* Development of export markets for local products, foods, etc.	
<b>Political/Institutional</b>	
* Maintenance of population within political boundaries	* Exposure to undesirable social problems, e.g., child labor, pedophiles
* Maintenance of future development options	* Large number of stakeholders
* Small number of stakeholders	* All lands privately or publicly owned used for tourism
* Environmentally active civil society	* Absence of, or delays in conflict resolution through courts or traditional community organizations
<b>Cultural/Social</b>	
* Exposure to new information, lifestyles	* Disruption of culture
* Maintenance of traditional knowledge/ products	* Enhanced local expectations due to exposure to affluent visitors
* Historical and cultural heritage	* Labor influx
* Conflict resolution by panchayats	* Conflicts over local beach and water resources, and transportation
<b>Environmental/Conservation</b>	
* Incentives/funds for resource management research	* Beach degradation due to improper waste management by tourists
* Improved environmental education	* Groundwater depletion due to increased local demands
* Unique coral reef/island resources	* Water scarcity due to over-exploitation for tourism industry
* Strong environmental regulatory and enforcement framework	* Groundwater pollution due to improper waste management
	* Beach and coastal erosion due to unsuitable infrastructure development

Source: Emmanuel D.Silva, Jose Furtado and Sherry Russell are from the Economic Development Institute of the World Bank.

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**SPIRITUALITY AND MANAGEMENT**

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**ABSTRACT**

*One of the greatest contributions of India to the world is Holy Gita which is considered to be one of the first revelations from the Static State. The management lessons in this holy book were brought in to light of the world by Divine Power. The Bhagavad-Gita the essence of Vedic Literature and a complete guide to practical life. It provides "all that is needed to raise the consciousness of man to the highest possible level." The deep, universal truths of life that speak to the needs and aspirations of everyone. In Bhagavad Gita Arjuna got mentally depressed when he saw his relatives with whom he has to fight. (Mental health has become a major international public health concern now). To motivate him the Bhagavad-Gita is preached in the battle field Kurukshetra by Lord Krishna to Arjuna as counseling to do his duty while multitudes of men stood by waiting. It has got all the management tactics to achieve the mental equilibrium and to overcome any crisis situation. There is no theory to be internalized and applied in this psychology. Ancient practices spontaneously induce what each person needs as the individual and the universal coincide. The work proceeds through intellectual knowledge of the playing field (jnana yoga), emotional devotion to the ideal (bhakti yoga) and right action that includes both feeling and knowledge (karma yoga). With ongoing purification we approach wisdom. The Bhagavad-Gita is a message addressed to each and every human individual to help him or her to solve the vexing problem of overcoming the present and progressing towards a bright future.*

**KEYWORDS**

Leadership, Work Culture, Karma yoga, Mental health.

**INTRODUCTION**

In this modern world the art of Management has become a part and parcel of everyday life, be it at home, in the office or factory and in Government. In all organizations, where a group of human beings assemble for a common purpose irrespective of caste, creed, and religion, management principles come into play through the management of resources, finance and planning, priorities, policies and practice. Management is a systematic way of carrying out activities in any field of human effort. Management need to focus more on leadership skills, e.g., establishing vision and goals, communicating the vision and goals, and guiding others to accomplish them. It also asserts that leadership must be more facilitative, participative and empowering in how visions and goals are established and carried out. Some people assert that this really isn't a change in the management functions; rather it's re-emphasizing certain aspects of management.

Its task is to make people capable of joint performance, to make their weaknesses irrelevant, says the Management Guru Peter Drucker. It creates harmony in working together - equilibrium in thoughts and actions, goals and achievements, plans and performance, products and markets. It resolves situations of scarcity, be they in the physical, technical or human fields, through maximum utilization with the minimum available processes to achieve the goal. Lack of management causes disorder, confusion, wastage, delay, destruction and even depression. Managing men, money and materials in the best possible way, according to circumstances and environment, is the most important and essential factor for a successful management.

**MANAGEMENT GUIDELINES FROM THE BHAGAVAD GITA**

There is an important distinction between effectiveness and efficiency in managing.

- Effectiveness is doing the right things.
- Efficiency is doing things right.
- The general principles of effective management can be applied in every field, the differences being more in application than in principle. The Manager's functions can be summed up as:

Forming a vision

- Planning the strategy to realize the vision.
- Cultivating the art of leadership.
- Establishing institutional excellence.
- Building an innovative organization.
- Developing human resources.
- Building teams and teamwork.
- Delegation, motivation, and communication.

Reviewing performance and taking corrective steps when called for. Thus, management is a process of aligning people and getting them committed to work for a common goal to the maximum social benefit - in search of excellence. Major functions of a manager are planning, organizing, leading and coordinating activities; they put different emphasis and suggest different natures of activities in the following four major functions.

The critical question in all managers' minds is How to be effective in their job? The answer to this fundamental question is found in the Bhagavad-Gita, which repeatedly proclaims that "you must try to manage yourself." The reason is that unless a manager reaches a level of excellence and effectiveness, he or she will be merely a face in the crowd.

## OLD TRUTHS IN A NEW CONTEXT

The Bhagavad-Gita, written thousands of years ago, enlightens us on all managerial techniques leading us towards a harmonious and blissful state of affairs in place of the conflict, tensions, poor productivity, and absence of motivation and so on, common in most of Indian enterprises today – and probably in enterprises in many other countries.

The modern management concepts of vision, leadership, motivation, excellence in work, achieving goals, giving work meaning, decision making and planning, are all discussed in the Bhagavad-Gita. There is one major difference. While Western management thought too often deals with problems at material, external and peripheral levels, the Bhagavad-Gita tackles the issues from the grass roots level of human thinking. Once the basic thinking of man is improved, it will automatically enhance the quality of his actions and their results.

The management philosophy emanating from the West is based on the lure of materialism and on a perennial thirst for profit, irrespective of the quality of the means adopted to achieve that goal. This phenomenon has its source in the abundant wealth of the West and so 'management by materialism' has caught the fancy of all the countries the world over, India being no exception to this trend. India, has been in the forefront in importing these ideas mainly because of its centuries old indoctrination by colonial rulers, which has inculcated in us a feeling that anything Western is good and anything Indian is inferior. Gita does not prohibit seeking money, power, comforts, and health. It advocates active pursuit of one's goals without getting attached to the process and the results.

The result is that, while huge funds have been invested in building temples of modern management education, no perceptible changes are visible in the improvement of the general quality of life - although the standards of living of a few has gone up. The same old struggles in almost all sectors of the economy, criminalization of institutions, social violence, exploitation and other vices are seen deep in the body politic.

## THE SOURCE OF THE PROBLEM

The reasons for this sorry state of affairs are not far to seek. The Western idea of management centers on making the worker and the manager more efficient and more productive. Companies offer workers more to work more, produce more, sell more and to stick to the organization without looking for alternatives. The sole aim of extracting better and more work from the worker is to improve the bottom-line of the enterprise. The worker has become a hireable commodity, which can be used, replaced and discarded at will.

Thus, workers have been reduced to the state of a mercantile product. In such a state, it should come as no surprise to us that workers start using strikes (gheraos) sit-ins, (dharnas) go-slows, work-to-rule etc. to get maximum benefit for themselves from the organizations. Society-at-large is damaged. Thus we reach a situation in which management and workers become separate and contradictory entities with conflicting interests. There is no common goal or understanding. This, predictably, leads to suspicion, friction, disillusion and mistrust, with managers and workers at cross purposes. The absence of human values and erosion of human touch in the organizational structure has resulted in a crisis of confidence.

Western management philosophy may have created prosperity for some people some of the time at least - but it has failed in the aim of ensuring betterment of individual life and social welfare. It has remained by and large a soulless edifice and an oasis of plenty for a few in the midst of poor quality of life for many.

Hence, there is an urgent need to re-examine prevailing management disciplines in their objectives, scope and content. Management should be redefined to underline the development of the worker as a person, as a human being, and not as a mere wage-earner. With this changed perspective, management can become an instrument in the process of social, and indeed national, development.

Now let us re-examine some of the modern management concepts in the light of the Bhagavad-Gita which is a primer of management-by-values.

## UTILIZATION OF AVAILABLE RESOURCES

The first lesson of management science is to choose wisely and utilize scarce resources optimally. During the curtain raiser before the Mahabharata War, Duryodhana chose Sri Krishna's large army for his help while Arjuna selected Sri Krishna's wisdom for his support. This episode gives us a clue as to the nature of the effective manager the former chose numbers, the latter, wisdom.

## WORK COMMITMENT

A popular verse of the Gita advises "detachment" from the fruits or results of actions performed in the course of one's duty. Being dedicated work has to mean "working for the sake of work, generating excellence for its own sake." If we are always calculating the date of promotion or the rate of commission before putting in our efforts, then such work is not detached. It is not "generating excellence for its own sake" but working only for the extrinsic reward that may or may not for result.

Working only with an eye to the anticipated benefits, means that the quality of performance of the current job or duty suffers - through mental agitation of anxiety for the future. In fact, the way the world works means that events do not always respond positively to our calculations and hence expected fruits may not always be forthcoming. So, the Gita tells us not to mortgage present commitment to an uncertain future.

Some people might argue that not seeking the business result of work and actions, makes one unaccountable. In fact, the Bhagavad-Gita is full of advice on the theory of cause and effect, making the doer responsible for the consequences of his deeds. While advising detachment from the avarice of selfish gains in discharging one's accepted duty, the Gita does not absolve anybody of the consequences arising from discharge of his or her responsibilities. Attachment to perishable gives birth to fear, anger, greed, desire, feeling of "mine" and many other negative qualities. Renounce attachment by regarding objects for others and for serving others. Depend only on God (not body, nor intellect), and the dependency on the world will come to end. Renouncing attachment is the penance of knowledge, which leads to his being - truth, consciousness and bliss. (Bhagavad-Gita 4.10)

Thus the best means of effective performance management is the work itself. Attaining this state of mind (called "Nishkama Karma") is the right attitude to work because it prevents the ego, the mind, from dissipation of attention through speculation on future gains or losses.

## MOTIVATION – SELF AND SELF-TRANSCENDENCE

It has been presumed for many years that satisfying lower order needs of workers - adequate food, clothing and shelter, etc. are key factors in motivation. However, it is a common experience that the dissatisfaction of the clerk and of the Director is identical - only their scales and composition vary. It should be true that once the lower-order needs are more than satisfied, the Director should have little problem in optimizing his contribution to the organization and society. But more often than not, it does not happen like that. ("The eagle soars high but keeps its eyes firmly fixed on the dead animal below.") On the contrary, a lowly paid schoolteacher, or a self-employed artisan, may well demonstrate higher levels of self-actualization despite poorer satisfaction of their lower-order needs.

This situation is explained by the theory of self-transcendence propounded in the Gita. Self-transcendence involves renouncing egoism, putting others before oneself, emphasizing team work, dignity, co-operation, harmony and trust – and, indeed potentially sacrificing lower needs for higher goals, the opposite of Maslow.

"Work must be done with detachment." It is the ego that spoils work and the ego is the centerpiece of most theories of motivation. We need not merely a theory of motivation but a theory of inspiration.

The Great Indian poet, Rabindranath Tagore (1861-1941, known as "Gurudev") says working for love is freedom in action. A concept which is described as "disinterested work" in the Gita where Sri Krishna says,

"He who shares the wealth generated only after serving the people, through work done as a sacrifice for them, is freed from all sins. On the contrary those who earn wealth only for themselves, eat sins that lead to frustration and failure."

Disinterested work finds expression in devotion, surrender and equipoise. The former two are psychological while the third is determination to keep the mind free of the dualistic (usually taken to mean "materialistic") pulls of daily experiences. Detached involvement in work is the key to mental equanimity or the state

of "nirdwanda." This attitude leads to a stage where the worker begins to feel the presence of the Supreme Intelligence guiding the embodied individual intelligence. Such de-personified intelligence is best suited for those who sincerely believe in the supremacy of organizational goals as compared to narrow personal success and achievement.

## WORK CULTURE

An effective work culture is about vigorous and arduous efforts in pursuit of given or chosen tasks. Sri Krishna elaborates on two types of work culture – "daivi sampat" or divine work culture and "asuri sampat" or demonic work culture.

Daivi work culture - involves fearlessness, purity, self-control, sacrifice, straightforwardness, self-denial, calmness, absence of fault-finding, absence of greed, gentleness, modesty, absence of envy and pride.

Asuri work culture - involves egoism, delusion, personal desires, improper performance, work not oriented towards service.

Mere work ethic is not enough. The hardened criminal exhibits an excellent work ethic. What is needed is a work ethic conditioned by ethics in work.

It is in this light that the counsel, "yogah karmasu kausalam" should be understood. "Kausalam" means skill or technique of work which is an indispensable component of a work ethic. "Yogah" is defined in the Gita itself as "samatvam yogah uchayate" meaning an unchanging equipoise of mind (detachment.) Tilak tells us that acting with an equable mind is Yoga.

By making the equable mind the bed-rock of all actions, the Gita evolved the goal of unification of work ethic with ethics in work, for without ethical process no mind can attain an equipoise. The spiritual guru, Adi Sankara says that the skill necessary in the performance of one's duty is that of maintaining an evenness of mind in face of success and failure. The calm mind in the face of failure will lead to deeper introspection and see clearly where the process went wrong so that corrective steps could be taken to avoid shortcomings in future.

The principle of reducing our attachment to personal gains from the work done is the Gita's prescription for attaining equanimity. It has been held that this principle leads to lack of incentive for effort, striking at the very root of work ethic. To the contrary, concentration on the task for its own sake leads to the achievement of excellence and indeed to the true mental happiness of the worker. Thus, while commonplace theories of motivation may be said to lead us to the bondage or extrinsic rewards, the Gita's principle leads us to the intrinsic rewards of mental, and indeed moral, satisfaction.

## WORK RESULTS

The Gita further explains the theory of "detachment" from the extrinsic rewards of work in saying:

- If the result of sincere effort is a success, the entire credit should not be appropriated by the doer alone.
- If the result of sincere effort is a failure, then too the entire blame does not accrue to the doer.
- The former attitude mollifies arrogance and conceit while the latter prevents excessive despondency, de-motivation and self-pity. Thus both these dispositions safeguard the doer against psychological vulnerability, the cause of the modern managers' companions of diabetes, high blood pressure and ulcers.
- Assimilation of the ideas of the Gita leads us to the wider spectrum of "lokasamgraha" (general welfare) but there is also another dimension to the work ethic - if the "karmayoga" (service) is blended with "bhaktiyoga" (devotion), then the work itself becomes worship, a "sevayoga" (service for its own sake.)
- Along with bhakti yoga as a means of liberation, the Gita espouses the doctrine of nishkama karma or pure action untainted by hankering after the fruits resulting from that action. Modern scientists have now understood the intuitive wisdom of that action in a new light.

## MANAGER'S MENTAL HEALTH

Sound mental health is the very goal of any human activity - more in management. Sound mental health is that state of mind which can maintain a calm, positive poise, or regain it when unsettled, in the midst of all the external vagaries of work life and social existence. Internal constancy and peace are the pre-requisites for a healthy stress-free mind. At the initial stages when engaging in a relationship, the mind may wander and go to different places. But we must have a clear aim, a clear focus, a single pointed direction. Thereafter the mind will not wander in different places. The mind will remain on only one.

- Some of the impediments to sound mental health are:
- Greed - for power, position, prestige and money.
- Envy - regarding others' achievements, success, rewards.
- Egotism - about one's own accomplishments.
- Suspicion, anger and frustration.
- Anguish through comparisons.

The driving forces in today's businesses are speed and competition. There is a distinct danger that these forces cause erosion of the moral fiber, that in seeking the end, one permits oneself immoral means - tax evasion, illegitimate financial holdings, being "economical with the truth", deliberate oversight in the audit, too-clever financial reporting and so on. This phenomenon may be called as "yayati syndrome".

In the book, the Mahabharata, we come across a king by the name of Yayati who, in order to revel in the endless enjoyment of flesh exchanged his old age with the youth of his obliging youngest son for a thousand years. However, he found the pursuit of sensual enjoyments ultimately unsatisfying and came back to his son pleading him to take back his youth. This "yayati syndrome" shows the conflict between externally directed acquisitions (extrinsic motivation) and inner value and conscience (intrinsic motivation.)

Our mind is like a Computer, continuously programmed since our childhood along with some vasanas from our previous birth. This programming is both good and bad for ourselves; a healthier programming makes us a productive and happy individual, while a bad program may turn us into an unproductive. If we choose to surrender our Mind, Ego and operate from that realm, it is like asking a person to live with his brain defunct!! It will be a futile exercise. Mental peace can be achieved by effective delegation. Delegation is when supervisors give responsibility and authority to subordinates to complete a task, and let the subordinates figure out how the task can be accomplished. Effective delegation develops people who are ultimately more fulfilled and productive. Managers become more fulfilled and productive themselves as they learn to count on their staffs and are freed up to attend to more strategic issues.

Delegation is often very difficult for new supervisors, particularly if they have had to scramble to start the organization or start a major new product or service themselves. Many managers want to remain comfortable, making the same decisions they have always made. They believe they can do a better job themselves. They don't want to risk losing any of their power and stature (ironically, they do lose these if they don't learn to delegate effectively). Often, they don't want to risk giving authority to subordinates in case they fail and impair the organization.

This is one reason why such an exercise of surrendering mind, ego etc fails in the real world. Man is a biological machine, and he cannot operate without those necessary components of his software.

## MANAGEMENT NEEDS THOSE WHO PRACTICE WHAT THEY PREACH

"Whatever the excellent and best ones do, the commoners follow," says Sri Krishna in the Gita. The visionary leader must be a missionary, extremely practical, intensively dynamic and capable of translating dreams into reality. This dynamism and strength of a true leader flows from an inspired and spontaneous motivation to help others. "I am the strength of those who are devoid of personal desire and attachment. O Arjuna, I am the legitimate desire in those, who are not opposed to righteousness," says Sri Krishna in the 10th Chapter of the Gita.

**CONCLUSION**

The despondency of Arjuna in the first chapter of the Gita is typically human. Sri Krishna, by sheer power of his inspiring words, changes Arjuna's mind from a state of inertia to one of righteous action, from the state of what the French philosophers call "anomie" or even alienation, to a state of self-confidence in the ultimate victory of "dharma" (ethical action).

When Arjuna got over his despondency and stood ready to fight, Sri Krishna reminded him of the purpose of his new-found spirit of intense action - not for his own benefit, not for satisfying his own greed and desire, but for the good of many, with faith in the ultimate victory of ethics over unethical actions and of truth over untruth.

Sri Krishna's advice with regard to temporary failures is, "No doer of good ever ends in misery." Every action should produce results. Good action produces good results and evil begets nothing but evil. Therefore, always act well and be rewarded.

My purport is not to suggest discarding of the Western model of efficiency, dynamism and striving for excellence but to tune these ideals to India's holistic attitude of "lokasangraha" - for the welfare of many, for the good of many. There is indeed a moral dimension to business life. What we do in business is no different, in this regard, to what we do in our personal lives. The means do not justify the ends. Pursuit of results for their own sake, is ultimately self-defeating. ("Profit," said Matsushita-san in another tradition, "is the reward of correct behavior")






**ORGANIZATIONAL HEALTH: EXAMINING WORKPLACE PRACTICES AND WELL-BEING****DR. R. PRABHAKARA RAYA****PROFESSOR AND HEAD****DEPARTMENT OF MANAGEMENT STUDIES, SCHOOL OF MANAGEMENT****PONDICHERRY UNIVERSITY****PUDUCHERRY – 605 014****P. SIVAPRAGASAM****RESEARCH SCHOLAR****DEPARTMENT OF MANAGEMENT STUDIES, SCHOOL OF MANAGEMENT****PONDICHERRY UNIVERSITY****PUDUCHERRY – 605 014****ABSTRACT**

Today, more than ever, a business organization is exceedingly complex, stochastic and undergoing dynamic change as a result of increasing interdependencies between their people, processes, systems and the external environment. As that complexity continues to increase and external changes gather space, the need for regular monitoring of those interdependencies becomes increasingly important. This study was initiated by observing the enormous gap between how people experience work and kind of experiences to that would make an organization more likely to endure and fulfill its vision. (i.e.) the influence of healthy workplace practices on employee well-being. Works of prominent writers on organizational health and well-being were then reviewed so as to present it as a framework for analysis and discussion. It is assumed that healthy organizations have conditions, which satisfy an individual's self-esteem and increase trust between the members. Such conditions are believed to cause an effective coping on the part of the organization to the changes in environmental conditions. The review study also scrutinizes the specific characteristics of the healthy organization in the hope that a more analytical approach would not only lead us to understand why there are few such organizations, but would offer insights into how to create them.

