



SAARANSH

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Founder
(Late) Sri Raj Kumar Goel

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from the Founder

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

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From the Desk of the Chief Editor....

One of the prime agendas of the present government is to attain financial inclusion. Several measures are announced and taken on a regular basis but today also the stark reality is that most of the population residing in our villages has no awareness regarding the gamut of financial services they can avail of at a low cost. The root cause is the rampant lack of awareness due to illiteracy and the deep dichotomy between the organized and the unorganized financial sectors. What is needed is the reach of education at the grass root levels. The villagers should be made aware of how they can reduce their dependence on landlords and local financiers.

Right to education has been made a fundamental right. Mere forming of laws and giving rights is not enough. Rights are always accompanied by duties. When a common man starts understanding this, only then India can truly become a super power.

The present issue of 'SAARANSH' has the honor of including an article by Dr. C. Rangarajan where he has discussed factors influencing economic growth and the resultant social development. He has also provided the ideal model of economic growth for India. "SAARANSH" also includes contributions from foreign researchers which is clear evidence of its reach and its popularity.

With a sense of pride, I would like to share that our journal has been registered in the prestigious Cabell's Directory, USA. This would further aid us in making our journal world class and contemporary. I would like to express my indebtedness to all the contributors to the present issue of "SAARANSH" and hope they will continue their relationship with us. I am also grateful to the eminent reviewing panel for selecting such quality papers for inclusion in the Journal.



Prof. Arvind Singh



A tribute to Prof C. K. Prahalad

"Really in all my career I have been interested in 'next practices' and not merely in best practices"

C. K. Prahalad

C. K. Prahalad or Coimbatore Krishnarao Prahalad donned several caps with élan. He was a visionary strategic thinker, communicator par excellence, an academician to the core, a highly influential corporate strategist and above all, a true Indian. He was born on Aug.8, 1941 at Coimbatore in a cultured Brahmin family of a lawyer and Sanskrit scholar. Prahalad was a graduate in Physics from Loyola College, Chennai. After a stint of 4 years in Union Carbide, he did his Master's from IIMA and a doctorate from Harvard Business School in the year 1975. When all the big business houses were focusing their marketing acumen on the crème la crème of society, it was he who proved that fortunes could be made by targeting even the lower strata of society 'The fortune at the bottom of the pyramid- Eradicating poverty through profit (2004)'.

He argued that the fastest growing new markets and entrepreneurial opportunities were to be found among the billions of poor people and not just among the richer few. This work of his brought a landmark change in the way businesses operated in the form of some iconic products and services like shampoos in small sachets, Kurkure for Rs 5 and for that matter 'Nano'.

His beliefs were proved beyond doubt when all the big economics were grappling under recession, India took a hint from his preaching and focused on conserving cash, removal of internal inefficiencies and promoted innovations. India survived the recession without much damage to its economy. Whether it was the concept of "core competencies" or the theory of co-creation, C. K. Prahalad as he was fondly known in the management echelons provided landmark solutions to all management problems so that the businesses could grow globally.

His heart throbbed for India. He was working with the Confederation of Indian Industry on the "India at 75" project, a plan to cement India's position as an economic powerhouse by its 75th Independence Day in 2022.

His vision and belief will always guide and inspire us. He said "It is more difficult to forget than to learn". The impact he left on the world of management education and business in general can never be forgotten.

C. K. Prahalad, we salute you, you will always shine brightly as a star in the horizon.

ECONOMIC GROWTH AND SOCIAL DEVELOPMENT

C. Rangarajan*

ABSTRACT

This paper is an effort to trace the gradual economic development of India and the consequent social development. The author has been actively involved in India's story of economic growth and has given an insider's views. He has also stated the measures required to promote India's status from developing to developed economy.

Keywords: Economic Growth, Poverty, Human Development.

Evolution of thinking on growth

One can see four or five stages in the evolution of thought on economic growth. The chronological sequence is not without some overlap. In the first stage, the major concern was simply to accelerate economic growth. Growth was identified with the increase in the availability of material goods and services and was to be achieved through capital formation. Better life was identified with enhanced production of goods and services. The need for accelerating growth in this sense was felt even more strongly in developing economies, which started out with very low living standards. Eradication of poverty was to be achieved through faster economic growth. In the second stage, a distinction was made between growth and development. A greater concern with the distribution of income emerged. Development was seen as going beyond mere economic growth and bringing about changes in the structure of the economy. Equitable distribution of the benefits of economic growth became an independent goal. Balanced regional development also became a concern in large economies. In the third stage, the concept of equity was interpreted to mean the provision to everyone of what came to be described as 'basic needs' which included the basic requirements of life such as food, education, safe drinking water and health services. In essence, this approach stressed the need to provide to all human beings the opportunities for a 'richer and more varied life' as one of our plan documents put it. The next stage in the evolution of economic thinking on growth was the emergence of the concept of 'sustainable development' which acquired importance in the context of the environmental degradation caused in the process of economic growth. Sustainable development focuses attention on balancing today's concerns with tomorrow's requirements. In the current stage of thinking on growth, the concept of basic needs has been widened and the objective of growth is set as "human development" which means an improvement in the quality of life of the people. Enhancement of human development should lead on the one hand, to the creation of human capabilities through improved health, knowledge and skills and on the other, the opportunities for people to make use of these capabilities. In a broader sense, human development implies human rights and participation and freedom of

choice. In addition, the accent has shifted from the mere processes and dynamics of growth to include also the institutions which should deliver the benefits of growth to the poor and disadvantaged. Under this approach, economic growth becomes only one aspect of human development.

Performance of the Indian Economy

The performance of the Indian economy since Independence as measured by the normal indicators of economic growth has been impressive. The Indian economy was literally stagnant during the first half of this century. The growth momentum started with the attaining of Independence. The annual growth rate in GDP, however, remained below 4 per cent until the end of the 70s. It was only in the 80s that the annual growth rate crossed the 5 per cent figure. Between 1981-82 and 1990-91, the growth rate of the economy was 5.68 per cent per annum. 1991-92 was an exceptionally bad year for reasons well known. If we leave out that year, between 1992-93 and 2004-05 the average growth rate was 6.25 per cent. Even if 1991-92 is included, the growth rate since then would be 5.8 per cent. Because of the fairly substantial growth in population, the growth rate of per capita income was much lower. During the period 1950-51 to 2003-04 the per capita income, in 1993-94 prices, increased from Rs. 3687 in 1950-51 to Rs. 11798 in 2003-04, registering a growth rate of about 2.18 per cent per annum.

Obviously the growth in national income and per capita income is reflected in a number of social performance parameters such as a rise in the literacy rate, the availability of medical and health facilities, expansion in education etc. The crude death rate per thousand has declined from 22.8 during 1951-61 to 8.1 in 2002. Life expectancy at birth during this period increased from 41 years to 65.4 years. Infant mortality rate per thousand live births declined from 146 during 1951-61 to 63 in 2002. The general literacy rate increased from 18.3 per cent of the total population in 1951 to 65.4 per cent in 2001. More hearteningly, during this period the female literacy rate went up from 8.86 per cent to 54.2 per cent. The head count poverty ratio has declined from 54.9 per cent in 1973-74 to 26.1 per cent in 1999-2000.

While the achievements of the post-independence Indian

*Dr. C. Rangarajan is Chairman of the Economic Advisory Council to the Prime Minister. He chaired the Twelfth Finance Commission, the National Statistical Commission, was Governor of Andhra Pradesh and Governor of the Reserve Bank of India.

**The paper is based on the Valedictory Address at the Centre for Economic and Social Studies Silver Jubilee Seminar at Hyderabad.



economy are indeed striking in comparison with the record of our performance during the first fifty years of the twentieth century, it has nevertheless fallen short of our expectations. Our performance has also been well short of what has been achieved by other developing countries, particularly, in East Asia, triggering the concern that we performed well below our potential. It is only in this decade that India is beginning to be recognized as one among the fastest growing economies.

As measured by the social indicators, the performance of the country is even less impressive. India ranks low in the Human Development Index. As per the latest Human Development Report of UNDP, India's rank in 2003 was 127 among a total of 177 countries. It is, however, to be noted that India, with the Human Development Index value at 0.6, is included among the Medium Human Development countries. The three components of the Human Development Index are Life Expectancy, Education and GDP. Of these three, India's life expectancy index at 0.64 is near the world average of 0.70. But with respect to education and GDP, our indices at 0.61 and 0.56 are much lower than the world average of 0.77 and 0.75 respectively. Admittedly, the computation of these indices is debatable. The HDI also does not take into account many other aspects of social development as well as institutional dimensions like the freedom enjoyed by people in making political and economic choices. The index may thus understate, to some extent, India's achievements. However, the deprivation in India in terms of health and education facilities has been documented by several other studies as well. According to a recent study, children in the age group of 6-13 not attending school were estimated at 17.80 per cent. Sixty seven per cent of deliveries were not done in institutions. 22 per cent of the population did not have access to safe drinking water and 14.4 per cent of children were not fully immunized. Nearly 40 per cent of the population was not living in electrified houses. The number of people living below the poverty line is close to 260 million. While in one sense, there has been a significant progress in the provision of medical and educational facilities, as reflected in the improvement in life expectancy and in literacy rates, we still have a long way to go before we can claim a satisfactory level of performance in these areas. This narration leads us to several questions.

Interaction between growth and human development

How far is social progress possible without adequate economic growth? What are the synergies between social development and economic growth? Can expenditure on social sectors by itself ensure better social progress? What are the organizational and motivational factors necessary to secure better returns from expenditure? What should the role of the state and the private sector be, in relation to social development activities?

At a fundamental level, there is no conflict between economic

growth and social or human development. Economic growth implies improvement in the material well being of people which necessarily includes better health, education and sanitation. However, there are two possible routes to achieve the end of social development. One is to let the economy grow and expect the consequential benefits to accrue to all segments automatically. This approach is often described as 'trickle down'. However, for this to happen, the economy needs to grow strongly. Any moderate rate of growth, as we have had in this country particularly in the first three decades after Independence, is unlikely to have a significant impact on the bottom deciles of population. The alternative strategy of development is to focus directly on social infrastructure facilities such as health, education, sanitation and drinking water. No country including India has adopted an exclusive approach. Poverty alleviation programmes of various types were introduced from time to time, besides focussing on providing basic facilities like primary education and health. However, as we have noted, the changes in these areas have not been to the desired extent. In this context, one must also refer to an issue that is being raised whether the new economic policy has in any way contributed to the decline in the provision of these facilities. There is nothing in the new economic policy which dilutes or diminishes the role of the state in the social infrastructure sectors. In fact, the argument has been the other way round. By asking the Government to vacate the areas in which markets can function effectively and can be monitored, the Government acquires increased financial and administrative resources to pay attention to social infrastructure sectors. As has been somewhat paradoxically remarked, 'more market does not mean less Government, only different Government'.

While it is true that nutrition, health and education can and should be treated as ends in themselves, there is no assurance that improved health and education will automatically result in higher economic growth. They only create conditions under which growth in the sense of rise in national income can be accelerated. However, enhanced human development expenditures cannot be sustained over a long period unless supported by accelerated economic growth. There are examples of regions and countries where substantial improvement in human development indicators have not necessarily resulted in higher economic growth. When there is a dichotomy between human development indicators and economic development, it can be a source of social tension. For example, as education spreads, the economy must have the ability to productively absorb the growing number of educated people. Economic growth and social development must move in tandem so as to reap the synergic effects of the two moving together.

Conscientiously

Needless to say, equity and growth can be mutually supportive. There is enough cross-country evidence to

show that economic growth leads to reduction in poverty. By the same token, equity through creating equality of opportunities can accelerate growth by enabling the deprived to reach their full potential. However, in the short run, there could be possibilities of a trade-off, which then should be managed in a manner that the long run potential is not undermined. The design of policies has, therefore, to perform a delicate balancing act. The pro-poor policies necessary as they widen the opportunities and capabilities of the poor, must not harm growth in the long run. Pro-poor policies should include not only income transfers which by their very nature have to be limited but also flow of investment to sectors and areas where the poor work and live. Rural development thus assumes major importance. Equally significant is increased access to education, health and other social services.

The Human Development Report of 1991 introduced the concept of Human Expenditure Ratio which measures the percentage of national income devoted to human priority concerns such as elementary education, preventive health care, nutrition, water supply and sanitation to analyze how public spending on human development can be designed and monitored. According to the Report, the Human Expenditure Ratio needs to be around 5 per cent, if a country wishes to do well in human development.

Efficiency in Expenditure

Cross-country comparisons of human development expenditure do throw an interesting light on the effectiveness of expenditure incurred. According to the Human Development Report 1991, both Sri Lanka and India had a similar human expenditure ratio of 2.5 per cent of GDP. In absolute terms, human expenditure per capita in 1988 was \$ 10 for Sri Lanka, while it was \$ 9 for India. However, in the ranking of Human Development Index, Sri Lanka ranked 75, whereas India was much lower down at 123. Part of the reason for the difference in the ranking could be enhanced expenditure at a certain level over a longer period. As the Human Development Report itself admits, "Even Government expenditure cannot be considered in isolation. Its impact depends not just how much money was spent but on how and in what environment it was spent". While human expenditure ratio provides a clue to the seriousness of efforts made, much depends on the efficiency with which the resources allocated are utilized.

Studies on social development expenditures made by several researchers in India show that even where quantitative targets have been achieved, the quality of achievement has not been up to the mark. For example, it is pointed out that though 82 per cent of the population has been provided with safe drinking water, the quantity of water is inadequate in many rural areas and that there are problems of drinking water quality in many areas.

There is one common conclusion that seems to emerge from

various studies. Wherever there has been community participation and involvement, programmes have been more successful. Administrative and bureaucratic machinery deliver goods when it is constantly under the purview of local communities. We need to create grass root level organizations of various types which will generate demand for accountability from various programmes evolved by the Government. There is an urgent need to get more out of the resources that are being spent and to achieve the targets, both in quantitative and qualitative terms.

By presenting the 'Outcome Budget' to the parliament last month, the Government responded to a growing concern about the effectiveness in the utilization of public resources. Making a distinction between outputs and outcomes, the Twelfth Finance Commission (TFC) addressed this issue earlier by saying in its report: "The conventional budget exercises have focused on allocation of resources to different heads, without taking into account how these government expenditures get translated into outputs and outcomes. Outputs are the direct result of government expenditure and outcomes are the final results. Thus, in the context of education, opening a new school or appointing a new teacher is an output and reduction in the rate of illiteracy is an outcome." The TFC added: "A critical part of budgetary reforms must include information on the relationship between expenditure and the corresponding performance in producing real results. Although in the past, there have been attempts at introducing performance budgeting, such endeavors have receded in importance. There is need to bring back performance budgeting as an integral part of the preparation and evaluation of budgets, both for the centre and the states. Thus, the management of public expenditures should be guided by economy, efficiency and effectiveness." Improvements in the health and education delivery systems even at current levels of expenditure can bring about substantial changes in the availability of these services.

Conclusion

Social development and economic growth are not necessarily the same. That is why countries do not rank identically on the income scale and human development scale. Sometimes the differences in the rankings are quite striking. The rank correlation co-efficient between the real GDP per capita Index and the Human Development Index for all 177 countries for 2003 is high at 0.94. This is to be expected since GDP Index is one of the three factors included in the Human Development Index. Also the other two components – life expectancy and education – are closely correlated with GDP. However, taking only Medium Human Development countries, it is seen that the rank correlation co-efficient with GDP Index is lower at 0.60. There are several countries in this group which rank high on the real GDP Index but lower on the Human Development Index and vice versa. However, in the case of India, the difference is



small. India ranks 118 on per capita GDP index and 127 on Human Development Index.

Nowadays, the Human Development Index on the model of the global Human Development Index is being computed for different states in India to understand inter-state differences in income and social development. We now have the figures available for 2001. The rank co-relation co-efficient between the Income Index and the Human Development Index across states in India is positive at 0.76. This coefficient is somewhat similar to the correlation among medium human development countries. This goes to show that there are many states in which there are wide disparities between the two indices. Andhra Pradesh and Haryana rank much higher in the Income Index than in Human Development Index. Andhra Pradesh ranks 11 in the Income Index but is as low as 20 in Human Development Index. Similarly, Haryana ranks as high as 3 in the Income Index but is very low at 17 in Human Development Index. On the contrary, Kerala which ranks in 7th in Income Index ranks second in Human Development Index. There are several states in the north-east which rank very low in the income index but rank reasonably high in Human Development Index. Nagaland is a good example. It ranks as low as 15 in the income index but is high at 5 in Human Development Index. This can be accounted for by the differences in the proportion of public expenditures on health and education and the efficiency with which they are spent. States like UP and Bihar rank low both in Income Index and Human Development Indices. UP ranks 27 and Bihar 28 in both the indices.

What is the model of economic growth that is appropriate for India? Development has many dimensions. We now know that economic growth is only one aspect. Nevertheless,

accelerated economic growth is a necessary condition for achieving many other dimensions of development. Development must ensure equality of opportunities for all. However, equality of opportunities does not necessarily guarantee equalities in income. With some people good at converting opportunities into income and others not being so, different individuals will end up with different levels of income. That is why it is necessary to assure every one a minimum level of living along with equality of opportunities. Every person must have his or her basic needs met. These basic needs include access to services such as food, education, health care and shelter. Without sacrificing these goals, the economy must remain efficient. It is only an efficient economy that can generate the surplus necessary to meet the socio-economic goals. We need, therefore, to stress simultaneously on economic development in the conventional sense of accelerating growth rate and social development in the sense of securing the basic needs for everyone. The two have a mutually interacting beneficial impact and the two must be pursued together. These are the two legs on which the country must walk. Any strategy of development, which ignores any one of the two legs, will only make the country limp along. To achieve higher levels of human development in our country, we need a three pronged approach comprising of higher economic growth, a higher proportion of expenditure, particularly public expenditure on social sectors, and efficient utilization of the funds allocated. Growth and equity should not be posed as opposing considerations. They must be woven together to produce a coherent pattern of growth. Therein lies the challenge of development.



GLOBALIZATION AND CONSENSUS ON CULTURAL PRACTICES AND VALUES

Vipin Gupta*

ABSTRACT

In this article, we investigate the theory of globalization, in terms of two core hypotheses (1) the societies of the emerging global world are converging into the universal secular/rational and self-expression ideals, and (2) there is no global consensus, rather, a fundamental clash amongst the cultural values and practices across the societies. Our findings, based on two sets of cross-cultural data bases and Consensus Analysis methodology, indicate no evidence for the societies of the emerging global world to be converging into these ideals. On the other hand, we do find evidence for a global consensus on cultural values and practices. This global consensus may reflect a shared significance of the culturally authentic sources of power and of meaning of life. We also find evidence that the overall global consensus is consistent with the unique sources of power and of meaning of life in specific cultures, using the case of the Protestant cultural clusters.

Key Words: Globalization Theory, Convergence/ Divergence, Consensus Analysis, GLOBE Study

INTRODUCTION

Globalization is an important force in the discourse on culture. Globalization simultaneously fosters universal grounds and connections among different cultures, particularity of experiences and perspectives of each of these cultures. Homogeneity and heterogeneity, convergence and divergence, universalism and particularization, are all two sides of the same nexus that is globalization.

Globalization theory identifies several factors contributing to cross-cultural homogeneity, convergence and universalism. The origin of these factors is traced to colonial times, and the subsequent growth in global exploration, political engagement, trade and investments, media, technology, tourism with other vehicles of personal contact and education. Robertson's (1992) World Culture theory, for instance, emphasizes the spread of mass education as the key factor in globalization and identifies globalization as a process of incorporating the emerging nation states into the core industrial nations' exchanges. In this theory, globalization entails propagation of the universal standards of citizenship, which are interpreted and practiced differently by various nation states based on their own particular histories and perspectives (Robertson, 1992).

Globalization scholars identify the industrialized nations' culture, or more specifically the Anglo/ Protestant culture, as a point of reference for the universal world standards – with core ideologies being self-expressive human rights, liberal democracy and capitalist free market economy (Fukuyama, 1992). Anglo/ Protestant societies are globally most connected in terms of trade, technology, investment, political engagement, personal contact and media. By endorsing the Anglo/Protestant referenced standards, the societies gain both security as well as legitimacy for their traditions and local authority (Robertson, 1992). The reasons for embracing thus are based on both power and functionality.

With acculturation and homogenization of the cultures, the societies and individuals interpret their identity, values and practices as parts of a larger whole – the global consciousness (Robertson, 1992). This global consciousness does not imply global consensus. On the contrary, in a compressed world of globalization, as various societies struggle to live in one world, contending world views are formulated and legitimized using local traditions. Globalization constrains all societies assume a position and define an identity relative to the emerging global whole (Robertson, 1992). That promotes mobilization of coalitions using cross-local traditions, such as shared religious doctrines and cultural models, which fundamentally differ across societal clusters. The ensuing struggle for hegemony among different coalitions produces a state of conflict (Robertson, 1992).

Huntington (1993) offered a most provocative codification of the clash hypothesis. He hypothesized that the civilizations i.e. the clusters of societies, differentiated along the highest fault lines of cultural and religious traditions, will define the “principal conflicts of global politics” and “will be the battle lines of the future.” He predicted that the insistence on the Anglo/Protestant ideologies of human rights, liberal democracy and capitalist free market economy as universal standards will antagonize other civilizations. His predictions reflected the assumption – common among several international scholars and emerging market leaders – that development necessarily implies Westernization, or more specifically Protestant/ Anglo converging cultural transformation of various societies. Some critics cite the examples of Japan and some other Confucian societies, who seem to have adopted the standards of self-expressive human rights, liberal democracy and capitalist market economy, while retaining their core culture.

In summary, the effects of globalization on cultural values

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and practices may be both homogenizing ("convergence" school) as well as heterogenizing ("divergence" school). The Convergence scholars (Pascale & Maguire, 1980) hold that as the countries liberalize their markets, develop institutions, adopt modern technology and achieve industrialization, people will embrace common values with regard to economic activity and work-related behavior (Kerr et al., 1964) and that would result in universal values and practices. The Divergence scholars instead assert that social histories, not contemporary forces of economic ideology or technological growth, are slow to change and remain the dominant force in shaping the cultural values and practices within a country (Hofstede, 1980).

For some scholars, the observed divergence reflects just inertia. Thus, Jones (2006) notes: "Cultural practices may be explicable in economic terms, yet they also persist as a residue that is not explained by current forces. Ways of behaving are capable of being transmitted from one age cohort to another, learned early, and replicated in inappropriate circumstances. To that extent, culture resembles neurosis. To suppose otherwise is to think that selection environments are always severe enough to "correct" behavior and bring it instantly into line with fresh circumstances." For the others, observed divergence is a hybrid of the universal Protestant ideologies and the particular local elements. Thus, Ralston, Gustafson, Cheung & Terpstra (1993) identify the Confucian Asian societies as pursuing a middle ground using the term 'crossvergence', a value and practice set that is "in between" the values supported by the East and the West.

In this article, we investigate the theory of globalization, in terms of two core hypotheses (1) the societies of the emerging global world are converging to the universal secular/rational and self-expression ideals, and (2) there is no global consensus, but rather a fundamental clash amongst the cultural values and practices across the societies.

Our findings, based on two sets of cross-cultural databases, indicate no evidence that the societies of the emerging global world are converging on these ideals. On the other hand, we do find evidence for a global consensus on the cultural values and practices. Strikingly, the global consensus is around the cultural characteristics seen by the globalization scholars as being the polar opposites of the ideals. We find that overall, the consensus is particularly strong among the emerging markets, more than among the industrial markets. Within the industrial markets, while the Protestant cultural clusters do share the global consensus, they also have their own distinctive manifestations.

Our findings have the following implications. A new phase of globalization, characterized by the culturally authentic power and meaning of life may be on its way. Culturally authentic power might be gaining acceptance as the universal

principle for market-based organization in the societies of the emerging world. Similarly, the culturally authentic meaning of life might be the complementary universal principle for uplifting human rights and assuring a democratic voice for individuals in the societies.

The most distinguishing cultural practices of the Protestant clusters are high uncertainty avoidance and low in-group collectivism (Gupta & Hanges, 2004). Practices of uncertainty avoidance tend to support secular-rational approaches to promote stability and order. Practices of absolving individuals from their correlation with the group tend to support the self-expressive liberal model. On both these two practices, the Anglo-Protestant societies aspire for an alternative. Culturally authentic sources of power and meaning of life may be a general principle that offers diverse manifestations of democracy, markets and human rights.

If culturally authentic sources of power and meaning of life are suppressed, then these may harden into attempts to exert and impose authority, by invoking the traditional fault lines such as religion, nation, ethnicity, language and other differences. The survival and security of the members may be heightened in importance. Overall, the future and performance orientation of the societies may consequently be severely compromised. Indeed, cutting across the global fault lines, and even in the Protestant cultures, strong aspirations exist for enabling more futuristic and performance oriented norms (House et al, 2004).

Next, we review literature on how culture may be conceived, and formally formulate a testable hypothesis. We discuss our data and the methodology, then present our preliminary findings. Then, further implications of the findings are discussed and the conclusions for further research identified.

Literature Review

Cultural values and practices constitute a worldview, or an interpretation of the nature of world around us, and the generally accepted approach for surviving, living and functioning in this world. From a reductionist perspective, culture is a mix of values and practices that are modernized over a period of time. The globalization process results in the identification of the more efficient and functional features, and the reduction of the culture to core universal features, along with some non-functional particular features as vestiges of history and power.

There are three major views on the reductionist model of culture. A long-standing view ("Protestant Convergence School") suggests that with globalization, people would come to learn about the efficiency and wealth-generating properties of the Protestant model (Kerr et. al., 1964; England & Lee, 1974; Weber, 1905). Socialization and learning of the Protestant model is expected to be facilitated by several factors, including colonial ties, modernized

education, professional business, democratic governments, global media, modern technology and rationalized family structures (Pascale & Maguire, 1980). Under this view, the observed differences in cultural practices and values reflect varying competencies in recognizing, adopting and institutionalizing the Protestant model (Useem, 1996).

A second view ("Globalization Convergence School") holds that with globalization and industrialization, there would be mutual learning among different societies undergoing globalization and industrialization (Tinbergen, 1961). Each society's practices are functional and appropriate for certain types of activities, advantages, skills and domains (Guillén, 2000). Mutual learning about functional practices is facilitated by several factors, including two-way communication, trade, investments and other forms of exchange. Consequently, a hybrid would emerge, combining the practices of different societies as well as reconciling and resolving the differences in their values. This hybrid would reflect a convergence amongst the more industrialized markets, that would differentiate them from the less industrialized markets that will have a weaker convergence or no convergence at all.

The third view ("No Convergence School") holds severe limitations on how the processes of globalization may influence cultural practices and values. The cultures are a product of a society's history and geography, whose effects are path-dependent, protected and preserved by its political and institutional framework (Hofstede, 1980; Kitschelt et. al., 1999). The cultures may not be necessarily inferior or superior to those of other societies (Child, 1981). They represent different, but functionally equivalent, solutions to the similar problems and their efficacy is supported by a complementary set of institutional framework. Any attempt to displace or substitute these practices and values engenders political backlash, and thus meets with failure. Consequently, under this view, one expects no common ground in the practices and cultures of different societies (Laurent, 1983).

All the three schools are rooted in the Western/ modernist view that the functional value of cultures is in terms of their contribution to economic wealth, incomes and global competitiveness. Therefore, the cultures of all societies will be forced to converge towards either pure Anglo model, or some hybrid of the Anglo model with the other similarly successful models from the other industrialized markets, or will find some other way for functionally equivalent solutions to remain viable.

From a holistic constructive perspective, cultures offer a sense of identity and meaning to the members (Mongtomery, 2000). The economic function or rationalist reduction of culture is demeaning and discriminatory to the less privileged, and to the emerging market communities. Culture for these has an important authentic and nurturing value; that provides a way of life and a way to make sense of one's life, its purpose and its value. There is evidence of

backlash, whenever the economic agenda is pushed too far. Thus, during the 1930s, the Great Depression became the basis for the Hawthorne experiments on groups and social power, a theme that re-emerged during the 1980s with the rise of the Japanese industry. Similarly, the 2007-2009 economic crisis has evinced concerns about the assumption of universality, stability and order underlying the practices in the West and how individualistic greed may compromise the welfare of entire groups. Thus, in societies across the emerging world, there appears to be some consensus around the authentic, nurturing aspects of culture, particularly in terms of values.

Hypotheses

Hypothesis 1 - No Convergence: Anthropologists assess cultures from an emic or insider's perspective, where the true meaning of culture is understood exclusively by those who live in and experience that culture. In particular, cultural knowledge is critically dependent on the language, which itself differs significantly across nations (Bourdieu, 1991). The forces of history, religion, geography and institutions that shape culture are also generally too strong to be overwhelmed by globalization (Maurice, Sorge & Warner, 1980). Globalization may accentuate the differences in societal cultures, by making people more concerned about preserving and protecting their cultural distinctiveness. Political forces frequently mobilize the masses against attempts to converge and education tends to help in defending and affirming the relevance of the native values and practices. Economically, differences in societal cultures make countries repositories of managerial and organizational capabilities that enable their companies to excel in different ways (Guillén, 2000). Thus differentiated national cultures may limit, or even preclude, convergence in the values or practices of societies.

Hypothesis 2 Emerging World Convergence: The emerging globalization is encouraging appreciation of diversity, cultivating a spirit of accommodation, empathy and exchange. Using the Inglehart & Baker (2000) study based on multi nation, large sample, multi period surveys, we may identify two major dimensions of commonality amongst the cultures of the emerging world: traditional authority and survival values.

Traditional authority is one way of expressing culturally authentic power. That power often includes obedience to traditional authority, particularly deference to God that goes with deference to the family and the nation. Here people are committed to family and communal obligations, norms of sharing, and show unquestioning love and respect for parents. They are willing to make sacrifices for and do their best for their children.

Survival values are an expression of the culturally authentic meaning of life. The meaning of life is explored in the context of economic and physical insecurity; which perpetuates



traditional gender roles authoritarian political outlook with faith in the developmental role of science and technology.

Despite its universal appeal for the contemporary global context, the emerging world culture does not constrain societies to only one form of culturally authentic power, or to one way of expressing or exploring the meaning of life. On the contrary, some societies may develop alternatives to the traditional authority, such as secular-rational codes, and/or alternatives to the survival values, such as self-expression of the subjective well-being in terms of environment, gender and participation rights.

Hypothesis 3 - Layered Convergence: The emerging world culture might accommodate more than one layer. Industrialized markets, for instance, are distinguished perhaps by their stronger emphasis on economic wealth, and certainly by their historical ability to put that emphasis into practice. Similarly, another layer may be of specific cultural clusters. Protestant culture takes the shape of a liberal, capitalist and self-expressive model, which emphasizes a laissez-faire view supporting complete freedom and self-interest seeking (Hofstede, 2001). In its contemporary form, Protestant cultures emphasize performance, look towards the future and avoid an over emphasis on group loyalty and collective interests (as opposed to individual goals and interests) (Ashkanasy et al., 2002). This culture favors a more 'residual' welfare state, with reduced tax rates and flexible labor markets, which incorporate high incentives to finding work. Further, some of the Confucian societies, particularly Japan, have also emphasized the cultural features of the Protestant societies, to be more globally integrated and connected.

Data and Methodology

Data: We use two sets of cross-cultural data for the purposes of our analysis.

GLOBE Program: The first data set is taken from GLOBE programme, which provides societal culture practice (As Is) and societal culture value (Should Be) scores for a sample of 62 societies (House et al, 1999). A total of 10 cultural clusters are represented in this sample (see Table 1). For each society, practice and value scores are available on nine dimensions of culture: power distance, future orientation, uncertainty avoidance, performance orientation, humane orientation, institutional collectivism, family collectivism, gender egalitarianism and assertiveness.

In the GLOBE study, practice and value scores were obtained using isomorphic set of questionnaire items, using a 7-point response scale. For instance, an example if a power distance practice item is "In this society, a person's influence is based primarily on the authority of one's position (as opposed to one's ability and contribution to society)". Its isomorphic power distance value item is "I believe, a person's influence in this society should be based primarily on the authority of one's position (as opposed to one's ability and contribution to society)." (see House et. al., 2004 for details on the construction and validation of GLOBE scales).

We use societal culture practice scores on nine dimensions to assess the presence and convergent scores of universal cultural practices, using the Consensus Analysis method described below. Similarly, scores on the nine dimensions of societal culture values are used to assess the presence and convergent scores of universal cultural values.

World Values Surveys: The second data set is from the World Values Surveys, waves 2 and 3 (conducted over 1990-1997), which provide individual level data on a broad range of cross-cultural values (Inglehart & Baker, 2000). In total, data are available for more than 70 societies, of which 39 overlap with the GLOBE sample. We use aggregated society level data for the items and scales suggested and validated by Inglehart and Baker (2000) as measures of traditional/secular-rational authority and survival/self-expression values.

Methodology – Consensus Analysis

Cultural knowledge is not all that one knows; nor is it the sum total of what everybody knows. Rather, it is an abstraction, knowledge shared in its "broad design and deeper principles" by members of a community (Keesing, 1974). In other words, while entirety of culture is not usually known (and can't always be articulated explicitly) by anyone, cultural knowledge consists of what is held true by all members of a community. The significance of information sharing and distribution of cultural knowledge has encouraged some researchers to exploit consensus, measured by intersubject agreement, as an indicator of knowledge (Romney et al, 1986). Using Consensus Analysis, consensus among a cross-cultural sample of societies can be used to assess the properties of cultures (Borgatti, 1996).

Consensus Analysis provides estimates of (1) a measure of the overall saliency of the knowledge domain represented by the pool of cultural dimensions. (2) the level of domain expertise or "cultural competence" for each society based on the consensus between its scores on cultural dimensions with those of all other societies, and (3) the most probable set of convergent culture scores, inferred from the scores of each society and weighed by their respective competence measures, i.e., the consensus view.

Assessment of societal knowledge rests on establishing the validity of the common domain to the societies in the sample (Borgatti, 1996). This is accomplished by inspecting the relative magnitudes of the eigenvalues for the first factors extracted from the consensus matrix using Minimal Residual Factor Analysis (Borgatti, 1996). The eigenvalue of the first factor must be at least three times greater than the second; moreover, subsequent eigenvalues should all be small and roughly equivalent (Borgatti, 1996)

Results

Hypothesis 1: No convergence - Rejected

Inspection of the eigenvalues for the first three factors extracted from the practices set reveals that the first is almost four times greater than the second, and the second is about twice the third eigenvalue. Similarly, for the values set, the

first eigen value is about fifteen times greater than the second, and the second and third eigenvalues are about same (see Table 2). Taken together, these findings lend support to the thesis that the GLOBE cultural dimensions are sampling a single, coherent knowledge domain, and that this domain has salience for the GLOBE sample of societies. Moreover, the high Pseudo-Reliability Coefficients (0.987 for practices; 0.996 for values) also suggest that these results are stable and would likely be the same ones obtained with repeated sampling (Romney et al, 1986). Thus, the societal cultures are not completely divergent in anthropological sense. Thus, we can reject the null hypothesis of no convergence.

Hypothesis 2: Emerging World Convergence – Supported

Having established the saliency of universal "Practices" and "Values" as knowledge domains for societies in the sample, it is possible to estimate each society's competency in these domains. This metric can be interpreted as the probability that a society's cultural practices are derived from a pool of universal practices. Competencies for this sample ranged from -0.50 to 0.98 for practices, and from -0.74 to 0.99 for values.

The competency scores were negatively skewed. Z-transformation of the scores showed four outliers in convergent practices and three outliers in convergent values. In both cases, the least competency scores were for Czech Republic, which has been shown in GLOBE study to be vitiated by response bias (Hanges & House, 2003). For convergent practices, other outliers with low competency scores were Sweden, Denmark, and the Netherlands (all are Protestant cultures). For convergent values, other outliers with low competency scores were China and Japan (both are Confucian cultures). Excluding these outliers, the practice competency had a range of 0.27 to 0.98 (mean=0.80; N=58), and the value competency had a range of 0.84 to 0.99 (mean=0.93; N=59).

The correlation of convergent practice and value scores with Inglehart's scales and items is given in Table 3. Convergent practices are positively correlated with traditional authority factor (as opposed to secular-rational authority), as well as with all the items comprising the factor. About 25% of the variation in convergent practice scores is explained by the societal differences in the emphasis on traditional authority. Convergent practices are also quite strongly correlated with survival values factor (as opposed to self-expression values factor). Nearly 50% of the variation in convergent practices is on account of societal differences in survival/self-expression values.

Convergent values are also positively correlated with traditional authority factor, as well as with all items comprising this factor, though the correlation is only moderate in size and significance. The correlation of convergent values with survival/self-expression value dimension is relatively weak, though survival values do positively relate with convergent values.

The high positive competency scores of the societies in the GLOBE sample, and the positive correlations of both the convergent practices and values scores with the traditional authority and survival values scales of Inglehart, suggest a broad support for a convergence around the emerging world culture.

Hypothesis 3: Layered Convergence – Partly Supported

Next we examine secondary layers that are supported by the convergent emerging world culture. We split GLOBE sample of 62 societies into two equal halves, based on their 1998 per capita income – with higher income reflecting industrialized markets, and the lower income reflecting emerging markets. We then ran Consensus Analysis separately for the two halves.

Results reconfirmed the convergence in the values for both the emerging market as well as the industrial market samples. The value competency scores derived using single sample, and those derived using split sample, were significantly and positively correlated. However the correlation was stronger for the emerging market sample ($r = 0.73, p < 0.01$), than for the industrial market sample ($r = 0.63, p < 0.01$). This suggests that the value convergence in the broader sample reflected more of the emerging market culture, than the industrial market culture.

Convergence in practices was supported only for the emerging market sample, not for the industrialized sample. Still the practice competency scores derived using single sample, and those derived using split sample, were significantly correlated for both emerging markets ($r = 0.97, p < 0.01$) and industrial markets ($r = 0.70, p < 0.01$) samples. This suggests that the practice convergence in the broader sample reflected more of the emerging market culture, than the industrial market culture.

Controlling for per capita income, the % variation in convergent practice scores explained by Inglehart's traditional/ secular-rational authority scale fell by 50%, suggesting that the nations with higher economic wealth tend to adopt more secular-rational authority. Similarly, after controlling for per capita income, the % variation in convergent practice scores explained by Inglehart's survival/self-expression values factor fell by two-fifths. The nations with higher economic wealth tend to put more emphasis on self-expression values, particularly trust and post-materialism (see Table 3).

To summarize, in terms of values, the industrial markets have a domain of convergence in their cultures, which also overlaps with the domain of convergence of the emerging markets' culture. However, in terms of practices, the industrial markets do not have a domain of convergence in their cultures, but the emerging markets have an overwhelming domain of convergence – to which the industrial market cultures also show convergence. Different industrial markets appear to have their distinct cultural practices, that are different from even the other industrial markets; and in addition, they also share cultural practices



with the rest of the world, including the emerging world markets.

We used Analysis of Variance - Contrast among ten cultural clusters, and found that value competencies of none of the ten clusters were significantly different. The practice competencies of the Protestant cluster were, however, below-average (contrast = 0.26; $t=5.52$; $df=48$; $p<0.01$). While the Confucian cluster also had practice competencies lower than the other six non-Protestant clusters, the difference was not significant. However, two higher per capita and more globally connected nations in the Confucian cluster – Japan and Singapore – did have significantly lower practice competency scores. The average practice competency for these two was 0.62, in between Germanic (0.50) and Anglo (0.62).

Discussion

Implications for Convergence/Divergence Debate

Globalization scholars assume that the universal pressures for adopting the Protestant ideals will generate a clash among cultures. Our findings suggest that the emerging world culture is not converging around the Protestant ideals, and moreover this non convergence does not reflect divergent, transitional, or functionally equivalent cultural traditions either. On the contrary, the evidence suggests that the cultural practices and values of the societies in the emerging world do reflect a deep underlying consensus. This consensus is not around the Protestant ideals, rather it is around the importance of traditional authority and of survival values.

Traditional authority of individuals, families, groups, and nation states can be widely endorsed in a society only if the power is culturally authentic power – authentic cultural traditions are critical to gain and exercise power and authority on a pervasive and perpetual basis. Survival values raise the salience of the meaning of life, particularly in the situations of economic and physical insecurity, where women are subjugated to traditional gender roles and authoritarian ideologies dominate the political landscape.

The culturally authentic power and meaningfulness have a universal appeal. The processes of globalization may actually heighten this universal appeal, and bring all the societies on the same platform for dialogue and alliance. For instance, as a result of the economic crisis of 2007-2009, survival of the families became an issue of universal appeal. Sense of economic and physical insecurity, and concerns about the subjugation of women in the global financial services sector and the authoritarian ideologies of the prior administrative leaders, also came to the forefront.

Implications for the spirit of Protestantism

Though the emerging world culture has universal appeal, it does not impose those features on all the societies. Rather, different societies can discover their own pathways for cultural expression. The Protestant cultural pathway is an example. Weber (1904/05) asked why work came to be cherished in the West. Up until medieval times, the purpose

of work was to meet the physical needs of one's family and community (Tilgher, 1930). Martin Luther's Protestant Reform introduced the belief that people could serve God through their work, i.e. work was a calling (Lipset, 1992).

The Protestant Reform called for people learn the vocations and to achieve greatest profit for reinvestment. Diverse pathways might be used to support this vision, but in the Protestant clusters, the specific pathway chosen was a system of accounting (ability to calculate benefits and costs), technical training and education (the development of technical capabilities), and a legal and administrative system (Weber, 1905). All these were identified as critical to "the ability and disposition of men to adopt certain types of practical rational conduct." (Engerman, 2000) Consequently, the Protestant cultures emphasized "the rational capitalist organization of the formerly free labor", which elevated capital, education, and laws/ administration as the most culturally authentic sources of power (Weber, 1904/05). These were seen as separate from and even opposites of labor, folk knowledge and religion.

The Protestant solution implied a clash between labor and capital (Marx, 1847), folk knowledge and education (Huat, 2003), and religion and law (Weber, 1904/05). In the rational capitalist economy, people found their labor to be de-valued, their folk knowledge being challenged - often suppressed and ridiculed – by the existing views of academia, and their religion to be dismissed as not scientific. Inevitably, special interests grew for identifying new meanings and purpose of life, new ways of self expression, and new definitions of folk knowledge in terms such as human rights, environment rights, and gender rights. These special interests were a manifestation of the survival values, but instead of focusing on the insecurity-infused practices such as women subjugation and authoritarian regimes, they emphasized what the local folk knowledge was around the issues needing to be fixed.

Our findings suggest that when the traditional authority is juxtaposed against the secular rational authority as alternative measures of culturally authentic power, the cultural practices of the Protestant clusters stand out on the alternative measure. Similarly, when the insecurity-infused practices are juxtaposed against the specific folk knowledge based self-expressive values, the cultural practices of the Protestant cultures again stand out in the alternative.

In many cultures, capital is something that complements labor, education is something that furthers and strengthens folk knowledge and law is something that supplements religious codes of life. To that extent, these cultures may not de-emphasize or reject traditional sources of authority, folk knowledge, and religious codes. Balasubramaniam (1985: 62-63) observes that the pre-Protestant cultures, including Catholic-Islamic, Hindu-Buddhist and Taoist-Confucian cultures, bear the mark of living in harmony, of preaching that there was and still is a "nature that transcends humanity and that man had to care, not only for his own or his group's interests, but for the welfare of the whole, this holistic

perspective, that was at the heart of medieval spirituality.” Balasubramaniam (1985) noted that traditional societies have a spiritual competence that can effectively promote environmental rights, but often the prevailing norm in these societies has been passive and discouraged a world transforming, participatory lifestyle as something that would disrupt traditional harmony. The challenge is then to marry the folk knowledge of the traditional cultures with the creative energy of post-modern education.

Implications for culturally-implicit theories

The philosophies and religious influences (e.g., Protestant ethics) may be described as culturally implicit theories. Culturally implicit theories derive from the cultural traditions and expectations. They are culturally programmed constructions about human behavior and social forces (see Runco & Johnson, 2002) and have been found to be highly stable over time (Franiuk, Cohen & Pomerantz, 2002). Our findings suggest that the authenticity of different power sources – universally traditional or other alternatives – may vary across cultures. Similarly, the search for the meaning and purpose of human life (the survival values) may also be expressed in different ways – including entrenched practices, some which are taken for granted and new forms of expression of what needs to be reformed. The spirit of globalization may be best served by openness about discovering and making explicit these different culturally implicit meaning sources. Dialogue and exchange would help form a common basis for authentic development across cultures and bridge the clash contours.

Implications for Developmental Policy

Our findings suggest lack of evidence, when a range of core cultural values and practices are investigated together, for a convergence to the industrial nations’ culture or to Protestant/Anglo culture in the world. Coercive pressures on various societies – by media, academia, corporations and others drivers of globalization – to adopt the rational economic paradigm of the Protestant cluster may be an important reason for the new issues of insecurity that the world is facing in the 21st century. Economic-oriented developmental initiatives inevitably give rise to the “alienating effects of large-scale, modern technology and the unequal distribution of the benefits from industrialization.” (UNESCO, 1996: 15) There is a need to understand development as a broad “process that enhances the effective freedom of the people involved to pursue whatever they have reason to value.” (UNESCO, 1996: 14) An important first step is to recognize the importance of folk knowledge and to incorporate that within the formal education. UNESCO (1996: 21, 24, 38) notes, “If the communities of the world are to improve their human development options, they must first be empowered to define their futures in terms of who they have been, what they are today and what they ultimately want to be. . . . Special attention must therefore be paid to the knowledge that each culture has contributed to the world’s

intellectual legacy... Indigenous ecological knowledge and traditional management practices offer solutions not only founded on generations of experimentation and observation, but also embedded in local systems of value and meaning.”

Conclusion

In this paper, we find that globalization has generated a consensus amongst the different societies around the importance of the culturally authentic sources of power in life, and of expressions of the meaning of life. We also find that globalization implies neither the suppression of the culturally unique sources of power and meaningful expressions, nor the rejection of the new developmental values that challenge the entrenched traditional practices. In terms of future research, it would be useful to investigate the alternative sources of power and meaningful expressions that are implicit in different cultures of the world, and to see how globalization is and may help make them explicit. Then it would be useful to elevate empowering and meaningful sources and to reform the disempowering and meaningless ones.

A major limitation of our study is the reliance on the GLOBE dimensions to assess cultural practices and values across different societies. It will be useful to examine the nature of consensus, if any, using other cross-cultural dimensions.

To conclude, globalization does not necessarily result in convergence or divergence among cultures. Rather, globalization offers a transformative opportunity to each society, and thus produces what may be characterized as transvergence.

References:

- Ashkanasy N M, Trevor-Roberts E, & Earnshaw L. (2002); “The Anglo Cluster: legacy of the British Empire,” *Journal of World Business*, 37(1): 28–39.
- Audretsch, D B & Thurik, A R (2000). “Capitalism and Democracy in the 21st century: From the Managed to the Entrepreneurial Economy.” *Journal of Evolutionary Economics*, 10(1): 17-34.
- Borgatti, S.P. (1996). *ANTHROPAC 4.0 Methods Guide*. MA: Analytic Technologies.
- Bourdieu, P. (1991). *Language and Symbolic Power*. MA: Harvard University Press.
- Child, J.D. (1981). “Culture, contingency and capitalism in the cross-national study of organizations,” *Research in organizational behavior*. 3: 303-356.
- D’Souza, D. (1996). “Confucius meets Max Weber,” *Forbes*. 158(11): 86. November 4.
- Franiuk, R., Cohen, D. & Pomerantz, E. M. (2002). “Implicit theories of relationships: implications for relationship satisfaction and longevity,” *Personal Relationships*, 9(4): 345-367.
- Gudykunst W B & Ting-Toomey F. (1988). *Culture and interpersonal communication*. CA: Sage Publications.

Table 1: Cluster-wise GLOBE Society Sample Eastern Europe

Czech Republic	Sweden	Malaysia
Hungary	Denmark	Thailand
Russia	Anglo	Confucian Asia
Kazakhstan	UK	Taiwan
Albania	Ireland	Singapore
Poland	Australia	Hong Kong
Greece	S.Africa: Caucasian	South Korea
Slovenia	Canada	China
Georgia	New Zealand	Japan
Latin Europe	USA	Middle East
Italy	Latin America	Qatar
Portugal	Costa Rica	Morocco
Spain	Venezuela	Turkey
France	Ecuador	Egypt
Switzerland	Mexico	Kuwait
(French speaking)	El Salvador	Sub-Sahara Africa
Israel	Columbia	Namibia
Germanic Europe	Guatemala	Zambia
Austria	Bolivia	Zimbabwe
Switzerland	Brazil	S.Africa: Indigenous
Netherlands	Argentina	Nigeria
Germany: West	Southern Asia	
Germany: East	India	
Nordic Europe	Indonesia	
Finland	Philippines	

Table 2: Consensus Analysis Results: Overall Sample

Societal Practices

Respondent Reliability = 0.987

EIGEN VALUES

FACTOR	VALUE	PERCENT	CUM %	RATIO
1:	39.197	73.2	73.2	3.954
2:	9.912	18.5	91.8	2.245
3:	4.416	8.2	100.0	
		53.525	100.0	

Societal Values

Respondent Reliability = 0.996

EIGENVALUES

FACTOR	VALUE	PERCENT	CUM %	RATIO
1:	52.712	90.1	90.1	15.514
2:	3.398	5.8	95.9	1.411
3:	2.408	4.1	100.0	
		58.518	100.0	

Table 3: Correlation of Convergent Practices and Values with Inglehart's Scales

	Convergent practices	Convergent Values	Convergent practices, controlling for per capita income	Convergent values, controlling for per capita income
God is not very important in respondent's life	-.35*	-.26	-.18	-.26
It is more important for the child to learn independence and determination, than obedience and religious faith	-.46**	-.46**	-.30	-.49**
Abortion is always justifiable	-.53**	-.23	-.37*	-.23
Respondent favors less respect for authority	-.39*	-.39*	-.23	-.40*
Respondent has no sense of national pride	-.39*	-.36*	-.24	-.36*
Overall Secular-Rational Scale	-.52**	-.36*	-.36*	-.38*
Respondent gives priority to self-expression and quality of life, over economic and physical security	-.44**	-.08	-.14	-.05
Respondent describes self as very happy	-.29	-.29	-.21	-.28
Respondent has and would sign a petition	-.64**	-.26	-.49**	-.29
You can always trust people	-.46**	-.37*	-.31	-.39*
Homosexuality is always justifiable	-.69**	-.34*	-.57**	-.42*
Overall Self-expression Scale	-.69**	-.33*	-.56**	-.43*
* p < 0.05; ** p < 0.01 level				



EFFECTS OF ADVERTISEMENTS ON CHILDREN

Kusum Gupta*

Parminder Kaur **

ABSTRACT

Today, advertisements play an influential role in customers choosing goods or services and especially with children as consumers. Marketers see children as part of the future as well as current market and hence brand loyalty at a young age helps in the quest of continuous sales later. Thus this study's approach is to examine the impact of advertisements on children.

Keywords: Advertisement, Customer, Market, Brand loyalty

INTRODUCTION

Advertisements are meant to convey the marketer's message to the prospective customers and to lure them to purchase products. The advertisements play an important role with customers choosing goods or services. These are especially more effective on children as consumers. Advertising offers them new products. Television has been the predominant medium that advertisers have chosen for marketing products to children. Advertising for a child is largely colorful, vital, alive and fascinating. The 30-second advertising shot on television adheres completely to the child's short attention span and therefore advertising becomes a source of information for children to become aware of new products. It is currently estimated that the average child sees more than 40,000 television commercials a year. Approximately 80% of all advertisements targeted to children fall within four product categories: toys, cereals, candies and fast food restaurants. Young children are able to differentiate between a TV programme and a commercial but are unable to understand the intent of an advertisement and hence they have a positive attitude towards advertisements. According to one estimate, children aged 14 years old and under spend \$24 billion on direct purchases and influence \$190 billion on family purchases. M.C.Neal, Professor of Marketing at Texas, A&M University, wrote in an article in April 1998 in American demographics.

Today, a majority of the advertisements feature children and children's behaviour in their campaigns, even if the product may be of remote interest to them. Keeping these facts in mind, the present study has been conducted in Ludhiana city. Ludhiana is a big city of Punjab with a total population of 30,30,352 as per the 2001 census. The density of population is 804 persons per sq. km and the city has a good literacy rate of 76.5%. Because of these advantageous socio-economic parameters, this city has been chosen for the study.

Objectives of the Study

The study has been conducted with the following objectives:

1. To study the opinion of children regarding advertisements.
2. To study the children's perception about the role of advertisements and quality of the product.
3. To know about their preferred model in advertisements.
4. To study the role of children as decision makers for purchase of household products.

Methodology

For the achievement of these proposed specific objectives, a primary sample of 100 respondents was taken from Ludhiana city. Respondents were children up to the age of 14 years.

Analysis

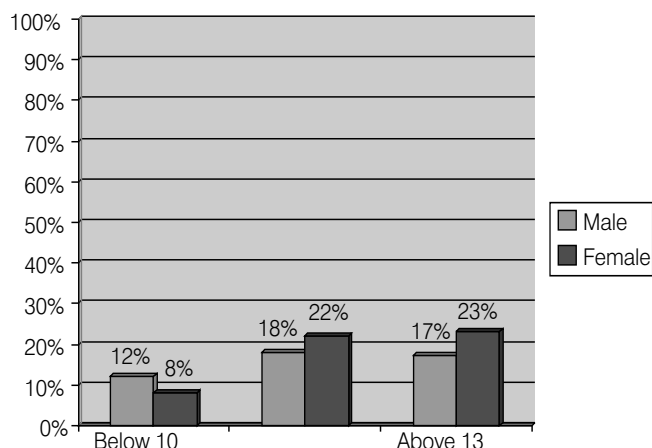
In order to study the nature and characteristics of various respondents, the information provided by the respondents has been analyzed according to basic variables like age, sex and monthly pocket money. To interpret the data, pictorial presentations were made.

Respondents profile

- The respondents are both males and females. Out of 100 children, 48 are males and the rest, females.
- Majority (40% - 18% males and 22% females) of the respondents fall in the age bracket of 10-13 years and above 13 years, in which out of a total 40 percent, 17% are males and 23% are females. Rest 20% fall in the age bracket of below 10 in which 12% are males and 8% are females.

Fig 1.1

AGE PROFILE OF THE RESPONDENTS

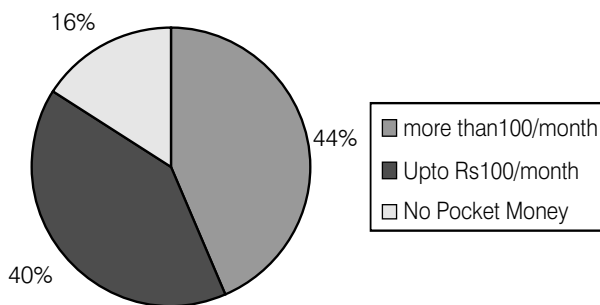


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- Most of the respondents (44 percent) receive pocket money of more than Rs100/- per month followed by 40 percent who receive pocket money up to Rs100/- and only 16 percent receive no pocket money.
- The majority of children agree that they spend their pocket money on ice-creams, toffees, cold drinks and on other eatables available in the market.

Fig 1.2
MONTHLY POCKET MONEY OF THE RESPONDENTS

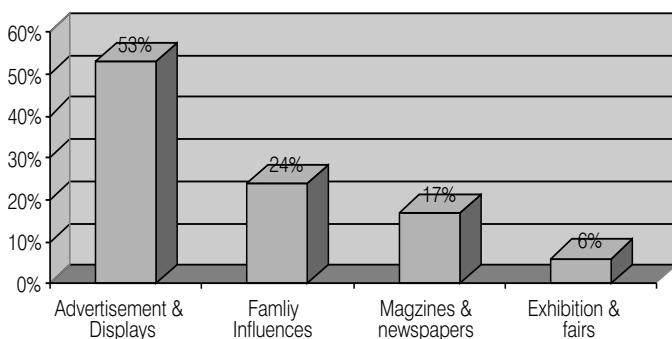


Findings

As per the analysis and information obtained from the survey the following conclusions are arrived at:

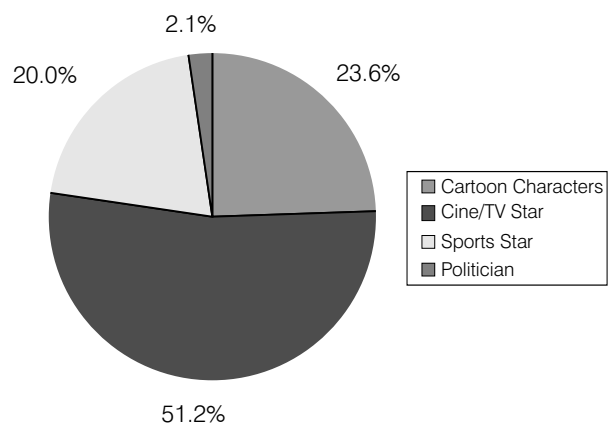
- Out of the total number of 100 respondents, majority of the children (74.6 %) believe that advertisements do play a role in choosing the best product among the different alternatives available.
- Further 60% of the children said that promotional schemes like advertisements always lure them to buy the products and they also feel that whatever is shown in the advertisement is true
- To know the source of information varied responses of children are obtained and the most favorable responses are received towards advertisements and displays. 53% children said that their source of information were advertisements and displays. 24% respondents are in favor of family influences whereas 17% respondents favored magazines and newspapers. Only 6% respondents' sources of information were exhibitions and fairs.

Fig-1.3
SOURCE OF INFORMATION OF CHILDREN



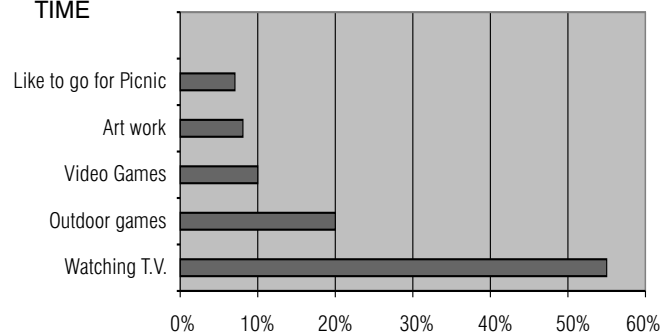
- Regarding the perception of the quality of goods, only 26% of total respondents felt that costly goods always meant good quality of products. While the rest of the respondents argued that the good quality of the product is related with the product's features like its looks, popularity, usage, model used for the advertisement of the product etc.
- 68 % of the respondents said that they watched TV daily for around 2 to 3 hours and the most preferred channels were Cartoon Network, Disney, Pogo and Hungama T.V. They also agreed that during holidays, the amount of TV viewing went up, to 4 to 5 hours a day.
- It is revealed that most of the respondents preferred either cine/TV stars (51.2%) or sports stars (23.6%) as their preferred model in advertisements 23.1% respondents prefer cartoon characters whereas very few respondents i.e. only 2.1% favored politician as models for advertisements.

Fig-1.4
PREFERRED MODEL IN ADVERTISEMENT



- When the children were asked about their favorite activities during free time, 55 % said that they preferred to watch T.V. followed by 20% who preferred to play outdoor games, about 10% liked to play video games and there was only a meagre percentage of respondents who liked to do some art work (8 percent) or to go for a picnic (7 percent).

Fig-- 1.5
FAVOURITE ACTIVITY OF THE CHILDREN DURING FREE TIME



- About 56 percent of the respondents agreed that they gave their consent in buying different products for the family and hence they are playing the role of decision maker in household products. It is also supported by chi square test.
- There are different buying roles of children as initiators, influencers, deciders, buyers and no participation in case of consumer durables and fast moving consumer goods. It is seen that in the category of consumer durables, the maximum number of respondents (42%) are playing the role of influencer, followed by 34%, who play the role of initiator. Some even agree that they do not participate in buying decisions but the majority are with their role as influencer. Whereas it is reverse in the case of fast moving consumer goods as the majority (40%) play the role of decider, followed by 36% who played the role of buyer.

Table 1.1

ROLE OF CHILDREN AS BUYERS

Buying	Initiator	Influencer	Decider	Buyer	No participation	Total
Consumer Durables	34%	42%	10%	8%	6%	100%
FMCG	4%	6%	40%	36%	14%	100%

Conclusion

From the foregoing analysis of the present study, 'Effects of Advertisements on Children' it is concluded that there is an increasing concern that ad campaigns are targeting children as consumers. One of the main reason for such a fascination in children in this manner is because of the potential purchasing power (in the form of pocket money) that children have. Using a child in the ad creates an interest point for children to watch the advertisement with greater attention. Children have always been a constant in advertising, the

change now is in the fact that advertising for a product category targeted at kids speaks to them directly, rather than speaking to their parents. Now the marketer's strategy is "kid convinces, mother buys".

Hence, present day children are relatively more mature and aware. They have more exposure to marketing trends. Marketers have realized "KIDS POWER", so they are targeting children with the help of advertisements.

References

1. Kamdar R. (2007), " The Moderating Role of Product Familiarity in Brand Attitudes formed by children ", The icfai journal of brand management , Vol. IV, No.2, PP: 7-23
2. Mac Neal J. (1999). "The kids market: myths and realities", Paramount Market Publishing.
3. Mukherjee N. (2006), "MS & Master Splurge", the week, Vol. 24, No. 40, September issue. PP: 41-47
4. Pecheux Claude and Derbaix Christian ((1999), "Children and Attitude towards the Brand : A New Measurement Scale", Journal of Advertising Research, July-Aug. issue, PP:19-27
5. Shrisha Nath P. (2008), "Television and its impact on children", the icfai journal of advertising express, Jan. issue, PP:52-57.
6. Shyanfam K. and Waller D.(2008), "A study of liked/disliked television commercials in India", Indian Journal of Marketing , vol. 38, No.2, Feb. issue, PP:3-10
7. Singh B. and Kumar P. (2003), "Children: An emerging market" Pragyan, Vol. I, July issue, PP: 49-54.

Helpful Websites

- "Behind Consumption and Consumerism" www.globalissues.org
- "Just the facts about advertising and marketing to children" www.google.com



ASSESSING SERVICE QUALITY WITHIN AIRPORT INDUSTRY

Faouzi Najjar*

Hafedh Ibrahim**

ABSTRACT

The aim of this study is to develop and empirically validate an instrument which measures the service quality in the airport industry. This research employed multistage steps for investigation; both qualitative and quantitative approaches were used to develop the scale. Through a rigorous instrument development process, the authors propose a multidimensional model of service quality. The results demonstrate that air passengers' perceptions of service quality comprise four dimensions: personal interaction, physical environment, design and output. The model has significant implications for the measurement of service quality in this specific industry and for the development of valid measures of service quality in this context.

Keywords: Airport industry; Service quality; Measurement scale.

INTRODUCTION

Airports in Tunisia (North Africa) are presently facing a quickly changing environment where significant renovations are bound to take place. Therefore, the implementation of innovative tactics and strategies is crucial in order to gain competitive advantage. Showing high service quality is ever more renowned as a decisive factor in the success of organizations (Parasuraman et al. 1990). Airports need to evaluate their service quality in order to discern the key drivers for service quality enhancements. Generally, the studies that assess service quality employ the SERVQUAL model. Nevertheless, this model has been largely criticized on methodological and psychometric grounds by many researchers (Llosa et al. 1998, McDougal and Levesque 1992; Carman 1990). Furthermore, SERVQUAL, as the universal tool, is insufficient to help out airport managers in making accurate service related decisions since the conceptualization of service quality is dependent on the type of service offered (Olorunniwo et al. 2006). Rather than employing a standard approach anchored in SERVQUAL, we develop an instrument tailored to airports requests. Some authors assert that the look for general conceptualization of the service quality construct may be ineffective (Caro and Garcia 2007) and arguments have been advanced to affirm that service quality is either industry or setting specific (Babakus and Boller 1992). Accordingly, to be of pragmatic value, a service quality construct should not only be non-global, but also context specific. Lapierre's (1996) work proposes an alternative set of operational measures to those offered by SERVQUAL. This is a more inclusive approach in that it associates the conceptual definition and practical variables of the service quality construct. The premises steering this approach based on Lapierre's (1996) comments are: (1) service quality research is significantly dependent on the quality of the operational measures; (2) given the type of service, the research for general conceptualization of service quality may be useless; and (3) the construct measurements are as crucial as the assessment of substantive relations.