**KEYWORDS**

Organizational Health, Employee Well-Being, Organizational success, Healthy practices

**ORGANIZATIONAL HEALTH: EXAMINING WORKPLACE PRACTICES AND WELL-BEING**

 *The nature of the global business environment guarantees that no matter how hard we work to create a stable and healthy organization, our organization will continue to experience dramatic changes far beyond our control."*

Margaret J. Wheatley

**INTRODUCTION**

An organization is a relatively isolated, purposive, coherent system consisting of entities whose relatedness is intelligently defined and mentally recognized, encapsulated in a boundary that is both flexible and permeable to the external environment. Over the last 40 years, major changes have taken place in the workplace. The growth in the use of information technology at work, the globalization of many industries, organizational restructuring, changes in work contracts and work time scheduling have radically transformed the nature of work in many organizations in response to a complex array of economic, technological, legal, political, and socio-cultural forces. The scope and magnitude of these changes have outpaced our understanding of their implications for quality of work life and occupational safety and health.

In today's market driven competitive world, a capable employee is the most important resource and a fundamental precondition of productive action. So it would be a meaningful exercise for managers to diagnose the status of their organization and promoting healthy work place practices for achieving sustainable corporate performance. It is assumed that healthy organizations have conditions, which satisfy an individual's self-esteem and increase trust between the members. The conditions include the ability of the organization to receive and communicate information reliably and validly, internal flexibility and creativity to make changes needed in the light of the information and commitment to the goal of organization, and an internal climate of support and freedom from threat. Such conditions are believed to cause an effective coping on the part of the organization to the changes in environmental conditions.

This study is based on web-based research investigating the mainstream academic and business periodicals on workplace practices, employee well-being and organizational performance. In what follows, the author discuss the primary factors associated with the association between organizational health and well-being, the consequences of low levels of health and well-being, and common methods for improving organizational health and well-being in the business environment. A healthy organization assumes more relevance in today's scenario where we have a booming economy where a growing number of young people are spending longer hours at their workplace in a competitive environment.

**HEALTH AND WELL-BEING**

In medical terms, the most widely agreed definition of health is as '... a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO)<sup>17</sup>. These attributes consider the physical, the psychological, the spiritual, and even the ethical characteristics of a broader concept of health. This definition points to health as a means to an end rather than as some abstract state. It expresses health in functional terms as a resource that permits people to lead individually, socially and economically productive lives. Health includes the ability to realize aspirations, satisfy needs, and cope with changes. It is seen as a resource for everyday life, not the objective of living.

Health is a positive concept emphasizing social and personal resources as well as physical capabilities. It describes both capacity to flourish and to enjoy life, and the resilience that enables us to cope and survive in adversity. It is about thinking (cognition), feeling (emotion) and social function (relating). It encompasses skills and attributes which include resilience, coping, self-esteem, self-efficacy, optimism, hopefulness and social integration that are associated with improved outcomes like reduced sickness absence, greater productivity, higher levels of creative thinking and problem solving<sup>18</sup>. Health is a 'multidimensional dynamic

<sup>17</sup> [http://www.who.int/occupational\\_health/en/](http://www.who.int/occupational_health/en/) accessed 15 February 2011

<sup>18</sup> [www.bitc.org.uk/healthyworkplaces](http://www.bitc.org.uk/healthyworkplaces)



process rather than a discrete end state'. Increasingly, the concept of health is being broadened to encompass emotional, spiritual, and even ethical dimensions (Quick et al., 2002).

#### **WORK IS A SOURCE OF ILLHEALTH: Workplace Stress**

- Sixty-nine percent of employees report that work is a significant source of (American Psychological Association, 2009).
- Fifty-two percent of employees report that they have considered or made a decision about their career such as looking for a new job, declining a promotion or leaving a job based on workplace stress (American Psychological Association, 2007).

#### **Work Demands**

- One third of U.S. employees are chronically overworked. Furthermore, twenty percent of employees reporting high overwork levels say they make a lot of mistakes at work versus none of those who experience low overwork levels (Galinsky et al., 2005, p. 2).
- Twenty-four percent of employees work six or more hours per week without pay, and 47% of management does the same (Randstad, 2007, p. 8).

#### **Work-Life Balance & Flexibility**

- Fifty-two percent of employees say that job demands interfere with family or home responsibilities, while 43% say that home and family responsibilities interfere with job performance (American Psychological Association, 2007).

#### **Employee Health & Healthcare Costs**

- Seventy percent of all deaths in the U.S. are attributable to chronic diseases (Center for Disease Control and Prevention, 2003).
- The costs of chronic diseases make up more than 75% of the \$2 trillion health care costs in the U.S. (Centers for Disease Control and Prevention, 2003).

#### **Employee and Organizational Outcomes**

- For the average company, turnover costs more than 12% of pre-tax income and for those at the high end, those costs can reach almost 40% of earnings (Saratoga, 2006).
- Lost productivity due to presenteeism is almost 7.5 times greater than that lost to absenteeism (Employers Health Coalition, 2000, p. 3).
- The top five reasons employees stay with a particular company are: exciting and challenging work; opportunities for career growth, learning and development; high-quality co-workers; fair pay; and supportive management (Kaye & Jordan-Evans, 2008, p. 10).
- APA's 2010 Psychologically Healthy Workplace Award (PHWA) winners report an average turnover rate of 9% compared to 41% nationally, only 30% of their employees report chronic work stress compared to 41% nationally and PHWA winners report a 73% employee satisfaction rate compared to 65% nationally (American Psychological Association, 2010).

Job insecurity, work hours, control at work, and managerial style are four areas that emerges as a source of stress and ill-health. This situation is a cause of concern in almost all countries after economic liberalization.

## **WHAT DEFINES A HEALTHY ORGANIZATION? MEANINGS AND PERSPECTIVES**

Though healthy organization has attracted the attention of researchers over the last decade and beyond, the concept remains poorly defined. From an almost exclusive focus on the physical work environment (the realm of traditional occupational health and safety, dealing with physical, chemical, biological and ergonomic hazards), the definition has broadened to include health practice factors (lifestyle); psychosocial factors (work organization and workplace culture); and a link to the community; all of which can have a profound effect on employee health.

The WHO Regional Office for the Western Pacific defines a healthy workplace as follows:

"A healthy workplace is a place where everyone works together to achieve an agreed vision for the health and well-being of workers and the surrounding community. It provides all members of the workforce with physical, psychological, social and organizational conditions that protect and promote health and safety. It enables managers and workers to increase control over their own health and to improve it, and to become more energetic, positive and contented."

GS Lowe differentiates between the concepts of a "healthy workplace" and a "healthy organization." He sees the term healthy workplace as emphasizing more the physical and mental well-being of employees, whereas a healthy organization has "...embedded employee health and well-being into how the organization operates and goes about achieving its strategic goals.

## **EVOLUTIONARY FRAMEWORK: ORGANIZATIONAL HEALTH**

When the term 'efficiency' was highly prevalent among business organizations, the use of the word "health" was seldom used in the context of organizations. It slowly emerged as the concept of the organization as a "living system" became widely accepted. Organizational health is determined by a distinct combination of strategic, structural, cultural and behavioral characteristics. Organizational theorists have made fleeting references to a diverse range of features considered to be indicative of organizational health, or the lack of it. Warren Bennis (1962) was one of the first theorists to use the term health in organizational context. Bennis asserted that organizations there might be have to strike some balance to be struck between organizational performance measures and individual and collective health. According to Bennis, an organization is "healthy" when;

"First, it has to be stable in the sense that its parts have to be harmoniously integrated. Stability is the essence of orderliness, and the opposite of chaos, anarchy, or disintegration. Second, the system should be growing or mature. Of the two growths is preferable since it indicates youth and vigor. Growth, consequently, is a sign of development, promise, and opportunity, all valued commodities in our society. Third, the system must be adaptable, because healthy, complex organisms can adjust to a large number of environmental contingencies. Further, adaptability is evidence of survival potential, and of course this has to be highly regarded in times of rapid change." (Warren Bennis, 1962)

French et. al (1982) appraised that health, or the lack of it, is likely to be reflected in the attention given to ensuring the correct fit between the person and his/her environment. Cox, Leather, and Cox (1990) identified three primary sources of work demands: the work itself, the tools and technologies used in the work, and the social/organizational and physical environments in which the work is performed. Smith et al. (1995) examined five organizational factors for organizational health: organizational-person balance, organizational treatment, discrimination, decision-making climate, and quality of supervision. Sauter, Lim, and Murphy (1996) identified management practices, organizational culture/climate, and organizational values as key organizational factors for health and well-being at workplace.

Danna and Griffin (1999) proposed an *antecedents-consequences* model featuring three sets of antecedent factors: work setting (primarily safety and health risks), personality traits, and occupational stress factors. In this model, occupational stress factors encompass both job demands and broader organizational characteristics such as climate and career development opportunities. NIOSH has adopted a multi-level or ecological approach that features three interacting tiers (Landsbergis, 2003; NIOSH, 2002): the external context (economics, political trends, etc.), the organizational context (management structures, etc.), and work content (job characteristics, work roles, etc.). DeJoy, Wilson, and colleagues (DeJoy & Wilson, 2003; Wilson, DeJoy, Vandenberg, Richardson, & McGrath, 2004) focused on three domains of work life: job design, organizational climate, and job future and their relationships to the leadership and cultural resources of the organization. Brache (2001) in a major validation study for the Healthy Work Organization Model concluded that management practices held the promise of 'preventing work-related stress whilst simultaneously promoting organizational effectiveness' (Browne, 2002, p. 212).

## **EMPLOYEE WELL-BEING AND ORGANIZATIONAL HEALTH: COMPETING PURPOSES?**

Running alongside this tendency to conceptualize organizational health as the integration of individual health outcomes and organizational performance, there remains the suspicion, first alluded to by Bennis and Herzberg, that these variables are positively correlated. Frederick Herzberg, notes that individual growth is the key to organizational health and that (at the time he was writing) a real problem was the way in which mass production techniques robbed many jobs of

meaning (Herzberg, 1974). Perhaps without realizing it, both Bennis and Herzberg point to a symbiotic relationship between individual health and organizational health. Churchman argued that the criteria for determining success in relation to the parts in isolation are often the reverse of the criteria for success from the viewpoint of the whole (Churchman, 1968). Churchman's observation may mean that attempts to improve the health of the individual actors in an organization may be in tension with the health of the organization as a whole if this is measured using a framework such as the Healthy Work Organization model.

The argument that organizational and individual health is interdependent (Pritchard et al., 1990) suggests that systems theory may offer relevant insights. Gabriel also offered an interesting counterview in claiming that organizations can be effective despite individual suffering (quoted in Driver, 2003, p. 46). MacIntosh, MacLean, and Burns (2007) examined that the relationship between individual and organizational health is often portrayed as having a symbiotic relationship and is a poorly understood one. They argue that managerial practices which focus on outcomes as system-wide states can inadvertently assume that if the system is healthy, its 'elements' will be healthy. For instance, fear of job security resulted out of an organizational restructuring practices is an ideal situation where the symbiotic nature of this relationship can be questioned.

## DIMENSIONS OF ORGANIZATIONAL HEALTH

Aaron De Smet, Mark Loch & Bill Schaniger (2007), proposes five overarching organizational dimensions that signifies organizational health dimension such as:

1. *Resilience*: Beyond the everyday problem, managers of today have to contend with unpredictable and often threatening disruptions: financial-market meltdowns, extreme weather conditions, power failures, even terrorism. Healthy companies are practiced at spotting and managing key risks (including low-probability but high impact catastrophes), and they build mechanisms and have the resources- cash reserves or back up IT systems- to face up such eventuality e.g. Wal-Mart response after Hurricane Katrina in US.
2. *Execution*: Even as companies hedge against external shocks, they need to get the basics right, make good decisions, and perform essential tasks. The companies that execute well share certain attributes/distinctive capabilities: the ability to make sound and timely decisions, strong forecasting skills, and employees who understand their roles and responsibilities.
3. *Alignment*: A healthy organization sketch a compelling vision of the future for everyone connected with them- employees in particular- by articulating a shared identity that rises above individuals, functions, and business units; by reflecting stakeholder concerns in corporate values; and by reinforcing the sense of common purpose with formal mechanisms, such as performance contracts.
4. *Renewal*: Healthy companies invest in their future by expanding into well-chosen markets where existing assets and competencies provide real leverage, usually with the help of a winning formula that has been honed from experience and facilitates smooth integration across the entire value chain and the efficient extraction of synergies. The success of Nike's has been attributed to its renewal capability that requires attention to softer issues, to generate ideas and adapt to change, both culturally and strategically.
5. *Complementarity*: The concept of complementarity refers to those organizational practices, such as hiring policies, training programs, and consistent and mutually reinforcing behavioral incentives that are crucial to ensuring that assets, processes, relationships, and management practices act in concert e.g. Toyota Motors. These attributes are emergent characteristics of a company's performance system rather than narrow outputs of performance.

## APPROACH TO ORGANIZATIONAL HEALTH: REVIEWING BITC WORKWELL

The BITC Workwell approach is a model that proposes an integrated, holistic and strategic model to promoting healthy workplaces. It outlines actions that both employers and employees can take to create a healthy workplace. The model also demonstrates the business benefits for employers who take a proactive approach to the prevention of illness and promotion of health and wellbeing. It comprises of 4 areas that define a successful integrated approach to health and wellbeing in organizations.

### 1. Better Physical & Psychological Health

Create an environment where employees are encouraged to make healthy lifestyle choices that promote physical and emotional wellness.

- Promoting a physically safe working environment with optimal air quality, temperature, noise, lighting and layout of work spaces.
- Promoting healthy behaviours such as emotional resilience which builds self esteem, healthy eating, and physical activity, smoking cessations, sensible drinking and avoidance of drug misuse.

### 2. Better work

Create a happy and engaging work environment where 'good work' is promoted.

- A management style and an organizational culture that promotes mutual trust and respect.
- Employment security and effective talent management.
- Job design: task and variety challenge.
- Autonomy, control & task discretion.
- Non monotonous and repetitive work.

### 3. Better relationships

1. Promote social health through good communication and opportunities to build 'social capital' at work and at home.

2. Promoting and enabling better communication and social cohesion to support good relationships in the workplace particularly among:

- Line manager.
- Team colleagues.
- Support networks.

Relationships outside work (family and friends) can also be supported through flexible working practices and through involvement in social initiatives.

### 4. Better Specialist Support

1. Provide early interventions and active absence management that support wellness and recovery.

2. Better support and interventions to manage health and wellbeing can be provided by:

- Occupational health, HR, Employee Assistance
- Training for line managers & employees.

According to Ramnik Ahuja and Debasis Bhattacharya (2007), creating an environment which results in a healthy and satisfied workforce is not just an idealistic concept, but one which makes good business sense and is the key factor in developing a successful organization.

## MANAGERIAL IMPLICATIONS

Today, more than ever, there is a growing body of evidence that organizations needs to invest time and money in maintaining organizational health. A healthy organization is integral to achieving excellence as the focus is on creating the right work environment for employees, which in turn creates the right approach to satisfying the strategic and operational goals of satisfied customers, clients and stakeholders. For business leaders, who tends to look for a 'silver bullet' solution to organizational challenges in the areas of strategy, technology, product design, marketing and finance, aspects of an organization's health comes as better determinant for future success, with due regard to the criticality of these components to performance. But, over-emphasis may hamper them even today neglect their proactive role- its ability to create a new thrust in the society. Thus to the old-fashioned notion of efficiency, growth, stability, and flexibility have been added as criteria for judging the health of complex organizations. It is also important to note that there is no "one size fits all" health and wellbeing approach which works for all organizations. Each organization must develop their own initiatives based on an analysis of their needs.

The study concludes that the existing literature lacks a succinct definition of healthy organization and within this paper the healthy organization is defined as one whose structure, culture and management processes contribute to high levels of organizational performance. These types of organizations effectively capitalize on their intellectual property and their ability to work as a team, engage in healthy debate, make sound decisions, nimbly navigate change, set and communicate direction and permeate a culture of accountability and results. The review study contributes by deepening the understanding of what a healthy workplace looks like and more important what business leaders can do to embed healthy attitudes throughout their organizations. For business leaders and managers, becoming well acquainted with the attributes of health – and the tensions among them—is the first step in confronting that challenge.

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## EMPLOYEES SIXTH PAY COMMISSION: ESTIMATION OF JOB SATISFACTION AMONG CENTRAL GOVERNMENT

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### ABSTRACT

The study aims at making an assessment of the impact of Sixth Pay Commission on Central Government Employees of Uttar Pradesh. Very recently we have witnessed a change in our economy i.e. the implementation of Sixth Pay Commission for the Employees of Central Government. With the implementation of Sixth Pay Commission in the year 2008 there is a remarkable increase in the salary packages of the Employees working in the Central Government. The main purpose of the present study is to analyze that whether there is a simultaneous increase in the Job Satisfaction of those employees or it remains the same even after it. It is a well known fact that with an increase in monetary benefits there is a simultaneous increase in the other related factors like job satisfaction, belongingness to the organization, motivation, job security, standard of living and so on. The present study focuses on one such aspect i.e. Job Satisfaction. The study make an assessment of the level of Job Satisfaction prevailed among Central Government Employees before the implementation of Sixth Pay Commission and is there any swing in the same after its implementation. For conducting the present study, fifty central government employees were selected randomly. A Close ended questionnaire, based on D.N. Mutha's reliable tool, was used to collect the data. The responses were analyzed by applying Chi Square test. Its application accessed the Goodness of the Fit, significance of association between two attributes and the homogeneity and the significance of population variance. After calculating the Chi Square of the scores the table scores came out to be 6.63 which indicate that the Chi Square is Significant hence there is a difference between the Job Satisfaction of Employees before and after implementation of Sixth Pay Commission. It was found that there is a remarkable increase in the level of Job Satisfaction of Central Government Employees. This study will give a valuable contribution to the Government in the form of feedback of the step which they have taken towards the welfare of Government Employees, because Feedbacks always make the system work more efficiently. It will also give room to the new scholars to tap the untouched aspects which are equally influenced.

### KEYWORDS

Job Satisfaction, Sixth Pay Commission, Central Government, Chi Square, Goodness of the Fit.

### INTRODUCTION

Very recently we have witnessed a change in public sector units, which is an implementation of Sixth Pay Commission. With its initiation a question also crept into the system i.e. "How will Sixth Pay Commission affect the employee's performance, will it increase or it will remain unaffected. This study is an attempt to assess the change in level of Job Satisfaction among the employees fetching benefits of Sixth Pay Commission.

When Trade Unions and Government Employee Associations came forward with a serious question:

"How can central and state government employees' salaries remain stagnant when India is booming?"

"When India Inc is a success story, how can industrial wages in the country remain so low?"

In response, Prime Minister Dr Manmohan Singh in a press conference said:

"The time has now come for a new commission. We are preparing for it."

Pay Commission is an administrative system/mechanism that the Government of India set up in 1956 to determine the salaries of government employees. The First Pay Commission was established in 1956, and since then, every decade has seen the birth of a commission that decides the wages of government employees for a particular time-frame. For instance, the recommendations of the Fourth Pay Commission covered the period between 1986 and 1996. The Fifth Pay Commission covered the period between 1996 and this year. And the most recent is "The Sixth Pay Commission".