The purpose of the present study is to develop a comprehensive model to measure service quality in airports.

The contribution of this article is twofold. First of all, we detect the key manifestations of service quality from the air passengers' perspective. Secondly, we examine some managerial implications for employing this model for assessing perceived service quality in applied research.

Conceptualization of service quality

Several researchers argued that there is no agreement on how to measure or conceptualize service quality (Cronin and Taylor 1992; Rust and Oliver 1994). Two different views have been assumed concerning this topic. The first approach suggests that perceived service quality is founded on the disconfirmation paradigm. In other words, service quality is a comparison between individuals' expectations and their perceptions of the service they received. In line with this perspective, Grönroos (1984) proposed the Nordic model with two components of service quality. The first component was "technical quality" that denotes the outcome of the service performance; the second component was "functional quality" that designates the subjective perception of how the service is offered. Afterwards, Rust and Oliver (1994) developed the tri-dimensional model of service quality and inserted a third component called "physical environment". Furthermore, based on the disconfirmation paradigm Parasuraman et al. (1988) developed the SERVQUAL model, where service quality is considered as the outcome of a comparison between expectations and perceptions of performance. Parasuraman et al. (1988) affirmed that, irrespective of the nature of service, individuals assess service quality employing similar criteria, which can be synthesized into five factors: "reliability", "tangibles", "responsiveness", "empathy", and "assurance". In spite of SERVQUAL having been used across a large range of service settings, it has been largely criticized, particularly concerning its expectation component and its dimensionality (Cronin and Taylor 1992; Teas, 1993; Llosa et al. 1998; McDougal and Levesque 1992; Carman 1990; Buttle 1996). In fact, several studies conducted on different service activities prove that the five factors of SERVQUAL do not replicate (Llosa et al. 1998; McDougal and Levesque

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1992; Carman 1990). In addition, empirical investigations, Parasuraman et al. (1994) restored SERVQUAL's structure to denote not only the comparison between perceived service and desired service, but also the difference between perceived service and adequate service. However, and in spite of the adjustment of the SERVQUAL model, other models appeared so as to question the measurement and conceptualization of service quality developed by Parasuraman et al. (1988). Hence, Teas (1993) proposed the evaluated performance model which measures the difference between perceived performance and the perfect characteristics rather than the individual's expectations. Teas (1993) affirmed that this conceptualization could overcome some of the limitations related to the perceptions minus expectations gap conceptualization of service quality. On the other hand, the second alternative approach asserts that service quality should be assessed taking into account only individual perceptions rather than expectations minus perceptions. McDougall and Levesque (1994) consider that counting expectation scores on a service quality tool may be ineffective as well as futile. This is because of the fact that individuals tend to point out frequently high expectation ratings and their perception scores hardly ever surpass their expectations (Babakus and Boller 1992). This explanation stimulated the development of an alternative scale of SERVQUAL, for instance the Hierarchical and Multidimensional Model (Brady and Cronin 2001), the Retail Service Quality Scale (Dabholkar et al. 1996) or the SERVPERF scale (Cronin and Taylor 1992).

To summarize, the existing models have not been successfully adapted to and validated for the airport industry, thus we suggest that the dimensionality of service quality in this specific setting may not be similar to that of service quality in pure service industries. So, we consider it is of great interest to develop and empirically validate an instrument which measures the service quality in the airport industry.

Methodology

The literature review has not identified any research that measures the perception of the quality in air transport service and, as a result, there was no prior validated scale that we could employ. It was therefore deemed valuable to develop a measurement instrument, consistent with the method for scale development advocated by Anderson and Gerbing (1988) and Churchill (1979).

Step 1: Generation of items from literature

A list of items was generated by adapting the items of existing generic scales (Ko and Pastore 2005; Terblanche and Boshoff 2001; Brady and Cronin 2001; Dabholkar et al. 1996; Parasuraman et al. 1988).

Step 2: Qualitative research

The nature as well as the number of service quality components is largely related to the service under investigation (Chumpitaz and Swaen 2002). To achieve this aim, qualitative research was performed to recognize the

dimensions which determine the service quality perceptions of airport users. We used in-depth interviews of airport employees and air passengers. In order to collect data from the airport agents' perspective, two managers were interviewed concerning many service quality topics: (1) what difficulty they faced in offering high quality services; (2) what they think to be service quality from the air passenger's point of view; and (3) what tasks they take to control or enhance service quality. Regarding the air passengers' perspective, we interviewed twenty persons who had used the services of one or more airports during the past year. They were solicited to list all aspects that affected their perception throughout their experience. In line with Dabholkar et al. (1996), prices were removed from the decision set since they are not a component of a commonly accepted understanding of service quality in the literature.

In order to enhance the reliability of our study, a tape recorder was employed during the interviews. This technique offered us the possibility to double check the answers and confirmed that we did not overlook any significant information. In addition, in order to analyse the qualitative data thus collected, a content analytic approach was used.

On the basis of the step 1 and step 2, we gathered 55 items (the whole list of items is presented in the Appendix).

Step 3: Relevancy of items to airports

The aim of the third step is to evaluate the content and face validity through a panel of experts and a field test (Ibrahim and Najjar 2008). The experts were three managers of three international airports and two academicians. Some items were dropped and others were reworded to avoid confusion. This process eliminated 31 items, leaving 24 items.

Data collection

Two samples (S1 = 352 air passengers; and S2 = 1672 air passengers) were collected from users of airports in a different geographic sites: Tabarka (northern region of Tunisia), Tunis (the capital) and Djerba (a south-eastern region of Tunisia), during the first four months of 2009. The procedure to collect the data was a personal interview with the respondents and a self-administered questionnaire. We trained students from a higher institute of management for this purpose.

Results

Exploratory assessment of the measures (First Sample S1, N = 352 air passengers)

An exploratory factor analysis was carried out to determine the underlying dimensionality of service quality (Churchill 1979) by analyzing patterns of correlations among 24 items. A range of cut-off criteria was used to determine the number of dimensions derived, such as eigenvalues, scree plot, percentage of variance, item communalities, and factor loadings (Hair et al. 1998). Items with loadings lower than 0.4 and with loading higher than 0.4 on more than one factor were removed. A four factor solution with 15 items being

retained. Notably, all of the Cronbach alphas were above the widely recognized rule of thumb of 0.7 (Nunnally 1978), which denotes a satisfactory internal consistency among items within each identified factor. Results are reported in table 1.

Table 1: Factor loadings for the underlying dimensions of service quality in airport industry on the first sample (N = 352)

Items	F1 Personal interaction	F2 Physical environment	F3 Output	F4 Design
PI1: employees seek the best for air passengers.	0.921			
PI2: the attitude of employees denotes their readiness to help.	0.921			
PI3: the employees have knowledge enough about different services to respond to air passenger's needs.	0.794			
PI4: when an air passenger has a problem, this airport shows a sincere interest in solving it.	0.818			
PI5: the employees are able to handle air passenger complaints efficiently.	0.843			
PE1: the equipment at this airport is in good condition.		-0.625		
PE2: the employees have a neat and professional appearance.		-0.67		
PE3: the airport's ambience (clean, temperature...) is appropriate.		-0.642		
PE4: the airport is safe and comfortable.		-0.698		
OUT1: this airport shows its interest in accelerating the service.			0.737	
OUT2: when I leave this airport, I always feel that I got what I wanted.			0.714	
OUT3: I would evaluate the output of this airport favourably.			0.725	
D1: this airport offers a large range of shipment				0.754
D2: the variety of shipment services offered by this airport fit my needs.				0.726
D3: the types of shipment offered by this airport are attractive to me.				0.744
Eigenvalue	4.869	2.686	2.233	1.985
Cumulative % variance	32.46	50.364	65.248	78.479
Cronbach alpha	0.95	0.89	0.84	0.81

The first component we find is "personal interaction" (Cronbach alpha = 0.95, Eigenvalues = 4.869). It denotes the air passengers' subjective perception of how the service is offered during their experiences. Many authors have pointed out the significance of this dimension in the service delivery and it is considered as having the most considerable influence on service quality perceptions (Dabholkar et al. 1996; Grönroos 1982). Furthermore, the conclusion from the qualitative research revealed that air passengers value the personal interaction more than the managers who had been interviewed.

The second component is "physical environment" (Cronbach alpha = 0.88, Eigenvalues = 2.686). It denotes the built environment in which service delivery takes place. Several researchers stress the crucial role of this component in customer service assessments (Brady and Cronin 2001; Spangenberg et al. 1996). Furthermore, previous studies prove that individuals employ any physical evidence of the service outcome as a proxy for evaluating performance (Johns et al. 2004; Ryan and Cliff 1997; Lam and Zhang 1999). According to our qualitative study, physical evidence is a dimension that air passengers consider when developing quality perceptions.

The third component of service quality is "output" (Cronbach alpha = 0.84, Eigenvalues = 2.233). It means what the air passenger gets from the service. In other words, what the air passenger is left with when the experience is accomplished. There is a consensus in the literature that the output of the service encounter significantly influences individual perceptions of service quality (Carman 2000; Rust and Oliver 1994; McDougall and Levesque 1994).

The last component of service quality in airports is "design" (Cronbach alpha = 0.81, Eigenvalues = 1.985). This component incorporates all factors linked to the arrangement and organization of the service. The results of the qualitative research showed that is fundamental to add this factor.

A first-order Confirmatory Factor Analysis (Second Sample S2, N = 1672 air passengers)

In order to correctly evaluate the dimensionality of the newly-developed service quality scale, the confirmatory factor analysis was performed on a different sample "S2" (N = 1672 air passengers) since this practice offers a more robust elucidation of dimensionality than is offered by the exploratory factor analysis (Anderson and Gerbing 1988). One additional benefit of using another sample is to minimize the probability of capitalizing the dimensions on chance characteristics of the same sample, which may produce a scale that will not effectively generalize to other samples (MacCallum et al. 1992). Furthermore, a second exploratory factor analysis was performed to determine the underlying dimensionality of service quality on the second sample (N = 1672). Results are reported in table 2.

Items	F1 Personal interaction	F2 Physical environment	F3 Output	F4 Design
PI1	0.931			
PI2	0.935			
PI3	0.802			
PI4	0.891			
PI5	0.896			
PE1		0.799		
PE2		0.794		
PE3		0.809		
PE4		0.820		
OUT1			0.863	
OUT2			0.810	
OUT3			0.831	
D1				0.739
D2				0.687
D3				0.709
Eigenvalue	4.978	2.845	2.145	1.832
Cumulative % variance	33.188	52.156	66.456	78.671
Cronbach alpha	0.96	0.88	0.83	0.80

After that, a confirmatory model was carried out on the remaining 15 items. The measurement model (see Figure 1) identifies four dimensions and exposes the relationships between the items and their related components. Examination of the fit statistics ($\chi^2(84) = 420.450, p = 0.000$; GFI = 0.970; AGFI = 0.957; CFI = 0.985; RMR = 0.052; RMSEA = .049) and the modification indices reveals that our measurement model is acceptable.

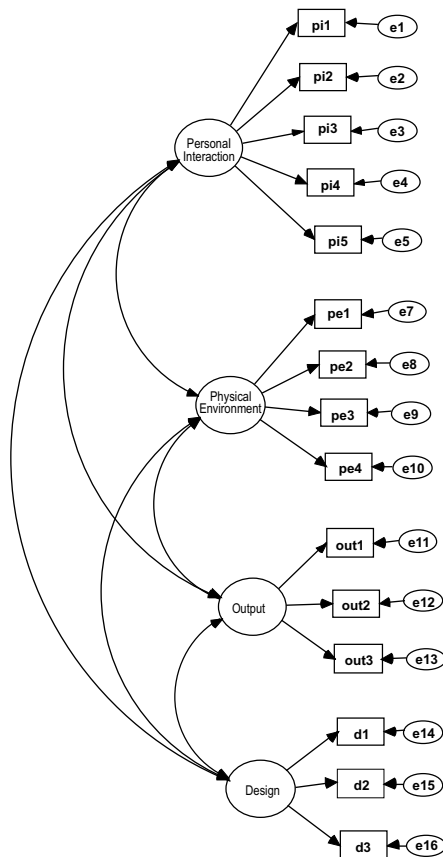


Figure 1: The measurement model

Table 3: Properties of the Confirmatory Factor Analysis for Service quality

Items	Loading	t-statistics reliability	Composite
Personal interaction (F1)			0.93
PI1	1		
PI2	1.007	248.141	
PI3	0.840	47.276	
PI4	0.981	94.788	
PI5	0.961	92.232	
Physical environment (F2)			0.80
PE1	1		
PE2	1.017	35.410	
PE3	0.992	34.381	
PE4	1.016	36.539	
Output (F3)			0.74
OUT1	1		
OUT2	0.859	29.386	
OUT3	0.947	31.837	
Design (F4)			0.70
D1	1		
D2	0.872	25.673	
D3	0.907	26.248	

Note: analysis is performed on sample 2.

Unidimensionality and reliability

Given these findings, we have proof that the measures are unidimensionnel, with each indicator reflecting one and only one underlying construct (Gerbing and Anderson 1988). As shown in table 1, coefficient alpha ranging from 0.80 to 0.96 and the composite reliability ranging from 0.70 to 0.93, are considered acceptable (Fornell and Larcker 1981; Nunnally and Bernstein 1994).

Convergent and discriminant validity

Convergent validity can be assessed from the measurement model by verifying whether each indicator's estimated maximum likelihood loading on the corresponding construct is significant (Peter 1981). As illustrated in table 3, all confirmatory factor loadings exceed 0.84, and all are significant with t-values ranging from a low of 25.673 to a high of 248.141. Thus, we have an indication of the convergent validity of our measures. We further evaluated discriminant validity in the measurement model by examining a confirmatory factor analysis model, which incorporated the four components: "personal interaction", "physical environment", "output", and "design". The procedure recommended by Anderson and Gerbing (1988) was employed. First, this base model, where all paths between the constructs were freely estimated. Then, each correlation parameter was constrained to "1" separately, and the correspondent models were estimated. The χ^2 values

between the constrained models and the unconstrained model indicate that the fit measure of each of the constrained models was significantly worse (at a $p = 0.05$ level) than the fit measure of the base model. Accordingly, a strong evidence of discriminant validity was present in the measurement model, since the probability that all combinations of the variables adequately represent the same construct is less than 5%.

A second-order Confirmatory Factor Analysis (the second sample, N = 1672 air passengers)

In order to achieve strong reliability and validity, a second-order confirmatory factor analysis was performed (Marsh and Hocevar 1985). The fit indices and the factor loading are presented in Figure 2.

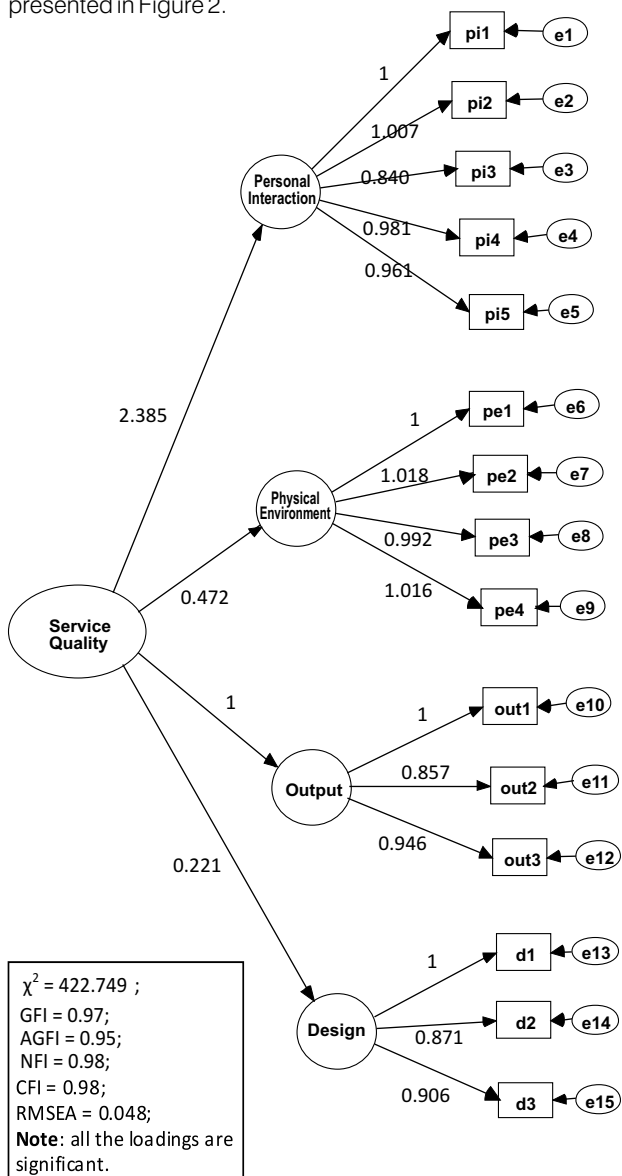


Figure 2: Second-order Confirmatory Factor Analysis

All dimensions of the service quality have a significant and positive relationship with the second-order construct. These findings offer additional proof that service quality, in airport industry, has four components “Personal interaction”, “Physical environment”, “Output” and “Design”.

Nomological validity

The evidence of nomological validity is confirmed by a construct’s possession of different drivers, consequential effects or modified conditions and quantitative differences in the degree to which a construct is connected to antecedents, consequences or varies across conditions in showing consequential effects (Iacobucci et al. 1995). So, the four service quality constructs were investigated within a nomological network including satisfaction.

Several researchers support the significant relationship between service quality and satisfaction. One group of researchers maintains that satisfaction is a key driver to service quality. In contrast, according to another group of researchers, a positive service quality perception can lead to satisfaction. A third view upholds that there is a non-recursive bond among service quality and satisfaction (Taylor and Cronin 1994). In essence, this perspective affirms that neither of the two constructs is an antecedent or superordinate of the other. Interestingly, Dabholkar (1995) asserts that the antecedent role of satisfaction and service quality is situation specific and that if an individual is cognitive oriented, he will perceive the relationship as service quality causing satisfaction, whereas if an individual is affective oriented he will perceive the relationship as satisfaction causing service quality. In the present study in line with Brady and Robertson (2001), we suppose that service quality positively affects satisfaction (See figure 3).

To measure satisfaction we used two items (5-point format ranging from “strongly disagree” to “strongly agree”) employed in previous research (Spreng and Mackoy 1996). The labels were: worse than my expectations/better than my expectations, and completely dissatisfied/completely satisfied (Cronbach alpha = 0.61).

The structural model fits the data well and figure 3 illustrates the detailed results. The path between service quality and satisfaction is positive and significant (loading = 1.341, t-value = 11.071). It is worthy to note that this finding gives support to the nomological validity of service quality constructs.

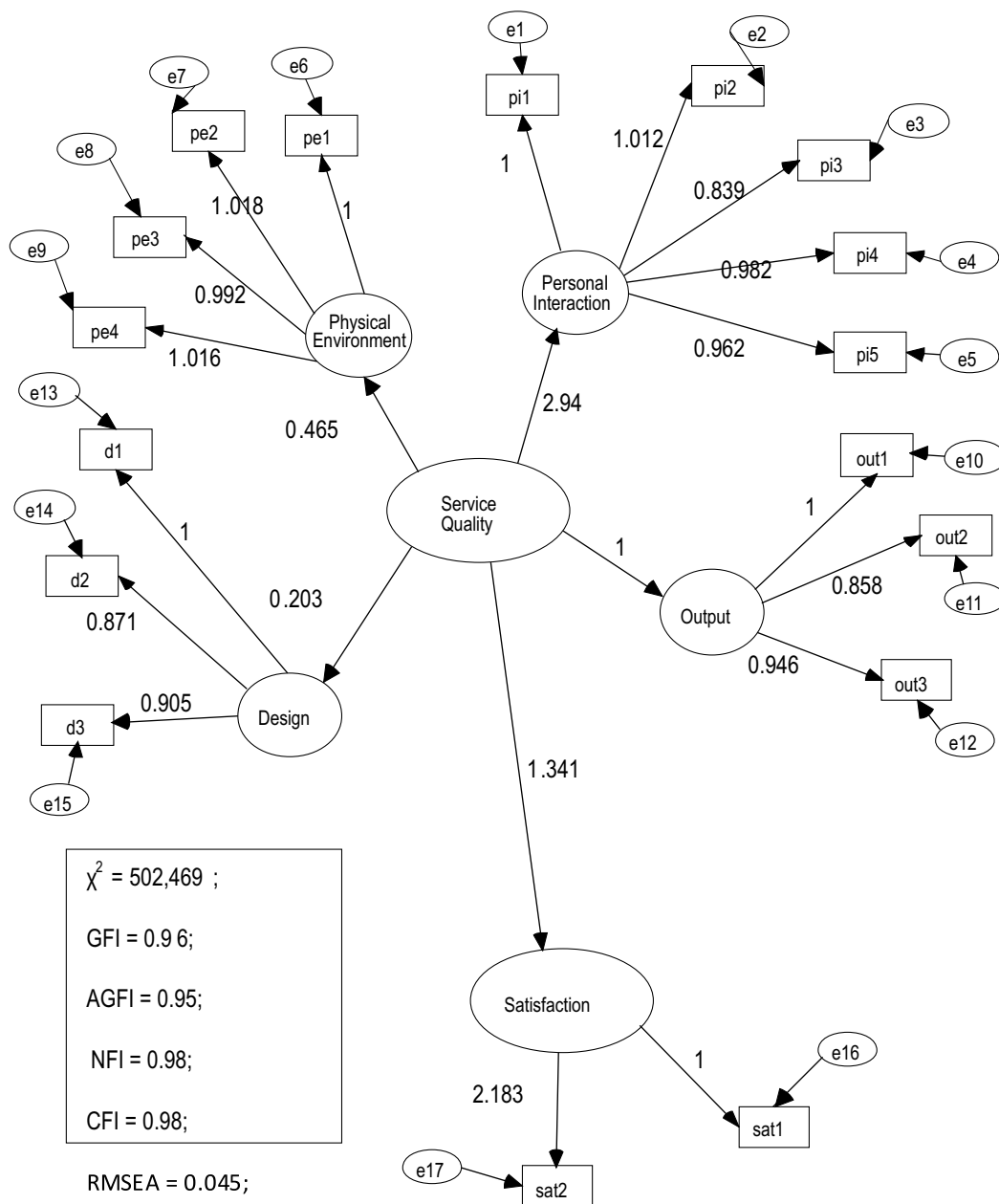


Figure 3: The effect of service quality on air passengers' satisfaction

Conclusion

A fundamental principle of quality management is that to enhance quality it should primary be measured. The present study proposes a multidimensional model of service quality. The perceived service quality concept is a complex construct that has generated a large discussion in the academic literature concerning its assessment, conceptualization and definition. The current study reveals that airports' service quality is a higher-order factor. This vision concerning measurement concurs with the entity pragmatism of latent variable hypothesis and the ontological concept of validity, as opposed to instrumentalism as well as the formative frameworks. We conceptualize airports' service quality equivalent to an attitude (Parasuraman et al., 1988), and we

estimate the functioning of measures about attitudes more reliable with the reflective analysis.

Our findings prove that air passengers formulate their judgments of service quality on the basis of a number of aspects that are particular to the assessed service. Therefore, air passengers found their assessment of the service quality dimensions on the evaluation of the corresponding variables. The grouping of several factors represents an air passenger's global perception of service quality. Hence, perceived service quality in airports has a second-order factor structure (personal interaction, physical environment, design and output), which are fashioned by 15 indicators. Airports can establish priorities in the decisions related to service enhancement, taking into consideration the



overall appraisal in each key factor, and regulating their tactics to distinguish their service on the basis of a major precursor of air passenger quality perceptions. The empirical evidence maintains the psychometrical properties of the measurement scale, its reliability, convergent, discriminant and nomological validity. The paths in the structural model are all established which shows that each dimension is suitably considered as a facet of airport service quality. It is worth noting that the use of two different samples for the exploratory factor analysis and the confirmatory factor analysis makes the investigation more rigorous. According to our results, the four factors are not drivers of service quality but rather manifestations of the complexity of the construct. Airports' service quality is a higher-order factor underlying the dimensions. Thus, variations in the perceived service quality engendered by the modification in the perception of one dimension will influence the perception of the rest of factors due to the connection between them.

The current work contributes towards filling a gap existing in air transport management research by suggesting an integrated framework of service quality in the airport industry. The proposed multidimensional service quality model is an important strategic instrument to discern the weakness and strength of performance. This scale could be a diagnostic means that will assist airport managers to identify service areas that are feeble and require specific attention. The results show that airport service quality is a significant driver of air passenger satisfaction. As firms could raise returns by 100% by retaining just 5% more of their customers (Reichheld and Sasser 1990), it is essential for airport managers to appreciate the main service quality aspects in their setting that could strengthen air passenger satisfaction. Airport managers need to build up a regular evaluation program in order to check service quality and air passenger satisfaction over time. Employees should be kept informed of achievements and be encouraged to participate in figuring out a relevant resolution strategy. Only when a service quality culture is implemented, can the airport industry management warrant the proficient delivery of services most wanted by air passengers. On the other hand, air passengers should be informed of what the airport management staff is doing to offer an enjoyable experience.

Service quality is related to numerous crucial organizational outcomes, for instance, loyalty (Zeithaml et al. 1996), market share (Buzzell and Gale 1987), profitability (Kearns and Nadler 1992), and corporate image (Gronroos 1984). Thus, the study of service quality can offer airports a robust tool for achieving their tactical as well as strategic objectives. We expect other researchers to replicate our measurement scale in other cultures in order to generalize findings. The model is empirically tested on a developing economy and there is a likelihood of a cultural bias playing a role in the results of the study as expectations of people in a developing economy may be dissimilar from those of a developed economy.

Although some items are edited according to past literature and the actual situation, there is no way of guaranteeing that other dimensions were not omitted.

Finally, we emphasize the regular deployment of service quality questionnaires by airports in order to get a dynamic depiction of assessments and air passenger behavioral intentions over time, with the objective of enriching the dynamic analysis of air passenger attitudes towards airports. Additional investigations should take into account different factors in the examination of service quality assessments. For example, the effect of air passenger expectations as well as the role of information and airport pricing on quality perception. These aspects also have to be considered in order to gain a more complete view of service quality; consequently, perception of service quality weakness or excellence should be deduced with vigilance since it could have been affected by various aspects that are not a particular element of service quality.

References

- Anderson, J.C., Gerbing, D.W. (1988). 'Structural equation modelling in practice: a review and recommended two-step approach'. *Psychological Bulletin* 103 (3), 411-423.
- Babaku, E., Boller, G.W. (1992). 'An empirical assessment of SERVQUAL scale'. *Journal of Business Research* 24 (3), 253-268.
- Brady, M.K., Robertson, C.J. (2001). 'Searching for a consensus on the antecedent role of service quality and satisfaction: an exploratory cross national study'. *Journal of Business Research* 51 (1), 53-60.
- Buttle, F. (1996). 'SERVQUAL: Review, critique, research agenda'. *European Journal of Marketing* 30(1), 8-25.
- Buzzell, R.D., Gale, B.T. (1987). "The PIMS Principles". The Free Press, New York.
- Carman, J.M. (1990). 'Consumer perceptions of service quality: an assessment of SERVQUAL dimensions'. *Journal of Retailing* 66 (1), 33-55.
- Carman, J. (2000). 'Patient perceptions of service quality: Combining the dimensions'. *Journal of Services Marketing* 49(1), 57-65.
- Caro, L.M., Garcia, J.A.M. (2007). Developing a multi-dimensional and hierarchical service quality model for the travel agency industry. *Tourism Management* 29, 706-720
- Chumpitaz, R., Swaen, V. (2002). 'Service quality and brand loyalty relationships: investigating the mediating effect of customer satisfaction'. In thirty first European Marketing Academy Conference, Braga, Portugal
- Churchill, G. A. (1979). 'A paradigm for developing better measures of marketing constructs'. *Journal of Marketing Research* 16 (1), 64-73.
- Cronin, J.J., Taylor, S. (1992). 'Measuring service quality: A re-

- examination and extension'. *Journal of Marketing* 56, 55–68.
- Dabholkar, P.A. (1995). 'A contingency framework for predicting causality between satisfaction and service quality', in Kardes, F.R. and Suhan, M. (Eds), *Advances in Consumer Research* 22, Association for Consumer Research, Provo, UT, 101-106.
- Dabholkar, P.A., Thorpe, D.I., Rentz, J.O. (1996). 'A measure of service quality for retail stores: Scale development and validation'. *Journal of the Academy of Marketing Science* 24(1), 3–16.
- Fornell, C., Larcker, D.F. (1981). 'Evaluating structural equation models with unobservable variables and measurement error'. *Journal of Marketing Research* 18 (1), 39-50.
- Grönroos, C. (1982). 'Strategic management and marketing in the service sector'. *Swedish School of Economics and Business Administration*.
- Grönroos, C. (1984). 'A service quality model and its marketing implications'. *European Journal of Marketing*, 18(4), 36–44.
- Hair, J., Anderson, R.E., Tatham, R.L., Black, W.C. (1998). 'Multivariate data analysis'. Upper Saddle River, NJ: Prentice Hall.
- Iacobucci, D., Amy, O., Kent, G. (1995). 'Distinguishing service quality and customer satisfaction: the voice of customer'. *Journal of Consumer Psychology* 4 (3), 177-203
- Ibrahim, H., Najjar, F. (2008). 'Assessing the effects of self-congruity, attitudes and customer satisfaction on customer behavioural intentions in retail environment'. *Marketing Intelligence & Planning* 26 (2), 207-227.
- Johns, N., Avci, T., Karatepe, O. (2004). 'Measuring service quality of travel agents: Evidence from Northern Cyprus'. *The Service Industries Journal* 24(3), 82–100.
- Kearns, D.T., Nadler, D.A. (1992). 'Prophets in the Dark: How Xerox reinvented itself and beat back the Japanese'. Harper Collins Publishers, New York.
- Ko, Y.J., Pastore, D.L. (2005). 'A hierarchical model of service quality in the recreational sport industry'. *Sport Marketing Quarterly* 14 (2), 84–97.
- Lam, T., Zhang, H.Q. (1999). 'Service quality of travel agents: The case of travel agents in Hong Kong'. *Tourism Management* 20, 341–349.
- Lapierre, J. (1996). 'Service quality: the construct, its dimensionality and its measurement', in Swartz, T.A., Bowen, D.E. and Brown, S.W. (Eds), *Advances in Services Marketing and Managements* 5, JAI Press Inc., Greenwich, CT, 45-70.
- Llosa, S., Chandon, J., Orsingher, C. (1998). 'An empirical study of SERVQUAL's dimensionality'. *The Service Industries Journal* 18 (2), 16-44.
- Marsh, H.W., Hocevar, D. (1985). 'Application of confirmatory factor analysis to the study of self-concept: first and higher order factor models and their invariance across groups'. *Psychological Bulletin* 97 (3), 562-582.
- MacCallum, R., Roznowski, M., Necowitz, L.B. (1992). 'Model modifications in covariance structure analysis: the problem of capitalization on chance'. *Psychological Bulletin* 111(3), 490–504.
- McDougal, G., Levesque, T. (1992). 'The measurement of service quality: some methodology issue'. *Proceedings of the Second International Research Conference on the Management of Service Activities*, 411-430.
- McDougal, G., Levesque, T. (1994). 'A revised view of service quality dimensions: An empirical investigation'. *Journal of Professional Service Marketing* 11(1), 189–209.
- Nunnally, J. (1978). 'Psychometric theory', McGraw-Hill, New York, NY.
- Nunnally, J.C., Bernstein, I.H. (1994). 'Psychometric theory'. (3rd ed.). New York: McGraw-Hill.
- Olorunniwo, F., Hsu, M.K., Udo, G.F. (2006). 'Service quality, customer satisfaction and behavioral intentions in the service factory'. *The Journal of Service Marketing* 20 (1), 59-72.
- Parasuraman, A., Zeithaml, V., Berry, L. (1988). 'SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing* 64 (1), 12–40.
- Parasuraman, A., Zeithaml, V., Berry, L. (1990). 'An Empirical Examination of Relationships in an Extended Service Quality Model'. *Marketing Science Institute*, Cambridge, MA.
- Parasuraman, A., Zeithaml, V.A., Berry, L.L. (1994). 'Reassessment of expectations as a comparison standard in measuring service quality: implications for further research'. *Journal of Marketing* 58 (1), 111-124.
- Peter, J.P. (1981). 'Construct validity: A review of basic issues and marketing practices'. *Journal of Marketing Research*, 18, 133–145.
- Reichheld, F., Sasser, W. (1990). 'Zero defections: quality comes to services'. *Harvard Business Review* 68 (5), 105-111.
- Rust, R.T., Oliver, R.L. (1994). 'Service quality: Insights and managerial implications from the Frontier'. in R.T. Rust, R.L. Oliver (Eds.), *Service quality: New directions in theory and practice*, 1–19. London: Sage Publications.
- Ryan, C., Cliff, A. (1997). 'Do travel agencies measure up to customer expectation? An empirical investigation of travel agencies' service quality as measured by SERVQUAL'. *Journal of Travel and Tourism Marketing* 62, 1–32.
- Spangenberg, E.R., Crowley, A.E., Henderson, P.W. (1996). 'Improving the store environment: Do olfactory cues affect evaluations and behaviour?'. *Journal of Marketing* 60, 67–80.
- Spreng, R.A., Mackoy, R.D. (1996). 'An empirical examination of a re-examination of a model of perceived service quality and satisfaction'. *Journal of Retailing* 27 (2), 201-14.



Taylor, S.A., Cronin, J.J. (1994). 'Modelling patient satisfaction and service quality'. *Journal of Health Care Marketing* 14, 34-44.

Teas, R. (1993). 'Expectations, performance evaluation and consumer's perceptions of quality'. *Journal of Marketing* 57, 18-34.

Terblanche, N.S., Boshoff, C. (2001). 'Measuring customer satisfaction with the controllable elements of the in-store shopping experience'. *South African Journal of Business Management* 32 (4), 11-19.

Zeithaml, V.A., Berry, L.L., Parasuraman, A. (1996). 'The behavioral consequences of service quality'. *Journal of Marketing* 60 (2), 31-46.

Appendix

The whole list of items

- The airport is conveniently located.
- The employees give us special attention.
- Outside appearance is attractive.
- The employees are neat in appearance
- The lobby area is comfortable.
- The employees are courteous.
- Our requests are handled promptly.
- The parking space is adequate
- The airport adapts services to our needs.
- The employees adapt well to handle peak customer traffic.
- The employees search for what is in the best interests of the clients.
- Interior design is attractive.
- The employees' knowledge of airports procedures makes me feel comfortable.
- Services are accessible to disabled persons.
- The employees provide adequate information about the airports.
- The airport is clean.
- Express checkout is available for air passengers.
- The time it took to check in/check out is not too long.
- The employees are easily accessible when needed.
- The employees are knowledgeable about airport equipment.
- Smoking - they are conscious of how important the resolution of complaints is for me.
- The employees provide error-free records (e.g. receipts).
- The front desk employee accurately verifies the reservation requests.
- I can count on employees taking action to address my needs.
- The places are treated to accommodate non-smoking guests if needed.
- I can count on the employees being friendly.
- The employees are never too busy to respond to a consumer's requests.
- The attitude of employees demonstrates their willingness to help me.
- The variety of shipment services offered by this airport fits my needs.
- When a customer has a problem, this airport shows a sincere interest in solving it.
- The employees show their interest in accelerating the shipment.
- The operating hours of this airport are convenient.
- The airport has a fair system for the handling of complaints.
- The airport has employees who give me individual attention.
- The employees quickly apologize when service mistakes are made.
- Employees are able to answer my questions quickly.
- It is quick and easy to contact the company.
- The employees inform punctually and sincerely about all the conditions of service.
- This airport offers a wide range of shipment.
- The employees understand that I rely on their knowledge to meet my needs.
- The behaviour of the employees gives me a feeling of trust.
- The employees understand a persons' specific needs.
- The types of shipment offered by this company are attractive to me.
- The employees are able to handle customer complaints directly and immediately.
- The employees are competent.
- The airport gives information on all the services that it offers.
- The shipment hours are convenient to my needs.
- I believe this airport knows the types of experience its customers want.
- When the service finishes, I usually feel that I have had a good experience.
- This company has operating hours convenient to all its customers.
- The equipment at this airport is visually appealing.
- The service has modern-looking electronic equipment.
- Employees have a neat and professional appearance.
- I believe this airport tries to give me a good experience.
- When I leave this airport, I always feel that I got what I wanted.



WEB CUSTOMERS -WHAT DO THEY WANT?

Shivani Arora*

ABSTRACT

E-commerce is now nearly 20 years old, yet due to its interesting dimensions, it remains a relatively new and challenging area for management professionals as well as researchers. The focus of this paper is to understand the web customers from the viewpoint of the marketers, so that the new web business could have some benchmarks to look up to. In the present research, the demographics of the potential customers are studied, the purpose for which they use it, the problems of websites and e-commerce (as thought of by marketers, from the viewpoint of the customer) and the modes the marketers use to get customers to their websites. 51 marketers from leading websites were studied, through a structured questionnaire and analysed to get meaningful inferences. The findings revealed that potential customers were in the age group of 15-30 years, who used it mainly for communication and gleaning information about the products/ services. The customers find slow downloading sites and payment security as the main problems of websites and e-commerce respectively, amongst others. Search Engine Optimization is what gets customers to their websites.

Keywords: E-commerce, Web, Customers, Search Engine Optimization, E-marketing

INTRODUCTION

Customers have been gaining a lot of ground over the last few years. With the advent of the web, their hold has grown even stronger. They are no longer by-standers in the process; they make more decisions now as compared to the time of traditional business. Customers decide the time to buy (now it is 24x7 as compared to showroom timings of 10.00 a.m. to 8.00 p.m.), the payment mode (web stores offer the customer the choice of either paying by card or "cash on delivery" ; the place (for a brick and mortar store, place of delivery is the store but in case of a web store, customers get the things delivered at their doorstep, promotion (one-to-one marketing has replaced mass marketing). It is imperative for the marketer to understand the customer in order to serve him better.

Needs and Objectives

With the stronger customer and constant pressure of cutting costs and making profits, the marketers' task has toughened over the past few years. Web space, being a new entrant, no predefined rules or theories apply, therefore an effort is made to establish a benchmark by analyzing the viewpoint of marketers of customers and how they perceive the web as a medium of exchange.

The paper analyses the perceptions of marketers regarding:

- a) The age group of customers using the web comfortably (in order to decide the target group)
- b) Customers' purpose of use of web and what helps them in deciding to buy online (understanding this objective, in order to decide, how to gain a stronghold)
- c) Problems of websites and e-commerce
- d) How to get the customers to their website?

Methodology

The objective of the research paper required the study of marketers, whose decisions and viewpoint mattered and hence the universe comprised of CEOs, Chief Marketing

Officers and top level marketing professionals from leading web sites.

Keeping in consideration the objectives of the study, a structured questionnaire was prepared for the marketers. The questionnaire was framed based on intuition, previous literature and discussion with experts in the field, opinion and verdict of web gurus. All the questions were close ended.

A sample of 250 marketers of leading web sites was selected on the basis of judgment sampling. The questionnaire was pre-tested on 5 marketers. Wherever possible, the data was collected in the first place by visiting the marketers in person. The remaining data was collected by sending emails requesting the marketers to respond and for this purpose, emails were sent to the remaining sites selected and finally 51 fully completed questionnaires were received after repeated reminders and much persuasion. The 51 marketer respondents studied belonged to varied industries like entertainment, computers, travel, books, clothing, consumer durables etc.

In this paper, the focus is on the particular section of the research, where weighted average scores were calculated to analyze the ranks assigned by the marketers and also where the likert scale was used.

Findings and Analysis

1. Comfort level of various age groups in surfing the web

The comfort to surf the web is the initial step that would further lead to the next and final step that matters for the marketer; and that is buying on the web. The marketers were asked to rank the age groups of people who they felt were more comfortable surfing the web, as compared to the others (where rank one is for most comfortable ,..... and rank four for least comfortable) and then WAS i.e. Weighted Average Score was calculated.

Table 1 shows the rank assigned by all the marketers to the comfort of various age groups.

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Table 1: Comfort of Various Age Groups in Surfing the Web

No. of respondents Age Groups	Rank1	Rank2	Rank3	Rank4	WAS
15-25years	40 (78.43)	8 (15.69)	2 (3.92)	1 (1.96)	3.71
25-35 years	6 (11.76)	26 (50.98)	18 (35.29)	1 (1.96)	2.73
<15 years	4 (7.84)	14 (27.45)	19 (37.25)	14 (27.45)	2.16
>35 years	1 (1.96)	3 (5.88)	12 (23.53)	35 (68.63)	1.41

(figures in parenthesis show percentage)

Table 1 shows that the marketers felt that the people in the age group of 15-25 years were most comfortable surfing the web (WAS 3.71). It holds good the belief that the younger generation adapts more quickly to change. This is followed by 25-35 years of age (WAS 2.73), this target group is important for the marketer because this is the age group that possesses credit cards (being the most commonly used mode of online payment) and also the buying capacity. The age group of 25-35 years is mostly the working class and so they are pressed for time and ROTI (i.e. return on time investment) is provided by the web. Less than 15 years of age people were comparatively considered better (WAS 2.16) than greater than 35 years of age people (WAS 1.41) because it is a psychological belief that as the age increases, the resistance to change also increases.

2. Use of Web

Customers use the web for various purposes. In addition to being a medium of communication, it has other established uses as well like entertainment, research information and buying. Therefore, once the age group is identified, it becomes imperative to analyze for what purpose the web users surf the web.

Five most common uses were enlisted and the marketers were asked to share the significance that they felt the customers attached to the purpose of use of the web, on a

Table 2: Use of Web

No. of respondents Use of Web	Most Significant use	Significant use	Moderately Significant use	Slightly Significant use	Least Significant use	WAS
a) communication	39 (76.47)	2 (3.92)	5 (9.80)	2 (3.92)	3 (5.88)	4.41
b) glean information about products/ services	10 (19.61)	14 (27.45)	10 (19.61)	16 (31.37)	1 (1.96)	3.31
c) research	1 (1.96)	15 (29.41)	20 (39.22)	9 (17.65)	6 (11.76)	2.92
d) entertainment	0 (0)	19 (37.25)	11 (21.57)	17 (33.33)	4 (7.84)	2.88
e) buy products /services	1 (1.96)	1 (1.96)	5 (9.80)	7 (13.73)	37 (72.55)	1.47

(figures in parenthesis show percentage)

five-point scale. For the purpose of analysis, weights ranging from five to one were attached, five for the response in case of Most Significant Use and one for Least Significant Use and based on that the WAS were calculated. The responses so obtained have been presented in Table 2

Table 2 shows that the marketers indicate that 'communication' is the main purpose people use the web for, followed by 'gleaning information about the products', 'research', 'entertainment' and 'buying of products and services'.

'Communication' (WAS 4.41) has wide implications, under the present circumstances; it basically stands for email/chat/social networking etc which takes place between family/friends. This is the initial level of communication people feel comfortable with, what follows next is the flow of communication between consumers and business, and that is the stage that would benefit the marketers. Twitter, facebook and other social networking sites have further added strength to the web as a medium of communication. Communication based sites earn more revenue than their counterparts.

The presence of both online and offline structures has been highlighted by the fact that the marketers themselves feel that the customers are more interested in gleaning information about the products/services (WAS 3.31) than they are in buying them (WAS 1.47). So the features of the products should be highlighted considerably in order to help the customer decide on the products/services that they want and finally they will end up buying them either online or offline. The sites of Universities, libraries, journals have attracted more than a few educationists and researchers and hence 'Research' (WAS 2.92) is ranked third. 'Entertainment' (WAS 2.88) i.e. games, movies, news etc are also ranked high because of the ease of availability.

The analysis shows that the marketer feels that the customers have been using web, basically for 'communication' which is an encouraging feature, because eventually it will move substantially from being personal to professional i.e. between the marketer and the customer.

Also, it is evident that the sites which excel in providing 'communication' facility are earning through advertisements, because a large chunk of web traffic comes to them.

Marketers feel that though the customers do not buy on the web but the 'information about the products/services' does interest them more than 'entertainment' and 'research'.

3. Decisive Features to Buy through the Web

The marketers were asked to rank the features that they feel are important to the customers while buying on the web. Six such features were identified and enlisted and the marketers were asked to rank them from the view point of the

customers, assigning rank one to the most important feature and six to the least important one, the WAS was calculated, to finally decide what was of most importance to the customers. The table 3 shows the rank that all the respondents assign to the various necessary features that the web comprises of.

Table 3: Decisive features to buy through the web

No. of respondents Features	Rank1	Rank2	Rank3	Rank4	Rank5	Rank6	WAS
Low price	12 (23.53)	9 (17.65)	15 (29.41)	8 (15.69)	3 (5.88)	4 (7.84)	4.14
Right quality	17 (33.33)	8 (15.69)	4 (7.84)	10 (19.61)	9 (17.65)	3 (5.88)	4.10
Timely delivery	1 (1.96)	15 (29.41)	13 (25.49)	10 (19.61)	6 (11.76)	6 (11.76)	3.55
Secure environment for making payment	6 (11.76)	10 (19.61)	5 (9.80)	7 (13.73)	14 (27.45)	9 (17.65)	3.22
Reasons to trust business people	12 (23.53)	4 (7.84)	5 (9.80)	4 (7.84)	5 (9.80)	21 (41.18)	3.04
A place to reach in case of difficulty	3 (5.88)	5 (9.80)	9 (17.65)	12 (23.53)	14 (27.45)	8 (15.69)	2.96

(figures in parenthesis show percentage)

Table 3 shows that the marketers ranked 'low price' at one, followed by 'right quality', 'timely delivery', 'payment security', 'reasons to trust business people' and 'a place to reach in case of difficulty'. The misconception holds true even today, the marketers feel that people surf the web to look for best bargains which they measure in terms of low price (WAS 4.14). To cater to this, many sites try to lure the customers by providing them low price for the products by mentioning both, the original and the reduced offer price. The marketer also understands that the 'right quality' (WAS 4.10) has to be combined with low price to give the best bargain to the customer and for some, who opted to compromise on quality to give a low price and earn a profit, had no standing anyway. The concern for 'timely delivery' (WAS 3.55) is thought to be a necessary feature of any service provided because the saving of time is the foremost thing that gets people to the web and delayed delivery would not satisfy the customer. 'Payment security' (WAS 3.22) is also considered to be of importance by the marketer because the customers' interest are to be taken care of by the marketer only.

The marketer feels that the online presence serves the purpose and the customer would not be much interested in finding 'reasons to trust business people' (WAS 3.04) and they feel that the customers do not attach much significance to 'a place where they could reach them in case of difficulty' (WAS 2.96).

This analysis shows that the Marketers feel that the customers seek satisfaction in the form of 'low priced', 'high quality' product 'delivered in time' with a 'secured payment option'.

4. Problems Delaying the Take Off of Web as a Medium of Exchange

The marketers have been in business for sometime now and they realize that there are certain problems that the

customers face when they come online. Eight such problems were identified and the marketers were required to provide the agreement level that they attached to them, ranging from Strongly Agree to Strongly Disagree. For the purpose of analysis, weights ranging from five to one were attached, (5 for Strongly Agree ,and 1 for Strongly Disagree) and based on that WAS were calculated and shown in Table 4

Table 4: Problems Delaying the take off of web as a medium of exchange

No. of respondents Problems	VS	S	NSNIS	IS	VIS	WAS
Problems of moderate agreement level						
a) lack of payment security	28 (54.90)	20 (39.22)	3 (5.88)	0 (0)	0 (0)	4.49
b) lack of touch and feel	22 (43.14)	21 (41.18)	5 (9.80)	3 (5.88)	0 (0)	4.22
Problems of slight agreement level						
c) ambiguous privacy policy	9 (17.65)	20 (39.22)	15 (29.41)	5 (9.80)	2 (3.92)	3.57
d) complicated ordering system	8 (15.69)	18 (35.29)	19 (37.25)	4 (7.84)	2 (3.92)	3.51
e) availability of everything from the nearest store	7 (13.73)	21 (41.18)	15 (29.41)	7 (13.73)	1 (1.96)	3.51
f) problem of after sales service	5 (9.80)	25 (49.02)	12 (23.53)	8 (15.69)	1 (1.96)	3.49
g) delayed delivery	4 (7.84)	25 (49.02)	12 (23.53)	9 (17.65)	1 (1.96)	3.43
h) hidden cost fear	1 (1.96)	18 (35.29)	19 (37.25)	12 (23.53)	1 (1.96)	3.12

(Figures in parentheses show percentage)

The table 4 shows the perceptions of the marketers regarding the problems exclusively confined to the web as a medium of exchange and their respective WAS.

'Lack of payment security', (WAS 4.49), concerns the marketer the most because he also realizes that customers are deterred from buying online mainly because of payment security issues, customers are not comfortable using their credit cards (which is the most opted for mode of payment) , for fear of losing their credit card number. 94.12 percent respondents agree to it.

Web provides the customer with various benefits but there are certain aspects which cannot be sorted out, even by spending more (also known as non-technical limitations), one of them is 'touch and feel', i.e. this medium suffers from 'lack of touch and feel' problem, 84.32 percent marketers agree with it, (WAS 4.22). Products like clothes and durables owe their importance to the touch and feel and the web does not provide it.

Marketers have assigned a high significance to the problem of 'ambiguous privacy policy' (WAS 3.57), 'complicated ordering system' (WAS 3.51) and 'availability of everything from the nearest store', (WAS 3.51) and 'problem of after sales service', (WAS 3.49). These problems are considered significant by the marketers but most of them are within the scope of work of the marketer except for the 'availability of everything from the nearest store' because that deals with the psychological aspect and needs unique offers with the products/services which are otherwise available every where.

Out of the problems enlisted, 'delayed delivery' and 'hidden cost fear' get the least WAS of 3.43 and 3.12 respectively. This is because the marketer felt that the customer understood that sometimes due to distances, delivery can be delayed and so they feel that it is not a big problem. Hidden cost fear also carries low weightage because they feel that it does not exist and even if it does, it is in a small proportion.

This analysis shows that the marketers feel that 'lack of payment security' and 'lack of touch and feel' are considered grave problems from the viewpoint of the customers. 'Ambiguous privacy policy' is considered a problem and hence a clear policy should be framed, which should not be a big task for the marketer. 'Complicated ordering system' has also been perceived to be a problem, therefore the marketers' efforts should be to make the ordering system as simple as possible. The plan for 'after sales service' should be highlighted and the customer should be satisfied on these grounds. 'Delayed delivery' and 'hidden cost fear' are the least relevant of the problems.

5. Modes of Reaching a Site

Once the demographic profile of the customers has been

Table 5 :Modes of Reaching a Site.

No. of respondents	Rank1	Rank2	Rank3	Rank 4	No Rank	WAS
Search engine	23 (45.10)	8 (15.69)	11 (21.57)	6 (11.76)	3 (5.88)	2.82
Word of mouth	16 (31.37)	15 (29.41)	9 (17.65)	5 (9.80)	6 (11.76)	2.59
email	2 (3.92)	4 (7.84)	13 (25.49)	14 (27.45)	18 (35.29)	1.18
Print ads	4 (7.84)	7 (13.73)	5 (9.80)	9 (17.65)	26 (50.98)	1.10
Random surfing	1 (1.96)	7 (13.73)	9 (17.65)	11 (21.57)	23 (45.10)	1.06
TV, radio, etc	4 (7.84)	6 (11.76)	1 (1.96)	4 (7.84)	36 (70.59)	0.78
Banner ads	1 (1.96)	2 (3.92)	1 (1.96)	2 (3.92)	45 (88.24)	0.27
email magazines	0 (0)	1 (1.96)	2 (3.92)	0 (0.00)	48 (94.12)	0.14

(figures in parenthesis show percentage)

understood, their areas of interest and problems analyzed, the marketers then chalk out the plan to get the customers to their website.

There are so many ways in which the customer can be reached today. An effort was made to enlist the sources and the marketers were required to rank the first four of them in order of their use made by the customer. In this case also, rank one was to be given to the most frequently used source and rank four to the least used. Only the first four preferences were to be ranked because it is believed that customers would reach them through the first four choices or will not reach them. Moreover one cannot assign proper ranks to eight variables.

The table 5 shows the rank that the marketers assign to each of the eight options, only first four preferences were to be given. WAS were also calculated and are shown in the table.

In most of the cases, the marketers feel that the 'search engine' would bring the customer to their web sites (WAS 2.82). Marketers also realized that 'word of mouth' carries a lot of importance for the customer (WAS 2.59) i.e he realizes that the customers should be satisfied in order to spread a positive word of mouth and hence attract more customers in return.

Though not very close, e-mail follows next because it is one of the most widely used modes of communication, (WAS 1.18). Marketers feel that print ads (WAS 1.10) also get customers to their site.

This analysis shows that the marketer feels that 'search engines' are a preferred mode of locating a web site, the customers would rather type a search word than anything else. 'Search engine' is followed closely by 'word of mouth', which has to be a good word of mouth and for that the marketers need to satisfy the customers. With more and more people joining twitter, orkut, word of mouth travels even faster e.g. "My Name is Khan" got into a controversy before its release, and was discussed heavily on these websites, the result was record opening at the box office. Marketers feel that the 'links on the emails' also help the customers in reaching the desired web sites; but this should not be taken as a plea to 'email spamming' which immensely disgusts the customer. Thus judicious use of email should be made. 'Print ads' follow next in the priority of the marketers as a source of driving the customer to their sites. The marketers feel that the customers rarely use T.V., radio, banner ads and e mail magazines for reaching a desired web site.

6 Problems on Web Sites

The marketers understand that customers move to the web because of the value features it provides, i.e. ease of availability, saving of time, relevant information at the click of a mouse, (or 'touch' now) etc. There exist certain features related to a web site which should be avoided because given those features, the customer is bound to get disillusioned. An effort was made to identify the problems related to a web site that the customers do not approve of. Five important

problems were identified and it was assumed that all the problems were significant from the viewpoint of the customers. The marketers were to assign them significance from Most Important.....Least Important, (weights were attached to them, ranging from one for the most significant problems, and five for the least significant one) and the WAS could be calculated.

Table 6 shows the percentage of marketers assigning different significance and WAS.

Table 6: Problems on the Web Sites

No. of respondents Problems	Most important	Important	Moderately important	Somewhat Important	Least Important	WAS
a) slow downloading	25 (49.02)	19 (37.25)	5 (9.80)	1 (1.96)	1 (1.96)	4.29
b) irrelevant content	20 (39.22)	14 (27.54)	15 (29.41)	0 (0)	2 (3.92)	3.98
c) too many s advertisement	4 (7.84)	6 (11.76)	9 (17.65)	25 (49.02)	7 (13.73)	2.51
d) missing links	0 (0)	10 (19.61)	16 (31.37)	12 (23.53)	13 (25.49)	2.45
e) lesser links	2 (3.92)	3 (5.88)	5 (9.80)	14 (27.45)	27 (52.94)	1.80

(figures in parenthesis show percentage)

The results shown in Table 6 reveal that, 'Slow downloading due to big graphics', is what marketers feel disgusts the customers the most, (WAS 4.29). Return on time investment is what attracts the customers to the web and they do not want to waste time.

'Irrelevant Content', (WAS 3.98), follows next because if the customer comes to seek some information and he does not find the same on the site of the marketer, then he is bound to get annoyed.

'Too many advertisements', WAS 2.51, are a problem too because they also hinder the best utilization of time and space for the customer. 'Missing links', WAS 2.45, and 'lesser links', WAS 1.80 follow next.

The analysis shows that the marketers feel that all the problems enlisted are of significance to the customer, except 'lesser links' on the site. They feel that 'slow downloading' of the site poses the biggest problem for the customers because they want ROTI i.e. return on time investment. 'Irrelevant content' also denies the same right of ROTI to the customers. It is a good sign that the marketers realize that these problems are significant and hence would work in this direction. 'Too many advertisements' and 'missing links' problems have to be catered to by the marketers. But the problem with 'too many advertisements' is that, as long as the marketer gets those advertisements, they cannot do without them since selling on the web is yet to gain momentum and 'advertisements' bring them revenues. 'Missing links' are more often attributed to 'low connectivity'

or some other technical problem, rather than the fault of the marketer.

Conclusion

Understanding the web customer goes a long way in converting them into regular customers, who actually contribute towards the profitability of any organization. The decision to sell online depends on what age group uses the product/service; the most frequently used purpose of web, problems faced by the customers (in order of priority) and finally, how to reach the customer. Keeping all the above in mind, from the marketers' viewpoint, the younger age group

(15-30 years) surf the web comfortably but mainly for communication and product information. The web users are least interested in buying online but seeking product related information (mainly for comparative shopping) is a positive sign which may ultimately lead to buying. The problem of 'payment security' has been rated as the biggest problem; the marketers understand that it needs to be sorted out. The marketers feel that since the search engine is the most used tool to reach to any website, "Search engine optimization" strategies would come in handy in getting customers to

their website, where they would provide them with a fast website and relevant content along with product/ services of high quality at a lower price.

Therefore the lessons for the new entrants are

"The new entrants in this domain should come out with the products/ services for 15-35 year old people. Provide them with lot of product related information (along with comparisons with related products, if possible). Website should be attractive but not heavy, should have only relevant content. Water-tight 'payment security' or else give them the option of 'cash on delivery'."

References

- Amor Daniel, (2003), The E-Business (R)evolution: Living and Working in an Interconnected World (2nd Edition), Prentice Hall PTR, New Delhi.
- American Management Association, (2000), "E business Leaders vs Laggards", www.advisor.com, March.
- Bannerjee, Rajan, (2000), "A wardrobe of opportunity online" Advertising and Marketing, June, pp-34-35.
- Berthon Pierie, Leyland F.Pitt and Richard T.Watson, (1996), "The WWW as an Advertising Medium" Journal of Advertising Research, Jan/Feb, pp43-53.
- Kalakota, Ravi and Marica Robinson (2001), e-Business Roadmap for Success, Addison Wesley.
- Yankelovich Partners, (2000), "The more they know, the more they buy", http://www.channelseven.com/adinsight/surveys_research/2000features/surv_20000519.shtml, April.





FIIS EXPECTED AND UNEXPECTED FLOWS REACTION ON STOCK MARKET VOLATILITY

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ABSTRACT

After the economic slowdown during the year 2008-2009, India's equity market managed to recover, the key factor being the inflow of Foreign Institutional Investors. Thus an attempt was made to study the reaction of the FII flows (both expected and unexpected flows) on the stock market volatility. The paper covers a period from January 1999 to April 2009. The GARCH model is used to analyze the flows on the volatility of stock market. Our result states that the purchase and the sales happen to increase the volatility whereas the net flow of FII seems to decrease the volatility of the BSE Sensex. Coming to the disaggregated flows, the expected purchase and sales flow do not have any influence on the volatility of the return. But, the unexpected component of purchase and sale of FII increases the volatility of BSE Sensex due to the surge of unanticipated flows in the market which supports the efficient market hypothesis. The contrary behavior of the unexpected net flow, i.e. decrease in the volatility due to the unexpected net flow, seems to be because of their trading strategy of huge purchases after the market correction. And further, the FII being the initiator in the market takes a position in advance than the domestic and institutional players based on the news available primarily to FII.

Keywords: FII, EMH, BSE Sensex

INTRODUCTION

In the stock market, it's wise to expect the unexpected. The calendar year 2008 and early 2009 saw the global economic slowdown which affected many countries including India. But, the equity markets staged a smart recovery to cover up for most of the losses. For a decade that started with the dot-com bust and saw countless internet companies going bankrupt and later limp back to growth, and manufacturing, financial and IT sectors posting big growth, the credit crisis of 2008 turned out to be a late bolt from the blue.

For more than a year, the economists, market experts and regulatory bodies were worried about the losses and predicted more failures. However, for the Indian stock market, the story turned out to be something different. The Indian economy chugged ahead, albeit at a slower pace. As a result, the Sensex that hit a trough of 8,160 on March 9, 2009, ended December 31 at 17,464.81, up 114 per cent or 9,304.81 points. The main reason for this is the foreign institutional investors (FIIs), the key drivers of the Indian stock market, who pumped in a net Rs 83,423.90 crores or \$17.45 billion. This sum, in rupee terms, marks the highest ever FII investment in the history of the Indian stock market. In dollar terms, it is the second highest after 2007, when FIIs pumped in a net \$17.65 billion.

With this introduction, the remaining paper deals with the Foreign Institutional Investors in India as the second section, followed by the review of literature as the third section. The fourth section describes the data and the methodology used in the article and finally the fifth section concludes with the summary.

Foreign Institutional Investors

After the launch of the reforms in the early 1990s, there was a gradual shift towards capital account convertibility. From September 14, 1992, with suitable restrictions, FIIs and Overseas Corporate Bodies (OCBs) were permitted to invest in financial instruments. The policy framework for permitting

FII investment was provided under the Government of India guidelines vide Press Note dated September 14, 1992, which enjoined upon FIIs to obtain an initial registration with SEBI and also RBI's general permission under FERA.

The entities which are currently eligible to invest under the FII route are as follows:

Overseas pension funds, mutual funds, investment trust, asset management company, nominee company, bank, institutional portfolio manager, university funds, endowments, foundation, charitable trusts, charitable societies, a trustee or power of attorney holder incorporated or established outside India proposing to make proprietary investments or investments on behalf of a broad-based fund.

India has emerged as an important destination for global investment. With each passing year, the FII flows have gained in significance and have played a key role in the overall Indian economy. As the major portion of the FIIs investment goes into equity markets it would have an impact on the shareholding pattern of Indian companies listed on stock exchanges. About 95% of the FII funds are invested in stocks that comprise the key indices and half in the top five stocks that comprise the key indices. Their influence on the performance of the stock market is immense. Several factors are responsible for increasing confidence of FIIs on the Indian stock market which include, inter alia, strong macro-economic fundamentals of the economy, transparent regulatory system, abolition of long-term capital gains tax and encouraging corporate results. This reflects the strong economic fundamentals of the country, as well as the confidence of the foreign investors in growth with the stability of the Indian market. This is reflected in the number of Foreign Institutional Investors (FIIs) registered with SEBI. All FIIs registered with market watchdog SEBI have increased from 3 in 1993-94 to 1706 as on 31st December 2009.

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Table 1: Details of FII Registrations

Financial year	Total registered at the end of the year
1992-93	0
1993-94	3
1994-95	156
1995-96	353
1996-97	439
1997-98	496
1998-99	450
1999-2000	506
2000-01	528
2001-02	490
2002-03	502
2003-04	540
2004-05	685
2005-06	882
2006-07	997
2007-08	1319
As on 31st December 2009	1706

Since FIIs are investing heavily in the Indian stock market, there is a need to understand the FIIs impact on the volatility of the stock market.

Review of Literature

Puja Padhi in his study, "Stock Market Volatility in India: A Case of Select Scripts", attempts to explain the stock market volatility at the individual script level and at the aggregate indices level. The empirical analysis has been done by using ARCH, GARCH model and ARCH in mean model. It is based on daily data for the time period from January 1990 to November 2004. The analysis reveals the same trend of volatility in the case of aggregate indices and five different sectors such as electrical, machinery, mining, non-metallic and power plant sector. The GARCH (1, 1) model is persistent for all the five aggregate indices and individual companies.