### PAY COMMISSION AT A GLANCE

1. In July 2006, the Cabinet approved setting up of the sixth pay commission. This commission has been setup under Justice B.N.Srikrishna with a timeframe of 18 months. The cost of hikes in salaries is anticipated to be about Rs. 20,000 crores for a total of 5.5 million government employees as per media speculation on the 6th Pay Commission, the report of which is expected to be handed over in late March/early April 2008.
2. From September 2008, government employee getting hiked salary. Arrears will be effective from 01.01.2006, but central government employee will get only 40% of arrears on 2009 and rest 60% of arrears on 2010. Arrears will be paid in cash.
3. The higher salaries for 5 million government employees will cost the Centre Rs178 bn on an annual basis. The wage hike will exceed pay commission estimates by Rs110 bn, the Government said.
4. To remove stagnation in government jobs, introduction of running pay bands for all posts in the Government presently existing in scales below that of Rs 26,000.
5. Four distinct running pay bands are recommended — one running band each for all categories of employees in groups 'B' and 'C' with 2 running pay bands for Group A posts.
6. The posts of Secretary and Cabinet Secretary will be kept in distinct pay scales.
7. A separate running pay band, designated as -1S scale, will not be counted for any purpose as no future recruitment will be made in this grade and all the present Group D employees not possessing the prescribed qualifications are to be upgraded and placed in the Group 'C' running pay band PB-1 after they are suitably retrained. Group D employees possessing the minimum prescribed qualifications will be placed in PB-1 pay band straightaway.
8. Minimum salary at the entry level of PB-1 pay band will be Rs 6660 (Rs 4860 as pay in the pay band plus Rs 1800 as grade pay). Maximum salary at the level of Secretary/equivalent will be Rs 80000.

9. Every post, barring that of Secretary/equivalent and Cabinet Secretary/equivalent will have a distinct grade pay attached to it. Grade pay (being a fixed amount attached to each post in the hierarchy) will now determine the status of a post with a senior post being given higher grade pay.
10. The total number of grades is reduced to 20 spread across four distinct running pay bands; one Apex Scale and another grade for the post of Cabinet Secretary/equivalent as against 35 standard pay scales existing earlier.
11. At the time of promotion from one post to higher post, the grade pay attached to posts in different levels within the same running pay band to change. Additionally, increase in form of one increment will be given at the time of promotion. A person stagnating at the maximum of any pay band for more than one year continuously will be placed in the immediate next higher pay band without any change in the grade pay.
12. Annual increments will be paid in form of 2 and half percent of the total of pay in the Pay Band and the corresponding grade pay. The date of annual increments, in all cases, will be first of July. Employees completing six months and above in the scale as on July 1 will now be eligible for hike.

## JOB SATISFACTION

Job satisfaction is the end feeling of person after performing a task. To the extent that a person's job fulfills his expectations and values, the job will be satisfying. The feeling would be positive or negative depending upon whether needs is satisfied or not.

The concept of "Job Satisfaction" is very broad and it is frequently used as a professional terminology. If we will go deep into its meaning then it can be bifurcated as "Physical Job Satisfaction" and "Psychological Job Satisfaction". Physical Job Satisfaction is the satisfaction which is felt when a person is satisfied with their remuneration, perks, fringe benefits, bonus, professional gifts, and other facilities, basically there are things which give them material gains or gains which are tangible in nature. On the other hand when the satisfaction is intangible i.e. satisfaction which a person feels by rendering selfless service to their organization, without expecting any material benefits, and seeking out only for mental and psychological gratification it is said to be "Psychological Satisfaction". Some of the factors which affect the Psychological Job Satisfaction are Interpersonal Relationship between Employers and Employees, Employee & Employee, and Employee and Trade Union and so on.

In the environment there are many factors present which has a direct impact on the Job Satisfaction of any person. It is not necessary that these factors has to be from within the organization, they can even be present within the individual. The various External and Internal determinants of Job Satisfaction are as follows:



The External Factors are majorly related to the job and organization where the person is working. They can be Job Content, Occupational Level, Remuneration, Promotion opportunity, Work Group, Supervision and so on which if appropriately managed in the organization will lead to heightened Job Satisfaction. Enriched job content, high occupational level, fair remuneration, better avenues for career advancement, pleasant interpersonal relations and proper supervision and control has its definite way towards Employee Job Satisfaction.

Similarly there are also some individual characteristics, which if possessed by an individual will be self contented and will also be high on Job Satisfaction. Some such factors can be Attitude, interests, Personal motivators, Educational Level and so on. There are some demographical factors also which has their influence on the satisfaction level of an employee; these are Age, gender and marital status. Any individual with positive attitude, broad interest areas, high and suitable educational qualification will preferably have high level of job satisfaction. It is also found out with the help of some studies and surveys that generally Males are high on Job Satisfaction as compared to Females. Increase in age can sometimes cause a decline in Job Satisfaction maybe because of a simultaneous increase in expectations with age and experience. And lastly it is observed that sometimes married personnel are found more dissatisfied with the job because of their increased responsibility, but sometimes they are also found more satisfied because they value their job.

## OBJECTIVES OF THE STUDY

With the help of this study following objectives will be fulfilled. They are as follows:

1. To find out the impact of the implementation of Sixth Pay Commission on Job Satisfaction of Central Government Employees.
2. To study the significance of association between monetary benefits and Job Satisfaction.
3. To measure the before and after effect of salary hike as per Sixth Pay Commission on Job Satisfaction of Central Government Employees.
4. Some suggestions and recommendations will also be provided to the Government for making their management more efficient.

## METHODOLOGY

In the present study one of the External Factor is taken as the central theme, i.e. "REMUNERATION", because it is always observed that "Monetary Benefits" have always played a very significant role in motivating any person towards giving better performance. And in the present scenario when Government announced Sixth Pay Commission for Central Government Employees, it made an issue worth exploring that how will it affect the performance of those employees.

One of the famous writers, **Professor Harold Koontz** emphasized on the significance of money in motivating the employees and increasing their satisfaction level. He in his book named "**Management- A Global Perspective**" has quoted that "**Money can never be overlooked as a motivator. Whether in the form of wages, piecemeal or any other incentive pay, bonuses, stock options, company paid insurance or any of the other things that may be given to people for performance, money is important. And, as some writers have pointed out, money is often more than monetary value. It can also mean status and power**", which simultaneously effect the Job Satisfaction of the employees.

Hence, the present paper aims at analyzing this directly proportionate relationship between Money & Job Satisfaction. For the collection of data a group of Central Government Employees was selected as sample. The data was collected on fifty employees who were randomly selected.



The Questionnaire formed for this purpose is based on Dr. D.N. Mutha’s tool for testing Job Satisfaction of teachers. It consists of twenty Yes/No type questions, which are related to the above mentioned dimensions of Job Satisfaction and which can very well assess the incline or decline in its level. The questionnaire consists of two columns, in the first column the responses will show the job related attitude of the employees before Sixth Pay Commission and the Second column will show their attitudes on the same aspects after the implementation of Sixth Pay Commission.

For Ex.: To evaluate that whether Sixth Pay Commission leveraged the Financial Security of the Employees. The item numbers 5,6,9,13,15 & 16 are very well framed to evaluate this aspect. Some examples are as follows:

- 5) Were you satisfied with your previous pay scale? Yes/No
- 6) Do you feel that your salary is appropriate according to your job? Yes/No
- 9) Do you feel that you have become more financially secure? Yes/No

In another case if we need to evaluate that whether Sixth Pay Commission have escalated their interest in the jobs as compared to the previous scenario, then item numbers 1 & 2 are framed to assess the same:

- Examples are as follows:
- 1) Do you feel that people are more inclined towards Government Jobs? Yes/No
  - 2) Do you feel that your interest in your job has increased? Yes/No

Above mentioned are some samples of the question which I have included in the questionnaire for assessing the swing in level of Job Satisfaction of Central Government Employees after the implementation of Sixth Pay Commission.

**ANALYSIS AND INTERPRETATION:**

The data collected for this study is analyzed statistically to check that whether the objectives designed for the study is achieved or not. The data is analyzed by applying Chi Square Test.

**CHI SQUARE TEST**

The Chi Square test is an important test amongst the several tests of significance developed by statisticians. Chi-square is a statistical measure used in the context of sampling analysis for comparing a variance to a theoretical variance. As a non-parametric test, it “can be used to determine if categorical data shows dependency or the two classifications are independent”. The test is in fact a technique through the use of which it is possible for all researchers to:

- (1) Test the Goodness of Fit
- (2) Test the significance of association between two attributes, &
- (3) Test the homogeneity or the significance of population variance.

Chi Square is calculated with the following formula:

$$\chi^2 = \sum (f_o - f_e)^2 / f_e$$

Where:

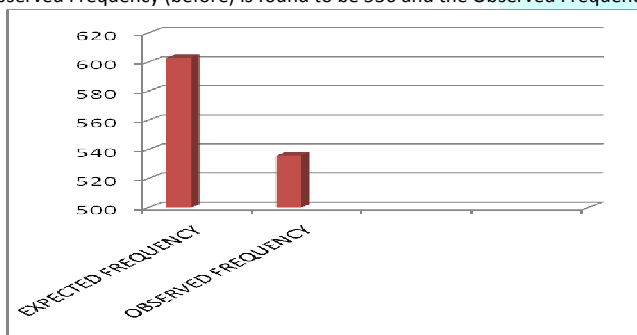
- $\chi^2$  ⇨ Chi Square
- $\Sigma$  ⇨ The sum of all
- $f_o$  ⇨ Observed frequency
- $f_e$  ⇨ Expected Frequency

In the questionnaire score 1 is assigned to YES and score 0 is assigned to NO. For every questionnaire the total score is calculated by summing all the scores for yes and no. The data is in two categories, one category measures the level of Job Satisfaction of Central Government Employees before Sixth Pay Commission and the other side measures the same after the implementation of Sixth Pay Commission. All the scores for before and after were calculated to get the Observed frequency for both categories. These two categories are taken as observed frequency and with it expected frequency is calculated with the following formula:

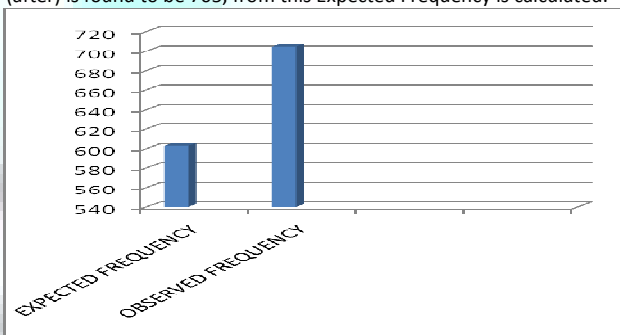
$$F_e = f_o(\text{before}) + f_o(\text{after}) / 2$$

**CALCULATIONS**

The Observed Frequency (before) is found to be 536 and the Observed Frequency (after) is found to be 705, from this Expected Frequency is calculated.



**BEFORE THE IMPLEMENTATION OF SIXTH PAY COMMISSION**



**AFTER THE IMPLEMENTATION OF SIXTH PAY COMMISSION**

fo(before)= 536  
fo(after)= 705  
fe= 536x705/2 = 603  
fe= 603

Chi Square	Before	After
Fo	536	705
Fe	603	603
(fo- fe)	67	102
(fo- fe) <sup>2</sup>	4489	10,404
(fo- fe) <sup>2</sup> /fe	7.44	17.25

$$\sum (f_o - f_e)^2 / f_e = 24.69$$

Degree of Freedom:  $(r-1) \times (c-1)$

Where:  $r$  is number of rows

$c$  is number of columns

$df = (2-1) \times (2-1)$

$= 1 \times 1 = 1$

Table score is 6.63.

"The Chi Square is significant therefore the difference between the two score is also significant."

The result shows that the difference between the two scores is significant which clearly shows that the level of Job Satisfaction have increased after the implementation of Sixth Pay Commission i.e. there is a significant difference between the Job satisfaction of Employees before the implementation of Sixth Pay Commission and after the implementation of Sixth Pay Commission.

## RESULTS AND FINDINGS

The result of this study clearly shows that Job Satisfaction of Employees increases with the increase in "Monetary Benefits".

As also explained by W. D. McCausland, K. Pouliakas and I. Theodossiou Centre for European Labour Market Research, University of Aberdeen Business School, Aberdeen, Scotland in his paper "Some are punished and some are rewarded: A study of the impact of performance pay on job satisfaction" quoted that "Using data from four waves of the British Household Panel Survey (BHPS), it is found that Performance Related Pay exerts a positive effect on the mean job satisfaction". So in the vein of his findings the present study also has the similar result that with a hike in salary the level of Job Satisfaction also shoots up.

Similar to the findings of Benjamin Artz through his paper named "The Role of Firm Size and Performance Pay in Determining Employee Job Satisfaction Brief: Firm Size, Performance Pay, and Job Satisfaction" in which he referred that the increased earnings increase job satisfaction, the increased effort and risk decreases job satisfaction. This paper finds empirical evidence that on net performance pay increases job satisfaction". The present paper also gives the same findings that the hike in pay package positively affects Job Satisfaction of Employees.

## CONCLUSION AND SUGGESTION

As per the conclusion of this study the Level of Job Satisfaction increases with the simultaneous increase in the pay package of the employees, which also satisfies the objective of the present study. As we have seen in the recent time that Government has announced Sixth Pay Commission for Central Government Employees, which not only resulted in the hike in their salary package but also provided them with many additional facilities which added on to the positivity of their attitude towards their job and also helped them bear a high level of Job Satisfaction.

According to this conclusion we came up with several suggestions which are as follows:

1. This facility should not only be provided to the Central Government Employees rather it should also be implemented for State Government Employees as well.
2. Generally we find Government Organizations having inappropriate work environment, so along with hiking their salary packages some maintenance activities should also take place in those organization which can give way to more satisfied manpower.
3. The Government of India should deviate a bit of their focus to the Private Sector as well, because after all it also falls in the premises of our nation. Some provisions should also be made for the Private Sector Employees.
4. Along with the salary hike the Government should also escalate the roles and responsibilities of the employees, simultaneously they should also create a review committee which can do a time to time review of the performance of the employees, so that no employee will be able to take unfair advantages of this facility.

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## PRODUCTIVITY CHANGE IN THE INDIAN HEALTH INSURANCE BUSINESS: A MALMQUIST TOTAL FACTOR PRODUCTIVITY ANALYSIS

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### ABSTRACT

*In order to increase the standard of living of an economy continues increase in its productivity is required, which in turn depends upon the continuous increase in the productivity of the system that provides the goods and services. For the measurement of productivity, number of methods have been developed and applied. Out of these the principal methods used are: Data Envelopment Analysis (DEA) and Stochastic Frontier. DEA is a non parametric mathematical programming approach which uses Malmquist Index for the measurement of productivity. This paper seeks to use DEA to evaluate the productivity of health insurance business of general insurance companies in India. The present study is focused upon 10 general insurance companies of India including 4 public sector companies and cover a period of 8 years from 2002-03 to 2009-10. The study uses the equity capital and labour (including commission, agents' fees, referral and other expenditure) as input and net premium as output. It was observed that all the insurance companies have improved its productivity, except two public sector companies namely, Oriental Insurance Company Limited and New India Assurance Company Limited which show the reduction in its productivity. As initially their total factor productivity change from 2002-03 to 2003-04 was 1.474 and 1.309, which decreased to 1.115 and 1.136 from 2008-09 to 2009-10. This can attributable to the fact that all the insurance companies are taking the advantages of technological Change/technical progress or technical efficiency except these two companies.*

### KEYWORDS

Data Envelopment Analysis, Technological Change, Efficiencies, Malmquist Index and Productivity.

### INTRODUCTION

In order to increase the standard of living of an economy continues increase in its productivity is required, which in turn depends upon the continuous increase in the productivity of the system that provides the goods and services. Productivity growth is acting as a key factor behind the increasingly competitive global market for maintaining and advancing the economic opportunities for individuals and societies. Interest in productivity has increased enormously in recent year because of wide spread concerned about the prospects of productivity improvement among local authorities, hospitals, schools, shops, business houses, banks, insurance companies etc. The growth in the productivity is one of the most important factors that have contributed to the advancement of nations. In the last few years we have contemplated into a revolution in terms of productivity (Singhania, 1995). Productivity is the heart of every economy, because standard of the living of an economy depends upon its productivity growth. Higher the productivity growth better will be the standard of living of an economy. Similarly, lower the productivity growth dreadful will be the standard of living of an economy. The productivity was defined in five different ways by Frensky (1968): Productivity in the form of efficiency; productivity is the utility of resources; it is the ratio rather than phenomenon; it is a measure of some kind; and it is a rate of return.

As far as the productivity of an Indian insurance market is concerned, it is increasing over a period of time on the same line of global Insurance markets. Dozens of countries have deregulated or liberalized their insurance markets on the expectations that competitive markets are in a better position to enhance consumers' choice and welfare than are rigidly regulated insurance markets. One of such liberalized insurance market is an Indian insurance market, where twenty six percents Foreign Direct Investments (FDIs) is allowed in insurance sector. Forwarding attention deep towards Indian Insurance market will reflect that since its inception it has faced numerous milestones in the phases of development. But inspite of those milestones the Indian insurance industry found the new track of success and growth in the year 1999, when reforms in the insurance sector was initiated with lying and passing of IRDA Bill in Parliament. The Insurance Regulatory and Development Authority (IRDA), since its incorporation in April, 2000 have fastidiously stuck to its schedule of framing regulations and opening up of an insurance sector to private players as well as permitting FDIs in insurance sector. The FDI was allowed on the same line of as other countries are considering that privatization and liberalization will ensure the efficient, effective services to the insured ones and will also enhance productivity of the insurers. To what extent Indian liberalized and privatized market has achieved its objectives of increasing and enhancing productivity of insurers as well as enhancement of consumers' choice and welfare is a matter of controversy and discussion.

In order to measure the productivity, number of methods have been developed and applied. Out of these the principal methods used are: Data Envelopment Analysis and Stochastic Frontier. Data Envelopment Analysis (DEA) is a non parametric mathematical programming approach to frontier estimation, which uses data to determine a sphere which represent the best practice for measuring efficiencies, inefficiencies and productivity. The Data Envelopment Analysis has number of favorable economic implications because it is fit to evaluate the productive efficiency of different lines of business and the identification of production function. Besides this, its scope is far broader than imagination because of its wide range of applicability in various fields such as hospitals, banks, insurance companies, air force wings, universities, cities, courts, business firms, and others, including the performance of countries, regions, states etc. As far DEA applicability in the insurance area is concerned, it is helpful in the measurement of productivity of insurance companies with the use of Malmquist Index.