Amita Batra, in his study, "Stock Return Volatility Patterns in India", aims to give the economic significance to changes in the pattern of stock market volatility in India during 1979-2003 using monthly returns. Asymmetric GARCH model has been used to estimate the element of time variation in volatility. The model is further augmented with dummy variables, an outcome of the structural change analysis, to examine volatility persistence. Their analysis reveals that the period around the BOP crisis and the initiation of economic reforms in India is the most volatile period in the stock market. It also shows that in the post liberalization period in India, the bull phases are longer, the amplitude and the volatility in bull phases is higher than in the bear phases. In comparison with its pre liberalization character, however, the bull phases are more stable in the post liberalization period.

Bhanumurthy and Rai (2003) by using monthly data from January 1994- November 2002 examine the determinants of FIIs in Indian context by analyzing the effect of return, risk and inflation in the domestic and foreign economies. He finds that FII inflows depend on stock market returns, inflation rate (both domestic and foreign) and Ex-ente risk.

Suchismita Bose and Dipankor Coondoo in their paper, "The Impact of FII Regulations in India: A Time-Series Intervention Analysis of Equity Flows", examined the impact of the FII policy reforms on FII portfolio flows to the Indian stock market during the period January 1999 to January 2004, through a multivariate GARCH regression model. Their results strongly suggest that liberalization policies have had the desired expansionary effect and have either increased the mean level of FII inflows and/or the sensitivity of these flows to a change in BSE returns and/or the inertia of these flows. On the other hand, interestingly, the restrictive measures aimed at achieving greater control over FII flows also do not show any significant negative impact on the net inflows; they found that these policies mostly render FII investments more sensitive to the domestic market returns and raise the inertia of the FII flows.

Using a monthly data-set for the period May 1993 to December 1999, Chakrabarti (2001) finds that the FII net inflows were not only correlated with the return in Indian equity market but were more likely the effect than the cause of the Indian equity market return. FIIs do not appear to be at an informational disadvantage compared to domestic investors in the Indian markets.

Batra (2003) uses daily data on FII equity purchases and sales and equity returns between January 2000- December 2002 on the BSE Sensex and monthly data from January 1994 to December 2002. He examines three issues, firstly the positive feed back trading by FIIs, secondly the herding by FIIs and lastly the destabilizing impact of FII trading strategies on stock prices in India. He finds strong evidence of positive feedback strategy followed by FIIs at the aggregate level on a daily basis and not on a monthly basis. He indicates that foreign investors have a tendency to herd on the Indian equity market even though they all may not do it on the same day.

Data and Methodology

Data

The study uses monthly data from January 1999 to April 2009. All the three components of the FII flows, that is, purchases, sales and the net flows are used in this paper. The data for FIIs has been retrieved from the RBI and SEBI websites, whereas data regarding the BSE Sensex has been obtained from the BSE website.

The FII flows (purchases, sales and net) for the month have been scaled by the market capitalization at the beginning of the month, i.e. the market capitalization as at the end of the previous month. Regressions looking at the relationship

between BSE returns and flows have flows normalized by BSE market capitalization. The BSE return for market *i* for month *t* would be given by

$$R_{it} = \log P_{it} - \log P_{i,t-1}$$

R_{it} = Return from market *i* at time *t*.

P_{it} , $P_{i,t-1}$ represent *i* market's index at the month *t* and *t-1*, respectively.

Methodology

Time series data usually follows a trend pattern. A variable that is de-trended is said to be stationary. Hence to de-trend the data we used the Augmented Dickey Fuller unit root test (ADF test). The null hypothesis of the unit root test states that there is an existence of unit root, in other words, the data is non-stationary. The alternative hypothesis is that there is no unit root which means that the data is stationary.

The FII unexpected flows is obtained by subtracting the expected flows from the actual scaled flows. In other words, the AR model is used, to find the predicted value. This predicted value when subtracted from the actual value gives the unexpected flow. We expect to find significant positive correlation between returns and unexpected inflows. The reasoning behind this is that the expected flows should not be influencing the returns as these flows are anticipated by the market. An efficient market should not react to anticipated flows. It is the shock brought in by the surprise of the unanticipated flows to which the market should react.

The ARCH and GARCH models have been used to find the reaction of the expected and the unexpected FII flows on the volatility of stock market.

Autoregressive Conditional Heteroscedastic (ARCH) model was first introduced by Engel (1982). And then the ARCH model was generalized by Bollerslev (1986), and it is called GARCH (Generalized Autoregressive Conditional Heteroscedasticity). GARCH models explain variance by two distributed lags: firstly, on past squared residuals to capture high frequency effects or news about volatility from previous period measured as lag of the squared residuals from mean equation, and secondly, on lagged values of variance itself to capture long-term influences. A GARCH (*p*, *q*) model is given by the following equation.

$$Y_t = \beta_0 + \beta_1 X_t + \varepsilon_t \quad \varepsilon_t / \Psi_{t-1} \sim (0, h_t) \quad (2)$$

$$h_t = \alpha_0 + \sum_{i=1}^p \alpha_i \varepsilon_{t-i}^2 + \sum_{j=1}^q \alpha_j h_{t-j} + v_t \quad (3)$$

Equation (2) represents the conditional mean equation (Y_t), is written as a function of constant (β_0), exogenous variable (X_t) and error term (ε_t). Equation 3, represents the conditional variance equation (h_t), is the one period ahead forecast variance. The conditional variance equation is a function of constant (α_0), lagged squared residual from the mean equation- ARCH (ε_{t-1}^2), lagged values of variance itself (h_{t-1}) - GARCH, and v_t is white noise error term. In variance equation

P is the degree of ARCH, and q is the degree of GARCH. The size of the parameters α_1 and α_2 determine the short-term dynamics of the resulting volatility time-series. Large coefficient of α_2 shows that shocks to conditional variance take a long time to cancel out, so volatility is persistence. To measure the volatility implication of FIIs on the return, GARCH (1, 1) is used as mentioned in the following mean and variance equation:

$$R_t = \beta_0 + \beta_1 R_{t-1} + \varepsilon_t \quad (4)$$

$$h_t = a_0 + a_1 \varepsilon_{t-1}^2 + \alpha_2 h_{t-1} + \alpha_3 FII_p \quad (5)$$

$$h_t = a_0 + a_1 \varepsilon_{t-1}^2 + \alpha_2 h_{t-1} + \alpha_4 FII_{expP} + \alpha_5 FII_{unexpP} \quad (6)$$

in equations (5) and (6), FII_p is total purchase, FII_{expP} is expected purchase and FII_{unexpP} is unexpected purchase.

$$h_t = a_0 + a_1 \varepsilon_{t-1}^2 + \alpha_2 h_{t-1} + \alpha_6 FII_s \quad (7)$$

$$h_t = a_0 + a_1 \varepsilon_{t-1}^2 + \alpha_2 h_{t-1} + \alpha_7 FII_{expS} + \alpha_8 FII_{unexpS} \quad (8)$$

in equations (7) and (8), FII_s is total sales, FII_{expS} is expected sales and FII_{unexpS} is unexpected sales.

$$h_t = a_0 + a_1 \varepsilon_{t-1}^2 + \alpha_2 h_{t-1} + \alpha_6 FII_N \quad (9)$$

$$h_t = a_0 + a_1 \varepsilon_{t-1}^2 + \alpha_2 h_{t-1} + \alpha_7 FII_{expN} + \alpha_8 FII_{unexpN} \quad (10)$$

in equations (9) and (10), FII_s is total sales, FII_{expS} is expected sales and FII_{unexpS} is unexpected sales.

The significant coefficient of the variables determines the changes in the volatility of the stock market. If they turn out to be negative, then there is a decline in the stock market volatility with the intrusion of the FII and vice-versa. A zero coefficient indicates no change in the volatility.

Empirical Analysis

As a preliminary step, the presence of stationary quality of the data series is found using ADF Unit root test. The results are stated below

Table 2: ADF Unit Root Test

Particulars	ADF Test	
	Statistic	Critical Value
FII Purchases	-4.041569*	-4.0373
FII Sales	-4.766616*	-4.0373
FII Net	-3.207983***	-3.1488
BSE Return	-3.930104**	-3.4478

*, ** and *** statistically significant at 1%, 5% and 10%.

The table shows the results of Augmented Dickey Fuller (ADF) test which has been carried out with none in exogenous variables i.e. without including a constant and a linear time trend in the test equation. The result shows that the statistics values exceed the critical values, thus stating that all the variables considered are significant at different levels (i.e. FII purchases and FII sales (1%), FII net flow (10%) and BSE return (5%)). This states that FII purchases, sales, net flows and the BSE return fail to accept the null hypothesis (which states that the data series have an unit root), thus

concluding that the alternative hypothesis is accepted, in other words, the data is stationary.

Based on the criteria, the lag selected for the FII purchase was 3, FII sales was also 3 whereas the lag for net FII is only 1.

An analysis was made to find the impact of FIIs on the volatility of BSE returns. In the tables provided underneath, Panel A shows the total flow of all the three components of FII separately (i.e. total purchase, total sales and the total net flow of FII). Panel B deals with the expected and the unexpected flows of all the three components.

Table 3: FIIs purchase on volatility of BSE returns

Particulars	Panel A (Total Purchases)		Panel B (Expected and unexpected purchases)	
	Co-efficient	z-Statistic	Co-efficient	z-Statistic
Mean Equation				
C	0.009806	1.816181	0.009727	1.797889
BR(-1)	0.302111	3.503266	0.301589	3.226162
Variance Equation				
C	-0.000340	-2.174224	-0.000102	-0.481567
ARCH(1)	-0.027777	-0.698482	-0.015510	-0.336580
GARCH(1)	1.045800	20.24941	1.034602	25.79818
Total Purchases	0.027965	2.714076	-	-
Expected P	-	-	0.003782	0.219274
Unexpected P	-	-	0.173528	1.438745
R-squared	0.063590		0.063710	
Log likelihood	165.8819		166.1181	

The above table captures FII purchase on the volatility of BSE returns. The coefficients of total purchases, expected purchases and unexpected purchases of FII are 0.027965, 0.003782 and 0.173528 respectively. All these positive coefficients show an increase in volatility, stating that, as the FII flow comes into the stock market, the volatility increases. The unexpected purchase coefficient is higher and insignificant. Even though it is insignificant, the shock brought in due to the unanticipated flow causes higher volatility in the market.

Table 4: FIIs sales flow and volatility of BSE returns

Particulars	Panel A (Total Sales)		Panel B (Expected and unexpected sales)	
	Co-efficient	z-Statistic	Co-efficient	z-Statistic
Mean Equation				
C	0.010348	1.935061	0.015111	2.918206
BR(-1)	0.307606	3.658773	0.314421	3.581144
Variance Equation				
C	-0.000298	-1.950874	5.68E-05	0.233307
ARCH(1)	-0.027762	-0.597141	-0.022379	-0.554028
GARCH(1)	1.039552	21.00030	1.040536	27.86908
Total Sales	0.031393	3.115017	-	-
Expected sales	-	-	-0.012805	-0.533382
Unexpected Sales	-	-	0.351016	2.720238
R-squared	0.062512		0.051225	
Log likelihood	166.3927		170.3686	

When the FII sales data was analyzed, the coefficients of total sales, expected sales and the unexpected sales were 0.031393, -0.012805 and 0.351016 respectively. The total and the unexpected sales increase the volatility. As expected, the unexpected sales flow seems to increase volatility higher than the total sales flow. The insignificant negative sign in the coefficient of the expected sales proves that there are no volatility changes in the market due to the outflow of FII as expected.

Table 5: FIIs net investment on volatility of BSE return

Particulars	Panel A (Total net)		Panel B (Expected and unexpected net)	
	Co-efficient	z-Statistic	Co-efficient	z-Statistic
Mean Equation				
C	0.015396	2.874024	0.016974	3.137491
BR(-1)	0.277921	3.465791	0.289987	3.413710
Variance Equation				
C	0.000817	4.852941	0.000225	0.320739
ARCH(1)	-0.088913	-3.675038	-0.065709	-1.906713
GARCH(1)	0.999425	43.43160	0.995967	32.69240
Total Net Flow	-0.322600	-4.207111	-	-
Expected Net	-	-	0.065345	0.142890
Unexpected Net	-	-	-0.406459	-2.535441
R-squared	0.053443		0.047098	
Log likelihood	164.4096		164.6792	

The above table substantiates that the significant and negative coefficient of the total and the unexpected net flow of FII (-0.355600 and -0.406459) pulls down the volatility of the return. This shows the stabilizing factor of net FII in the volatility of Indian stock market. As per the expectations, the insignificant expected sales do not have any influence on the volatility of the return. The contrary behavior of the unexpected net flow, i.e. decrease in the volatility due to the unexpected net flow, seems to be because of their trading strategy of huge purchases after the market correction. And further, the FII being the initiator in the market takes a position in advance rather than the domestic and institutional players based on the news available primarily to FII.

Summary

FII flows are referred to be hot money, as they flee away from the market at the first sign of trouble. Hence, an attempt was made to study the volatility of the BSE Sensex on the FII, disaggregating the FII flow further to expected and unexpected flows over all the three components of the FII viz. the purchase, sales and net flow. For this analysis we used the GARCH model to specify the impact of volatility. Our result states that the purchase and the sales happen to increase the volatility whereas the net flow of FII seems to decrease the volatility of the BSE Sensex. Coming to the disaggregated flows, the expected purchase and sales flow do not have any influence on the volatility of the return. But, the unexpected component of purchase and sale of FII



increases the volatility of BSE Sensex due to the surge of unanticipated flow in the market which supports the efficient market hypothesis. The contrary behavior of the unexpected net flow, i.e. decrease in the volatility due to the unexpected net flow, seems to be because of their trading strategy of huge purchases after the market correction. And further, the FII being the initiator in the market takes a position in advance than the domestic and institutional players based on the news available primarily to FII.

References

1. Puja Padhi, "Stock Market Volatility In India: A Case Of Select Scripts", Indian Institute of Capital Markets 9th Capital Markets Conference Paper. Available at SSRN: <http://ssrn.com/abstract=873985>
2. Suchismita Bose and Dipankor Coondoo (2004), "The Impact of FII Regulations in India: A Time-Series Intervention Analysis of Equity Flows", Money and Finance, July-December 2004
3. Amita Batra (2004), "Stock Return Volatility Patterns in India", ICRIER working paper series 124, March 2004.
4. Chakrabarti R (2001), "FII Flows to India: Nature and Causes", Money and Finance, Vol. 2, pp. 61-81.
5. Batra A (2003), "The Dynamics of Foreign Portfolio Inflows and Equity Returns in India", paper presented at the Seventh Annual Capital Market Conference, UTI Institute of Capital Markets, Mumbai.
6. Bhanumurthy and Rai (2003) "Determinants of Foreign Institutional Investment in India: The role of Return, Risk and Inflation", http://ieginia.org/dis_rai_71.pdf.
7. Bollerslev Tim (1986), "Generalized Autoregressive Conditional Heteroskedasticity," Journal of Econometrics, 31, 307-327.
8. Box, G.E.P and G. C. Tiao (1975), "Intervention Analysis with Application to Economic and Environmental Problems", Journal of the American Statistical Association, 70-79.
9. Watanabe, T. and K. Harada (2001), "Effects of the Bank of Japan's Intervention on Yen/Dollar Exchange Rate Volatility", COE Discussion Paper Series, No.2, Graduate School of Social Sciences, Tokyo Metropolitan University.
10. Mukherjee, P, S. Bose and D. Coondoo (2002), "Foreign Institutional Investment in the Indian Equity Market: An Analysis of Daily Flows during January 1999 – May 2002", Money & Finance, Vol. 2, Nos. 9–10.
11. Mukherjee, P and D. Coondoo (2004), "Volatility of FII in India", Money & Finance, Vol. 2, Nos. 15–16.



IMPACT OF TRUST AND CRM ON CUSTOMER LOYALTY A STUDY ON RETAIL ORGANIZATIONS

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ABSTRACT

Marketing operations consist of two activities: acquisition and retention of customers. In the world of mass and target marketing, the focus was on the acquisition side. On the other hand, in the world of relationship marketing, attention shifted to retention. The study is an attempt to analyze the impact of trust and CRM on customer loyalty. The review on trust depicted that marketing researchers must first come to terms with the meaning of trust in customer relationships before they can begin to analyze its role in more comprehensive and explanatory models of customer behavior. The trust of a customer on the seller or the product provider plays an important role in its repurchase which shows that the customer is loyal to the retailer. Different reviews proved CRM to be an effective predictor of customer loyalty. By this research we tried to provide a basis to retailers so that they could design their functionality and services in that way that the customer of the retail organization would be loyal and become the permanent customer to the organization. The study was conducted on 150 customers of different retail organizations situated at Gwalior region as a sample size. Their views helped to get an inference and measure of the efficiency of independent variables on dependent variables.

Key Words: *Believability, Customer Satisfaction, Customer Trust, CRM, Customer Loyalty.*

INTRODUCTION

Only in a relationship of trust will the customer freely pass information back and forth. Trust is the true differentiating feature for any company in a world of increasingly commodity-like products and services. A relationship, founded on trust, is the only genuinely sustainable competitive advantage a company has. Without trust, all other marketing variables, such as competing on price, design and benefits. Most technology can be copied, duplicated, or overcome by competitors. Creating a trust relationship requires a creative process and a well thought out integrated marketing program that depends on three distinct factors. Cacioppo (2000) defines customer satisfaction as the state of mind that customers have about a company when their expectations have been met or exceeded over the lifetime of the product or service. In summary, Customer Satisfaction is the meeting of customer's expectations after a product or service has been used.

The problem with defining trust is that there are many different types of trust and it means something different to each person, and potentially in each context where it is applied (Deutsch, 1973; Shapiro 1987). Customer satisfaction is a function of a perceived quality and disconfirmation – the extent to which perceived quality fails to match repurchase expectations. Customers compare the perceived performance of a product (service, goods) with some performance standard. Customers are satisfied when the perceived performance is greater than the standard (positively disconfirmed), whereas dissatisfaction occurs when the performance falls short of the standard (negatively disconfirmed). Additionally, there is an extensive difference between the loyalty of merely satisfied customers and those who are completely satisfied. Customers who are just satisfied find it easy to switch suppliers when a better offer comes along. As a result, the significance of customer satisfaction is emphasized in markets where competition is

intense (Kotler 2000; Jones and Sasser 1995 Nordic Journal of Surveying and Real Estate Research - Special Series Vol. 2, 2004). A company must periodically measure customer satisfaction in order to learn how satisfied its customers are. Torbica and Stroh (2001) argue that, in construction, the extent of customer satisfaction is only known late in the project when most of the customer's money has already been spent. Figures of surveys have shown that the costs of acquiring a new customer are more expensive than retaining accessible ones (Reichheld et al, 1990 and Reichheld, 1996). Customer satisfaction is affected by the roles of individual members of the buying centre in terms of interests and goals, the decision process and structures (Brockmann, 2002). Customer Relationship Management is the process through which business analyzes customers and makes changes accordingly. CRM vendors provide applications and advice on the best CRM methods. Most observers believe that CRM practices will continue to flourish as new CRM strategies and technologies are developed. For any business, a successful CRM approach is a must-have. According to Subkhan (2005), loyal customers are those who are enthusiastic about the brands or products they use. The more enthusiastic a customer is, the higher the profit contributed to the brand.

Loyalty is essentially an emotional concept, like relationships, and yet many firms seem not to understand or appreciate this. Many businesses continue to define loyalty in behavioral terms. At a recent meeting, for example, a senior marketing executive of a national retail chain referred to the fact that its loyal customers appear to be spreading more of their business across a number of competing companies. There is a great tendency in business to measure or define loyalty entirely in behavioral terms—numbers of visits, frequency of visits, total spend, share of category spend, number of years as a customer etc. There is a tendency to confuse loyalty with retention—two concepts that are related, but certainly not the same thing.

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Retention is a behavioral concept; loyalty is not. A focus on retention creates a high-risk situation where a company may think its customers are a lot more loyal than they really are.

Review of Literature

Customer Satisfaction

Investments in customer satisfaction, customer relationships and service quality leads to profitability and market share (Rust and Zahorik, 1993). Customer satisfaction and high quality service often outcome in more repeat purchases and market share improvements (Buzzel and Gale, 1997).

Customer satisfaction leads to customer loyalty and this leads to profitability (Hallowell, 1996).

Benefits of Customer Satisfaction

According to Reichheld and Sasser (1990), the costs of customer acquisition are much higher than the costs of retention. They have recognized the benefits that customer retention delivers to a bank. For instance, the longer a customer stays with a bank the more utility the customer generates. This is a result of a number of factors relating to the time the customer spends with a bank. These comprise the higher initial costs of introducing and attracting a new customer, increases in both the value and amount of purchases, the customer's better understanding of the bank and positive word-of-mouth promotion. In summary, Customer Satisfaction is cost effective, it leads to loyalty and this leads to profitability.

Components of Customer Satisfaction

Research on customer satisfaction has moved towards the disconfirmation paradigm which views satisfaction with products and brands as a result of two cognitive variables: pre-purchase expectations and disconfirmation (Churchill and Surprenant, 1982; Peter and Olson, 1996). According to Peter and Olson (1996), pre-purchase expectations are beliefs about anticipated performance of the product; disconfirmation refers to the differences between pre-purchase expectations and post-purchase perceptions. In an earlier study, Churchill and Surprenant (1982) reported that disconfirmation positively affected satisfaction.

Reichheld and Sasser (1990) have recognized the benefits that customer retention delivers to a bank. For instance, the longer a customer stays with a bank the more utility the customer generates. This is a result of a number of factors relating to the time the customer spends with a bank. These comprise the higher initial costs of introducing and attracting a new customer, increases in both the value and amount of purchases, the customer's better understanding of the bank, and positive word-of-mouth promotion. Levesque and McDougall (1996) indicate that customer satisfaction and retention are critical for retail banks. They study the major determinants of customer satisfaction (situational factors, service quality, service features and customer complaint handling) and future intentions in the retail bank sector. Study by Hallowell (1996), moreover examined customer

satisfaction but in relation to loyalty. Conversely, Levesque and McDougall (1996) comprehensively analyzed the effects of service quality, service features and customer complaint handling on customer satisfaction in the Canadian retail banking sector. Their result proposes that for satisfaction 40 determinants in retail banking are driven by an amount of factors including service quality dimensions.

Wong and Kanji (2001) discussed and experienced an extended customer satisfaction model in the retail banking industry in Hong Kong. They built the extended model on the thought that evaluation of customer satisfaction in the retail banking industry is a function of overall customer expectation, perceived value and quality perception, whereas customer loyalty is a function of both perceived value and customer satisfaction.

Kristensen, Juhl and Ostergaard (2001) calculated the relationship between customer satisfaction and customer loyalty in Danish retailing business using the European Customer Satisfaction Index (ECSI). The model links customer satisfaction to its drivers (e.g. customer expectation, perceived Company image, perceived quality and perceived value) and, in turn, to its consequences, specific customer loyalty.

Trust

Trust is one of the most widely examined and confirmed constructs in relationship marketing research (cf. Crosby, Evans & Cowles 1990, Garbarino & Johnson 1999, Helfert & Gemünden 1998, Mohr & Spekman 1994, Moorman, Zaltman & Despondé 1992, Morgan & Hunt 1994, Schurr & Ozanne 1985, Smith & Barclay 1993, Wilson 1995). Common to all different definitions used to conceptualize trust, there is the notion that trust constitutes the belief, attitude or expectation of a party that the relationship partner's behavior or its outcomes will be for the trusting party's own benefit (Andaleeb, 1992). We, in summarizing the conceptual approaches of other scholars, believe trust to have three essential components: firstly, there is the belief that the relationship partner will show benevolence in his or her actions which affect the relationship in question directly or indirectly (Anderson & Weitz 1989, Geyskens, Steenkamp, Scheer & Kumar 1996). Secondly, trust also encompasses honesty, which means that the trusting party relies on the relationship partner being credible (e.g., Doney & Cannon 1997, Ganesan 1994). Beside these two motivational or intentional trust dimensions, there is a dimension which encompasses an ability-related component of trust: The belief that the relationship partner has the competence to act for the benefit of the relationship (cf. Andaleeb 1992, Moorman, Zaltman & Despondé 1992, Ganesan 1994). Therefore, we define customer trust as the customer's belief in the supplier's benevolence, honesty and competence to act in the best interest of the relationship in question.

Factors affecting customer loyalty

The impact of satisfaction on loyalty has been the most

popular subject of studies. Several studies have revealed that there exists a direct connection between satisfaction and loyalty: satisfied customers become loyal and dissatisfied customers move to another

Vendor (Heskett et al. 1994). The primary objective of creating ACSI (American Customer Satisfaction Index) in 1984 was to explain the development of customer loyalty. In ACSI model, customer satisfaction has three antecedents: perceived quality, perceived value and customer expectations. (Anderson et al. 2000) In the ECSI (European Customer Satisfaction Index) model perceived quality is divided into two elements: "hard ware", which consists of the quality of the product or service attributes, and "human ware", which represents the associated customer interactive elements in service, i.e. the personal behaviour and atmosphere of the service environment. (Grönholdt et al. 2000) In both models, increased satisfaction should increase customer loyalty. When the satisfaction is low, customers have the option to exit (e.g. going to a competitor) or express their complaints. Researchers have shown that 60–80% of customers who defect to a competitor said they were satisfied or very satisfied on the survey just prior to their defection. (Reichheld et al. 2000: 137) So it's clear that there must be also other factors beside satisfaction that have a certain impact on customer loyalty.

CRM

Customer relationship management (CRM) is a leading new approach to business, which has already become established in literature (Szeinbach, Barnes & Garner, 1997). Indeed, CRM refers to all business activities directed towards initiating, establishing, maintaining and developing successful long-term relational exchanges (Heide, 1994; Reinartz & Kumar, 2003). One of the results of CRM is the promotion of customer loyalty (Evans & Laskin, 1994), which is considered to be a relational phenomenon (Chow & Holden, 1997; Jacoby & Kyner, 1973; Sheth & Parvatiyar, 1995; cited by Macintosh & Lockshin, 1997). The benefits of customer loyalty to a provider of either services or products are numerous, and thus organizations are eager to secure as significant a loyal customer base as possible (Gefen, 2002; Reinartz & Kumar, 2003; Rowley & Dawes, 2000). Recent developments in Internet technology have given the Internet a new role: to facilitate the link between CRM and customer loyalty.

Objectives of the Study:

1. To develop and standardize a measure to evaluate customer loyalty, customer trust (with its sub-variables, customer believability and customer satisfaction) and CRM.
2. To find out underlying dominant factors responsible for customer trust, CRM, customer loyalty.
3. To find out the impact of customer trust and CRM on customer loyalty.
4. To open new vistas for further research.

Research Methodology: The study was exploratory in nature with survey being used as a method for collecting data to complete the study. The population of the study was all the customers of retail outlets of Gwalior region. The customers of four retail outlets were chosen as the sampling frame of the study using convenient (non-probability) sampling technique. The sampling element of the study was the individual respondents of the retail outlets viz. More4 Less, Anand Plaza, Orbit, Super Shop retail stores. The study was conducted on a sample of 150 respondents.

Self-designed questionnaire was used to collect the data with the Likert type scale which consisted of nominal ranking of 1-7 where 1 represented minimum agreement and 7 represented the maximum agreement with the statement.

The data was analyzed through the following tools:

- Item to total correlation: To check the internal consistency of the questionnaires.
- Reliability test: To check the reliability of the questionnaires
- Factor analysis: To find out the underlying factors in the questionnaires.
- Regression Test: To find out the impact of trust (believability and satisfaction as sub variables) and CRM on customer loyalty.

Results and Discussions

Trust: The variable trust could be analyzed and measured and could be better understood with the two sub variables viz. believability and satisfaction

Believability

First of all consistency of all the 11 items was checked through item to total correlation. Under this, correlation of every item with a total was measured and the computed value was compared with a standard value (i.e.0.1590). If computed value was found less than standard value then the whole factor / statement was dropped and was termed as inconsistent. The consistency of all the items of the questionnaire were found to be more than the standard value, hence all the items of believability were accepted (Table 1). The reliability test was carried out using SPSS software and the reliability test value of alpha was found to be 0.796. It is considered that the reliability value of more than 0.7 is good and it can be seen that the reliability methods applied have the reliability value higher (Table 2) than the standard value, so the scale is highly reliable.

The third tool used for analyzing the collected data was factor analysis. The raw scores of 11 items were subjected to factor analysis to find out the factors that contributed towards believability. After factor analysis, 3 factors were identified (Table 3).

1. **Personnel Attention:** This factor of believability includes: the personal attention of the store for the customer (0.819), individual attention to customer in store (0.747), behavior of the staff (0.589), fulfilling the promise by store (0.583) and the trust of customer in the store (0.504). The

Eigen value of this factor is 33.033%, which is highest among all. Thus we can say that this factor plays a very dominant role in believability.

- 2. Emotional Belief-** This is the second important determinant of believability with total variance of 13.209%. It includes referencing the store to other people by customer (0.790), goodness to customer (0.762), good feeling for the store (0.740) and emotional attachment with the store (0.575).
- 3. Safety-** One more important determinant of believability in retail stores with a total variance of 11.923%. It includes repurchasing by the customer from the store (0.824) and safety in transactions (0.758).

Satisfaction

The consistency of all the 12 items for satisfaction was checked through items to total correlation. Correlation of the total of every item with a total of all items was measured and the computed value was compared with standard value (i.e.0.1590). The computed value of all the items of satisfaction was found to be more than the standard value (Table 4), hence all the items were accepted and found consistent.

The reliability value (Alpha) was .909 which was found higher than the standard value (Table 5), hence the scale is highly reliable.

The raw scores of 12 items were subjected to factor analysis to find out the factors that contribute towards satisfaction. After factor analysis, 2 factors were identified (Table 6).

1. After Sales Service - After Sales Service has emerged as the most important determinant of satisfaction for retail stores. It has the total variance of 50.185%. It includes prompt response of store for customer complaints (0.783), right time service (0.770), fulfilling the promises (0.750), satisfaction with the service (0.714), overall satisfaction (0.651) and quality of services (0.543).
2. Satisfaction with features of store - This factor also plays an important role for satisfaction for the retail store. It has a total variance of 9.267%. It encompasses quality of goods (0.791), price offered by store (0.768), guarantee by store (0.762), expertise of the store and suggestions by the store (0.666).

CRM

The computed value of all the 13 items of CRM was found to be more than the standard value (Table 7), hence all the items were accepted and found consistent. The reliability value (Alpha) was .859 which was found higher than the standard value (Table 8); hence the scale is highly reliable. The raw scores of 13 items were subjected to factor analysis to find out the factors that contributed towards CRM. After factor analysis, 4 factors were identified (Table 9):

1. Customer Relations - It has emerged as the most important determinant of CRM in retail stores with total

variance of 37.850%. It includes the communication strategy of the store (0.720), retaining the customer by the store (0.701), customer database of stores (0.701), survey for customer needs (0.662), relationship with the customer (0.577), understanding customer values by store (0.521), two way communication by stores (0.470).

2. Problem Resolution - This is the second important determinant of CRM with a total variance of 1.168%. It includes excellent service by store (0.901), resolve complaints (0.620).
3. Environment Convenience - This is another important determinant of CRM in retail stores with a total variance of 8.305%. It includes environment meeting the customers' needs (0.819), simplified procedures by stores (0.812).
4. Customer Research: It is the last determinant of the CRM with the total variance of 7.701%. The items for this factor with their loadings are: store identifies the customer type (0.837), service performance measurement by store (0.628).

Customer Loyalty

The computed value of all the 7 items of customer loyalty were found to be more than the standard value (Table 10), hence all the items were accepted and found consistent. The reliability value (Alpha) was .783 which was found higher than the standard value (Table 11), hence the scale is highly reliable. The raw scores of 7 items were subjected to factor analysis to find out the factors that contribute towards customer loyalty. After factor analysis, 2 factors were identified (Table 12):

1. Loyal by Purchasing - It has emerged as the most important determinant of customer loyalty for retail stores with total variance of 43.940%. It is encompassed by following items like Feeling to Purchase (0.821), More Purchasing by Customer (0.791), Customer likely to Purchase (0.680), Regular Purchasing (0.642).
2. Loyal by Emotions - It is the second important determinant of customer loyalty with total variance of 16.752%. The items for this factor are loyal to store (0.848), out of the way to purchase (0.809), little different feeling for other stores (0.471).