### REVIEW OF LITERATURE

Various studies related directly or indirectly to the objectives of the present study have been reviewed. **Charnes, Cooper and Rhodes (1978)** provided with a nonlinear programming model which have given a new definition of efficiency and productivity. This model can objectively determine the weights with reference to observational data for multi-input and multi-output. **Weiss (1986)** concluded that applicability of the output and productivity measurement methodologies developed is not limited to the specific insurers studied, but rather can be used as a guide in measuring the productivity of any life insurer or insurance industry. **Grace and Timme (1992)** analyzed the U.S. life insurance industry and provided with the estimation of both overall and product specific scale economies, as well

as, pair-wise cost complementarities for a wide variety of products. In contrast, previous studies only provide a single point estimate of industry cost characteristics using the sample mean output vector. This study, therefore, provides a more complete representation of the industry's cost characteristic. **Cummins, Turchetti and Weiss (1996)** examined the efficiency and productivity under the new European regulatory regime and indicated that technical efficiency in the Italian insurance industry ranged from 70 to 78 percent during the sample period. However, productivity declined significantly over the sample period, with a cumulative decline of about 25 percent. **Fukuyama (1997)** investigated the productive efficiency and productive changes of Japanese life insurance companies and reveals mutual and stock companies possess identical technologies, but the productive efficiency and productive performance changes from time to time in the case of stock and mutual under different economic conditions. **Cummins and Zi (1998)** provided that alternative methodologies give significantly different estimates of efficiency and productivity for the insurers. Moreover the efficiency rankings are quite well-preserved among the econometric methodologies; but the rank correlations are lower between the econometric and mathematical programming categories and between alternative mathematical programming methodologies. **Cummins and Misas (2001)** analyzed the causes and effects of consolidation in Spanish insurance industry and showed that many small, inefficient, and financially under-performing firms were eliminated from the market due to insolvency or liquidation and those acquirers in the mergers and acquisitions market prefer relatively efficient target firms. **Boonyasai, Grace and Skipper (2002)** examined the impact of liberalization and deregulation of four life insurance markets and found that liberalization and deregulation of the Korean and Philippine life insurance industries seem to have stimulated increases and improvements in productivity whereas liberalization of the Taiwanese and Thai life insurance industries seems to have had little effect on increases and improvements in productivity. **Cummins, Weiss and Zi (2003)** provided the evidence for the existence of weak economies of scope in the U.S. insurance industry and also that strategic focus appears to be a better strategy. **Eling and Luhn (2008)** analyzed and provided new empirical evidence on frontier efficiency measurement in the insurance industry and found that a steady technical and cost efficiency growth in international insurance markets from 2002 to 2006, with large differences across countries. **Yuan and Phillips (2008)** examined the efficiency and productivity effect from the possible economies of scope across two formally separate sectors by estimating multi-product costs, revenue, and profit function and suggested that a significant number of cost scope diseconomies, revenue scope economies, and weak profit scope economies exist in the post-GLB U.S. integrated banking and insurance sectors. **Owusu, Dontwi, Seidu, Abdulai, and Sebil (2010)** evaluated the performance, efficiency and productivity of Ghanaian general insurance companies from the year 2002 to 2007 and provided with the result that Ghanaian general insurers operated at an average overall efficiency of 68%, technical efficiency of 87% and scale efficiency of 78%.

Having the in-depth review of related studies has provided that there is a huge importance of DEA in evaluating the performance and productivity of the insurance industry. Keeping in mind such an importance of DEA model in evaluation of an entity, we have used the same in the present study in order to achieve the following objectives:

- To examine the productivity as well as change in productivity of health insurance business of general insurance companies.
- To identify and explore the various derives behind such productivity change.

**DATA BASE AND RESEARCH METHODOLOGY**

The present study is covering a period of 8 years from 2002-03 to 2009-2010. The base year is taken as 2002 i.e. the companies which are providing health insurance since 2002 are forming a part of the study. The basic reason behind the selection of base year as 2002 lies in the fact that, this is the exclusive year in which maximum numbers of general insurance companies are operating in insurance industry and started extension of health insurance under their existing network of service. The companies under the scope of study include, Tata AIG General Insurance Company Limited, IFFCO Tokio General Insurance Company Limited, Reliance General Insurance Company Limited, Royal Sundram Alliance Insurance Company Limited, Bajaj Allianz General Insurance Company Limited, ICICI Lombard General Insurance Company Limited, United India Insurance company limited, Oriental Insurance Company Limited, New India Assurance Company Limited and National Insurance Company Limited. The study is entirely based upon secondary data, which is mainly drawn from the annual reports of the insurance companies under consideration. Beside this the use of statistical year book of IRDA and other publication related with the insurance was made for the collection of certain facts and figures necessary for the present study.

In order to accomplish the objectives of study, we used the Data Envelopment Analysis (DEA), a mathematical programming approach to investigate the productivity as well as change in the productivity of health insurance business of general insurance companies in India. DEA helps in measuring productivity by using Malmquist index summary. This summary provided with Efficiency Change (EC), Technological Change (TC), Pure Technical Efficiency Change (PTEC), Scale Efficiency Change (SEC) and Total Factor Productivity Change (TFPCH). Overall it provided with TFPCH which comprises of EC, TC, PTEC and SECE. Thereby an effort has been maintained to calculate the Total Factor Productivity Change (TFPCH) by using the Malmquist index provided by DEA. The TFP growth in this case measure the change in the production frontier and how the current frontier relates to the firm frontier over time. The growth of TFP has two major components: technological change/technical progress and efficiency change. Technological change/technical progress is represented by a shift in the production frontier while efficiency change is based upon an index of a firm's efficiency relative to past and future frontiers.

If we let  $D_t(x_t, y_t)$  be the distance from the origin for a firm with an input vector of  $x_t$  and an output vector of  $y_t$  where  $t$  represents time and the subscript  $s$  for the firm is omitted for clarity, then,

$$M_t = \frac{D^s(x^s, y^s)}{D^s(x^{s+1}, y^{s+1})}$$

..... (1)

The ratio of the two distances,  $M_t$ , is the Malmquist productivity index. This index suffers from a problem that it depends upon the starting values. For example, if we examined the Malmquist index with respect to the period  $t + 1$  frontier, we have

$$M^{t+1} = \frac{D^{s+1}(x^s, y^s)}{D^{s+1}(x^{s+1}, y^{s+1})}$$

..... (2)

So, to avoid an arbitrary choice of which frontier to choose, we take the geometric mean, which yields the Malmquist index of total factor productivity,

$$M(x^{t+1}, y^{t+1}, x^t, y^t) = \left[ \frac{D^s(x^s, y^s)}{D^s(x^{s+1}, y^{s+1})} \times \frac{D^{s+1}(x^s, y^s)}{D^{s+1}(x^{s+1}, y^{s+1})} \right]^{1/2}$$

..... (3)

The change in efficiency is thus the ratio of the distance from the frontier in period  $t$  to the distance in period  $t + 1$ . If technical efficiency increases, the ratio will be greater than one and, if it decreases, the ratio will be less than one.

To calculate technical change, we examine how the firm uses its inputs to produce outputs in periods  $t$  and  $t + 1$  and how the input/output bundles change over time. Technical change is computed as follows:

$$TC(x^{t+1}, y^{t+1}, x^t, y^t) = \left[ \frac{D^{s+1}(x^{t+1}, y^{t+1})}{D^s(x^{t+1}, y^{t+1})} \times \frac{D^{s+1}(x^t, y^t)}{D^s(x^t, y^t)} \right]^{1/2}$$

..... (4)

If favorable technological change exists, the frontier will have moved to the left, and both output bundles will be farther from the period  $t + 1$  frontier than they are from the period  $t$  frontier. Once again, a ratio greater than one indicates progressive technical change.

(Source: Coelli T.J. 1996)



## MEASUREMENT OF INPUTS AND OUTPUTS

For the application of DEA, accurate identification and selection of variable of inputs and outputs is necessary. By the study of literature it came into notice that researchers have general agreement on the selection of inputs indicators. Generally labor, capital and materials are selected as shown in Grace and Timme (1992), Gardner and Grace (1993), Cummins and Zi (1998). **THE VARIABLES OF INPUTS WHICH ARE CONSIDERED UNDER THE PRESENT STUDY ARE AS:**

**EQUITY CAPITAL (X1):** According to the theory of corporate finance, financial capital can be authorized capital or capital actually invested i.e. invested capital. The invested capital includes long term debt and equity capital. However, reserve constitutes almost all the long term debt of insurers. But at the same time the debt is not stable in the financial reports. Therefore, we cannot say that insurers use this long term debt to support their business. In this study we have taken equity share capital as the first indicator of input.

**AMOUNT OF LABOUR (X2):** As the insurance companies do not constitute the part of the manufacturing industries, rather form a part of the financial service industry so it does not require raw material. In financial service industry the cost of labor is the most important input. The main difficulty regarding this input was to get salary data of insurers, which is not feasible. So alternatively we have taken amount of commission, agent, and referral fees as the second indicator of input.

**THE VARIABLES OF OUTPUTS WHICH ARE CONSIDERED UNDER THE PRESENT STUDY ARE AS:**

As far as the variable of output is concerned wide diversity found in literature, because of the fact that defining and measuring outputs in the insurance industry has been a challenging task. In various studies three commonly used outputs are: premium income, weighted sum of activities, and incurred benefits plus additions -to-reserves. In most of the previous studies net written premiums or net earned premiums have been used as proxies for outputs. Doherty (1981); Yuengert (1993); Cummins and Zi (1998) thinks premium cannot reflect the quantity of output. However, Houston and Simon (1970) thinks premium to insurers is what income to manufacturers, and therefore can be regarded as the indicator of output. Similar arguments appeared in: Praetz (1980); Fields and Murphy (1989); Grace and Timme (1992); Gardner and Grace (1993); and Rai (1996). They consider premium as an appropriate indicator of output, assuming the product is homogeneous and competitive pressures compel all insurers to charge the same price.

Finally we have selected two indicator of input as capital and cost to the insurers; one indicator of output as premium, which is also in accordance with the assumption of DEA, that number of DMUs should be three time of number of inputs and outputs.

## EMPRICAL RESULTS, ITS ANALYSIS AND INTERPRETATION

**I. DIRECTION OF PRODUCTIVITY CHANGE AND MALMQUIST INDEX SUMMARY:** Productivity change and malmquist index has been investigated in order to know where companies are standing in relation to previous year, so as to arrive at conclusion whether productivity change exists or not. Further if change exist, whether it is positive change or negative change. This change in the productivity has been analyzed and interpreted in two ways: A. company wise productivity change and Malmquist index summary and B. Year wise productivity change and Malmquist index summary.

### **A. COMPANY WISE PRODUCTIVITY CHANGE AND MALMQUIST INDEX SUMMARY**

This has been done to arrive at conclusive findings in relation to Total Factor Productivity Change (TFPC), which comprises of Efficiency Change (EC), Technological Change (TC), Pure Technical Efficiency Change (PTEC) and Scale Efficiency Change (SEC). In other words the effort has been made to find out individually which of the company has improved its productivity or vice versa.

TABLE I: SHOWS THE COMPANY WISE PRODUCTIVITY CHANGE AND MALMQUIST INDEX SUMMARY

Tata AIG General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	1.317	2.907	0.477	5.645	0.928	2.056	0.858
TC	0.778	0.309	3.491	0.456	1.266	0.607	1.199
PTEC	1.328	3.961	0.356	7.567	1.606	1.000	1.000
SEC	0.922	0.734	1.341	0.746	0.578	2.056	0.858
TFPC	1.026	0.898	1.665	2.572	1.174	1.247	1.028
IFFCO Tokio General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	0.629	3.756	0.260	5.061	0.365	2.079	1.948
TC	1.596	0.274	3.070	0.456	1.329	0.607	1.170
PTEC	0.692	7.311	0.140	1.000	0.278	1.893	1.901
SEC	1.000	0.514	1.855	2.353	1.314	1.099	1.025
TFPC	1.105	1.028	0.798	1.072	0.485	1.261	2.278
Reliance General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	1.286	0.944	0.850	2.353	1.090	1.620	1.000
TC	0.759	0.717	1.079	0.456	1.409	0.722	1.007
PTEC	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SEC	1.286	0.944	0.850	2.353	1.090	1.620	1.000
TFPC	0.976	0.677	0.917	1.072	1.535	1.170	1.007
Royal Sundram Alliance General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	1.559	1.939	0.632	1.719	0.782	1.633	0.937
TC	0.653	0.533	2.856	0.485	1.455	0.615	1.121
PTEC	1.931	2.492	0.435	1.619	0.807	1.546	0.981
SEC	0.807	0.778	1.451	1.602	0.968	1.056	0.956
TFPC	1.019	1.033	1.804	0.834	1.138	1.004	1.051
Bajaj General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	1.066	2.384	0.398	4.094	1.000	0.775	1.118
TC	0.698	0.449	3.735	0.441	1.340	0.643	0.934
PTEC	1.392	2.957	0.788	1.273	1.000	1.000	1.000
SEC	0.766	0.806	0.505	3.215	1.000	0.775	1.118
TFPC	0.744	1.070	1.485	1.805	1.340	0.498	1.044
ICICI Lombard General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	1.000	0.793	0.310	1.998	0.517	2.478	1.384
TC	0.000	0.038	3.110	0.601	1.582	0.702	0.988
PTEC	1.000	1.000	0.304	1.869	0.628	2.528	1.108
SEC	1.000	0.793	1.021	1.069	0.824	0.980	1.249
TFPC	0.000	0.030	0.966	1.200	0.818	1.740	1.368
United India Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	0.635	1.525	0.837	0.834	0.091	2.311	1.130
TC	0.974	0.685	1.297	1.082	1.434	1.115	1.110
PTEC	0.635	1.575	0.927	0.752	0.089	2.334	1.111
SEC	1.000	0.968	0.904	1.110	1.016	0.900	1.017
TFPC	0.618	1.045	1.086	0.903	0.130	13.730	1.255
Oriental Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	0.924	1.744	0.909	1.133	0.845	1.198	1.000
TC	1.596	0.619	1.298	1.088	1.390	1.102	1.115
PTEC	0.924	1.802	1.009	1.000	1.000	1.000	1.000
SEC	1.000	0.968	0.901	1.133	0.845	1.198	1.000
TFPC	1.474	1.080	1.181	1.233	1.175	1.319	1.115
New India Assurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	1.000	1.000	1.000	1.000	1.000	0.843	1.045
TC	1.309	0.452	2.100	0.671	1.576	0.873	1.088
PTEC	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SEC	1.000	1.000	1.000	1.000	1.000	0.843	1.045
TFPC	1.309	0.452	2.100	0.671	1.576	0.737	1.136
National Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
EC	1.019	1.000	1.000	1.000	1.000	1.000	1.000
TC	1.285	0.503	1.099	1.130	1.384	1.178	1.318
PTEC	1.019	1.000	1.000	1.000	1.000	1.000	1.000
SEC	1.000	1.000	1.000	1.000	1.000	1.000	1.000
TFPC	1.310	0.503	1.099	1.130	1.384	1.178	1.318

The above table I reveals Total Factor Productivity Change (TFPC), which comprises of EC, TC, PTEC and SEC has followed diverse path during the period under consideration. The TFPC which is the results of EC, TC, PTEC and SE has improved in all the companies except two Public sector companies namely, Oriental Insurance and New India Assurance Company limited. Numerically stated as that initially the productivity change in case of Tata Aig, IFFCO Tokio, Reliance, Royal Sundram, Bajaj, ICICI, United India and National Insurance Company Limited was 1.026, 1.105, 0.976, 1.019, 0.744, 0.000, 0.618, 1.310 respectively, which increased to 1.028, 2.278, 1.007, 1.051, 1.044, 1.368, 1.255 and 1.318 respectively, in the year 2009-10. Although the driver behind productivity change can be change in technical efficiency and technical progress/technology change, yet all the companies was least derived by technology change and mostly derived by the change in technical efficiency. Moreover, the results provided with the fact that there are only two public sector companies which show the reduction in the productivity over a period of time. Overall they are also good as their productivity change is greater than one. But if we look at two extremes then found that

improvement in productivity has reduced as the initial productivity change in case of Oriental and New India Assurance Company Limited was 1.474 and 1.309, which decreased to 1.115 and 1.136. This can be attributable to the fact that all the insurance companies are taking the advantages of Technological Change (TC), Efficiency Change (EC), Pure Technical Efficiency Change (PTEC) and Scale Efficiency Change (SEC) except the two namely Oriental and New India Insurance which shows the reverse trends for the change in productivity.

#### B. YEAR WISE PRODUCTIVITY CHANGE AND MALMQUIST INDEX SUMMARY

This has been done in order to find out the year wise Total Factor Productivity Change (TFPC), which is the result of Efficiency Change (EC), Technological Change (TC), Pure Technical Efficiency Change (PTEC) and Scale Efficiency Change (SEC) of various companies under consideration i.e. an effort has been made to find out the year in which maximum TFPC occurred in the companies under consideration.

**TABLE II SHOWS THE YEAR WISE PRODUCTIVITY CHANGE AND MALMQUIST INDEX SUMMARY**

Year		EC	TC	PTEC	SEC	TFPC
2002-03 to 2003-04	Tata	1.317	0.778	1.328	0.992	1.026
	Iffco	0.692	1.596	0.692	1.000	1.105
	Reliance	1.286	0.759	1.000	1.286	0.976
	Royal	1.559	0.653	1.931	0.807	1.019
	Bajaj	1.066	0.698	1.392	0.766	0.744
	ICICI	1.000	0.000	1.000	1.000	0.000
	United	0.635	0.974	0.635	1.000	0.618
	Oriental	0.924	1.596	0.924	1.000	1.474
	New India	1.000	1.309	1.000	1.000	1.309
2003-04 to 2004-05	National	1.019	1.285	1.019	1.000	1.310
	Tata	2.907	0.309	3.961	0.734	0.898
	Iffco	3.756	0.274	7.311	0.514	1.028
	Reliance	0.944	0.717	1.000	0.944	0.677
	Royal	1.939	0.533	2.492	0.778	1.033
	Bajaj	2.384	0.449	2.957	0.806	1.070
	ICICI	0.793	0.038	1.000	0.793	0.030
	United	1.525	0.685	1.575	0.968	1.045
	Oriental	1.744	0.619	1.802	0.968	1.080
2004-05 to 2005-06	New India	1.000	0.452	1.000	1.000	0.452
	National	1.000	0.503	1.000	1.000	0.503
	Tata	0.477	3.491	0.356	1.341	1.665
	Iffco	0.260	3.070	0.140	1.855	0.798
	Reliance	0.850	1.079	1.000	0.850	0.917
	Royal	0.632	2.856	0.435	1.451	1.804
	Bajaj	0.398	3.735	0.788	0.505	1.485
	ICICI	0.310	3.110	0.304	1.021	0.966
	United	0.837	1.297	0.927	0.904	1.086
2005-06 to 2006-07	Oriental	0.909	1.298	1.009	0.901	1.181
	New India	1.000	2.100	1.000	1.000	2.100
	National	1.000	1.099	1.000	1.000	1.099
	Tata	5.645	0.456	7.567	0.756	2.572
	Iffco	5.061	0.456	7.138	0.709	2.306
	Reliance	2.353	0.456	1.000	2.353	1.072
	Royal	1.719	0.485	1.619	1.062	0.834
	Bajaj	4.094	0.441	1.273	3.215	1.805
	ICICI	1.988	0.601	1.869	1.0619	1.200
2006-07 to 2007-08	United	0.834	1.082	0.752	1.110	0.903
	Oriental	1.133	1.088	1.000	1.133	1.233
	New India	1.000	0.671	1.000	1.000	0.671
	National	1.000	1.130	1.000	1.000	1.130
	Tata	0.928	1.266	1.606	0.578	1.174
	Iffco	0.365	1.329	0.278	1.314	0.485
	Reliance	1.090	1.409	1.000	1.090	1.535
	Royal	0.782	1.455	0.807	0.968	1.138
	Bajaj	1.000	1.340	1.000	1.000	1.340
2007-08 to 2008-09	ICICI	0.517	1.582	0.628	0.824	0.818
	United	0.091	1.434	0.089	1.016	0.130
	Oriental	0.845	1.390	1.000	0.845	1.175
	New India	1.000	1.576	1.000	1.000	1.576
	National	1.000	1.384	1.000	1.000	1.384
	Tata	2.506	0.607	1.000	2.056	1.247
	Iffco	2.079	0.607	1.893	1.099	1.261
	Reliance	1.620	0.722	1.000	1.620	1.170
	Royal	1.633	0.615	1.546	1.056	1.004
2008-09 to 2009-10	Bajaj	0.775	0.643	1.000	0.775	0.498
	ICICI	2.478	0.702	2.528	0.980	1.740
	United	2.311	1.115	2.334	0.990	1.730
	Oriental	1.198	1.102	1.000	1.198	1.319
	New India	0.843	0.873	1.000	0.843	0.737
	National	1.000	1.178	1.000	1.000	1.178
	Tata	0.858	1.199	1.000	0.858	1.028
	Iffco	1.948	1.170	1.901	1.025	2.278
	Reliance	1.000	1.007	1.000	1.000	1.007
2009-10	Royal	0.937	1.121	0.981	0.956	1.051
	Bajaj	1.118	0.934	1.000	1.118	1.044
	ICICI	1.384	0.988	1.108	1.249	1.368
	United	1.130	1.110	1.111	1.017	1.225
	Oriental	1.000	1.115	1.000	1.000	1.115
	New India	1.045	1.088	1.045	1.045	1.136
	National	1.000	1.318	1.000	1.000	1.318

For the purpose of year wise analysis of TFPC, three categories of change has been made i.e. less than 1 TFPC, 1-2 TFPC and more than 2 TFPC. Thereafter from the table II it was observed that in almost all the year the TFPC was lies between first two categories i.e. either less than 1 or 1-2, except for the year 2004-05 to 2005-06, 2005-06 to 2006-07 and 2008-09 to 2009-10. Because during these years the TFPC lies in third category i.e. the TFPC was more than 2.