Regression Analysis

Trust on Customer Loyalty: The regression is calculated by taking the total of believability and satisfaction as the sub variables of trust and customer loyalty by using SPSS software. In this believability and satisfaction are the independent variables. Customer loyalty is a dependent variable. Therefore, regression is calculated by taking dependent and independent variables individually for both the sub variables of trust.

The linear regression was applied between "Believability" (independent variable), "Customer Loyalty" (dependent variable) and "Satisfaction" (independent variable), "Customer Loyalty" (dependent variable). The results of

regression indicate the independent variable believability and satisfaction has an impact on the dependent variable Customer Loyalty signified by the coefficient beta factor of 0.455 and 0.176 respectively. Also the T value is significant as the value of T is 6.212 and 2.179 respectively, which is acceptable at 0% and 3.1% level of significance, so we accept the hypothesis that there is a significant impact of believability and satisfaction on Customer Loyalty.

CRM on Customer Loyalty

In this , the CRM is an independent variable and Customer Loyalty is the dependent variable. The linear regression was applied between "CRM" (independent variable) and "Customer Loyalty" (dependent variable). The result of regression indicates the independent variable. CRM has an impact on the dependent variable satisfaction, signified by the coefficient beta factor of 0.936. Also the T value is significant as the value of T is 32.35, which is accepted at 0% level of significance, so we accept the hypothesis that there is a significant impact of CRM on Customer Loyalty in retail stores.

Trust and CRM on Customer Loyalty

The multiple regressions were calculated by taking the total of believability, satisfaction (sub variables of trust), CRM and Customer Loyalty for retail stores by using SPSS software. Here believability and satisfaction are sub variables of trust, CRM is an independent variable and Customer Loyalty is the dependent variable. Therefore, regression is calculated by taking dependent and independent variables.

The multiple regressions were applied between "believability, satisfaction, CRM" (independent variables), "Customer Loyalty" (dependent variable). The result of multiple regressions indicates that the independent variable CRM is the most dominating variable over other independent variables, believability and satisfaction signified by the coefficient beta factor of 0.898. Also the T value is significant as the value of T for CRM is 28.481, which is accepted at 0% level of significance, so we accept the hypothesis that there is a significant impact of CRM on Customer Loyalty in retail stores when calculated together with other variables while the independent variable Satisfaction whose T value is .556 which is accepted at 57.9% level of significance is getting dominated by other two independent variables. The independent variable believability also has the impact over the customer loyalty when calculated together with other variables. It has the T value 2.738 which is accepted at the significance level of 7%.

Implications of the Study

This study will facilitate the retail stores to understand the underlying factors of trust, CRM and customer loyalty. The study will assist the retail organization to have an idea on the most dominating factors of trust, CRM and customer loyalty so that they can give more attention to those factors and can build trust and CRM. This study is intended to be a useful

contribution to the retail organizations to understand whether the Trust and CRM has an impact on customers' loyalty or not. This study will also contribute to the retail organizations, which are taken as sample because it provides a way of finding the level of Customer Loyalty.

Suggestions of the Study

This study has been done in a very narrow perspective by taking only Gwalior region .The sample size is only 150. So it is suggested that we take a large sample size so that more appropriate results can be obtained. The stores included in the research for data collection should be of the same size so that customer belief for large stores should not dominate the smaller ones. The similar type of stores like all apparel stores or all electronic outlets could be selected for generalization of results. The comparative research for two or more stores can be conducted to check their customer loyalty.

Conclusions

After a thorough study of all the variables in a conceptual framework and the different researches in literature reviews done on these variables, we need to conclude the whole research. First of all we tried to find out the effect of independent variables on dependent variable. Starting from believability we found that the independent variable believability has an effect on customer loyalty, which was our dependent variable. In retail stores, the believability of customers' results for customer loyalty. The main factors which are responsible for customer loyalty are personal attention to the customers by stores, emotional belief of the customer and safety in transaction with store.

The satisfaction also had the limited impact over customer loyalty. The satisfaction with after sales service and the features of stores leads to customer satisfaction for the store.

On the other hand CRM is the most effective variable for customer loyalty. CRM includes relations with the customer, problems resolution of the customer, convenience in the store environment and research on the customer, which may enhance customer loyalty. All these are independent variables which enhance the customer loyalty in the terms of loyalty in purchasing and loyalty by emotion. When analyzed collectively, we observed that independent variable satisfaction gets dominated by CRM and then by believability to achieve customer loyalty.

At last by observing the results, we can say that retail stores should concentrate over CRM by improving customer relations, problem resolution, convenient environment and customer research because these are the main factors of CRM. The stores should also try to gain the believability of the customer in terms of personnel attention, gaining emotional belief and providing safety in the transactions. And to improve customer satisfaction they have to provide better after sales service and features. All these steps will bring customer loyalty for the stores in the form of repetitive purchase and emotional loyalty.



References

- Andaleeb, Syed Saad (1992), "The Trust Concept: Research Issues for Channel of Distribution", *Research in Marketing*, Vol. 11, pp 1-34.
- Anderson, Erin W. and Barton Weitz (1992), "The Use of Pledges to Build and Sustain Commitment in Distribution Channels", *Journal of Marketing Research*, Vol 29, pp 18-34.
- Andreson, E.W., Fornell, C (2000), "Foundations of the American Customer Satisfaction Index", *Total Quality Management*, Vol. 11, No. 7, pp. 869-882.
- Brockmann, C. (2002) "Modeling Customer Satisfaction for the AEC Industry" *AACE International Transactions*. P. PM161.
- Buzzell, R.D., Gale, B.T. (1987), *The PIMS Principles*, Free Press, New York, NY.
- Cacioppo, Kevin. (2000), "Measuring and Managing Customer Satisfaction." *Quality Digest* <http://www.qualitydigest.com/sept00/html/satisfaction.html>.
- Chow, S., & Holden, R. (1997) "Toward an understanding of loyalty: The moderating role of trust", *Journal of Managerial Issues*, Vol. 9(3), pp 275-298.
- Churchill, G.A., Surprenant C. (1982), "An investigation into the determinants of customer satisfaction" *JMR*, *Journal of Marketing Research*, XIX, pp 491 - 504.
- Crosby, L.A., Evans, K.R. and Cowles, D. (1990), "Relationship Quality in Services Selling: an Interpersonal Influence Perspective", *Journal of Marketing*, Vol 54, pp 68-81.
- Deutsch, Morton (1973). *The Resolution of Conflict*. New Haven and London: Yale University Press.
- Doney, Patricia M. and Joseph P. Cannon (1997), "An Examination of the Nature of Trust in Buyer-Seller Relationships", *Journal of Marketing*, Vol. 61, pp 35-51.
- Evans, J. R., & Laskin, R. L. (1994), "The relationship marketing process: A conceptualization and application", *Industrial Marketing Management*, Vol. 23(5), pp 439-452.
- Ganesan, Shankar (1994), "Determinants of Long-Term Orientation in Buyer-Seller Relationships", *Journal of Marketing*, Vol. 58, pp 1-19.
- Garbarino, Ellen; Johnson, Mark S. (1999), "The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships", *Journal of Marketing*, Vol. 63 (2), pp 70-87.
- Gefen, D. (2002), "Customer loyalty in e-commerce", *Journal of the Association for Information Systems*, Vol. (3), pp 27-51.
- Geyskens, I., Jan-Benedict Steenkamp, Lisa K. Scheer, and Nirmalya Kumar (1996), "The Effects of Trust and Interdependence on Relationship Commitment: A Trans-Atlantic Study", *International Journal of Research in Marketing*, Vol. 13(4), pp 303-317.
- Grönholdt, L., Martensen, A., Kristensen, K. (2000), "The relationship between customer satisfaction and loyalty: cross-industry differences", *Total Quality Management*, Vol. 11, Nos. 4/5&6, pp. 509-514.
- Hallowell, R. (1996), "The relationships of customer satisfaction, customer loyalty and profitability: an empirical study", *International Journal of Service Industry Management*, Vol. 7 No.4, pp.27-42.
- Hallowell, R. (1996), "The relationships of customer satisfaction, customer loyalty and profitability: an empirical study", *International Journal of Service Industry Management*, Vol. 7 No.4, pp.27-42.
- Heide, J. B. (1994). *Interorganizational Governance in Marketing Channels*. *Journal of Marketing*, Vol. 58(1), pp 71-85.
- Helfert, Gabriele and Hans Georg Gemünden (1998), "Relationship Marketing Team Design: A Powerful Predictor for Relationship Effectiveness", *ISBM Report No. 6-1998*, Institute for the Study of Business Markets, Pennsylvania State University, University Park, PA, USA.
- Heskett, J. L., Jones, T. O., Lovemann, G. W., Sasser, W. E. jr.(1994), Schlesinger, L. A., "Putting the Service-Profit Chain to Work", *Harvard Business Review*, Vol. 72, Issue 2, pp. 164-174.
- Jacoby, J., & Kyner, D.B. (1973), "Brand loyalty versus repeat purchase behavior", *Journal of Marketing Research*, Vol. 10(1), pp 1-9.
- Jones T.O. and W.E. Sasser (1995), "Why Satisfied Customers Defect", *Harvard Business Review*, pp. 88-99.
- Kotler, P. (2000). *Marketing Management. The Millennium Edition*. Prentice Hall International, Inc.
- Kristensen, Kai, Hans Jorn Juhl and Peder Ostergaard (2001), "Customer Satisfaction: Some Results for European Retailing," *Total Quality Management*, Vol. 12, No. 7 & 8, pp. 890-897.
- Levesque, T. and McDougall, G.H.C. (1996), "Determinants of customer satisfaction retail banking", *International Journal of Bank Marketing*, Vol. 14 No. 7, pp. 12-20.
- Macintosh, G., & Lockshin, L. S. (1997), "Retail relationships and loyalty: A multi-level perspective", *International Journal of Research in Marketing*, 14(5), 487-497.
- Mohr, Jakki and Robert Spekman (1994), "Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques", *Strategic Management Journal*, Vol. 15, pp 135-152.
- Moorman, Christine, Gerald Zaltman, and Rohit Deshpandé (1992), "Relationships between Providers and Users of Market Research: The Dynamics of Trust within and between Organizations", *Journal of Marketing Research*, Vol. 29, pp 314-328.
- Morgan, Robert M. and Shelby D. Hunt. (1994), "The Commitment-Trust Theory of Relationship Marketing", *Journal of Marketing*, Vol. 58, pp 20-38.
- Oliver, M. (1997), "Processing of the satisfaction response in consumption: A suggested framework and research

proposition." Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour, Vol. 2, pp 1-16

- Peter, J. P., Olson. J. C. (1996), "Consumer behavior and marketing strategy, Irwin, Chicago", IL. 4th Edition p. 509.
- Reichheld, F. F.; Markey, R. G.; Hopton, C.(2000), "The loyalty effect – the relationship between loyalty and profits", European Business Journal, pp 134–139.
- Reichheld, F.F. and W.E. Sasser (1990), "Zero Defections: Quality Comes to Service," Harvard Business Review, Vol. 68, No. 5, pp 105-111.
- Reichheld, F.F.(1996), "The Loyalty Effect", Harvard Business School Press, Boston, MA.
- Reinartz, W. J. & Kumar, V. (2003). "The Impact of Customer Relationship Characteristics on Profitable Lifetime Duration" Journal of Marketing, Vol. 67(1), pp 77-99.
- Rowley, J., & Dawes, J. (2000), "Disloyalty: A closer look at non-loyals", Journal of Consumer Marketing. Vol. 17(6), pp 538-549.
- Rust, R.T., A.J. Zahorik, and T.L. Kleiningham (1995), "Return on Quality (ROQ): Making Services Quality Financially Accountable," Journal of Marketing, Vol. 59, No. 2, pp58-70.
- Schurr, Paul H. and Julie L. Ozanne (1985), "Influences on Exchange Processes: Buyer's Preconceptions of a Seller's Trustworthiness and Bargaining Toughness", Journal of Consumer Research, Vol. 11, pp 939-953.
- Shapiro, 1987] Shapiro, Susan. (1987), "Social Control of Impersonal Trust", The American Journal of Sociology, Vol. 93(3), pp 623-658.
- Sheth, N. J., & Parvatiyar, A. (1995), "Relationships marketing in consumer markets: antecedents and consequences", Journal of Academy of Marketing Science, Vol. 23(4), pp 255-271.
- Smith, J. Brock and Donald W. Barclay (1993), "Team Selling Effectiveness: A Small Group Perspective", Journal of Business-to-Business Marketing, Vol. 1 (2).
- Szeinbach, S. L., Barnes, J. H., & Garner, D. D. (1997), "Use of pharmaceutical manufacturers' value-added services to build customer loyalty", Journal of Business Research, Vol. 40(3), pp 229-236.
- Torbica Z.M. and R.C. Stroh (2001), "Customer Satisfaction in Home Building", Journal of Construction Engineering and Management, pp. 82-86.
- Tse, David K.and Peter C. Wilton (1988), "Models of Consumer Satisfaction Formation: An Extension" Journal of Marketing Research, Vol. 25, pp 204-212.
- Wilson, David T. (1995), "An Integrated Model of Buyer-Seller Relationships", Journal of the Academy of Marketing Science, Vol. 23 (4), pp 335-345.
- Wong and Kanji, (2001), "Measuring customer satisfaction: evidence from Hong Kong retail banking industry", Total Quality Management, Vol 12 (7), pp 939-949.

Annexure

Table 1: Consistency Measure of Believability

Items	Computed correlation value	Consistency	Accepted/Dropped
1. Purchase again	0.560133	Consistent	Accepted
2. Safe transaction	0.385439	Consistent	Accepted
3 Friendly staff	0.557464	Consistent	Accepted
4. Individual attention	0.611268	Consistent	Accepted
5. Personnel attention	0.538119	Consistent	Accepted
6 Trust	0.601134	Consistent	Accepted
7. Reference to others	0.65288	Consistent	Accepted
8. Good for me	0.647754	Consistent	Accepted
9. Good feeling	0.563336	Consistent	Accepted
10 Something missing in life	0.529705	Consistent	Accepted
11 Fulfill the promise	0.581615	Consistent	Accepted

Table 2: Reliability Statistics of Believability

Cronbach's Alpha	No. of Items
.796	11

Table 3: Statistics of Factor Analysis of Believability

Factor name	Eigen value		Variable convergence	Loading value
	Total	% of Variance		
1. Personnel attention	3.634	33.033	5. Personnel attention 4. Individual attention 3 Friendly staff 11 Fulfill- the promise 6. Trust	0.819 0.747 0.589 0.583 0.504
2. Emotional Belief	1.453	13.209	7. Reference to others 8. Good for me 9 Good feeling 10 Emotional attachment with store	0.790 0.762 0.740 0.575
3. Safety	1.311	11.923	1. Purchase again 2. Safe transaction	0.824 0.758

Table 4: Consistency Measure of Satisfaction

Items	Computed correlation value	Consistency	Accepted/Dropped
1 Overall Good	0.717751	Consistent	Accepted
2. Satisfied with Quality	0.688999	Consistent	Accepted
3. Satisfied with Price	0.717878	Consistent	Accepted
4. Right Suggestion	0.738732	Consistent	Accepted
5. Satisfied with Guarantee	0.711585	Consistent	Accepted
6. Satisfied with Expertise	0.688119	Consistent	Accepted
7. Fast Response	0.712260	Consistent	Accepted
8. Satisfied with Services	0.693042	Consistent	Accepted
9. Right Time Service	0.720778	Consistent	Accepted
10. Fulfill Promises	0.714681	Consistent	Accepted
11. Good Quality	0.674706	Consistent	Accepted
12. Satisfied	0.717737	Consistent	Accepted

Table 5: Reliability statistics of satisfaction

Reliability Statistics	
Cronbach's Alpha	N of Items
.909	12

Table 6: Statistics of Factor Analysis of Satisfaction

Factor name	Eigen value		Variable convergence	Loading value
	Total	% of Variance		
1. After Sales Service	6.022	50.180	7. Fast response	0.783
			9. Right time service	0.770
			10. Fulfill promises	0.750
			8. Satisfied with services	0.714
			12. Satisfied	0.651
			1. Overall good	0.543
2. Satisfaction with features of store	1.112	9.267	11 Good quality	0.471
			2. Satisfied with quality	0.791
			3. Satisfied with price	0.768
			5. Satisfied with guarantee	0.762
			6. Satisfied with expertise	0.670
4. Right suggestion	0.666			

Table 7: Consistency Measure of CRM

Items	Computed correlation value	Consistency	Accepted/Dropped
1 Identifies customer types	0.430325	Consistent	Accepted
2. Service performance measurement of employee	0.589364	Consistent	Accepted
3. Good communication strategy	0.688541	Consistent	Accepted
4. Retains customer	0.635955	Consistent	Accepted
5. Environment meets customer needs	0.560191	Consistent	Accepted
6. Simplified procedures	0.56627	Consistent	Accepted
7. Understands customer value	0.676363	Consistent	Accepted
8. Excellent service	0.543714	Consistent	Accepted
9. Good relationship with customer	0.691771	Consistent	Accepted
10. Stored customer information	0.647983	Consistent	Accepted
11. Resolves complaints	0.642004	Consistent	Accepted
12. Two way communication	0.663159	Consistent	Accepted
13. Survey for customer need	0.596512	Consistent	Accepted

Table 8: Reliability Statistics of CRM

Reliability Statistics	
Cronbach's Alpha	N of Items
.859	13

Table 9: Statistics of Factor Analysis of CRM

Factor name	Eigen value		Variable convergence	Loading value
	Total	% of Variance		
1. Customer Relation	4.920	37.850	3. Good Communication Strategy	0.720
			4. Retains Customers	0.701
			10. Stored Customer Information	0.701
			13. Survey for Customer Need	0.662
			9. Good Relationships with Customer.	0.577
			7. Understands Customers' Value	0.521
			12. Two way Communication	0.470
2. Problem resolution	1.0322	1.168	8. Excellent Service	0.901
11 Resolves complaints			0.620	
3. Environment convenience	1.080	8.305	5 Environment meets the customers' needs	0.819
6 Simplified procedures			0.812	
4. Customer Research	1.001	7.701	1 Identifies customer types	0.837
2 Service performance measurement of employee			0.628	

Table 10: Consistency Measure of Customer Loyalty

Items	Computed correlation value	Consistency	Accepted/Dropped
1 Out of way to purchase	0.613912	Consistent	Accepted
2. Loyal to store	0.608353	Consistent	Accepted
3. More purchases	0.731194	Consistent	Accepted
4. Feeling to purchase	0.618699	Consistent	Accepted
5. Every time purchase	0.675059	Consistent	Accepted
6. Little different from other stores	0.651525	Consistent	Accepted
7. Fast response	0.723823	Consistent	Accepted

Table 11: Reliability Statistics of Customer Loyalty

Reliability Statistics	
Cronbach's Alpha	N of Items
.783	7

Table 12: Statistics of Factor Analysis of Customer Loyalty

Factor name	Eigen value		Variable convergence	Loading value
	Total	% of Variance		
1. Loyal in Purchasing	3.076	43.940	4. Feeling to purchase	0.821
			3. More purchase	0.791
			7. I like to purchase	0.680
			5 Every time purchase	0.642
2. Loyal by Emotion	1.173	16.752	2 Loyal to store	0.848
			1 Out of way to purchase	0.809
			6 Little different feeling from other stores	0.471



FINANCIAL INCLUSION: A NEW WAVE OF MICRO FINANCE INITIATIVE FOR POVERTY ERADICATION AND ECONOMIC DEVELOPMENT

Ranganatham.G*

ABSTRACT

More than 150 million poor people have access to collateral-free loans. However, there are still large sections of the world population that are excluded from the financial services market. In India half of the poor are financially excluded from the country's main stream of banking sector. Still in India 22 per cent of people are living below the poverty line. Their monthly income is less than \$1 per day and they are living in most un-liveable conditions. Due to all, in recent years the term "Financial Inclusion" has acquired a lot of attention from experts and policy-makers of the country. On the other hand, India, as an economy, has been growing at the rate of about 8 per cent per annum for the last few years which is considered a very good growth rate. More and more Indian companies are trying to enter in the list of Fortune 500 and one of our Indian entrepreneurs appears in the list of the top five richest persons of the world. There is a considerable inequality between the two extreme classes of people. The present paper discusses about tackling this disparity between people by ways of financial inclusion through micro finance models and it also analyses how that leads to the economic development of a country.

Key Words: Financial Inclusion, SHGs, MFIs, Index of Financial Inclusion (IFI), Micro Finance, Poverty Alleviation, Economic Development.

INTRODUCTION

The causality between economic growth, financial deepening and financial inclusion has been well recognized in India's development strategy, particularly since the reforms of the early 1990s. However, an accelerated effort through targeted interventions has been a more recent story. The Eleventh Five Year Plan (2007-12) of the Government of India has further emphasized the initiatives on financial inclusion with its greater focus on 'inclusive' growth. Inclusive growth and, as a part of it, greater financial inclusion, is desired both from the equity as well as the efficiency angles. The sheer magnitude of the excluded in India (with absolute exclusion of about 52 per cent of the farmer households) and its extreme variations between regions make the task monumental. At the same time with such large numbers being 'outside' the growth process, sustainability of growth becomes doubtful. This calls for a multi-agency, multi-pronged approach with novel schemes.

Financial Inclusion: An Overview

More recently, the term financial inclusion has gained argument among professionals. 'Financial inclusion' focuses attention on the need to bring previously excluded people under the umbrella of financial institutions. 'Financial inclusion' has not replaced 'microfinance' as an operational concept. Financial inclusion is the most useful frame of reference for considering how poverty might be reduced through provision of financial services. Microfinance remains the most potent weapon available for reducing financial exclusion. Financial inclusion is delivery of banking services at an affordable cost to the vast sections of the disadvantaged and low income groups. Unrestrained access to public goods and services is the sine qua non of an open and efficient society. As banking services are in the nature of public good, it is essential that availability of banking and payment services to the entire population without discrimination become the prime objective of public policy.

"The process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost" **The Committee on Financial Inclusion, (Chairman: Dr. C. Rangarajan, 2008).**

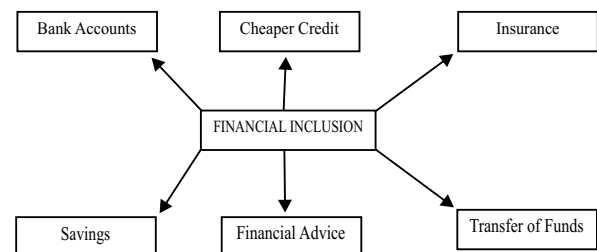


Fig 1: An overview of Financial Inclusion Services

Objectives of the Study

- To review the present status of the financial inclusion in India in particular and the world in general.
- To highlight the measures taken by the Government of India and RBI for promoting financial inclusion.
- To highlight how the micro finance models are useful to increase financial inclusion.

Methodology of the Study

Secondary research was conducted to review the present status of financial inclusion in India. Data has been collected from the websites of the Reserve Bank of India and Banking and Finance and also data has been taken from various committee reports submitted to Government of India on Financial Inclusion.

Status of Financial Inclusion in India

The financially excluded sector in India consists largely of marginal farmers, landless laborers, self employed small vendors (hawkers), unorganized sector enterprises, urban slum dwellers, migrants, ethnic minorities, senior citizens and women. About 36 percent of the Indian population lives

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on less than \$1 per day. According to the recommendations of the Committee on Financial Inclusion, 51.4 percent of farming households in India are financially excluded from both formal and informal sources of credit, and only 27 percent of total farming households have access to formal sources of credit. This situation is worse in the Central, Eastern and North Eastern regions where 64 percent of farmer households are financially excluded (NABARD 2008).

Table 1: Status of Financial Inclusion in India

Category of farmer house hold	Size class of land hold (Ha)	Total Farmer households (lakhs)	Non indebted Farmer households (lakhs)	Incidence of Exclusion (formal & informal sources in percentages)	Proportion of non-indebted households in percentages
Marginal	< 1	589.06	324.04	55.0	70.6
Small	1.01 – 2.0	160.60	78.68	49.0	17.1
Semi Medium	2.01 – 4.0	93.50	39.10	41.8	8.5
Medium	4.01 – 10	42.58	14.84	34.9	3.2
Large	10.0 +	7.76	2.60	33.6	0.6
All Sizes		893.50	459.26	51.4	100

Source: C.Rangarajan Committee Report on Financial Inclusion

According to C.Rangarajan Committee on Financial Inclusion, 73 per cent of Indian households are not indebted to formal financial institutions. The small and marginal farmers, agricultural laborers, artisans and the members of scheduled tribes are the worst victims of financial exclusion. Table 1 presents the incidence of financial exclusion both from formal and informal services and the proportion of non-indebted households belonging to various categories. The above table shows that 51.4 per cent of all categories of households are still financially excluded.

Table 2: Major Milestones in Financial Inclusion in India

Year	Major Milestones
1969	Nationalization of Banks
1971	Establishment of Priority Sector Lending Banks
1975	Establishment of Regional Rural Banks
1982	Establishment of NABARD
1992	Launching of the Self Help Groups Bank Linkage Programme
1993	Establishment of Rashtriya Mahila Kosh
1998	NABARD sets a goal for linking one million SHGs by 2008
2000	Establishment of SIDBI Foundation for Micro Credit
2005	One million SHF linkage target achieved three years ahead of date
2006	Committee on Financial Inclusion
2007	Proposed Bill on Micro Finance Regulation introduced in Parliament
2008	Committee submitted its final report on Financial Inclusion to Union Finance Minister in January 2008

Financial Inclusion – Ranks of different countries

The ranks from first position to hundredth of different countries in case of financial inclusion are published by Indian Council for Research on International Economic Relations, New Delhi. According to this report, India has been ranked poorly, even below African countries like Kenya and Morocco; in the first ever index of financial inclusion. India had been placed at the 50th spot, much above Russia but

below China, in the index of financial inclusion (IFI). This index assumes significance in the Indian economy as one of the major goals of the 11th Five-Year Plan is to work for financial inclusion and extend the reach of micro finance to meet credit needs of approximately 80 per cent of the population not directly covered by banks.

Micro Finance and Financial Inclusion

The concept of financial inclusion is evolving and builds on the ideas of microcredit and

microfinance. Microcredit is the provision of small loans to poor people to assist in the development of small-scale businesses ('micro-enterprises') to address poverty and exclusion. Microfinance is the provision of a wider array of financial services including credit, savings and deposit services, payments, transfer services and insurance products. The microfinance industry has seen fundamental transformations in recent years. The industry has moved away from 'one size fits all' modes of service delivery towards models that are more targeted towards meeting the varied demands of the poor. New regions are embracing inclusive financial services, including those with difficult-to-reach populations and post-conflict areas. New technology has improved the potential for financial services to reach the poor on a sustainable basis. Yet there is still more to be done before the financial services industry reaches its true potential. While the private sector is expanding in the microfinance sector, donors can and should play a catalytic role in the development of the sector.

The role of microfinance in the upliftment of financial inclusion

For decades, conventional financial institutions all over the world overlooked the poorer segments of the market due to the high cost of small transactions. However, the emergence of microfinance over the past two decades in most developing countries has shown that poor clients can be served despite the higher transaction cost. The Monterrey Consensus adopted in 2002 by numerous countries at the International Conference on Financing for Development explicitly recognized that "microfinance and credit for micro, small and medium enterprises; as well as national savings

schemes, are important for enhancing the social and economic impact of the financial sector” (Conroy 2008). This statement reflects the belief that microfinance strategies that embrace savings, deposits, remittances, micro insurance and pensions, are among the most powerful tools available for reducing financial exclusion. Prof. Yunus, Head of the Rural Economics Program at the University of Chittagong,

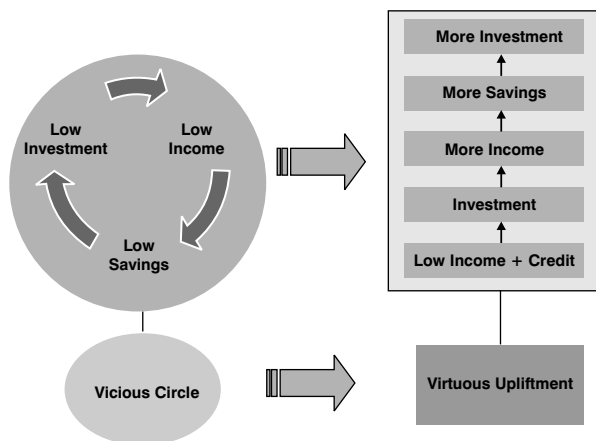


Figure 2: Upliftment of Vicious Circle to Virtuous Circle

project to assess the possibility of designing a credit delivery system to provide banking services targetted at the rural poor in 1976.

The financially excluded population has to rely on the informal sector (money lenders) for availing finance at a comparatively higher rate. This leads to a vicious cycle. First high cost of finance implies that the poor person has to earn much more than someone who has access to lower cost finance. Second, a major portion of the earnings is paid to the money lender thereby the person can never come out of poverty. Here, the microfinance is considered as a vital tool to break the vicious circle of poverty that is characterized by low income, low savings and low investment. In order to generate higher incomes, savings and more investment, there is need to inject capital in the form of microfinance (Figure 2), but microfinance is not a panacea to all the problems of poverty. Here we should recall the role of MFIs. Micro finance institutes are of utmost importance for financial inclusion, as these institutions connect with the people constituting the lowest strata of the society. Banks hesitate in targeting these people with no credit history and therefore, the role of MFIs increases. More than 50 per cent of Indian people still do not have any bank account and MFIs can help in solving this problem. Although MFIs do face the problem of funding but now various fund managers and professional investors (PEs) are considering investment in MFIs.

Financial Inclusion through Micro Finance Models

Banks, NGOs and MFIs can be used by the Government for financial inclusion in the country in different ways. For

example, NGOs and MFIs can work as agents to help poor open accounts in banks. Banks can introduce 'no-frill accounts for the purpose'. A poor man cannot afford to lose half a day's wages or business to operate banking transactions and MFIs or SHGs can help them for the same. Banks do not have such a large number of trained staff who can be properly utilized under different schemes of financial inclusion and MFIs can also help in this arena. For the example, RBI, Jharkhand has initiated a scheme with students of different educational institutes where different groups of students visit nearby villages voluntarily with bank officials to spread financial literacy among the masses. Financial literacy and product innovation are the need of the hour if microfinance extends its reach and delivers on goal of financial inclusion in India and only MFIs can do that.

The Government of Rajasthan has laid out a road map to boost financial inclusion in the state with a three track approach, which can become a guiding line for other states also. First, encouraging existing and new MFIs through financing and capacity building with supportive regulatory regime; second, allowing incentives by existing financial institutes like banks to provide micro finance and lastly building a strong demand system in the form of community based development financial institutions.

Some initiatives started by commercial banks towards financial inclusion

Indian Bank: The bank has established an exclusive microstate branch at Chennai for financial inclusion of lower income people who are who are also migrants from villages, settled in different parts of the city, by bringing a large number of under privileged persons into the banking fold through the concept of SHGs. In the case of SHGs, a line of credit is provided to them giving flexibility, with simplified accounting procedures. The bank proposes to open one more such specialized branch in Chennai and in 10 other metros and urban centers across the country.

Union Bank of India – Village Knowledge Centers: Keeping in view the urgent requirement to educate the rural inhabitants and farmers in particular, for updating them with the latest technological developments, a pioneering effort has been initiated by Union Bank of India by establishing Village Knowledge Centers (VKCs) at strategic rural locations. So far, the bank has established 198 VKCs all over the country.