## II ANALYSIS OF DRIVERS BEHIND PRODUCTIVITY CHANGE AND MALMQUIST INDEX

After the investigation of productivity change and Malmquist index Summary, an effort has been made to know the drivers behind this change, which may due to change in technical efficiency or technical progress/technology change. These drivers behind the productivity change and Malmquist index has been analyzed and interpreted in two ways: A. company wise analysis of drivers behind productivity change and Malmquist index and B. Year wise analysis of productivity change and Malmquist index.

### A. COMPANY WISE ANALYSIS OF DRIVERS BEHIND PRODUCTIVITY CHANGE AND MALMQUIST INDEX

This has been done in order to drive the results for each of the company for the period under consideration i.e. an effort has been made to identify and explore the various drivers behind the productivity change of each company individually for all the years.

TABLE III SHOWS THE COMPANY WISE ANALYSIS OF DRIVERS BEHIND PRODUCTIVITY CHANGE AND MALMQUIST INDEX

Tata AIG General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency	X	X		X		X	
Technical Progress			X		X		X
IFFCO Tokio General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency		X		X		X	X
Technical Progress	X		X		X		X
Reliance General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency	X	X		X	X	X	
Technical Progress		X	X		X		X
Royal Sundram Alliance General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency	X	X		X		X	
Technical Progress			X		X		X
Bajaj General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency	X	X		X		X	X
Technical Progress			X		X	X	
ICICI Lombard General Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency	X	X		X		X	X
Technical Progress	X	X	X		X		
United India Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency	X	X				X	X
Technical Progress	X		X	X	X	X	X
Oriental Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency		X		X		X	
Technical Progress	X		X	X	X	X	X
New India Assurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency						X	X
Technical Progress	X	X	X	X	X	X	X
National Insurance Company Limited							
Indicators	2002-03 to 2003-04	2003-04 to 2004-05	2004-05 to 2005-06	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09	2008-09 to 2009-10
Technical Efficiency	X						
Technical Progress	X	X	X	X	X	X	X

The table III shows the drivers behind the productivity change which can be change in technical efficiency or technical progress/technology change. The presence of sign (X) shows the applicability of particular driver behind such change. Moreover the results has provided with the fact that the productivity change in the companies under consideration is basically derived by either technical efficiency or technical progress/technology change. Whereas in very few cases the change in productivity is attributable of both technical efficiency and technical progress/technology change.

### B. YEAR WISE ANALYSIS OF DRIVERS BEHIND PRODUCTIVITY CHANGE AND MALMQUIST INDEX

This has been done to in order to find out the year analysis of drivers behind productivity change and Malmquist index, which is the result of technical efficiency, technical progress/technology change i.e. an effort has been made to find out the year in which change was due to technical efficiency or technical progress or both.



TABLE IV SHOWS THE YEAR WISE ANALYSIS OF DRIVERS BEHIND PRODUCTIVITY CHANGE AND MALMQUIST INDEX

Year	Drives	Insurers
2002-03 to 2003-04	Driven by Technical Efficiency	Tata Aig, Reliance, Royal Sundram, Bajaj
	Driven by Technical Progress/Technology Change	IFFCO, Oriental, New India
	Driven by both	ICICI, National, United
2003-04 to 2004-05	Driven by Technical Efficiency	Tata Aig, IFFCO, Royal Sundram, Bajaj, United, Oriental
	Driven by Technical Progress/Technology Change	New India, National
	Driven by both	Reliance, ICICI
2004-05 to 2005-06	Driven by Technical Efficiency	
	Driven by Technical Progress/Technology Change	Tata Aig, IFFCO, Reliance, Royal Sundram, Bajaj, ICICI, United, Oriental, New India, National
	Driven by both	
2005-06 to 2006-07	Driven by Technical Efficiency	Tata Aig, IFFCO, Reliance, Royal Sundram, Bajaj, ICICI,
	Driven by Technical Progress/Technology Change	United, New India, National
	Driven by both	Oriental
2006-07 to 2007-08	Driven by Technical Efficiency	
	Driven by Technical Progress/Technology Change	Tata Aig, IFFCO, Royal Sundram, Bajaj, ICICI, United, Oriental, New India, National
	Driven by both	Reliance
2007-08 to 2008-09	Driven by Technical Efficiency	Tata Aig, IFFCO, Reliance, Royal Sundram, ICICI
	Driven by Technical Progress/Technology Change	National
	Driven by both	Bajaj, United, Oriental, New India
2008-09 to 2009-10	Driven by Technical Efficiency	Bajaj, ICICI
	Driven by Technical Progress/Technology Change	Tata Aig, Reliance, Royal Sundram, Oriental, National
	Driven by both	IFFCO, United, New India

The above table shows that in almost all the year the drives behind the Malmquist index and productivity change is change in technical efficiency of the insurers, except the change in 2004-05 to 2005-06, 2006-07 to 2007-08 and 2008-09 to 2009-10 which was mainly driven due to change in technology or attributable to technical progress.

## CONCLUSION

The results of productivity derived with the application of DEA provided with the fact that all insurance companies have improved its productivity during the period under consideration, except only two public sector companies namely, Oriental Insurance Company Limited and New India Assurance Company Limited which show the reduction in the productivity over a period of time. As initially their total factor productivity growth/change from 2002-03 to 2003-04 was 1.474 and 1.309, which decreased to 1.115 and 1.136 from 2008-09 to 2009-10. This can be attributable to the fact that all the insurance companies are taking the advantages of Technological Change (TC), Efficiency Change (EC), Pure Technical Efficiency Change (PTEC) and Scale Efficiency Change (SEC) except these two. Moreover only in the following years (2004-05 to 2005-06, 2005-06 to 2006-07 and 2008-09 to 2009-10) Total Factor Productivity Change (TFPC) lies in third category i.e. it was more than 2. Beside this in almost all the year the drives behind the Malmquist index and productivity change is change in technical efficiency of the insurers, except the change in 2004-05 to 2005-06, 2006-07 to 2007-08 and 2008-09 to 2009-10 which was mainly driven due to change in technology or attributable to technical progress.

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## THE IMPACT OF CAPITAL ADEQUACY REQUIREMENTS ON PROFITABILITY OF PRIVATE BANKS IN INDIA (A CASE STUDY OF J&K, ICICI, HDFC AND YES BANK)

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### ABSTRACT

*Basel accord requires banking institutions to have capital adequacy ratio maintained at 8 percent on regular basis. The funds kept as per the ratio aims at safer functioning of banks, in view of unexpected losses, consequently amounts to huge figure fetching steady income because of investment with RBI and other government securities. Since the required deposit with the regulator checks the growing advance policy of institutions, consequently it may have its impact on the profitability margins of the banks. The aim of the study is to quantify the impact and simultaneously, the result is corroborating with the hypothesis that there is no significant impact of capital adequacy, non interest income and net interest income on profitability of the private commercial banks. Various financial ratios employed along with multiple regression suggest that the null hypothesis stand committed.*

### KEYWORDS

Capital Adequacy, Cost Income Ratio, Return on Assets, Spread.

### INTRODUCTION

In an effort to prompt efficiency in the banking industry and after a period of worldwide liberalization and deregulation, the Basel Capital Accord Basel I which led to the endorsement of new capital adequacy frame work, Basel II marked the beginning of a new phase of re-regulation with an attempt to bring about an international harmonization of banking regulations (Bichsel and blum, 2005). Liberalization has pushed banks into new areas of competition. The banks are presently encountered with omni present factor of various types of financial and non-financial risk in every kind of activity that they undertake. If handled properly, they result as an opportunity for bankers. Risk management has thus become part and parcel of the strategic planning process of bankers. Business grows mainly by taking risk as greater the risk, higher the profit and hence the entity must strike a trade-off between the two. Risk is the potentiality that both the expected and unexpected events may have an adverse impact on the bank's capital and earnings. While the expected losses are generally taken care of by suitable pricing methodology, the unexpected losses, both on account of individual exposure and the whole portfolio in entirety, is to be borne by the bank itself and hence is to be taken care of by the requisite capital. Hence the need for suitable capital structure and sufficient Capital Adequacy requirements is felt (Raghavan, 2004). Capital is essential and critical to the perpetual continuity of a bank as a going concern. A minimum amount of capital is required to ensure safety and soundness of the bank and also to build trust and confidence of the customers. A bank with a sound capital position is able to pursue business opportunities more effectively and has more time and flexibility to deal with problems arising from unexpected losses thus achieving increased profitability (Athanasoglou et al., 2005). A Study by Hassan (2001) examined the performance of Islamic banks' worldwide during 1994-2001. Variety of internal and external banking characteristics were used to predict profitability and the result indicated high capital lead to high profitability. Abreu (2002) found that well capitalized banks face lower expected bankruptcy costs and thus lower funding costs and this resulted into better profitability. Stirroh (2002) assessed the potential benefits from the diversification of activities and increasing reliance on non-interest income. The result suggested that non interest income, particularly, trading revenue, is associated with higher risk and lower risk-adjusted profits. The results also showed few obvious diversification benefits from ongoing shift toward non interest income.

### REVIEW OF LITERATURE

In assessing banks efficiency, the level, nature and composition of capital and the profitability ratios are some of the key measures used (Bourke, 1989, Berger, 1995; Thompson et al., 2002; Navapan and Tripe, 2003; Hess and Francis, 2004; Welch, 2006; Giokas, 2007). Kwan and Eisenbeis (1995) and Hughes and Moonon (1995) argued that it is necessary to recognize explicitly the concept of efficiency in the empirical models linking bank capital to risk and distinguish between efficient and inefficient risk undertaking.

Capital adequacy has been the focus of many studies and regulator as it is considered to be one of the main drivers of any financial institution's profitability (Bourke, 1989; Berger, 1995; Thompson et al., 2002; Navapan and Tripe, 2003; White and Morrison, 2001). In contrast, other studies argue that in a world of perfect financial markets, capital structure and hence capital regulation is irrelevant (Modigliani and Miller, 1958). However, White and Morrison (2001) posited that the regulator ensures that banks have enough of their own capital at stake. Bichsel and Blum (2005) supported this proposition arguing that these regulations help in reducing negative externalities (e.g., disruptions to the payments system and a general loss of confidence in the banking system) in addition to boosting the slow economic growth hence the Gross Domestic Product (GDP). These propositions leads to the question: what then do prudential capital requirements accomplish in the banking sector? This study suggests that these requirements have something to do with a bank's performance.

Capital (equity and long-term debt) represents a source of funds to the bank along with deposits and borrowings. Pringle (1971) observed that an undercapitalized bank will find itself subjected to high levels of short-term borrowing at potentially high excess costs during periods of tight money. Flamini et al. (2009) postulated that bank returns are affected by macroeconomic variables, suggesting that macroeconomic policies that promote low inflation and stable output growth do boost credit expansion.

According to Christian et al. (2008), capital adequacy measures provide significant information regarding a firm's returns, while a few of the individual variables representing asset quality and earnings are informative. Size and growth and loan exposure measures do not appear to have any significant explanatory power when examining returns. The study establishes that the change in total assets is also significant. Thus the present study has included these variables in its model to examine the relationship between capital adequacy, cost income ratio and profitability.

Navapan and Tripe (2003) asserted that the proposition that there should be a negative relationship between a bank's ratio of capital to assets and its return on equity may seem to be self-evident as to not need empirical verification. It is therefore important to note that Berger (1995) found evidence for a positive relationship that is, the ratios of capital to assets and returns on equity were positively related. He argued that a higher capital ratio (with reduced risk of bankruptcy) should reduce a bank's cost of funds, both by reducing the price of funds and the quantity of funds required, thus improving a bank's net interest income and hence profitability.

In measuring the profitability of a bank, bank regulators and analysts have used Return On Assets (ROA) and return on equity (ROE) to assess industry performance and forecast trends in market structure as inputs in statistical models to predict bank failures and mergers and for a variety of other purposes where a measure of profitability is desired (Gilbert and Wheelock, 2007; Mostafa, 2007; Christian et al., 2008).

Jiang et al., (2003) attempted to quantify factors affecting the profitability of banks in Hong Kong. The study found that pressures on bank profitability from their more traditional business have intensified, causing them to diversify into non-interest income generating business to remain competitive. The Study also found

that equity capital ratio was not significantly related to bank profitability. Goddard (2004) investigated profitability of European banks using cross sectional data during 1990s. The results showed the relationship between the capital-asset ratio and profitability is positive. Another study, Haron (2004) measured the impact of some of the determinants of profitability. The factors such as liquidity, deposit items, asset structure, inflation and money supply had a significant long term impact on profitability. Athanasoglou (2005) examined the effect of bank specific, industry specific and macroeconomic determinants of bank profitability. The coefficient of capital variable was positive and highly significant, reflecting the sound financial condition of Greek banks. Kosmidou et al., (2005) investigated the impact of banks characteristics, macroeconomic conditions and financial market structure on banks' net interest margin and return on average assets (ROAA) in the UK commercial banking industry over the period 1995-2002. The results showed that capital strength was one of main determinants of UK banks performance providing support to the argument that well capitalized banks face lower cost of going bankrupt, which reduces their cost of funding or that they have lower needs for external funding which results in higher profitability. Ngo (2006) investigated the relationship between bank capital and profitability. The results showed no significant relationship between capital and profitability. Naceur (2006) studied the effects of capital regulations on cost of intermediation and profitability. Capital adequacy ratio contributed positively to banks' profitability. The results supported that capital regulations improved the performance of banking sector in Egypt. Moving in the same direction, a study on the scheduled commercial banks in India has been carried out in the present work.

## METHODOLOGY

Navapan and Tripe (2003) found the contrary - that is, negative relationship between capital and profitability exists. Ghosh et al. (2003) explained that banks are required to hold capital equal to a certain percentage of the total risk-weighted assets. Under the risk-based standards, capital consists of three parts: Tier-I Capital includes equity capital and free reserves. Tier-II Capital comprises of subordinate term debt of 5-7 years tenure, revaluation reserves, general provisions and loss reserves, hybrid (debt/equity) capital instruments and undisclosed reserves and cumulative perpetual preference shares. Tier-III Capital comprises of short-term subordinate debt. Using the expected bankruptcy theory, Lewis (2008) explained that the expected bankruptcy costs hypothesis can be used to explain part of the observed positive relationship between capital asset ratios (CARs) and return on assets (ROA) under certain circumstances. This reasoning forms the basis for the first set of testable hypotheses as follows:

## HYPOTHESIS

H: There is no significant impact of Capital to Risk Weighted Assets Ratio, Non Interest Income and Net Interest Margin on Profitability of Private Sector Banks.

## OBJECTIVES OF THE STUDY

The study investigates the impact of capital adequacy norms on performance of private commercial banks (excluding public sector, Foreign Banks and regional rural banks). The study also compares the performance measured in terms of Return on Assets (ROA) of different Private Sector Banks in India.

## SCOPE OF THE STUDY

The Study has been carried out on Private Commercial Banks in India (excluding Public, Foreign and Regional Rural Banks).

## DATA SOURCE

Data has been collected from "Statistical Tables Relating to Banks in India" and "Report on Trend and Progress of Banking in India" Published by Reserve Bank of India for the Years 1996-97 to 2006-07 and available on [www.rbi.org.in](http://www.rbi.org.in).

## MODEL FRAMEWORK

CAPITAL ADEQUACY AND PROFITABILITY MODEL	
	- Capital Adequacy Ratio
C- Capital Adequacy	- Debt-Equity Ratio
	- Advances to Assets
	- G-Secs to Total Investments
	- Spread to Total Assets
	- Net Profit to Average Assets
E- Earning Quality	- Interest Income to Total Income
	- Non-Interest Income to Total Income
	- Earnings per Share
	- Return on Assets
	- Profit Margin Ratio
	- Burden to Total Income

## DESCRIPTION OF VARIABLES

### CAPITAL ADEQUACY

Capital Adequacy is important for a bank to maintain depositors' confidence and preventing the bank from going bankrupt. Capital is seen as a cushion to protect depositors and promote the stability and efficiency of financial system around the world. Capital Adequacy reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital. It also indicates whether the bank has enough capital to absorb unexpected losses. Capital Adequacy ratios act as indicators of banks' leverage.

**(i) Capital to Risk Weighted Assets Ratio (CRAR):** In India, as per Basel norms issued in April, 1992 all Scheduled commercial banks were required to maintain a CRAR of 8% w.e.f 31-03-1995 (9% from 31-03-2000); otherwise the bank will be treated as undercapitalized.

CRAR = Capital/Risk Weighted Assets

Higher the CRAR, lower the need to external funding and therefore higher profitability. It is also seen that well capitalized banks face lower costs of going bankrupt and then cost of funding is reduced.

Berger (1995) and Dermerguc-Kunt and Huizinga (1999) find a positive relationship between Bank Performance and Capitalization. Naceur (2003) find a positive relationship between ROA and Capital. The results indicate that well capitalized banks support lower expected bankruptcy costs for themselves and their customer, which reduce their cost of capital. A bank with a sound capital position is able to pursue business opportunities more effectively and has more time and flexibility to deal with problems arising from unexpected losses thus achieving increased profitability (Athanasoglou *et al.* 2005)

**(ii) Debt-Equity Ratio:** This ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much is financed through equity. It is arrived by dividing total borrowing and shareholders net worth which includes equity capital and Reserves & Surplus. It indicates how much times are debt to equity. Higher ratio indicates less protection for the creditors and depositors of the bank.

**(iii) Advances to Assets Ratio:** This ratio shows the aggressiveness of bank in lending funds which ultimately results in better profitability. This ratio is arrived at by dividing Advances by Assets. It indicates how much proportion or percentage of Total Assets is utilized in the form of Advances. Higher ratio means that there are more advances as the proportion of total assets. Advancing being the core function of banks so higher ratio of Advances/Assets is preferred to a lower one.



**(iv) Government Securities to Total Investments:** The percentage of investment in Government Securities is a very important indicator which shows the risk taking ability of a bank. It indicates a bank's strategy as being High Profit-High Risk or Low Profit-Low Risk. It also gives view as to the availability of alternative investment opportunities. Government securities are generally considered as the most safe debt instrument, which as a result carries the lowest return. Since Government securities are risk free, the higher the Government Securities to Total Investments ratio, the lower the risk involved in a bank's investments. This ratio is calculated as:

Investment in Govt. Securities / Total Investment

#### EARNING QUALITY & PROFITABILITY

The quality of earnings is very important criterion which determines the ability of a bank to earn consistently. It basically determines the profitability of the banks. It also explains the sustainability and growth in earnings in the future. This parameter has gained importance in the light of the argument that much of a bank's income is earned through activities like investments, treasury operations, corporate advisory services and so on.

**(i) Spread to Total Assets:** It creates a wedge between returns to savers and investors and reflects the cost of bank intermediation services and the efficiency of the banking sector. In general, the higher the net interest margin, the higher are banks profit margins and more stable is the banking sector. However, a higher net interest margin could reflect riskier lending practices associated with substantial loan loss provisions and could be an indication of inefficiency in the banking sector (Jiang, 2003)

The difference between the total income and the total expenses of a bank gives taxable income. However, considering the intermediation function, it is the Net Interest Income (NII = Interest earned – Interest expended) that is more crucial for banks. For the long term sustenance of the bank, this should be positive. The deregulated interest rate environment, the pressure built by competition for attracting deposits, liberalization and other banking norms & regulations affect the interest rates and thereby Net Interest Income (NII).