Pragathi Gramin Bank, Bellary, Karnataka (sponsor: Canara Bank)

The achievements of Pragathi Gramin Bank include:

- 628 villages covered with 100 per cent financial inclusion.
- 8,26,173 families of SHG members financially included
- Two out of seven districts served by the Bank have 100 per cent inclusion.
- The RRB plans to cover one million families by March 2008.



Pilot Project in Andhra Pradesh: Andhra Pradesh Government has embarked on a pilot project with six banks, viz., SBI, SBH, Andhra Bank, Union Bank, UTI Bank and AP Gramina Vikas Bank, to make payments of social security pensions and AP Rural Employment Guarantee Scheme. This helps 50,000 beneficiaries in six Mandals of Warangal District through the use of business correspondents and contact-less smart card / mobile technology. The state proposes to set up the project to cover the nearly five million beneficiaries of the entire state in due course.

Bank of India's 'Abhay' Credit Counselling Centre: The Credit Counselling services were started under the aegis of the Trust 'Abhay' which was launched at the hands of his Excellency Ex President of India Dr.A.P.J. Abdul Kalam at New Delhi on August 25, 2006. The first centre was inaugurated at Mumbai by Dr.Y.V.Reddy, Governor, Reserve Bank of India on September 7, 2006 which was followed by centers at Wardha in Nagpur and Chennai.

Problems and Challenges

- Since independence, the Government had been dependent on its machinery first and then, after nationalization, on banks to reach the poor. But government machinery suffered all the demerits of bureaucracy and corruption and hence, failed miserably.
- Banks also could not succeed in reaching the poor society because of many reasons. First, most of the Indian Banks were in government hands till the late nineties. Their employees were working for a 'salary', not for the achieving the 'national target'.
- Second, banks have to follow certain rules which sometimes create bottlenecks in their targets of reaching the poor. For example, no bank will give a cheque book or ATM facility to a poor man unless he has a minimum of Rs.1000 in his account; which means if a poor man opens a bank account, he still remains in the 'stone age'.
- Third, financial literacy is very low in India. Forget about BPL people, even the educated urban population is financially illiterate. Many college going students still cannot write cheques and a major part of white collar working class people need consultants to fill simple income tax returns.
- Fourthly, due to financial illiteracy, most of the people do not maintain proper records or books of accounts. This leads to the removing of these people from the financial services of the banks. For example, for getting a loan from the bank we need to submit tax returns to banks, but it's not possible for financially illiterate people. Due to this, they are avoided as part of the financial system.
- There is a lack of convergence between the Government and financial sector institutions.

Some of the other barriers include:

- Little coordination of efforts among the different

stakeholders of financial inclusion

- Lack of livelihood opportunities for the majority of the financially excluded population
- Low level of literacy (financial and literary)
- Shortage of human resources trained in microfinance
- Disconnect in efforts between State Governments and the Central Government
- Resistance of bank branch managers to cooperate with MFIs and NGOs
- Little availability of loan funds from banks and financial institutions and capacity building support for MFIs and NGOs
- Corruption
- Unreliable electricity supply
- Scarce public transportation in rural areas

Regional imbalances in the financial inclusion process are quite visible and there is a need for the microfinance movement to the broad based to make the financial inclusion more meaningful and inclusive.

Initiatives taken by GOI and RBI

The Indian Government has been trying hard to remove poverty since independence. Banks were nationalized and a lot of government schemes were introduced for the upliftment of the poor, especially for the rural poor. Banks started a number of rural branches to provide seed capital to farmers and others so that they could be saved from the clutches of private money lenders and start their small employment oriented business. Since 1947, the Government of India had taken on the job of removing poverty using banks, government machinery and its officials which ultimately failed miserably. Even then, the ex Prime Minister of our country, the late Rajiv Gandhi had accepted that only 10 to 15 paise out of one rupee reaches the poor. Recently, Congress MP Sri Rahul Gandhi has stated this as 5 paise instead 15 paise. This huge quantum of corruption has ensured that poor remain poor and the rich become richer.

The Government of India and the Reserve Bank of India has now realized that uniform financial inclusion is an essential component of overall economic growth. The Reserve Bank of India has designed specific schemes for broadening the access of rural credit to the rural poor. The Reserve Bank of India has introduced the innovative concept of "No Frills Account" which is related with opening of a bank account with "nil" or very low balance. All Scheduled Commercial Banks have reported to have introduced the "No Frills Account" scheme. The Reserve Bank of India has devised plans for the elaborate use Information and Communication Technology (ICT) as a tool for the spread of financial inclusion.

Summing Up

Access to financial services such as savings, insurance and remittances are extremely important for poverty alleviation and development. In order to achieve the goal of total

financial inclusion, policymakers, banks, MFIs, NGOs and regulators have to work together. In addition to cooperating with other stakeholders, policymakers who believe that microfinance can help them to speed up financial inclusion in their respective countries should fund financial education programs that allow their citizens to realize the economic potential of microfinance. Basic financial literacy programs can help achieve better results in poverty alleviation.

To sum up, banks need to redesign their business strategies to incorporate specific plans to promote financial inclusion of low income groups treating it both a business opportunity as well as a corporate social responsibility. They have to make use of all available resources including technology and expertise available with them as well as the MFIs and NGOs. Financial inclusion can emerge as a commercial profitable business. Only the banks should be prepared to think outside the box!

References:

1. Bhaskaran, R. (2006) "Financial Inclusion: What Needs to be Done?" Readings on Financial Inclusion, Published by IIBF& Taxmann, New Delhi.
2. Chakrabarthy, K.C., (2006) "Indian Bank: A Case Study on

Financial Inclusion", Readings on Financial Inclusion, Published by IIBF & Taxman, New Delhi.

3. Jeet Singh., Preety Yadav., (2009) "Financial Inclusion: Tools and Measures", Knowledge Hub, Vol.5, No.2, July-December.
4. Kamath, Rajalaxmi. (2007) "Financial Inclusion vis-à-vis Social Banking", Economic and Political Weekly, New Delhi.
5. Manas Pandey, (2009) "Micro-Finance: An Instrument for Poverty Alleviation: A Study on Eastern Uttar Pradesh in India" The Indian Journal of Commerce, April-June.
6. Manoj Pillai., (2010) "Social Banking in India: Myths and Realities", The Management Accountant, ICWAI, Vol.45, No.3, March 2010.
7. Ranganatham.G, and Hasmukh Savlani., (2010) "Assessment of Social Entrepreneurship: A Case Study of Grameen Bank in Bangladesh", SEDME, Vol.31, No.1, March 2010, Pp27-40.
8. Satish, D. "Financial Inclusion – Taking Banking to the Masses", Professional Banker, Vol VI, Issue 12, IUP, Hyderabad.





IMPACT OF STRESS ON IT AND ITES EMPLOYEES IN COIMBATORE CITY

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ABSTRACT

Modern age is an age of stress and strain. Fast changing trends are taking place in the various spheres of human life due to the advancement of science and technology. These changes test the capabilities of human beings to cope, to the maximum. In certain occupation categories like Information Technology (IT) professionals, doctors, defence personnel and manager, the level of stress is more and telling. To avoid stress and strain, the most healthy work environment is needed. By successful suppression of stress, an employee can contribute considerably to the successful functioning of the Institution where he works by bringing out the best in himself. Thus one can help oneself, one's institution and finally one's country and the economy of the country. Hence, researchers decided to study the impact of stress on IT and ITES employees in Coimbatore city. Coimbatore city is the third largest city in the state of Tamil Nadu. It is famous for the ITES industry growth over a period of 100 years. Further, these industries are in support of the growth of other industries. Hence the researchers have chosen the Coimbatore city. The researchers have made an in depth study on the organizational factors leading to stress, individual factors leading to stress and the social factors leading to stress. As this study is descriptive one in nature, it is based on primary data. Finally the researchers have come out with some suggestions based on the findings for the better performance of the personnel in this sector after successfully curbing the stress makers.

Key words: Stress, IT, Social Factors, IT Industries

INTRODUCTION

The twenty first century and the new millennium are supposed to be an Age of Stress. Rapid changes have been happening at a faster rate during the past one hundred years on the earth ; faster than ever before. This is because of the advancement of science and technology and fast changes are taking place in various spheres of human endeavor like health, education, environment, work, family, entertainment, travel and the like. These changes place a very high demand on the coping-capabilities of people on earth. Stress is greater for certain occupational categories, like IT professionals, defence personnel, surgeons, physicians, managers and the like.

Stress is a big problem in our society. Seventy five percent of bodily disease is said to be stress-related. Stress in general and organizational stress in particular is a universal and frequently disabling human phenomenon. Stress arising at work has a detrimental effect on the behaviour of people, which ultimately results in personal and organizational inefficiency. Job stress can be described as a condition where job related factors interact with the worker to change (disrupt / enhance) his or her psychological or physiological condition, so that the person's mind and/or body is forced to deviate from its normal way of functioning.

The phenomenon of stress is highly individualistic in nature. Each individual under his optimum level of stress will perform to the full capacity. If the stress experienced is below the optimum level, then the individual gets bored, motivational level to work reaches a low point and apathy sets in, and the individual psychologically and physiologically tends to withdraw from work. If on the other hand, if stress factors in an individual's environment are too many or too intense, their effects on performance will again be adverse.

Stress is the adaptation of our bodies and minds to change. In a world where it seems the only constant left in the workplace is change, it comes as no surprise that work has become universally stressful. The IT industry, which is a part of the new economy, is a young industry as evident from the background of the ITES workforce that is very young in age. This youthful profile has two implications, both positive and negative. On the positive side it can be said that the ITES employees are energetic and enthusiastic and at a dynamic peak of their career. The flip side of this age profile is that software companies have a high rate of employee turnover. The IT profession is one of the most stressful jobs because of various reasons like continuous updating, health reasons, the lack of leisure time, high workload, limited time for target completion and the like.

Because of the pervasiveness of stress in all aspects of work, the attainment of the most healthful work environment is much in need. This requires an understanding of the types of physical and psychological stress factors in the work environment, and their interaction with individual characteristics so that interventions may be formulated for the reduction of these stress factors in the work place, thus ensuring greater efficiency at workplace and improved well-being of the employees.

Coimbatore, a prominent industrial city in the state of Tamil Nadu, is famous for the ITES industry growth over a period of 100 years. The textile and engineering industries are the principal industries in Coimbatore over a long period of time. The advancement in the industry requires more design and software. Hence, the IT industries in Coimbatore are more supportive to the growth of other industries. As many as 20 prominent IT and ITES companies are located in Coimbatore

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city. In the late 1990s, the IT industry came into existence in Coimbatore and has made tremendous growth in the last decade. The stress levels among the ITES employees are extremely high. Hence, an attempt has been made by the researcher to study job stress among the employees of the ITES companies in Coimbatore city. The findings of the study will pave the way to reduce the job stress and help to improve the productivity of the employees.

Statement of the Problem

Coimbatore, the third largest city in Tamil Nadu is an industrial centre. Textile and engineering industries are prominent industries in the city. The IT industry in Coimbatore has highly contributed to the growth of the industrial development of the city. The experience of stress at the workplace is an important area of investigation, because of the ITES potential effects on the well-being and productivity of the individuals. The importance of research into stress processes has been made clear by increasing evidence of the negative consequences of stress on physical and mental health. It is basically an organizational problem necessitating an in-depth study of the nature and magnitude of the relations of organizational stress factors in the work environment. An understanding of the effect of stress on the performance of employees is bound to help in the organization of work to suit employees' requirements, which will necessarily result in employees' revised attitude towards work. The stress levels among the ITES employees is high, due to a heavy workload, difficulty in completing the target in time, continuous updating and frequent training, lack of leisure time and so on. The stress levels differ from person to person depending upon their individual and organizational climates. Stress levels have a greater influence on the productivity of employees. In this context, the researchers study the individual and the organizational factors of ITES employees leading to stress. The findings of the study will try to reduce the stress levels of ITES employees.

Objectives of the Study

The following are the specific objectives of the study:

1. To analyze the organizational factors leading to stress among the employees of the ITES in Coimbatore city.
2. To study the individual factors leading to stress among the employees of ITES in Coimbatore city.
3. To study the social factors leading to stress among the employees of ITES in Coimbatore city and
4. To offer a summary of findings, suggestions for improvement and conclusion.

Scope of the Study

This study covers the stress levels among the employees of the ITES in Coimbatore city. It does not cover the other personnel aspects of the ITES like wages and salary administration. The study is confined to the ITES in Coimbatore city only and is not extended to other places, even though ITES are spread all over the nation.

Methodology

This study is descriptive in nature and is mainly based on primary data. The data for review of literature and theoretical background of the study were collected from magazines, journals, articles, reports and records. Internet sources have also been used to collect the data. The primary data for the analysis are collected from the employees of the ITES in Coimbatore city. To collect the primary data, 100 samples were selected among medical transcriptionists and call centre employees in different offices in Coimbatore city. The convenient method of sampling was applied to select the sample respondents. The data for analysis were collected with the help of questionnaires. The questionnaires were distributed among the employees of the call centers and the medical transcription centers and they were requested to fill in the questionnaires. The primary data was collected by the researchers themselves. On the spot discussions were also made with the officials of the call centers and the medical transcription centers to know the impact of stress relieving programmes. The collected data was properly edited in order to delete unwanted data. The edited data was duly coded and classified alphabetically and numerically. The data were tabulated in order to make it ready for analysis. To analyze the data, percentages and averages were used to substantiate research findings. Garret's Ranking Technique was applied to rank the reasons for job stress among the employees of the ITES. Attribute scoring was applied to know the level of opinion of ITES employees on various attributes. Chi-square test was also used to test the relation between the overall job stress and age, monthly income and experience. The data was collected from January to March 2010.

Analysis and Interpretation of Data

The results of the analysis of the collected data are presented under different heads.

Table 1: Age of the Sample Respondents

Sl. No.	Age Group	Number of Respondents	Percentage
1.	below 25 years	67	67
2.	25 – 35 years	23	23
3.	above 35 years	10	10
	Total	100	100

Source: Primary Data

It is inferred from table 1 that two thirds of the total sample of respondents belong to the age group of less than 25 years. Twenty three sample respondents belong to the age group between 25 and 35 years. Ten sample respondents belong to the age group of 35 and above. As the ITES industry is more attractive to the younger age group of persons, most of the sample respondents fall below 25 years of age. As the ITES industry is of recent origin, it is not suitable for middle aged and aged persons.

Table 2 : Gender of The Sample Respondents

Sl. No.	Gender	Number of Respondents	Percentage
1.	Male	68	68
2.	Female	32	32
	Total	100	100

Source: Primary Data

It is revealed from table 2 that 68 out of the 100 sample respondents are male. The remaining sample respondents are female in gender. As the nature of the ITES job in Coimbatore is shift based and a 24 hour job, a lower number of female members prefer such a job.

Table 3 :Marital Status of the Sample Respondents

Sl. No.	Marital Status	Number of Respondents	Percentage
1.	Married	16	16
2.	Unmarried	84	84
	Total	100	100

Source: Primary Data

It is revealed from table 3 that 16 out of the 100 sample respondents are married. The remaining sample respondents are unmarried. The reason is that two thirds of the total sample respondents belong to the age group of less than 25 years.

Table 4: Educational Qualifications of the Sample Respondents

Sl. No.	Educational Qualification	Number of Respondents	Percentage
1.	School	10	10
2.	Graduate	67	67
3.	Post Graduate	18	18
4.	Technical	5	5
	Total	100	100

Source: Primary Data

It is revealed from table 4 that 10 out of the 100 sample respondents have school education only. There are 67 graduates in the sample respondents. The sample respondents include 18 postgraduates. The remaining five sample respondents have technical qualifications. Most of the sample respondents are graduates, because the ITES industry requires "knowledge workers". Knowledge of English and computer proficiency are a must for these types of jobs. So workers with other technical qualifications are less among sample respondents.

Table 5: Monthly Income of the Sample Respondents

Sl. No.	Monthly Income	Number of Respondents	Percentage
1.	less than Rs. 15,000	60	60
2.	Rs. 15,000 to Rs. 30,000	35	35
3.	above Rs. 30,000	5	5
	Total	100	100

Source: Primary Data

It is revealed from table 5 that 60 out of the 100 sample respondents earn less than Rs.15,000 per month. The monthly income of 35 sample respondents are Rs.15,000 to Rs.30,000. The remaining five sample respondents earn a monthly income of above Rs.30,000. Most of the sample respondents fall under the monthly income group of less than Rs.15,000, because the average monthly salary of the ITES employees in Coimbatore city is less than Rs.15,000.

Table 6: Family Size of the Sample Respondents

Sl.No.	Family Size	Number of Respondents	Percentage
1.	Less than 3 members	12	12
2.	3 to 6 members	83	83
3.	Above 6 members	5	5
	Total	100	100

Source: Primary Data

It is revealed from table 6 that 12 out of the 100 sample respondents are from families which have less than three members. The family size of 83 sample respondents is three to six members. The family size of the remaining five sample respondents is above six. As most of the sample respondents belong to the age group of below 25, they are not married and are living with their parents. So the family size of most of the sample respondents falls in the group of three to six members. Nowadays, since the family size is becoming smaller and smaller, a minimum number of sample respondents fall in the group of above six members.

Table 7: Experience of Sample Respondents

Sl. No.	Experience	Number of Respondents	Percentage
1.	less than 3 years	65	65
2.	3 to 6 years	27	27
3.	6 to 9 years	5	5
4.	above 9 years	3	3
	Total	100	100

Source: Primary Data

It is revealed from table 7 that the experience of 65 sample respondents out of 100 fall under the group of less than three years. Twenty-seven sample respondents have three to six years' experience. Five sample respondents have six to nine years' experience. The remaining three sample respondents have an experience of above nine years. As the ITES industry is a new industry and the employees in this industry are of a low age group, most of the sample respondents have less than three years' experience. The middle aged and aged persons do not prefer this job. So there are only three sample respondents, who have experience of above nine years.

Table 8: Awareness of the Diseases Caused by Job Stress of Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	25	25
2.	Agree	28	28
3.	Fair	35	35
4.	Disagree	10	10
5.	Strongly Disagree	2	2
	Total	100	100

Source: Primary Data

It is understood from table 8 that 25 out of 100 sample respondents strongly agree to the fact that they are aware of the diseases caused by job stress. The agreed level of opinion is witnessed among 28 sample respondents towards this fact. Thirty-five sample respondents have experienced a fair level of opinion that they are aware of the diseases caused by job stress. Ten sample respondents have the feeling that they are not aware of the diseases caused by job stress. Two sample respondents strongly support this fact. By applying attribute ranking, it is found that the overall level of opinion of the sample respondents is "agree" as the average score is 3.64.

Table 9: Frequency of Job Stress of the Sample Respondents

Sl. No.	Frequency	Number of Respondents	Percentage
1.	Daily	40	40
2.	Weekly	15	15
3.	Monthly	15	15
4.	Rarely	30	30
	Total	100	100

Source: Primary Data

It is understood from table 9 that 40 out of 100 sample respondents are suffering from job stress daily. Fifteen sample respondents are suffering from job stress weekly. Fifteen sample respondents are suffering from job stress monthly. Thirty sample respondents are suffering from job stress rarely. Most of the sample respondents are suffering from job stress daily because of a heavy workload, low salary, health problems and the like.

Table 10 : Unpleasant Working Conditions of the Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	5	5
2.	Agree	20	20
3.	Fair	50	50
4.	Disagree	17	17
5.	Strongly Disagree	8	8
	Total	100	100

Source: Primary Data

It is understood from table 10 that five out of 100 sample respondents strongly agree to fact that the present working conditions are unpleasant. The agreed level of opinion is witnessed among 20 sample respondents towards this fact. Fifty sample respondents have experienced a fair level of opinion of the fact that the present working conditions are unpleasant. Seventeen sample respondents have the feeling that the present working condition are not unpleasant. Eight sample respondents strongly support this fact. By applying attribute ranking, the over all level of opinion of the sample respondents is "fair", as the average score is 2.97.

Table 11: Impact of Working In Shifts on Job Stress of the Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	20	20
2.	Agree	40	40
3.	Fair	30	30
4.	Disagree	8	8
5.	Strongly Disagree	2	2
	Total	100	100

Source: Primary Data

It is understood from table 11 that 20 out of 100 sample respondents strongly agree to the fact that they have to work on shifts which causes job stress. The agreed level of opinion is witnessed among 40 sample respondents towards this fact. Thirty sample respondents have experienced a fair level of opinion of the fact that they have to work in shifts which causes job stress. Eight sample respondents have the feeling that working on shifts does not cause job stress. Two sample respondents strongly support this fact. By applying attribute ranking, it is found that the over all level of opinion of the sample respondents is "agree", as the average score is 3.68.

Table 12: Impact of Continuous Work In Computers on Job Stress of the Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	25	25
2.	Agree	62	62
3.	Fair	5	5
4.	Disagree	7	7
5.	Strongly Disagree	1	1
	Total	100	100

Source: Primary Data

It is understood from table 12 that 25 out of 100 sample respondents strongly agree to the fact that continuous work in computers leads to job stress. The agreed level of opinion is witnessed among 62 sample respondents. Five sample respondents have experienced a fair level of opinion on the fact that continuous work in computers leads to job stress.

Seven sample respondents have the feeling that continuous work in computers does not lead to job stress. One sample respondent strongly supports this fact. By applying attribute ranking, it is found that the over all level of opinion of the sample respondents is "agree", as the average score is 4.03.

Table 13: Impact of Supervision Techniques on Job Stress of The Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	12	12
2.	Agree	45	45
3.	Fair	30	30
4.	Disagree	9	9
5.	Strongly Disagree	4	4
	Total	100	100

Source: Primary Data

It is understood from table 13 that 12 out of 100 sample respondents strongly agree to the fact that supervision techniques pose job stress. The agreed level of opinion is witnessed among 45 sample respondents. Thirty sample respondents have experienced a fair level of opinion on the fact that the supervision techniques pose job stress. Nine sample respondents have the feeling that the supervision techniques do not pose job stress. Four sample respondents strongly support this fact. By applying attribute ranking, it is found that the over all level of opinion of the sample respondents is "agree", as the average score is 3.52.

Table 14: Impact of Time Pressure on Job Stress of the Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	15	15
2.	Agree	70	70
3.	Fair	12	12
4.	Disagree	2	2
5.	Strongly Disagree	1	1
	Total	100	100

Source: Primary Data

It is understood from table 14 that 15 out of 100 sample respondents strongly agree to the fact that time pressure on their work causes job stress. The agreed level of opinion is witnessed among 70 sample respondents. Twelve sample respondents have experienced a fair level of opinion on the fact that time pressure on their work causes job stress. Two sample respondents have the feeling that time pressure on their work does not cause job stress. One sample respondent strongly supports this fact. By applying attribute ranking, it is found that the over-all level of opinion of the sample respondents is "agree", as the average score is 3.96.

Table 15: Impact of Continuous Updating and Technological Advancement on Job Stress of the Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	5	5
2.	Agree	22	22
3.	Fair	42	42
4.	Disagree	29	29
5.	Strongly Disagree	2	2
	Total	100	100

Source: Primary Data

It is understood from table 15 that five out of 100 sample respondents strongly agree to the fact that continuous updating and technological advancement lead to job stress. The agreed level of opinion is witnessed among 22 sample respondents towards this fact. Forty-two sample respondents have experienced a fair level of opinion on the fact that continuous updation and technological advancement lead to job stress. Twenty-nine sample respondents have the feeling that continuous updation and technological advancement do not lead to job stress. Two sample respondents strongly support this fact. By applying attribute ranking, it is found that the over all level of opinion of the sample respondents is "fair", as the average score is 2.99.

Table 16: Impact of Orders and Commands of Boss on Job Stress of The Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	20	20
2.	Agree	50	50
3.	Fair	22	22
4.	Disagree	6	6
5.	Strongly Disagree	2	2
	Total	100	100

Source: Primary Data

It is understood from table 16 that 20 out of 100 sample respondents strongly agree to the fact that orders and commands of the boss lead to job stress. The agreed level of opinion is witnessed among 50 sample respondents. Twenty-two sample respondents have experienced a fair level of opinion on the fact that orders and commands of the boss lead to job stress. Six sample respondents have the feeling that orders and commands of the boss do not lead to job stress. Two sample respondents strongly support this fact. By applying attribute ranking, it is found that the over all level of opinion of the sample respondents is "agree", as the average score is 3.8.

Table 17: Impact of Travelling on Job, Stress of the Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	Strongly Agree	5	5
2.	Agree	30	30
3.	Fair	20	20
4.	Disagree	40	40
5.	Strongly Disagree	5	5
	Total	100	100

Source: Primary Data

It is understood from Table 17 that five out of 100 sample respondents strongly agree to the fact that tedious travelling from their houses to offices poses a job stress. The agreed level of opinion is witnessed among 30 sample respondents. Twenty sample respondents have experienced a fair level of opinion on the fact that tedious travelling from their houses to office poses a job stress. Forty sample respondents have the feeling that tedious travelling from their houses to office does not pose a job stress. Five sample respondents strongly support this fact. By applying attribute ranking, it is found that the overall level of opinion of the sample respondents is "fair", as the average score is 2.9.

Table 18: Overall Stress Level of the Sample Respondents

Sl. No.	Opinion	Number of Respondents	Percentage
1.	High	20	20
2.	Average	72	72
3.	Low	8	8
	Total	100	100

Source: Primary Data

It is revealed from table 18 that 20 out of 100 sample respondents have a high level of job stress. Seventy-two sample respondents have an average level of job stress. Eight sample respondents have a low level of job stress. The ITES jobs are very repetitive in nature. So the overall stress level of most of the sample respondents is "average".

Chi-square Analysis

In order to test the null hypothesis that there is no relationship between the age and the overall job stress of the sample respondents, Chi-square test was applied. As the calculated value of 7.22 is lower than the table value of 9.49 at 5 per cent level at 4 degrees of freedom, the null hypothesis is accepted. Hence, it is confirmed that there is no relationship between the age and the overall job stress of the sample respondents.

In order to test the null hypothesis that there is no relationship between the monthly income and the overall job stress of the sample respondents, Chi-square test was applied. As the calculated value of 35.69 is higher than the table value of 9.49 at 5 per cent level of significance at 4 degrees of freedom, the null hypothesis is rejected. Hence, it is proved that there is

relationship between the monthly income and the overall job stress.

In order to test the null hypothesis that there is no relationship between the experience and the overall job stress of the sample respondents, Chi-square test was applied. As the calculated value of 24.008 is higher than the table value of 12.6 at 5 per cent level of significance at 6 degrees of freedom, the null hypothesis is rejected. Hence, it is proved that there is relationship between the experience and the overall job stress.

Garret's Ranking Analysis

In order to rank the most influencing reason for the job stress of the sample respondents, Garret's Ranking Technique was used. Table 19 reveals the mean scores of various reasons.

Table 19: Mean Scores of Various Reasons

Sl. No.	Reasons	Mean Score	Rank
1.	Heavy workload	67.73	I
2.	Difficulty in completing work on time	51.61	II
3.	Low salary	56.25	III
4.	Health problems	41.24	IV
5.	Problem of continuous updating	38.27	V
6.	Lack of experience	28.27	VI
7.	Poor working conditions	20.55	VII

Source: Primary Data

It is inferred from table 19 that a heavy work load is the most important reason for job stress of the sample respondents with a mean score of 67.73. The second and third important reasons are low salary and difficulty in completing the work in time with a mean score of 56.25 and 51.61 respectively. Health problems are ranked at four and are followed by problems of continuous updation at the fifth rank and lack of experience at the sixth rank. Poor working conditions scored a minimum mean score of 20.55 and is ranked last.

Suggestions

1. The employees of the ITES industry in Coimbatore feel that their workload is heavy which ultimately leads to job stress. In order to avoid heavy workload, they should be given manageable workloads .
2. Break in between the jobs, stress relaxation programmes, non-pressure environment and relationship between employees and management should be improved to reduce job stress.
3. The employees must be provided with proper and frequent healthcare check ups by the organization as they are working with computers for a long period of time.

Conclusion

Rising workplace stress is a large albatross hanging around the necks of workers and employers. According to recent studies of the subject by the US Department of Labour, the



American Psychological Association, there was a 20.3 per cent increase in job absences caused by anxiety, stress and neurotic disorders. Stress affects morale, productivity and safety. Developing a healthy workplace can pay off in reversing this trend. Inviting employees to have a say about their work environment in an honest and open fashion can change the workplace culture and reduce stress. Other successful management practices include improving communication, increasing staff members for decision making, offering job scheduling, encouraging breaks and working in team toward a common goal and leadership and professional development opportunities. Providing such services as language classes, childcare, on site flu shots or health screening and tuition reimbursement programmes also help balance work-life issues thus reducing stress.

The IT industry has been steering the growth of the Indian economy in the past decade like no other industry. The growth of the IT industry is largely on account of the ITES human resource advantage. The IT industry is a critical industry, where human resources are of great strategic advantage to the companies. Coimbatore, the third largest city of Tamil Nadu, is one of the most industrial cities, known as the textile capital of South India. Coimbatore has so far incubated more than 100 IT companies. The city is home to Asia's largest IT enabled services company employing over 1000 people under one roof. These companies have been able to scale up their operations successfully.

The study finds that the majority of the sample respondents are of a younger age group, unmarried, male and graduates. The study also reveals that a majority of the sample respondents earn a monthly income of less than Rs.15,000 and they are from small families. Their experience in the job is less than 3 years. The study also finds that the jobs in the ITES industry is stressful in nature because of repetitiveness, lack of prior planning, lack of leisure time, imbalanced diet, difficulty in completion of work on time, working in late night shifts, supervision techniques and so on. But most of the sample respondents like their jobs. The family, stress relaxation techniques and entertainment facilities in the city help reduce job stress of the sample respondents. The study also finds that there is significant relationship between income and job stress as well as experience and job stress. But there is no significant relationship between age and job stress.

Ever increasing job stress in the ITES industry is a matter of serious concern, as mostly young persons occupy the industry. Hence efforts must be taken by the government, organizations and individuals to reduce job stress by various mechanisms. This will ultimately protect the ITES industry, the largest contributor of the national income and the young employees, who are the earners of huge income in society.

References

- Ahmad, S. James, J. and Atimad S. (1991), "Organizational Role Stress, A Psychological Study of Middle Managers", *Journal of Personality and Clinical Studies*, Vol.7, No.1, pp.43-48.
- Anitha Devi (2006) "Occupational Stress: A Comparative Study of Women in Different Occupations", *Prajhan*, Vol. XXXV, No. 1, June, pp.61-74.
- Kumar, Satish Chandra (1997), "Stress, Strain and Coping Styles among Air Hostesses", *Udyog Pragati*, Vol. XXI, No.1, January-March, pp.30-35.
- Lakhwindar Singhkang and Rahbir Singh (2000) "Stress at Work: An Assessment of the Magnitude of Various Organizational Stressors", *Indian Journal of Industrial Relations*, Vol. 42, No.2, October, pp.191-199.
- Mandira Bhatta Charya (Sen) and SSha (2006), "Stress in the Organizational Context", *The ICFAI Journal of Organizational Behavior*, January, Vol. V, No.1, pp.33-40.
- Natarajan, (2000), "Mental Stress", *HRD Times*, Vol. 8, No.10, October, p.40.
- Prabhu (2005) "Occupational Stress", *HRD Times*, March, pp.13-15.
- Rajaram (2005), "To Reduces Stress", *HRD Times*, July, Vol. 7, No.7, pp.35-36.
- Rajeshwari, T. R. (1992), "Employee Stress, A Study with Reference to Bank Employee", *Indian Journal of Industrial Relations*, Vol. 27, No.4, pp.419-429.
- Satish C. Pandey (1998), "A Study of Relationship between Personality Dimensions and Organizational Role Stress in a Public Sector Organizational", *Indian Journal of Industrial Relations*, Vol. 33, No. 4, April, pp.506-513.
- Satish Chandra Kumar (2005), "Occupational Stress in Bure Accuracy: Stress, Strain and Coping Strategies", *Udyogprapa Gati*, Vol.29, No.2, April-June, pp.1-9.
- Sethuraman (2000) "Stress", *HRD Time*, Vol. 5, No. 2, February, pp.36-38.
- Srivastav AK (2005), "Role Stress Across Management Levels in an Organization", *The ICFAI Journal of Organizational Behavior*, Vol. IV, No.1, January, pp.53-63.
- Urmi Nandan Biswas (1998) "Lite-style Stressors", *Indian Journal of Industrial Relations*, Vol.34, No.1 July, pp.5-65.
- Yuvaraj .S (1999), "Stress; Good, Bad and the Ugly", *Udyogpragati*, Vol. XXXIII, No. 1, January-March, pp.10-14.
- <http://www.cde.gov/nioslt/stresswic.html>
- <http://www.workhealth.org/>
- <http://www.stress.org.uk>
- <http://www.managingstress.com>
- www.stressmanagement.com



CASH MANAGEMENT OF ENGINEERING GOODS INDUSTRY IN PUNJAB: AN EMPIRICAL ANALYSIS

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ABSTRACT

The present study investigates the cash management of the engineering goods industry in Punjab using the panel data set for the period 2002-2006. The adequate and timely flow of cash determines the success of an industry. The present study also finds the positive association of sales with cash. In the present study, an attempt has been made to present an in depth analysis of cash management of the engineering goods industry with the object to find out the practice and performance in maintaining cash balances. A majority of the units borrow at a higher rate of interest at the time of shortage of cash. Auto parts, electrical goods, machine tools, screw valves units have value over and above the average. There is a significant effect of sales on the cash at a 99% level of significance, as 56 percent dependency of cash on the sale has been found.