This ratio shows the ability of a bank to keep the interest on deposits low and interest on advances high. It is an important measure of a bank's core income (income from lending operations). A higher spread indicates the better earnings, given the total assets. This ratio is calculated as:

Spread to Total Assets = Spread / Total Assets

(Where Spread = Interest earned - Interest expended)

**(ii) Net Profit to Total Assets:** This ratio measures the net profit as a percentage of total assets employed in business. Higher ratio indicates better performance and profitability and lower ratio indicates inefficient and incompetent performance.

Net profit to Total Assets = Net Profit / Total Assets

**(iii) Interest Income to Total Income:** Interest Income is a basic source of revenue for banks. The Interest Income to Total Income Ratio indicates the ability of the bank in generating income from its lending activities. In other words, this ratio measures the income from lending operations as a percentage of the total income generated by bank in a year. Interest Income includes Interest on Advances, Discount on Bills, Income from Investments, Interest on Deposits with RBI and Other Inter-Bank Funds.

Interest Income to Total Income = Interest Income/Total Income

**(iv) Non-Interest Income to Total Income:** investments, net Profit on sale of land, building and other assets and net profit (loss) on exchange transaction and other miscellaneous incomes etc.

In recent years the pressures on bank profitability from their more traditional lending business have intensified, causing them to diversify into non-interest income generating business to remain competitive (Jiang, 2003)

Ratio of Non-Interest Income to Total Income = Non-Interest Income/Total Income x 100

**(v) Earnings per Share:** This ratio measures the profitability of the firm on per Equity Share basis. This ratio measures the earnings available to an equity shareholder on a per share basis.

**(vi) Return on Assets:** The performance of banks is measured through Return on Assets (ROA). It reflects the ability of the bank to generate profit from the bank's assets (Naceur, 2006). ROA emerges as the key ratio for the evaluation of bank profitability (IMF, 2002). ROA is defined as the net profit divided by total assets. ROA measures the ability of the management to convert the assets of the bank into net earnings. (Sarkar et al., 1998)

ROA = Net Profit / Total Assets

**(vii) Profit Margin Ratio:** The profit margin of a company determines its ability to withstand competition and adverse conditions like rising costs, falling prices or declining sales in future. This ratio measures the percentage of net profit to total income and thus is a measure of efficiency of the company.

PMR = Net Profit / Total Income

**(viii) Burden to Total Income:** The Burden analysis reveals as to what extent the bank is in a position to cover the non-interest expenditure through non-interest income. If a bank is able to cover the non-interest expenses with the help of non-interest income the bank is said to have fine performance and as such have no burden on interest income on account of non-interest expenditure. Burden denotes a bank's ability to earn from non-conventional sources. In a liberalized environment this ratio assumes greater significance. With the building of pressure on interest income, banks are now trying to increase their non-fund based income also.

Burden to Total Income = Burden / Total Income

(Where Burden = Non-Interest Expenses – Non-Interest Income)

The period for evaluating impact of capital adequacy requirements on profitability of private banks in this study ranges from 2004-05 - 2008-09 i.e. for 5 years. The data is collected from various sources such as Annual Reports of the Banks, Indian Banking Association Journal, Reserve Bank of India (RBI) Bulletin, Journal of Banking Studies, Journal of Accounting and Finance and Indian Journal of Commerce. Internet has been an important source of secondary data. The site assessed for this research is www.rbi.org.in. In order to have a comprehensive view, the growth of each ratio covered by capital adequacy and profitability ratios are calculated. Moreover, multiple regression is being employed to measure the degree of impact of capital adequacy requirements on profitability of banks under study. Mean of profitability ratios is taken as dependent variable and various capital adequacy ratios taken as independent variable. If there are n independent variables, we call them x1, x2, x3 and so on up to xn. Multiple regression then finds values of a, b1, b2, b3 and so on up to bn which give the best fitting equation of the form

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_nx_n$$

b1 is called the coefficient of x1, b2 is the coefficient of x2, and so forth. The equation is exactly like the one for simple regression, except that it is very laborious to work out the values of a, b1 etc by hand. Minitab, however, does it with exactly the same command as for simple regression. The equation of multiple regression by using the various required variables is:

$$PR(Y) = \alpha_0 + \alpha_1(CRAR) + \alpha_2(DER) + \alpha_3(AAR) + \alpha_4(GSTI) + \epsilon$$

What do the regression coefficients mean? The coefficient of each independent variable tells us what relation that variable has with y, the dependent variable, with all the other independent variables held constant. So, if b1 is high and positive, that means that if x2, x3 and so on up to xn do not change, then increases in x1 will correspond to large increases in y.

#### GOODNESS OF FIT IN MULTIPLE REGRESSION

In multiple regression, as in simple regression, we can work out a value for R2. However, every time we add another independent variable, we necessarily increase the value of R2 (you can get an idea of why this happens if you compare one with another in the handout on "The idea of a regression equation"). Therefore, in assessing the goodness of fit of a regression equation, we usually work in terms of a slightly different statistic, called R2 or R2adj.

This is calculated as

$$R2_{adj} = 1 - (1 - R2)(N - n - 1) / (N - 1)$$

Where



N is the number of observations in the data set (usually the number of people) and n the number of independent variables or regressors. This allows for the extra regressors. Check that you can see from the formula that  $R^2_{adj}$  will always be lower than  $R^2$  if there is more than one regressor.

## RESULTS AND DISCUSSION

### CAPITAL ADEQUACY

Capital adequacy is important for a bank to maintain depositors' confidence and preventing the bank from going bankrupt. Capital is seen as a cushion to protect depositors and promote the stability and efficiency of financial system around the world. Capital Adequacy reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital. It also indicates whether the bank has enough capital to absorb unexpected losses. Capital Adequacy Ratios acts as indicators of bank leverage. Higher CRAR reveals lower Credit Risk of the banks. If the banks have more risky assets on its portfolio, then the capital will be lower implying greater Credit Risk Exposure. The higher the CRAR, the stronger is considered a bank as it ensures high safety against bankruptcy. This shows that the private sector banks under study have maintained higher capital adequacy ratio higher than the prescribed level. According to the norms of RBI, each bank in India has to maintain 9 percent of their risk-weighted assets as capital with effect from March 2009. The Debt-Equity ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much through equity. This ratio witnessed an increasing trend in case of banks under study except ICICI Bank. This indicates that the dependence on debt capital has increased over the period of study in case of all the three banks except ICICI Bank.

TABLE 1.1: CAPITAL ADEQUACY RATIOS OF PRIVATE SECTOR BANKS (FIGURES IN PERCENT)

Banks	Years	2004-05	2005-06	2006-07	2007-08	2008-09
J&K Bank	1	15.15	12.14	13.24	12.80	13.46
	2	13.66	13.70	13.26	13.18	13.37
	3	47.15	54.75	59.62	57.64	55.52
	4	64.05	70.54	74.82	79.20	70.84
ICICI Bank	1	11.78	13.35	11.69	14.92	15.92
	2	11.99	10.14	12.97	7.54	6.60
	3	54.51	56.36	56.82	56.43	57.55
	4	68.31	64.11	74.14	67.75	61.59
HDFC Bank	1	12.16	11.41	13.08	13.60	15.09
	2	10.38	12.87	13.18	10.51	11.11
	3	49.71	47.70	51.45	47.62	53.99
	4	58.02	69.14	73.76	64.24	88.82
YES Bank	1	18.81	16.43	13.6	13.6	16.6
	2	4.89	6.27	13.11	11.87	13.10
	3	59.53	57.83	56.64	55.53	54.16
	4	68.05	60.14	70.04	70.60	65.76

Source: - Compiled from the Annual Reports of Banks, Performance Highlights of Indian Banks (published by IBA) and CMIE Prowess.

#### Note:

1. Capital Adequacy Ratio (CRAR).
2. Debt-Equity Ratio.
3. Advances to Assets.
4. G-securities to Total Investments.

The ratio Total Advances to Total Assets indicates a bank's aggressiveness in lending which ultimately results in better profitability. Higher ratio of advances/deposits (assets) is preferred to a lower one. This ratio has witnessed an increasing trend in case of all the four private sector banks over the period of study. The aggressive lending policy of private banks is one of the reasons for the better profitability of the banks. The ratio G-Secs to Total Investments: The percentage of investment in government securities to total investments is a very important indicator, which shows the risk-taking ability of the bank. It indicates a bank's strategy as being high profit- high risk or low profits-low risk. It also gives a view as to the availability of alternative investment opportunities. Government Securities are generally considered as the most safe debt instrument, which as a result carries the lowest return. Since government securities are risk free, the higher the G-Secs to investment ratio, the lower the risk involved in a bank's investments. This ratio has witnessed an decreasing trend in case of all private sector banks except J&K Bank over the period of study. From the above analysis we conclude that the banks under study have succeeded in maintaining CRAR at a higher level than the prescribed level, the higher CRAR of all the banks reveal that the Credit Risk Exposures of the selected banks are low and these banks are adopting a more conservative approach in monitoring their asset portfolio. But they cannot take a more aggressive risk profile towards credit as the CRAR during the period of study is not very much higher than the minimum prescribed level by RBI and the dependence on the debt capital has decreased over the last five years in case of all the banks under study.

#### EARNING ANALYSIS

In the earning perspective, the focus of analysis is the impact of changes in interest rates on accrual or reported earnings. This is the most used approach to interest rate risk assessment taken by many banks. Variation in earnings is an important focal point for interest rate analysis because reduced earnings or outright losses can threaten the spread insulation and financial stability of an institution by undermining its capital adequacy and by reducing its market confidence.

In this context, spread analysis (i.e. difference between interest earnings interest earnings and interest expended has received more attention in banking crises because it directly and easily develop link to change interest rates). In addition, to burden and profitability analysis also focuses on impact of capital adequacy on bank profitability. As the Non-Interest Expenses comprise Operating Expenses of the bank and the provision and contingencies created by the bank, the increase in the ratio is the result of any of these components. Apart from Interest Income, the banks have certain other income in the form of fees, commission, exchange etc. The Non- Interest of the banks should be sufficient to meet the Non-Interest Expenses; otherwise it would become a burden for the banks. Here the ratio indicates as to what extent the Non-Interest Expenses can be covered by the Non-Interest Income. The proportion of Non-Interest Income to Non-interest Expenses of the banks under study is showing a decrease during the period of study.

TABLE 1.2: EARNING QUALITY &amp; PROFITABILITY OF PRIVATE SECTOR BANKS (FIGURES IN PERCENT)

Years		2004-05	2005-06	2006-07	2007-08	2008-09
<b>Banks</b>						
<b>J&amp;K Bank</b>	1	2.43	2.51	2.68	2.47	2.65
	2	0.47	0.66	0.96	1.10	1.08
	3	94.16	92.76	92.22	90.85	92.42
	4	5.84	7.24	7.78	9.15	7.58
	5	23.74	36.48	56.62	74.27	84.54
	6	0.47	0.67	0.96	1.09	1.09
	7	7.05	9.61	13.33	13.44	12.67
	8	1.96	1.84	1.72	1.37	1.57
<b>ICICI Bank</b>	1	1.69	1.87	1.19	1.83	2.20
	2	1.19	1.01	0.90	1.04	0.99
	3	73.36	77.38	79.50	77.75	80.35
	4	26.64	26.62	20.50	22.25	19.65
	5	27.55	32.49	34.84	39.39	33.76
	6	1.59	1.30	1.09	1.12	0.98
	7	15.63	13.74	10.75	10.50	9.71
	8	0.50	0.86	1.02	0.79	1.21
<b>HDFC Bank</b>	1	3.46	3.46	4.06	3.92	4.04
	2	1.29	1.18	1.25	1.19	1.23
	3	82.61	79.93	81.96	80.99	82.60
	4	17.39	20.07	18.04	19.01	17.40
	5	22.92	27.92	36.29	46.22	52.85
	6	1.47	1.38	1.33	1.32	1.28
	7	17.77	15.55	13.58	12.82	11.44
	8	2.16	2.28	2.81	2.73	2.81
<b>YES Bank</b>	1	1.41	2.12	1.54	1.95	2.23
	2	-0.29	1.33	0.85	1.18	1.33
	3	62.26	65.60	75.12	78.71	82.16
	4	37.74	34.40	24.88	21.29	17.84
	5	-0.24	2.20	3.46	7.02	10.24
	6	-0.29	2.13	1.44	1.54	1.60
	7	-7.81	19.08	12.06	12.01	12.46
	8	1.71	0.79	0.69	0.77	0.90

Source: - Compiled from the Annual Reports of Banks, Performance Highlights of Indian Banks (published by IBA) and CMIE Prowess.

**Note:**

1. Spread to Total Assets
2. Net Profit to Average Assets
3. Interest Income to Total Income (cost income ratio)
4. Non-Interest Income to Total Income
5. Earnings per Share
6. Return on Assets
7. Profit Margin Ratio
8. Burden to Total Income

The ratio Non-Interest Income to Average working Funds denotes a bank's ability to earn from non-conventional sources. In a liberalized environment, this ratio assumes significance. For, it mirrors a bank's ability to take full advantage of its operational freedom. Operating costs, priority sector lending, non-performing loans, investment in government securities and the composition of deposits are among the determinants of bank profitability in the Indian banking sector. From the analysis of profitability ratios of the private sector banks under study, the profit margin ratio (defined as ratio of net profit to total income) showed an increasing trend in case of J&K and Yes bank in the period under study. The bank's profitability whether measured by return on assets (ROA) or return on equity (CIR). ROA has declined in case of the two banks over the period of study. However, the fall-off appears more directly related to the asset quality problems experienced by a number of large banks than to the capital adequacy requirements. When net income is adjusted to exclude the sharp run-up in loan-loss provision these years, there is much less movement and even a slight increase in both ROA and other profitability ratios.

TABLE 1.3: CAPITAL ADEQUACY RATIOS – DESCRIPTIVE STATISTICS

Ratios	Banks	Mean Ratio	Std. Dev	F - Value	Significance (Two-Tailed)
<b>CRAR</b>	J & K	13.358	1.121	2.70	0.080
	ICICI	13.532	1.879		
	HDFC	13.068	1.409		
	Yes	15.808	2.224		
<b>Debt Equity ratio</b>	J & K	13.434	0.235	2.34	0.111
	ICICI	9.848	2.752		
	HDFC	11.610	1.325		
	Yes	9.848	3.959		
<b>Advances to Assets</b>	J & K	54.936	4.750	5.27	0.010
	ICICI	56.334	1.124		
	HDFC	50.094	2.693		
	Yes	56.738	2.068		
<b>G-securities to Total Investments</b>	J & K	71.890	5.622	0.61	0.617
	ICICI	67.180	4.762		
	HDFC	70.796	11.647		
	Yes	66.918	4.239		

Table: 1.3 shows the summary statistics of the collected variables. It is obvious from the above table that the banks under study have maintained the average Capital Adequacy Ratio at an average of 13.35%, 13.53%, 13.06 and 15.80% respectively between 2004-05 to 2008-09. This shows that banks under study have maintained higher CRAR than the prescribed level. These descriptive statistics imply that most banks are keen on ensuring further more there is no significant difference between the banks under study in case of CRAR ratio as depicted by the F-test, same is the case with debt equity and G-Securities to total investment ratios. In case of advances to assets ratios the banks under study differ significantly at a significant level of 0.010. The above statistical analysis reveals that their capital levels are above the minimum required statutory limits, average debt equity ratio is low that implies Indian private banks are credit shy and lastly there is huge investment in government securities which means the banks are risk averse.

TABLE 1.4: EARNING AND PROFITABILITY RATIOS – DESCRIPTIVE STATISTICS

Ratios	Banks	Mean Ratio	Std. Dev	F - Value	Significance (Two-Tailed)
Spread to Total Assets	J & K	2.5480	0.1110	47.61	0.000
	ICICI	1.7560	0.3675		
	HDFC	3.7880	0.3042		
	Yes	1.8500	0.3595		
Net Profit to Average Assets	J & K	0.8540	0.2775	1.06	0.394
	ICICI	1.0260	0.1055		
	HDFC	1.2280	0.0449		
	Yes	0.8800	0.6828		
Interest Income to Total Income	J & K	92.482	1.186	17.00	0.000
	ICICI	77.668	2.702		
	HDFC	81.618	1.152		
	Yes	72.770	8.527		
Non-Interest Income to Total Income	J & K	7.518	1.186	16.72	0.000
	ICICI	23.132	3.328		
	HDFC	18.382	1.152		
	Yes	27.230	8.527		
Earnings per Share	J & K	55.13	25.33	10.57	0.000
	ICICI	33.61	4.27		
	HDFC	37.24	12.42		
	Yes	4.54	4.13		
Return on Assets	J & K	0.8560	0.2756	1.00	0.417
	ICICI	1.2160	0.2386		
	HDFC	1.3560	0.0730		
	Yes	1.2840	0.9196		
Profit Margin Ratio	J & K	11.220	2.805	0.61	0.617
	ICICI	12.066	2.512		
	HDFC	14.232	2.473		
	Yes	9.560	10.161		
Burden to Total Income	J & K	1.6920	0.2308	30.56	0.000
	ICICI	0.8760	0.2652		
	HDFC	2.5580	0.3132		
	Yes	0.9720	0.4193		

The difference between the total income and total expenses of the banks gives the pre-tax income. However, considering the intermediation function, it is the interest income (NII) that is more crucial for the banks. NII or spread is the difference between the interest income and the interest expenses. Spread is the bread for the banks. For long term sustenance of the bank, this should be positive. In a deregulated interest rate environment, the market plays a critical role deciding the interest rates. In addition to the pressure built by competition for deposits and is thereby affecting the NII. The main ratio depicting potential of banks from their prime activity is spread analysis. The insulation of positive spread indicates that asset liabilities have been positively and properly managed. As revealed by the Table 1.4 there is a significant difference between banks on account of ratios like Spread to Total Assets, Interest Income to Total Income, Non-Interest Income to Total Income, Earnings per Share, Burden to Total Income as  $p < .05$ . In case of Net Profit to Average Assets, Return on Assets and Profit Margin Ratio there was no significant difference in burden ratios of the three banks as revealed by the F-test at 5 percent significance level.

TABLE: 1.5: PEARSON TABLE FOR THE VARIABLE CORRELATIONS

		Mean Profitability Ratio	CRAR	Debt Equity Ratio	Advance to Assets Ratio
	N				
CRAR	Pearson Correlation	-.498(*)			
	Sig. (2-tailed)	.026			
	N	20			
Debt Equity Ratio	Pearson Correlation	.422	-.665(**)		
	Sig. (2-tailed)	.064	.001		
	N	20	20		
Advance to Assets Ratio	Pearson Correlation	-.090	.323	-.348	
	Sig. (2-tailed)	.706	.165	.133	
	N	20	20	20	
G-securities to Total Investment	Pearson Correlation	.423	-.176	.402	.213
	Sig. (2-tailed)	.063	.457	.079	.368
	N	20	20	20	20

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

In Table 1.5, we have the Pearson correlation Table for the variables that were included in the regression models. The results indicate that the average profitability of four Indian private sector banks are negatively correlated with the CRAR, the debt to equity ratio (DE), Advance to Asset Ratio and G- Sec. to Total Investment. The consistency of the two profitability negative correlation with Capital Adequacy is consistent with the view that the higher the Capital adequacy, the lower the profitability. Most banks strive to minimize the capital adequacy as much as possible. The other CARs are positively correlated with the two profitability measures, demonstrating a consistent view that there exists a positive relationship between capital adequacy and profitability. The higher the capital levels, the higher the profitability (Bourke, 1989; Berger, 1995).

Table 1.5 shows the Pearson product moment coefficient of correlation (also called the correlation coefficient or correlation) for pairs of variables. The correlation coefficient is a measure of the degree of linear relationship between two or more variables. The dependent variables for the study are bank profitability as measured by average of eight profitability ratios (Spread to Total Assets, Net Profit to Average Assets, Interest Income to Total Income (cost income ratio), Non-Interest Income to Total Income, Earnings per Share, Return on Assets, Profit Margin Ratio, Burden to Total Income), (defined by net income scaled by total equity) (Gilbert and Wheelock, 2007). The independent variables are: the Capital (tier 1+II+III) to risk weighted assets (leverage) (CRAR) ratio, Debt-Equity Ratio, Advances to Assets and G-securities to Total Investments. Consistent with Bichsel and Blum (2004), the debt to equity ratio will be used as a control for the bank's leverage and the ratio of total assets to total liabilities will also be used as a control variable.

In order to assess the relationship between profitability and capital adequacy ratios, the profitability is modelled as a function of the core capital ratio, the equity capital ratio, the total risk based capital and the total capital ratio Consistent with Gilbert and Wheelock (2007).

**TABLE 1.6: REGRESSION ESTIMATES OF THE VARIOUS CAPITAL ADEQUACY DETERMINANTS FOR THE BANKS UNDER STUDY. THE DEPENDENT VARIABLE IS AVERAGE OF PROFITABILITY RATIO.**

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
1(Constant)	19.556	13.429	1.456	.166
CRAR	-.730	.460	-1.588	.133
Debt Equity	-.037	.367	-.102	.920
Assets to Advance	-.030	.199	-.149	.883
G-securities to Total Investment	.166	.113	1.478	.160

**ANOVA(b)**

a Predictors: (Constant), CRAR,

Debt Equity, Assets to Advance and G-securities,

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.983	4	17.496	2.155	.124(a)
	Residual	121.803	15	8.120		
	Total	191.786	19			

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.604(a)	.365	.196	

The table represents stacked data for the period 2004-05 to 2008-09 for the four private banks operating in India. Multiple Regression were used to test the hypotheses developed earlier.

Panel A: Regression of average profitability, capital to risk weighted assets, debt equity, assets to advances and G-Securities to total investment. The equation of multiple regression by using the various required variables is:

$$PR(Y) = \alpha_0 + \alpha_1(CRAR) + \alpha_2(DER) + \alpha_3(AAR) + \alpha_4(GSTI) + \epsilon$$

The results reveal that a negative relationship exists at for both measures of profitability and equity capital ratio. Although these findings are not significant, they are consistent with previous studies which find that a negative relationship between bank capital and profitability exists (e.g., Navapan and Tripe, 2003). The negative relationship can be explained by the fact that the more the equity providers to a bank, the higher the claim from the bank's retained earnings in the form of dividends. This leads to less retained funds available to the bank for growth purposes, hence less funds available to boost profits.

This study adds to the existing literature such as Navapan and Tripe (2003) who found out that the expected negative relationship between capital and profitability exists. The study also adds to previous findings that there is a positive relationship between capital adequacy and profitability (Bourke, 1989; Berger, 1995). This makes economic sense from the point of view that an increase in capital may raise expected earnings by reducing the expected costs of financial distress, including bankruptcy. This means that a bank can acquire more capital to improve its more profits.

**CONCLUSIONS**

This study examines the relationship between bank profitability, Capital adequacy. While prior research documents that a positive or negative relation exists between CRAR and bank profits, no study has addressed the more fundamental question of whether the bank profitability measures are related to the Capital to risk weighted assets.

Using bank profitability average ratios, the study finds that bank profitability is negatively related to the CRAR. The results also suggest that in the market driven environment, the scheduled commercial banks net interest margin is under pressure and they have to look into other sources of income to maintain position in the market. In the coming years, when entry for foreign banks would become easier, the competition in the banking sector will be more intense, the existing public sector banks and Indian private sector banks can achieve a desirable and respectable ROA only when these banks will generate non-risky, non-interest income besides their regular interest income from advances and investments.

The most significant finding in this study which other similar studies have not pointed out is the fact that there are differential effects of the various measures of capital adequacy on the profitability of the bank. This study finds out that the non-risk weighted capital adequacy measure (i.e., the equity capital ratio) is negatively related with the profitability of a bank (as measured by eight profitability ratios) These findings are significant in the sense that the risk adjustment helps to account for the uncertainty associated with bank's capital levels. This acts a reliable measure of the nature and the composition of capital inherent in a bank's capital structure.

Future research could incorporate more variables such as taxation and other regulation indicators, exchange rates as well as indicators of the quality of the services offered by banks in the models used in this study. Another possible extension could be the use of dual regression models where the ROA and ROE variables are regressed at the same time with the various independent, control and dummy variables.

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## AN EMPIRICAL STUDY ON EFFECT OF WELFARE MEASURES ON EMPLOYEES' SATISFACTION IN INDIAN RAILWAYS

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### ABSTRACT

*Indian Railways are one of the biggest public sectors in the country and its employee's more than 13 lacs of people under different categories. It has separate department to deal with the employees' problems and tries to manage them effectively. From the very beginning of the industrial venture Employees has been an important factor of production. This paper is devoted to study on effect of welfare measures on employee's satisfaction in Indian Railways. Employees' welfare has acquired an important place in the modern commercial world. Even today no technical development has been able to undermine the place of labour in the industrial field. The main reason behind it is that Employees is the only active factor of production, which can employ other factor of production in the best possible manner. The main aim of the employees' welfare is to establish and maintain relationship at all levels of management by giving satisfactory conditions of employment, and also provide fairly for their requirement. The modern industrial welfare covers the entire gamut of activities undertaken to secure to the industrial worker an essentially human status, to make him a better citizen and to improve his efficiency and economic position. The Railways have done a lot in respect of providing welfare facilities for their staff. This paper shows the clear picture of satisfaction level of Railways employees through statistical tools.*

### KEYWORDS

Indian Railways, Employees' welfare, Staff Benefit Fund, Workers' Education, Satisfaction level.

### INTRODUCTION

Employees' welfare has acquired an important place in the modern commercial world. The main aim of the employees' welfare is to establish and maintain relationship at all levels of management by giving satisfactory conditions of employment, and also provide fairly for their requirement. The modern industrial welfare covers the entire gamut of activities undertaken to secure to the industrial worker an essentially human status, to make him a better citizen and to improve his efficiency and economic position. The Railways have done a lot in respect of providing welfare facilities for their staff.

As Indian Railways is stressing towards improvement in quality and productivity, the Personnel Department of Indian Railways aims to play a critical role in building Railway as an efficient, responsive organization by recruiting ideal people, training them to face the challenges of the future, and serving the employees with dedication and commitment. In consonance with the ideals of a welfare state, the Railways have been pursuing a policy of progressively improving the working and living condition of their workers. Indian Railway's welfare schemes cover a wide spectrum of activities in areas of education, Medicare, housing, sports, recreation and catering.

### LITERATURE REVIEW

After proper spade work the researchers found that lot of work was done in the field of employees welfare in general but very little work has been done in reference to the employees of Indian Railways. Though the welfare schemes in the Indian Railways were given but they were not measured as such. Vijay Pereira (2009) "Leadership next Research Study: Indian Railways", the 21st century has witnessed India undergo sweeping economic changes. Riding on a host of factors, India today stands at the cusp of becoming one of the top four economies in the world. A growth rate of over 8%, prior to the slowdown, was despite the inadequacies of infrastructure. Yet, one organization, which has shouldered the infrastructural burden of the transportation sector in India's growth story, is Indian Railways. Ankur Sharma (2009) "Employee welfare measures taken in the Indian South Central Railway", The Study on "Employee Welfare Measures" is conducted with the main objective of evaluating the effectiveness of welfare measures at South Central Railway and to suggest measures to make existing welfare measures much more effective and comprehensive so that the benefits of the employees will be increased. Reeti Agarwal (2009) "Public Transportation and Customer Satisfaction: The Case of Indian Railways" This study has been undertaken to find the factors related to Indian Railway services that have an impact on customer satisfaction. The study was conducted using the survey method. This study primarily aims to assess the effects of consumer perceptions of the various aspects of services provided by public transportation services on their level of satisfaction with specific reference to the Indian Railways. The major findings of the study depict that out of the various factors considered; employee behavior has the maximum effect on satisfaction level of customers with Indian Railways as a whole. However, the study fails to focus on the Employees welfare facility in Indian Railways. Binoy Joseph; Joseph Injodey; Raju Varghese (2009) "Labour Welfare in India", India's labour force ranges from large numbers of illiterate workers to a sizeable pool of highly educated and skilled professionals. Labour welfare activities in India originated in 1837. They underwent notable changes during the ensuing years. This article is a description of these changes and the additions, which were included over this period. On the whole, it paints a picture of the Indian Labour welfare scene. G. Raghuram Rachna Gangwar (2008) "Indian Railways in the Past Twenty Years, Issues, Performance and Challenges", to understand the development process of Indian Railway's over the past twenty years, the study covers issues and strategies related to financial and physical aspects of revenue generating freight and passenger traffic from 1987-2007. Study also covers the developments in the parcel, catering and advertising sector, however this study fail to provide the information regarding employees welfare in Indian Railways. Reddy, T. Koti (2007) wrote an article entitled "India's Progress in Infrastructure Development". He applied minute center of attention on Rail Transport in this study. The author has tried to provide discussion on History of Indian Railways. The Railway has played an integrating role in the socio-economic development of the country. He also represents the précis of the operations of the Indian Railway since independence. He furthermore discusses on the finance of Indian Railway by annually from 1950-51 to 2007-2008. The author of this article finally concludes that upgrading technology in Railway needs greater attention so as to improve reliability, reduce maintenance cost and increase customer satisfaction. It is also necessary to emphasize the increase in efficiency and management of the Railway. Shobha Mishra and Dr. Manju Bhagat (Ph.D Guide) (2007) wrote an article on the topic entitled "Principles for Successful Implementation Labour Welfare Activities from Police theory to functional theory", gave a brief account of labour welfare activities.

This study comprises the definition of labour welfare, scope of labour welfare activities, objectives, and theories of labour welfare. The author describes that labour welfare activities in an industrialized society has far reaching impact not only on the work force but also all the facets of human resources. This article is an attempt to show that, the success of welfare activities depends on the approach, which has been taken into account in providing such activities to the employers. Welfare policy should be guided by idealistic morals and human value. John Creedy and Guyonne R.J. Kalb (2005)<sup>viii</sup> "Measuring Welfare Changes in Labour Supply Models" This paper examines the computation of welfare measures for use with labour supply models. An alternative method is suggested and applied to contexts in which individuals are allowed to vary their hours continuously and to contexts where only a limited number of discrete hours of work are available. Discrete hour's models have in recent years been used in view of the substantial econometric advantages when estimating the parameters of direct utility functions. This type of model is particularly popular in behavioral micro simulation modeling where predicted labour supply responses are calculated for policy changes.

## OBJECTIVES OF THE STUDY

The main objectives of the study are listed below:

- To identify the employees' welfare measures in Indian Railways.
- To study the level of satisfaction of various employees' welfare measures among the Indian Railways employees.
- To suggest suitable recommendation to improve employees' welfare amenities in Indian Railways.

## HYPOTHESIS OF THE STUDY

The hypotheses of the study have been made according to the need and importance and objective of the study.

### ➤ Hypothesis 1

The null hypothesis of the study ( $H_0$ ) assumes that "Employees' welfare measures in Indian Railways are not effective", whereas the alternative hypothesis of the study ( $H_1$ ) assumes that "Employees' welfare measures in Indian Railways are effective".

### ➤ Hypothesis 2

The null hypothesis of the study ( $H_0$ ) assumes that "There is no overall satisfaction of the Indian Railways employees towards various Fringe Benefits", whereas the alternative hypothesis of the study ( $H_1$ ) assumes that "There is overall satisfaction of the Indian Railways employees towards various Fringe Benefits".

### ➤ Hypothesis 3

The null hypothesis of the study ( $H_0$ ) assumes that "Human resource policies regarding Job satisfaction are not effective in Indian Railways", whereas the alternative hypothesis of the study ( $H_1$ ) assumes that "Human resource policies regarding Job satisfaction are effective in Indian Railways".

## METHODOLOGY ADOPTED

### PRIMARY SOURCES

The primary data has been collected by means of questionnaires and interview method of the employees of Indian Railways

### SECONDARY SOURCES

The secondary data have been collected from various public sources such as Books, Journal, Annual Reports and Accounts of Indian Railways, Magazines, Newspapers, and various Websites, etc.

### SAMPLE DESIGN AND SAMPLE SIZE

In this study researcher determine the sample size of 500 employees is chosen from various levels by following the technique of simple random sampling. The primary data was collected by using questionnaires.

### STATISTICAL TOOLS APPLIED

For the analysis and interpretation of data wherever necessary the simple and primary statistical measures and techniques such as calculation of Simple Average Mean, Percentage, Standard Deviation, Variance, Standard Error, and Z-test has been applied.

### CONCEPT OF EMPLOYEES' WELFARE

'Welfare' is a broad concept referring to the state of living of an individual or a group, in a desirable relationship with the total environment – ecological, economical and social. The term 'welfare' includes both the social and economic contents of welfare.

Pigou (2005) defined economic welfare as that part of social welfare which can be brought directly or indirectly into relation with the measuring need of money. According to him, "the economic welfare of a community of a given size is likely to be greater; the larger is the share that accrues to the poor."<sup>ix</sup>

The concept of labour welfare activities, however, is flexible, elastic and differs from time to time, region to region, industry to industry and country to country, depending upon the value system, level of education, social customs, degree of industrialization and general standard of the socio-economic development of people.

## INDIAN RAILWAYS

More than a hundred years ago, on the 16 April 1853, a red-letter day appeared in the glorious history of the Indian Railways. On the day, the very first Railway train in India ran over a stretch of 21 miles from Bombay to Thane, three locomotives, Sahib, Sindh and Sultan, hauled it\*. This pioneer Railway train consisting of 14 Railway carriages carrying about 400 guests, steamed off at 3:30 pm amidst the loud applause of a vast multitude and to the salute of 21 guns. It reached Thane at about 4.45 pm.<sup>xi</sup>

In India, Railways are the largest mode of transport. The country's vastness and diversity have been connected and coordinated by the largest and busiest rail networks in Asia, transporting over 18 million passengers' more than 2 million tonnes of freight daily. Indian Railway is a huge organization carrying 140 lakh passenger and 14 lakh tonne of freight daily and employs more than 15 lakh staff. It spread over the length and breadth of the country and has 63000-route km (82000 running track km) and 7000 stations<sup>xii</sup>. This gigantic task is achieved through the use of 7700 locomotives, 38000 passenger coaches and 220000-freight wagon for which necessary maintenance and manufacturing facilities also exist.

### LABOUR WELFARE IN INDIAN RAILWAYS

Indian Railway's welfare schemes cover a wide spectrum of activities in areas of education, Medicare, housing, sports, recreation and catering.

#### 1. HOUSING AMENITIES

Housing is one of the serious issues responsible for dissatisfaction and poor industrial relation of all the requirements of the workers; cheap housing accommodation is of great significance. The Railway employees have to live either at wayside station with poor amenities or at big station where the pressure of population creates shortage of housing accommodation except at abnormal rents, with the result employees often do not get suitable accommodation unless provided by the administration.

It is true to say that some employees do not get house quarters throughout their services due to lack of accommodation and mismanagement of affairs in Railways. After independence, the problems has not been solved as is evident from the reports of Indian Railway that only 40 percentage employees are enjoying accommodation facilities.<sup>xiii</sup>

#### 2. MEDICAL AND HEALTH SERVICES

Today various medical services like Hospital, Clinic, and Dispensary facilities are provided by organization not only to employees but also their family members. The Indian Railways have been pursuing a policy of progressively improving both working and living conditions of staff and providing them with maximum possible amenities in several spheres including medical facilities.



The question of adequacy of medical and sanitary arrangements in Railways has drawn attention of the Railways Board since 1924.<sup>xiv</sup> The Railway Accident Committee 1992 rightly observed “the Medical facilities both in scale and quality on the Railways are second to no other organization in India”, The Railway medical services, catered only to routine administrative necessities, viz., medical examination of staff, issue of fit and unfit certificates, check on malingering, etc., while attention to the curative and promotional health care of the railway staff was meager or absent.

**3. WELFARE BENEFITS**

**Staff Benefit Fund:** Another significant welfare scheme developed in Indian Railways has been the Staff Benefit Fund. The Staff Benefit Fund was established on Indian Railways in the year 1931. Ministry of Railways have decided to modify the distribution of modify per capita annual contribution of Rs.35/- to 315/- under Staff Benefit Fund sanctioned vide Board’s letter under reference.<sup>xv</sup> Staff Benefit Fund is an important channel for providing additional facilities to railway employees and their families in the spheres of education, recreation, Medicare, sports, scouting and cultural activities.

**4. CANTEEN FACILITIES**

Perhaps no employees’ benefit has received as much attention in recent years as that of canteen. Canteen is a small cafeteria or snack bar, especially one in a military establishment or place of work.

**5. EDUCATIONAL FACILITIES**

Educational facilities one of the significant welfare scheme developed by Indian Railways are as follows:

**Railways Schools:** Railways administration provides the facilities of primary, middle, and high schools and colleges in those Railways colonies where such facilities of requisite standards are not available in or near them and the State Government or educational organization are not willing to provide them. However, Railways have provided educational facilities to the limited extent within the constraint of available resources purely as a measure of staff welfare to meet the needs of wards and children of Railway employees only at such places where there is a concentration of Railway employees and the educational facilities provided there at by other agencies - both Government (State/Central) and private are found inadequate or are totally absent resulting in hardship or inconvenience to them.<sup>xvi</sup> The Railways Board has also decided, as a matter of policy to establish Kendriya Vidyalayas preferably in "Civil Sector" in Railway colonies which will, while meeting the needs of the employees, reduce the financial burden on the administration of the schools.<sup>xvii</sup>

**6. RECREATIONAL ACTIVITIES**

Indian Railways attaches due importance to recreation for its employees and provides excellent facilities through Institutes & Clubs for sports, libraries, etc. and Holiday Homes to enable the employees and their families to enjoy holidays at nominal expenses.

**Holiday Homes:** Holiday Homes have been established as a measure of amenity of staff. The broad principles, within the framework of which Railway Administrations may establish Holiday Homes, are indicated below:

- (a) Holiday Homes may be set up in suitable hill stations or seaside resorts or other pleasant surroundings or where popular demand exists.<sup>xviii</sup>

**7. RETIREMENT BENEFITS IN INDIAN RAILWAYS**

The retirement benefits provided to Railways employees are as follows in the form of provident fund, pension.

**a) Provident Fund:** Every Railways employee on completion of one year’s services is entitled to join, the provident fund, initially the Railway administrations’ contribution and interest thereon was extended only to permanent employees, The Provident Act, 1925, governs provident Fund and it means that a fund in which the subscriptions of the employees are deposited against their accounts including interest accruing thereon.<sup>xix</sup>

**b) Pension:** Railways employees represented that the pension scheme provides more security than the provident fund. This scheme provides to All Railway servants who were in service on 15.11.1957 who elect to come on these rules; persons entering Railway service on or after 16.11.1957 except those whose terms of appointment provide to the contrary and all CPF beneficiaries in Service in 1.1.1986 should be deemed to have come to pension scheme unless they specifically opt out to continue under the CPF Scheme.<sup>xx</sup>

**DATA ANALYSIS AND INTERPRETATION**

The analysis and interpretation of survey conducted by the researcher to test the hypothesis constructed around the satisfaction, efficiency, effectiveness and conduciveness to good relation resultant from employees’ welfare to determine whether the Railway employees are satisfied with employees’ welfare amenities; Fringe benefits; job satisfaction. The method intended to expose the hypothesis to test is through an extensive survey. It has been conducted to depict the opinion and level of satisfaction about various aspects of employees’ welfare measures in Indian Railways over which the hypothesis have been raised.

**CHARACTERISTICS OF RESPONDENTS**

1) Age

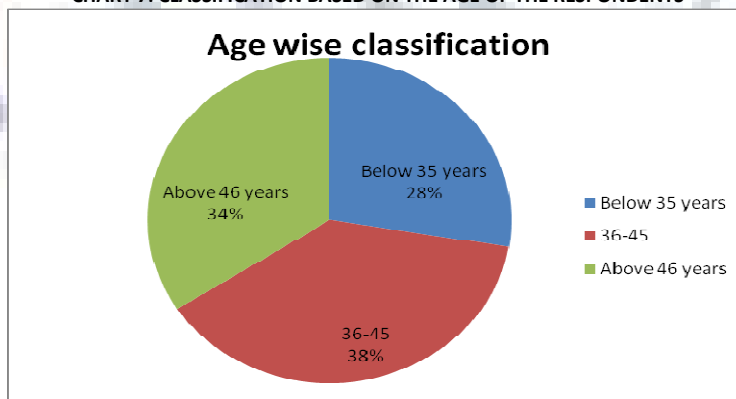
**TABLE 7: CLASSIFICATION BASED ON THE AGE OF THE RESPONDENTS**

Age	No. of the Respondents	Percentage
Below 35 years	138	27.6
36-45	191	38.2
Above 46 years	171	34.2
Total	500	100

**INFERENCE**

From the above table it is inferred that 27.6% of the respondents come under the category of below35 Years, 38.2% of the respondents falls under 36-45 Yrs and 34.2% of the respondents come under the category of above 46 Years. These finding are illustrated in chart 7.

**CHART 7: CLASSIFICATION BASED ON THE AGE OF THE RESPONDENTS**





2) Gender

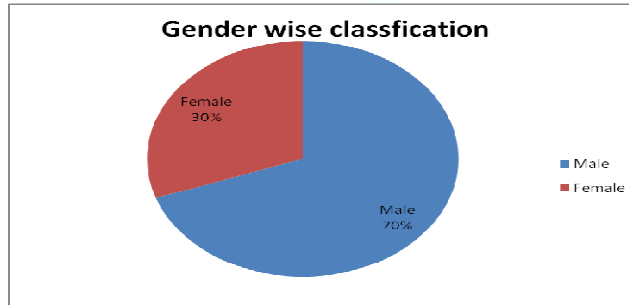
TABLE 8: CLASSIFICATION BASED ON THE GENDER OF THE RESPONDENTS

Gender	No. of the Respondents	Percentage
Male	348	69.6
Female	152	30.4
Total	500	100

INFERENCE

From the above table it is inferred that 69.6% of the respondents are male and 30.4% are female. These finding are illustrated in chart 8.

CHART 8: SHOWING SAMPLE CLASSIFICATION BASED ON THE GENDER OF THE RESPONDENTS



3) Designation

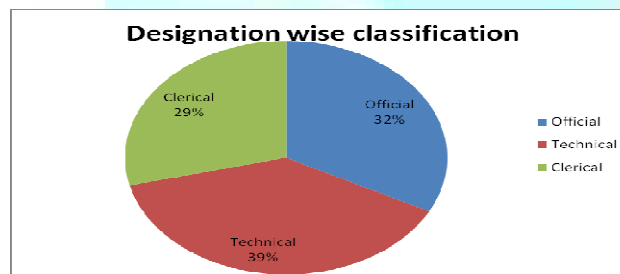
TABLE 9: CLASSIFICATION BASED ON THE DESIGNATION OF THE RESPONDENTS

Designation	No. of the Respondents	Percentage
Official	163	32.6
Technical	193	38.6
Clerical	144	28.8
Total	500	100

INFERENCE

From the above table it is inferred that 32.6% of the respondents come under the category of official post, 38.6% of the respondents falls under technical post and 28.8% of the respondents come under the category of clerical post in Indian Railways. These finding are illustrated in Char 9.

CHART 9: SAMPLE CLASSIFICATION BASED ON THE DESIGNATION OF THE RESPONDENTS



4) Experience

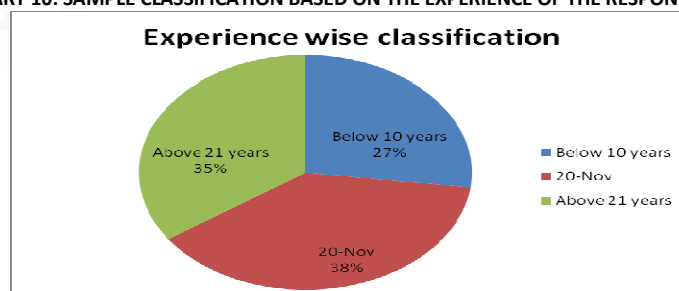
TABLE 10: SAMPLE CLASSIFICATION BASED ON THE EXPERIENCE OF THE RESPONDENT

Experience	No. of the Respondents	Percentage
Below 10 years	135	27
11-20	192	38.4
Above 21 years	173	34.6
Total	500	100

INFERENCE

From the above table it is inferred that 27% of the respondents come under the category of below 10 Yrs, 38.4% of the respondents falls under 11-20 Yrs and 34.6% of the respondents come under the category of above 21Yrs of experience in Indian Railways. These finding are illustrated in chart 10.

CHART 10: SAMPLE CLASSIFICATION BASED ON THE EXPERIENCE OF THE RESPONDENTS



5) Personal Income

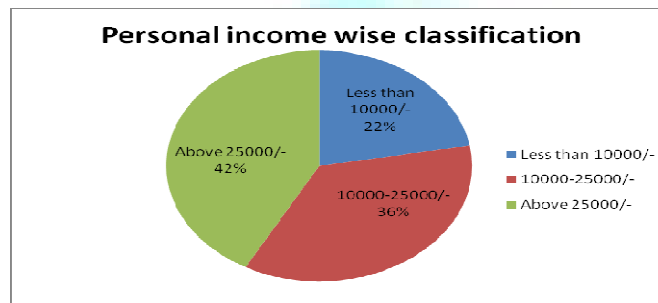
TABLE 11: SAMPLE CLASSIFICATION BASED ON THE PERSONAL INCOME OF THE RESPONDENTS

Personal income	No. of the Respondents	Percentage
Less than 10000/-	111	22.2
10000-25000/-	179	35.8
Above 25000/-	210	42
Less than 10000/-	111	22.2
Total	500	100

INFERENCE

From the above table it is inferred that 22.2% of the respondents come under the category of less than 10000/- is 35.8% of the respondents falls under 10000-25000/-and 42% of the respondents come under the category of above 25000/- of personal income of Railways employees. These finding are illustrated in chart 11.

CHART 11: SAMPLE CLASSIFICATION BASED ON THE PERSONAL INCOME OF THE RESPONDENTS



6) Family Size

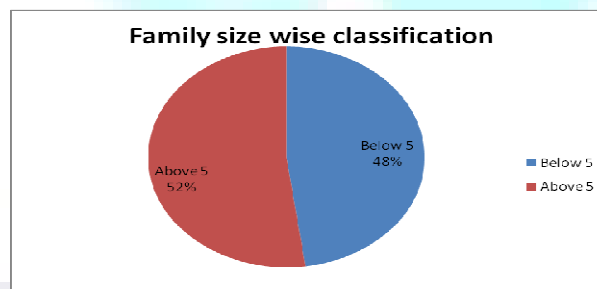
TABLE 12: SAMPLE CLASSIFICATION BASED ON THE FAMILY SIZE OF THE RESPONDENTS

Family members	No. of the Respondents	Percentage
Below 5	239	47.8
Above 5	261	52.2
Total	500	100

INFERENCE

From the above table it is inferred that 47.8% of the respondents come under the category of below 5 family members 52.2% of the respondents falls under above 5 family members of Railways. These finding are illustrated in chart 12.

CHART 12: SAMPLE CLASSIFICATION BASED ON THE FAMILY SIZE OF THE RESPONDENTS



PART SECOND: SHOWING THE RESULT OF THE STUDY

First group: "Employees' welfare measures in Indian Railways are effective"

TABLE 13: FREQUENCY AND PERCENT FOR THE GROUP FIRST (EMPLOYEES' WELFARE MEASURES IN INDIAN RAILWAYS)

S.No	Phrases	Highly dissatisfied		Dissatisfied		Neutral		Satisfied		Highly satisfied	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Are you satisfied with the residential accommodation facilities, provided by the Indian Railways?	37	7.4	67	13.4	58	11.6	186	37.2	152	30.4
2	Are you satisfied with the medical facilities rendered to you by the Indian Railways?	34	6.8	52	10.4	64	12.8	227	45.4	123	24.6
3	Are you satisfied with the canteen facilities available in your Indian Railways zone?	52	10.4	69	13.8	42	8.4	209	41.8	128	25.6
4	Are you satisfied with the welfare benefits available?	47	9.4	86	17.2	70	14	158	31.6	139	27.8
5	Are you satisfied with the Staff Benefit Fund provided in your Railways zone?	25	5	76	15.2	97	19.4	163	32.6	139	27.8
6	Are you satisfied with the recreational facilities provided by the Indian Railways?	50	10	71	14.2	74	14.8	184	36.8	121	24.2
7	Are you satisfied with the Transport facilities provided by Indian Railways?	54	10.8	70	14	67	13.4	173	34.6	136	27.2
8	Are you satisfied with the educational facilities provided by the Indian Railways for your children?	41	8.2	104	20.8	45	9	199	39.8	111	22.2
9	Are you satisfied with the Holiday Homes available by the Indian Railways?	54	10.8	50	10	86	17.2	203	40.6	107	21.4
10	Are you satisfied with the Training and Development programmes which are provided by the Indian Railways?	65	13	81	16.2	75	15	157	31.4	122	24.4
11	Are you satisfied with the retirement benefits, which are provided by the Indian Railways?	47	9.4	52	10.4	98	19.6	176	35.2	127	25.4
12	Mention your overall satisfaction level regarding their labour welfare amenities	70	14	55	11	59	11.8	170	34	146	29.2

**Second group:** Satisfaction of the Indian Railways employees towards various Fringe Benefits.

**TABLE 15: FREQUENCY AND PERCENT FOR THE GROUP SECOND (SATISFACTION OF THE INDIAN RAILWAYS EMPLOYEES TOWARDS VARIOUS FRINGE BENEFITS)**

S.No	Phrases	Highly dissatisfied		Dissatisfied		Neutral		Satisfied		Highly satisfied	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
13	Are you satisfied with Overtime pay avail in Indian Railways?	79	15.8	74	14.8	64	12.8	166	33.2	117	23.4
14	Do you feel satisfied Medical leave with pay in Indian Railways?	72	14.4	66	13.2	73	14.6	165	33	124	24.8
15	Are you really satisfied with Bonus for quality and attendance?	62	12.4	69	13.8	80	16	171	34.2	118	23.6
16	Are you happy with Leave with pay?	62	12.4	86	17.2	64	12.8	154	30.8	134	26.8
17	Are you satisfied with Paid holidays in Indian Railways?	76	15.2	62	12.4	87	17.4	129	25.8	146	29.2
18	Are you motivated with Employee counseling?	71	14.2	81	16.2	76	15.2	165	33	107	21.4
19	Are you satisfied with Provident fund provided by the Indian Railways?	75	15	83	16.6	56	11.2	141	28.2	145	29

**Third group:** Human Resource Policies regarding Job Satisfaction in Indian Railways.

**TABLE 17: FREQUENCY AND PERCENT FOR THE GROUP THIRD (HUMAN RESOURCE POLICIES REGARDING JOB SATISFACTION IN INDIAN RAILWAYS)**

S.No	Phrases	Highly dissatisfied		Dissatisfied		Neutral		Satisfied		Highly satisfied	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
20	Do you feel secure about your job?	63	12.6	63	12.6	74	14.8	150	30	150	30
21	Do you enjoy cordial relation with your team members at your work place?	75	15	63	12.6	62	12.4	144	28.8	156	31.2
22	Are you satisfied with your salary package?	64	12.8	87	17.4	80	16	153	30.6	116	23.2
23	Do the Indian Railways co-operates and helps you at any emergency time?	57	11.4	67	13.4	82	16.4	164	32.8	130	26
24	Your overall opinion toward your job.	77	15.4	60	12	83	16.6	148	29.6	132	26.4
25	Are you satisfied with the following factors? Social climate, Political climate, Economical climate and Industrial climate	56	11.2	66	13.2	97	19.4	160	32	121	24.2
26	Do you satisfied that your Railways' welfare office visits the regularly?	60	12	70	14	96	19.2	141	28.2	133	26.6

**TEST OF HYPOTHESIS**

**Hypothesis 1**

**H<sub>0</sub>:** Employees' welfare measures in Indian Railways are not effective.

**H<sub>01</sub>:** Employees' welfare measures in Indian Railways are effective.

In order to Test the hypothesis, one sample Z-test is applied because samples are large and its subscale has 12 items the mean score of this subscale compared to the score of the neutral value (12 x 3 = 36).

**TABLE 21: DESCRIPTIVE ONE-SAMPLE STATISTICS**

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Effectiveness of labour welfare	500	42.71	5.25	.235

**TABLE 22: ONE-SAMPLE STATISTIC FOR Z TEST**

One-Sample Test

	(Population Mean)Test Value = 36					
	Z	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Effectiveness of labour welfare	28.53	499	0.001	6.71	6.25	7.17

From the Table 22, tabulated value of Z for 499 df at 5% level of significance for two-tailed test is 1.96. Since calculated value is much greater than the tabulated value it is highly significant. Hence we reject the null hypothesis and conclude that "Employees' welfare measures in Indian Railways are effective" is accepted.

**Hypothesis 2**

**H<sub>0</sub>:** There is no overall satisfaction of the Indian Railways employees towards various Fringe Benefits.

**H<sub>01</sub>:** There is overall satisfaction of the Indian Railways employees towards various Fringe Benefits.

In order to Test the hypothesis, one sample Z-test is applied because samples are large and its subscale has 7 items the mean score of this subscale compared to the score of the neutral value (7 x 3 = 21).

**TABLE 23: DESCRIPTIVE ONE-SAMPLE STATISTICS**

One-Sample Statistics

	N	Men	Std. Deviation	Std. Error Mean
Satisfaction of fringe benefits	500	23.71	3.63	.1623

**TABLE 23: ONE-SAMPLE STATISTIC Z TEST**

One-Sample for Z t Test

	(Population Mean)Test Value = 21					
	Z	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Satisfaction of fringe benefits	16.71	499	0.001	2.716	2.397	3.035

From the table 23 it is clear that tabulated value of  $Z$  for 499 df at 5% level of significance for two-tailed test is 1.96. Since calculated value of  $Z$  is greater than the tabulated value it is significant. Hence  $H_0$  is rejected at 5% level of significance and we conclude that "There is overall satisfaction of the Indian Railways employees towards various Fringe Benefits."

**Hypothesis 3**

$H_0$ : Human resource policies regarding Job satisfaction are not effective in Indian Railways.

$H_{01}$ : Human resource policies regarding Job satisfaction are effective in Indian Railways.

In order to Test the hypothesis, one sample  $Z$  -test is applied because samples are large and its subscale has 7 items the mean score of this subscale compared to the score of the neutral value ( $7 \times 3 = 21$ ).

**TABLE 24: DESCRIPTIVE ONE-SAMPLE STATISTICS**

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Job satisfaction	500	24.11	3.594	.161

**TABLE 25: ONE-SAMPLE STATISTIC Z TEST**

One-Sample for Z Test

	(Population Mean)Test Value = 21					
	Z	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Job satisfaction	19.33	499	0.001	3.112	2.796	3.427

From the above table 25 it is clear that tabulated value of  $Z$  for 499 df at 5% level of significance for two-tailed test is 1.96. Since calculated value of  $Z$  is greater than the tabulated value it is significant at 5% level of significance and it leads to the conclusion we reject the null hypothesis. This shows that  $H_0$  is rejected and the research hypothesis "Human resource policies regarding Job satisfaction are effective in Indian Railways"

**MAJOR FINDINGS**

The analysis of data obtained reveals that:

- 69.6% of the respondents are male and the rest 30.4% are female.
- 27.6% of the respondents their age come under the category of below 35 Years, 38.2% of the respondents falls under 36-45 Yrs and 34.2% of the respondents come under the category of above 46 Years.
- 32.6% of the respondents their designation come under the category of official post, 38.6% of the respondents falls under technical post and 28.8% of the respondents come under the category of clerical post in Indian Railways.
- 27% of the respondents come under the category of below 10 Yrs, 38.4% of the respondents falls under 11-20 Yrs and 34.6% of the respondents come under the category of above 21 Yrs of experience in Indian Railways.
- 22.2% of the respondents come under the category of less than 10000/- 35.8% of the respondents falls under 10000-25000/- and 42% of the respondents come under the category of above 25000/- of personal income of railways employees.

**CONCLUSION**

After analyzing the whole situation the researchers concludes it is proved above that the Employees' welfare schemes are not sufficient for the employees of the Indian Railways and other things that no improvements are found in any schemes. The data is either constant or has gone in to negative. Though there was a huge increase in the staff benefit fund i.e. by 800% but it was not utilized properly.

The researcher reached with this conclusion after thorough study of all the aspects of Employees' welfare which have been covered in this paper that inadequacy of financial resources is one important reasons pointed out by the railway administration in opposing the demand of extension of employees' benefits and services. But it is true say that the Indian Railway has been doing more and more favor to the public in comparison to the other industries.

It is pointed out that the Railways have been discouraging the social burden at the cost of their own employees. Hence, it maybe suggested that, the railway may minimize the cost of social burden and ask the Government to subsidies the social cost.

**SUGGESTIONS AND RECOMMENDATION**

The following suggestions and recommendation being preferred by the researchers based on the finding of the study are worth considering:

1. The Railway Administration should encourage the formation of Co-operative Housing Societies for Railway men wherever and whenever possible in order to solve the problem of housing accommodation. Railways management should also extend the coverage of housing scheme to workers in Indian Railways who have not been covered so far.
2. There is a need to further improve these facilities by way of having modern equipments in the hospital and clinics and by providing quality medicine in these hospitals and clinic of Indian Railways.
3. The Indian Railways should more focuses on Human resources development programme for enhancing the competitiveness of the Railways organizations in the context of internal and external changes in the environment. Efforts should be made to improve the basic infrastructure for training to provide structured training programme in improved learning environment.
4. The approaches to be adopted in training teaching learning and in special schools for Indian railways children will have to be unorthodox, fully participative and communicative.
5. Indian Railways should design and formulate transfer policy so that transfer is not used as a tool of punishment of workers especially union leader of the corporation and social activities who participate in the programmes which are beneficial for welfare of employee of the corporation. Transfer policy should be need based for effective operation of Indian Railways.
6. The Indian Railways should also pay attention on most importantly Staff Benefits Fund because this fund is to be mainly utilized for education of staff and their children, grant for scholarships for technical and higher education, recreational and amusement of the staff and their children, grant to Railway institutions & club, sports and other tournaments, relief distress among the Railways employees, grant to maintenance of Railways employees.



7. There are number of canteens which are highly subsidized. To further improve this facility it is suggested that the capacity of the existing canteen should be increased. Cooking equipment like electronic oven and gas oven should be installed; better hygienic dish washing machine, floor cleaning machine etc. should be arranged.
8. Educational facilities provided by the Railways are generally confined to Primary, Middle and High and Higher Secondary Standards. The Railways do not normally enter into the field of college and Technical education for this Railways management should extend the coverage of educational facilities in light of technical education.
9. The most striking finding of the study is that the Indian Railways is found to be biased in its approach toward implementation of welfare measures in different zones/ regions differently. The Indian Railways should have balanced approach in this regard, equal and due opportunity should be accorded to the employees of the corporation irrespective of the zonal and regional basis.

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- <sup>xvi</sup> Under article 346 (3) - item 25 of list 3 Concurrent List, Seventh Schedule.
- <sup>xvii</sup> Railway Boards' letter No. E (W) 83SC2-27 dated. 13.9.1988, master circular in railways board.
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- <sup>xx</sup> Master Circular No. 60, Pension and Retirement/ Death Gratuity, Government Of India, Ministry of Railways.

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