Keywords: Cash management, Goods industry, Performance

INTRODUCTION

Cash is the lifeblood of every enterprise. The main objective of cash management is to maintain equilibrium between liquidity and profitability of an undertaking. Moreover, another important function which nowadays attains emphasis is to maximize profits by investing the surplus cash in some marketable securities. Thus, cash management 'inferred as an art of or capacity for maneuverability of optimum utilization of cash resources for a firm with a view to maximizing profits without endangering its liquidity position or reputation. In this chapter, an attempt has been made to present an in depth analysis of cash management of the engineering goods industry with the object to find out the practices and performance in maintaining a cash balance.

Objectives of the Study

The main objective of the present study is to examine the working capital management in the engineering goods industry in Punjab. However, the pinpoint objectives of the study are as follows;

- i). To examine the effectiveness of cash management practices of the engineering goods industries in Punjab.
- ii). To know the association of cash with sales.
- iii). To make suggestions and develop strategies for effective cash management and to prescribe remedial measures to encounter the problems faced by the industry.

Hypotheses of the Study

On the basis of the above mentioned objectives, the following hypotheses in the context of the engineering goods industry in Punjab have been developed.

- i). Proper management of cash improves liquidity and profitability position.
- ii). There is a significant relationship between cash and sales.

Source of Data

The data for the study has been collected through interviews with respondents, personal observations and occasional informal discussions. However, the experience in the

collection of primary data was not so encouraging. Various secondary sources from where data has been collected for the present, mainly the secondary data was collected from the official reports of the Directorate of Industries, various magazines, journals, books, websites and newspapers.

Sample Size

According to the Directorate of Industries, Punjab, the engineering industry of Punjab has been divided into 8 codes. It is evident from table 1 that eleven groups of engineering units have been selected out of 3951 registered units for present study. Sample units are selected mainly out of code number 28, 29, 31, 34. An intensive and comprehensive survey of industry has been conducted for the last five years. On the basis of concentration of engineering units in the selected districts, proportionate sample has been drawn from the four selected districts of the study state namely; Ludhiana, Jalandhar, Amritsar and Kapurthala, as more than eighty per cent of the engineering goods units are concentrated in these districts only by applying multistage sampling.

Table 1. Sample Size : Product wise

Code No.	Products	Total	Sample Products	Total
28	Metal products	1158	Screw valves	21
	steel furniture, safe, hand tools,		Steel furniture	2
	nut bolts agricultural implements		Hand tools	6
	hardware items, utensils		Pipe fittings	5
29	Machine except electrical goods radiators, investors, combines etc. machine tools, parts accessories of non electrical machines	1349	Machine & machinery parts	17
			Machine tools	15
31	Electrical goods	152	Electrical goods	12
34	Motor vehicles' & Trailers' parts	458	Rail components	18
			Motor vehicles	8
35	Bicycle parts, auto parts	834	Cycle parts	12
			Auto parts	34
	Total	3951		150

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Tools of Analysis

Apart from using simple arithmetical tools like percentage, simple growth, compound growth and average growth, the statistical techniques like arithmetic mean, standard deviation, co-efficient of variance, linear regression analysis and test of significance (t-test & X² – test) have also been used. Various accounting and statistical tools which have been used in the present study are discussed in brief such as Ratio Analysis and Statistical Tools Standard Deviation, its Co-efficient of Variation, Linear Regression Analysis, trend Indices and Coefficient of Correlation and simple mathematical tools like; percentage, simple average and compound growth rate have also been used.

Results and Discussion

Shortage of Cash

Cash is the blood of an organisation and shortage of cash would be a hurdle in the smooth working of an organization. To know the liquidity position of concern, sample units were asked whether they felt a shortage of cash. Almost all the concerns have been facing the shortage of cash (table 2). Almost two fifth of the respondents of a selected unit (44.67%) feel shortage of cash occasionally, whereas 34 per cent have reported shortage of cash frequently and 21.33 per cent feel shortage of cash very frequently.

Half of the units mainly engaged in cycle parts, hand tools, electrical goods, motor vehicles and steel furniture and more than two-fifths of the units engaged in machine tools (46.67%), rail components (44.44%), screw valves, (42.86%), auto parts and machine and machinery parts each 41.18% report shortage of cash occasionally. To sum up, all the units have reported shortage of cash. No significant difference between the mean values of different units has been found by applying Fisher's test.

Table 2 Shortage of Cash

Responses Units	Very frequently	Frequently	Occasionally	Total
Auto parts	8 (23.53)	12 (35.29)	14 (41.18)	34 (100)
Cycle parts	2 (6.67)	4 (33.33)	6 (50.00)	12 (100)
Machine and machinery parts	2 (11.76)	8 (47.06)	7 (41.18)	17 (100)
Hand tools	1 (16.67)	2 (33.33)	3 (50.00)	6 (100)
Rail components	4 (22.22)	6 (33.33)	8 (44.44)	18 (100)
Electrical goods	2 (16.67)	4 (33.33)	6 (50.00)	12 (100)
Pipe fittings	1 (20.00)	2 (40)	2 (40.00)	5 (100)
Automobiles	2 (25)	2 (25.00)	4 (50.00)	8 (100)
Machine tools	4 (26.67)	4 (26.67)	7 (46.67)	15 (100)

Screw valves	6 (28.57)	6 (28.57)	9 (42.86)	21 (100)
Steel furniture	-	1 (50)	1 (50)	2 (100)
Total	32 (21.33)	51 (34.00)	67 (44.67)	150 (100)
F value	0.126	P value	0.999	

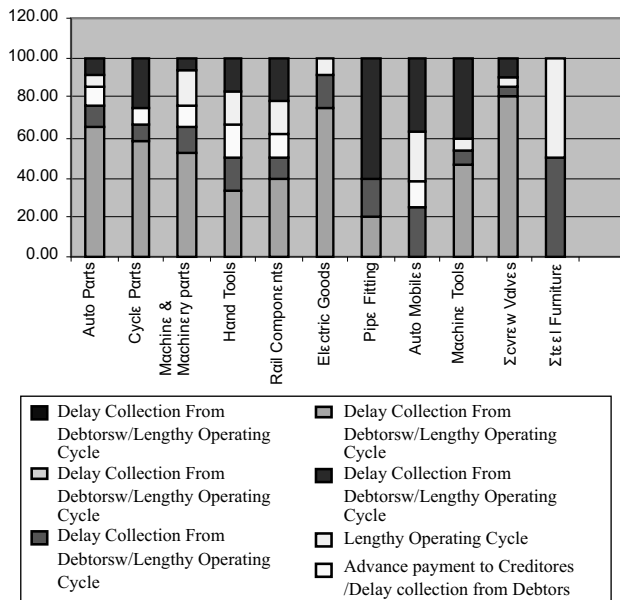
Reasons for shortage of cash

There are many factors that affect the liquidity position of a concern. Some factors are like delay in collection from debtors, advance payment to creditors and lengthy operating cycles. Almost more than half of the (55.33%) units have reported shortage of cash due to delay in collection from debtors whereas, 16 per cent are facing shortage of cash due to delay in collection (Table 3). Delay in collection from debtors has been assigned the reason for shortage of cash mainly by the units engaged in screw valves (80.95%), electrical goods (75%), auto parts (64.71%), cycle parts (58.33%). Hence, it can be summed up that majority of the units consider delay in collection from debtors the main reason for shortage of cash.

Table 3 Reasons for Shortage of Cash

Responses Units	Delay collection from debtors	Advance payment to creditors	Advance / Delay collection	Lengthy operating cycle	Delay Collection /Lengthy	Total
Auto parts	22 (64.71)	4 (11.76)	3 (8.82)	2 (5.88)	3 (8.82)	34 (100)
Cycle parts	7 (58.33)	1 (8.33)	1 (8.33)	-	3 (25.00)	12 (100)
Machines & machinery parts	9 (52.94)	2 (11.76)	2 (11.76)	3 (17.65)	1 (5.88)	17 (100)
Hand tools	2 (33.33)	1 (16.67)	1 (16.67)	1 (16.67)	1 (16.67)	6 (100)
Rail components	7 (38.89)	2 (11.11)	2 (11.11)	3 (16.67)	4 (22.22)	18 (100)
Electrical goods	9 (75.00)	2 (16.67)	-	1 (8.33)	-	12 (100)
Pipe fittings	1 (20.00)	1 (20.00)	-	-	3 (60.00)	5 (100)
Automobiles	-	2 (25.00)	1 (12.50)	2 (25.00)	3 (37.50)	8 (100)
Machine tools	7 (46.67)	1 (6.67)	-	1 (6.67)	6 (40.00)	15 (100)
Screw, valves	17 (80.95)	1 (4.76)	-	1 (4.76)	2 (9.52)	21 (100)
Steel furniture	2 (100)	-	-	-	-	2 (100)
Total	81 (55.33)	17 (11.33)	10 (6.67)	14 (9.33)	26 (16.00)	150 (100)

Table 3, can understand with the help of the following diagram.



Automobiles	1 (12.50)	4 (50.00)	0 (0.00)	3 (37.50)	0 (0.00)	8
Machine tools	4 (26.67)	9 (60.00)	0 (0.00)	2 (13.33)	0 (0.00)	15
Screw	5 (23.81)	8 (38.10)	3 (14.29)	4 (19.05)	1 (4.76)	21
Steel furniture	1 (50)	0 (0)	1 (50)	0 (0)	2 (100)	2
Total	39 (26.00)	81 (54.00)	6 (4.00)	19 (12.67)	4 (2.67)	150

Cash to sales ratio

Cash to sales ratio of different units has ranged between 6 per cent and 9 per cent (Table 5). Mean cash to sales ratio was found maximum in hand tools units (24 per cent) and minimum in cycle parts units (2 per cent). It is evident from the table that cash to sales ratio of motor vehicles and steel furniture units has declined during the period under study, which shows the efficiency as far as cash management is concerned.

In contrast, cash to sales ratio in pipe fitting (9%), auto parts (5%), cycle parts (3%), machines & machinery parts (5%), hand tools (11%), electrical goods (9%), machine tools (8%), screw valves (15%) has increased during the period under study, thus showing inefficiency as far as cash management is concerned. Coefficient of variation lies between 51 per cent in 2002-03 to 63 per cent in 2006-07.

Impact of shortage of cash

Shortage of cash affects the concern in a different way. Table 4 throws light on this direction. It is evident from the table that in the event of shortage of cash, 54 percent units have borrowed at a higher rate of interest whereas 12.67 per cent units could not grab the business opportunities as a result of a shortage of cash. Further, 70 per cent units engaged in rail components, (66.67%) 60 per cent, each in hand tools, pipe fittings, motor vehicles, 58.82 percent in auto parts, 50 per cent each in cycle parts and electrical goods, have borrowed at higher rate of interest to meet the shortage of cash. Hence, it can be summed up that a majority of the units borrow at a higher rate of interest at the time of shortage of cash.

Table 4 : Impact of Shortage of Cash

Indus-tries	Resp-ones	Emer-gency	Borro-wing at higher rate of interest	Losing the discount or early payment	Losing the business	Forced curta- ilment of product	Total
Auto parts	9 (26.47)	20 (58.82)	2 (5.88)	1 (2.94)	2 (5.88)	34	
Cycle parts	5 (41.67)	6 (50.00)	0 (0.00)	1 (8.33)	0 (0.00)	12	
Machinery	6 (35.29)	7 (41.18)	0 (0.00)	4 (23.53)	0 (0.00)	17	
Hand tools	2 (33.33)	4 (66.67)	0 (0.00)	0 (0.00)	0 (0.00)	6	
Rail components	2 (11.11)	14 (77.78)	0 (0.00)	2 (11.11)	0 (0.00)	18	
Electrical goods	4 (33.33)	6 (50.00)	1 (8.33)	0 (0.00)	1 (8.33)	12	
Pipe fittings	1 (20.00)	3 (60.00)	0 (0.00)	1 (20.00)	0 (0.00)	5	

Table 5 Cash to Sales Ratio

Units	Years	2002-03	2003-04	2004-05	2005-06	2006-07	Mean	C. G
Auto parts		0.05	0.05	0.04	0.04	0.05	0.05	-3.87
Cycle parts		0.03	0.02	0.02	0.02	0.05	0.03	11.44
Machines & machinery parts		0.04	0.05	0.04	0.06	0.06	0.05	13.74
Hand tools		0.06	0.10	0.09	0.06	0.25	0.11	27.27
Rail components		0.08	0.07	0.09	0.09	0.11	0.09	8.28
Electrical goods		0.05	0.10	0.11	0.08	0.10	0.09	12.27
Pipe fittings		0.06	0.08	0.07	0.11	0.12	0.09	20.04
Automobiles		0.08	0.10	0.09	0.08	0.07	0.08	-6.62
Machine tools		0.07	0.07	0.11	0.08	0.09	0.08	5.32
Screw valves		0.16	0.16	0.13	0.12	0.17	0.15	-1.44
Steel furniture		0.07	0.08	0.08	0.08	0.03	0.07	-15.51
MEAN		0.07	0.08	0.08	0.08	0.10	0.08	
S.D.		0.03	0.04	0.03	0.03	0.06		
C.V.		51.08	45.42	42.86	38.58	63.87		

Cash to Current Assets Ratio

Cash to current assets ratio of the units under study varies between 19 per cent to 0.25 per cent (Table 6) and was found highest in the case of rail components (52 %) and lowest in the case of hand tools (9%) units. The mean value of cash to current assets ratio has increased from 24 per cent in 2002-03 to 31 per cent in 2006-07 . In motor vehicles units, the share of cash to current assets has declined from 23 per cent in 2002-03 to 18 per cent in 2006-07 whereas the share of cash to current assets of steel furniture has also declined significantly from 44 per cent to 15 per cent. Share of cash in current assets ratio has increased in hand tools (27%), rail components (26%) , electrical goods (19%), machine tools (12%) and screw valves (21%) , machine & machinery parts (27%), cycle parts (15%) and auto parts (23%) during the period under study. Coefficients of variation have been found between 20 per cent in 2002-03 to 41 per cent in 2006-07.

Table 6 Cash to Current Assets Ratio

Years	2002-03	2003-04	2004-05	2005-06	2006-07	Mean	C. G
Auto parts	0.22	0.23	0.22	0.22	0.25	0.23 18.8	1.75
Cycle parts	0.17	0.13	0.12	0.10	0.21	0.15	2.36
Machine & machinery parts	0.17	0.13	0.12	0.10	0.21	0.15	2.36
Hand tools	0.11	0.12	0.09	0.13	0.14	0.12	6.08
Rail components	0.17	0.27	0.23	0.15	0.53	0.27	18.59
Electrical goods	0.22	0.23	0.29	0.28	0.28	0.26	6.78
Pipe fittings	0.16	0.25	0.19	0.17	0.20	0.19	0.75
Automobiles	0.20	0.28	0.24	0.32	0.35	0.28	12.83
Machine tools	0.23	0.28	0.28	0.23	0.18	0.24	-5.80
Screw valves	0.23	0.21	0.27	0.22	0.22	0.23	-0.36
Steel furniture	0.23	0.21	0.27	0.22	0.22	0.23	-0.36
MEAN	0.19	0.21	0.21	0.19	0.25	0.21	
S.D.	0.04	0.06	0.07	0.07	0.10		
C.V.	20.82	28.44	33.82	36.66	41.44		

Cash Cycle

Cash cycle of sample units shown by table 7 reveals an increasing trend . Average cash cycle has increased from 24 days in 2002-03 to 30 days in 2006-07. Pipe fitting has the maximum compound growth rate of 19.30 per cent as its cash cycle increased from 20.17days in 2002-03 to 31.76 days in 2006-07 followed by machine and machinery parts, wherein, the cash cycle increased from 13.5 days in 2002-03 to 17.91 days in 2006-07 with a compound growth rate of

13.99 per cent . Cash cycle of electrical goods has increased from 18.38 days in 2002-03 to 17.91 days in 2006-07 with a compound growth rate of 13.99 per cent in comparison to hand tools where, the cash cycle has increased from 18.38 days to 17.91 days with a compound growth rate of 13.99 per. Cash cycle of auto parts, motor vehicles, screw valves, steel furniture has followed a declining trend with a negative growth rate which shows their poor liquidity.

Table 7 Cash Holding Period (in days)

Years	2002-03	2003-04	2004-05	2005-06	2006-07	Mean	C. G
Auto parts	18.76	18.36	15.5	15.80	17.08	17.10	-3.32
Cycle parts	9.79	7.914	7.23	6.35	16.92	9.64	9.13
Machine machinery parts	13.50	17.17	14.3	21.09	23.46	17.91	13.99
Hand tools	20.78	35.56	32	29.2	38.43	31.20	10.87
Rail components	29.03	26.88	33.5	31.46	31.38	30.45	3.17
Electrical goods	18.38	36.02	39.6	29.91	36.39	32.06	12.52
Pipe fitting	20.17	30.46	25.7	39.76	42.68	31.76	19.30
Automobiles	30.116	35.92	32.3	28.74	24.04	30.22	-6.51
Machine tools	26.74	25.97	40	30.67	32.33	31.14	5.61
Screw valves	57.27	57.08	46.9	45.17	61.54	53.59	-0.89
Steel furniture	26.43	28.85	28.5	27.652	11.41	24.57	-15.82
MEAN	24.63	29.10	28.68	27.80	30.51		
S.D.	12.54	12.81	12.15	10.59	14.26		
C.V.	50.92	44.02	42.35	38.10	46.73		

Regression analysis between cash and sales

To find the effect of sale on the cash, the regression analysis gives the following results:

Regression Equation of Y on X:

$$Y = 0.312 + .038X$$

$$\text{Standard Error} = (.155) + (.011) X$$

$$R^2 = 0.56$$

Table 8 shows value of 't' test = 3.384 with significance value 0.008, which is less than 0.05 and also less than 0.01. Thus, it can be said that there is significant effect of sale on the cash at 99% level of significance. R2 shows about 56% dependency of cash on the sale, thus showing a moderate correlation between cash and sales.

Hence, null hypothesis is rejected that there is no significant relationship between sales and cash. It has been observed that sales has increased proportionally at a faster rate as compared to cash.

Table 8 Regression Analysis between Cash and Sales

Variables		Average cash	Average Sales	
Units				
Auto parts		1.5	32.1	
Cycle parts		0.55	20.1	
Machine & machinery parts		0.23	4.73	
Hand tools		0.9	11	
Rail components		0.58	6.86	
Electrical goods		1.4	16.2	
Pipe fittings		0.25	2.83	
Motor vehicles		0.42	5.04	
Machine tools		0.9	10.5	
Screw valves		1.02	7.05	
Steel furniture		0.25	3.42	
Linear regression equation	r	R2	T value	Sig. value
Y = 0.312 + .038X	.748	.560	3.384	0.008

Conclusion

Half of the pipe fitting, steel furniture, auto parts and motor vehicles units apart from 26.67 percent machine tools and 23 percent screw valves units prepare cash budget on weekly basis, have an average above than overall average (22%). Half of the cycle parts, hand tools, electrical goods, automobiles and steel furniture units, 46.67%, machine tools, 44.44% rail components, 42.86% screw valves and 41.18% each of auto parts, machine and machinery parts units occasionally find shortage of cash. It has been found during the survey that almost all the units have reported shortage of cash. Majority of the units have assigned delay in collection from debtors for shortage of cash. Majority of the units borrow at a higher rate of interest at the time of shortage of cash. Auto parts, electrical goods, machine tools, screw valves units have value above the overall average. Overall highest percentage is of cash in current account (79.9%) as compared to other components of cash holding. Cash to current assets ratio of different units varies between 0.19 times to 0.25 times, with highest mean in the case of rail components (0.5255) and lowest in hand tools (0.09). There is a significant effect of sales on the cash at 99% level of significance, as 56 percent dependency of cash on the sale has been found.

Suggestions

- * Liquidity position of engineering industry is not satisfactory as analysed by applying different ratios. It has been observed that profit is declining in electrical goods units, pipe fittings due to decline in sale and bad liquidity position. Immediate attention is required if its quest is to turn the regular losses incurring unit into a profitable one.
- * It is suggested that, the units must adopt objective methods rather than intuitive methods for proper cash management in general and for cash planning and control in particular. For this, the relative blocking of cash in different bank accounts has to be mobilized and at the same time, it is also expected to follow the concept of raising term funds for meeting long term requirements and short-term funds to finance current assets.

- * Furthermore, cash inflows and outflows must be persistently regularized. Moreover, an overwhelming emphasis supposed to be on the availability of financial experts for due assistance of finance management.
- * It has been observed that generally engineering units have the problem of shortage of cash for its operational needs, which block the way of further growth. Therefore, it is suggested that the management should imitate a clear cut finance policy in this regard and the idle cash should be invested in short term securities. It is also recommended that for efficient operation of cash, consistency over its size should be maintained. Shorter periodical review of cash budget for taking immediate remedial action in a shorter time and for identification of real as well as erroneous causes responsible for any deviation ought to be sorted-out for such purposes in the long run.

References

Abdullah, Fuad A., & Wingender, John Multinational Cash Management Policies: A Survey. Paper presented at the meeting of the Midwest Finance Association, Chicago, March 19-22.

A.S. Dewing . (1953) The Financial Policy of Corporations ,The Ronald Press Co., New York,

Chabra. (1999) "Cash Management– An Overview" Management Accountant, Vol.34 ,No-3, pp.165-166 or 171.

Cheung, Shannon . (2004) "Cash Management for Foreign Investors" The China Business Review, 31(2), .pp. 34-37.

Collins, J. M., & Frankle, A. (1985), International Cash Management Practices of Large U.S. Firms. Journal of Cash Management, 5(4), pp.42-48.

Cooley, Philip L., & Pullen, Richard J. (1979) Small Business Cash Management Practices. American Journal of Small Business, 4(2), .pp.1-11.

Dr. Khurshid Ali . (1985) Financial Management ,Gulshan Publishers, Srinagar, Kashmir.

Eije, Henk von, & Westerman, Wim . (2002) Multinational Cash Management and Conglomerate Discounts in the Euro Zone. International Business Review, 11(4), .pp.453-464.

Grablowsky, Bernie J. (1978)Management of the Cash Position". Journal of Small Business Management, 16(3), 1, pp. 38-43.

Joshi F. N. (1977) Cash Management Prospective Principles Practices, 2nd edition, New Age International Publisher, New Delhi.

Kamath, R. R., Khaksari, S. Meier, H. H., & Winklepieck, J. Management of Excess Cash : Practices and Developments. Financial Management, 14(3), 1985, pp. 70-77.

Test, Kalona, Buckley, Adrian and Westerman, Wim. (1988) A Survey of Cash Management in the Netherlands – Part 2 : Liquidity management, netting, bank relationships and software systems. International Journal of Management, 15(3), pp.280-288 .

Wundisch, Karl .(1973) Centralized Cash Management Systems for the Multinational Enterprise, Management International Review, 13(6), . pp.43-5

Banerjee. B .(1982) Cash Management: A Practical Approach, The World Press Pvt. Ltd., Calcutta.,





GROWTH OF THE INSURANCE SECTOR IN INDIA: A POST PRIVATIZATION ANALYSIS

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ABSTRACT

The Indian insurance sector was operating under Government monopoly for a long period of time. The sector was one of the very few sectors, which was fully under Government control. During the nationalized era, the industry reported an unbroken trend of growth especially in the life segment but still the Indian insurance industry was far behind from that of the developed countries and even behind many developing countries. However, there have been various causes of insurance sector reforms; the need to achieve higher growth has been one of the important reasons. This paper attempts to know the significant change in the growth of the insurance sector (life and general) in the post-privatization period, if any. To analyze the growth achieved by the India's insurance sector in the first five-year post-privatization the study undertakes a pre- and post-privatization comparison and find the sector growing at a significantly high rate.

Keywords: insurance, privatization, insurance industry

INTRODUCTION

In India, insurance business started in the early 19th century (Kumar 2005). It was operating in private hands, until it was nationalized in the post independence period because of the on-going nationalization in the country. The life insurance sector was nationalized in 1956. Nationalization of life insurance sector was followed by the nationalization of general insurance business in 1973. It has been seen that India's insurance sector was doing well in private hands. Dr. C.D. Deshmukh, the then finance minister, argued that the state need not make out a case that the private sector had failed; there were many other grounds to justify the nationalization of Life Insurance sector of India (Plande 2003). During the nationalized era it also performed well and India became the country with the highest number of insurance policies in force. Further, the insurance companies provided a large amount of funds to the economy. The total investable fund of the Life Insurance Corporation (LIC), a monolith, was almost 8 per cent of the Gross Domestic Product (Ranade and Ahuja 1999). The Indian insurance sector, no doubt, made commendable progress during the nationalized era, but it was far behind that of the developed and even from many developing economies. The scope of the growth and development of the sector was very high, as the market was not efficiently tapped. Unavailability of suitable, attractive and tailor made plans, non-existence of unit linked policies, low percentage of insurable population covered, thin insurance density, low insurance penetration, under developed medical insurance and negligible pension plans made the arguments in favor of privatization of insurance sector more valid. It has been believed that the correction of the above-mentioned market weaknesses of India's insurance sector will certainly lead to higher growth. Further, when the other sectors of an economy are open because of wide-ranging inefficiencies, the insurance sector cannot survive in isolation. The activity of any segment of an organization affects, in varying degrees, the activity of every other segment (Stoner, et al., 1997).

Again, at a broader level, a large number of Public Sector Enterprises (PSEs) not only in India or developing countries but all over the world started showing up as inefficient, economically unviable and unproductive assets, which in turn not only created heavy stress ultimately on the public but also made a negligible contribution in the process of economic development. The continuous loss to the PSEs left the economies with no other option but to initiate economic reforms. This phenomenon led the world to economic reforms in the 1980s and 1990s (Ram Mohan 2001). These two factors viz. the scope of the growth of the insurance sector and the ongoing global trend of privatization (which also aims at reducing inefficiencies and seeking higher growth) resulted into the privatization of the Indian insurance sector. Therefore, the growth of the insurance sector has been one of the important objectives of India's insurance sector reform.

Competition is believed to bring a large coverage to population and spread of insurance (Rao 2000). As it has already been mentioned, before privatization, the sector market was not sufficiently tapped. Only 22 per cent of the insurable population had been covered by LIC before the reforms in the sector were started (Jha 1995). Therefore, it may be said that there was a high scope of growth. On the other hand, the insurance reforms in other countries have resulted in a higher growth of the sector. Taking note of all these market weaknesses of India's insurance sectors, underdevelopment of the same and international experiences of the insurance sector reforms, India's insurance sector was liberalized in 2000. Now the insurance sector has successfully survived and completed several years of reform. A natural question therefore arises; what happened to the growth of the insurance sector since the inception of privatization of the Indian insurance sector? To analyze the growth of the complete insurance sector the study takes two simple hypotheses, 1] that there is a significant association between privatization of the insurance

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sector and growth of the life insurance sector and 2] there is a significant association between privatization of the insurance sector and growth of the general insurance sector.

We must also consider the uniqueness of privatization of the Indian insurance sector or else the findings of the paper may be misleading. Generally, people relate privatization to the change in ownership of enterprise from public to private that may be selling, leasing or anyhow getting rid of PSEs. Nevertheless, in the case of privatization of its insurance sector, India only allowed the private sector to enter the industry and compete with the existing public sector insurance companies. India kept the public sector insurance companies untouched and no disinvestment was undertaken. The option India opted for, combined the benefits of both public sector and private sector and simultaneously avoided the drawbacks of the existence of either of the two in the absence of the other (public sector and private sector existing alone). The insurance sector in this way, generated competition without dismantling the PSEs. Therefore, privatization did not mean disinvestment.

Methodology

The study is concerned mainly with the growth of India's insurance sector in the post (insurance) privatization period of India. The study does a comparative study of the period before and after the privatization of the insurance sector in India and takes the period of 1995-96 to 1999-2000 as a pre-privatization period and 2000-2001 to 2005-2006 as a post-privatization period for this comparative study. To measure the significant differences in the pre-and post-privatization periods, we subject the mean of selected variables to a t-test. The study selects and analyzes different sets of variables for the two research questions undertaken. Five variables have been selected for the analysis of the growth of the life insurance sector, viz. number of new policy, total premium collection, life insurance penetration (life insurance premium as a percentage of GDP), life insurance density (life insurance premium per capita) and savings in insurance as a percentage of the total saving of the household sector in financial assets. For the analysis of the growth of the general insurance sector, four different variables have been selected viz. gross direct premium collection, net premium collection, general insurance penetration (general insurance premium as a percentage of GDP) and general insurance density (per capita general insurance premium). In this study, privatization means privatization of the insurance sector and privatization here does not mean disinvestment. That for comparison of pre- and post-privatization, the t-test has been used with the help of SPSS

t-test (matched paired observations) for test of significant difference

$$t = \frac{\bar{d} - 0}{S} \times \sqrt{n} \quad \text{or} \quad t = \frac{\bar{d} \sqrt{n}}{S}$$

\bar{d} = the mean of the difference

S = the standard deviation of the difference.

Value of S is calculated as follows:

$$S = \sqrt{\frac{(d - \bar{d})^2}{n - 1}} \quad \text{or} \quad \sqrt{\frac{d^2 - n(\bar{d})^2}{n - 1}}$$

Note : It is based on n-1 degree of freedom

Growth of Life Insurance Sector

The Oriental Life Assurance Company was the very first insurance company in India. Later the Bombay Life Insurance Company and Madras Equitable were founded in 1823 and 1829 respectively (Kumar 2005). The founding of these companies gives us the evidence of the starting of modern life insurance in India. During the 19th century, the growth of the life insurance sector in the country had been high because of the non-regulation of business and some other important reasons (IIOA 1953). From the very beginning, the life insurance business was operating under the private sector. After a long journey and after experiencing many ups and downs, the life insurance sector was nationalized on 1st September 1956 (Ranade and Ahuja 1999). An Act of Parliament formed LIC, and LIC took over the entire life insurance business of the country. Since then, LIC was enjoying a monopoly in the sector but at the same time, LIC did an excellent job in spreading insurance throughout the length and breadth of the country. However, the comparative growth remains low and this became the foremost reason of the privatization of the sector. Now the objective is the comparison of pre and post privatization growth of life insurance to know if any significant difference in the same has been recorded. In order to analyze the impact of privatization on the growth of the life insurance sector, the study will focus on the number of new policies issued and on total premium collection. Beyond a number of policies (new) and total premium collection, the study also takes life insurance penetration, life insurance density and saving of household sector in insurance as a percentage of the total savings of the household sector. To determine the significant difference if any in the pre- and post privatization period, the study subject is the mean of these five variables to t-test.

India's life insurance in pre-privatization period

Even after the economic reforms and financial deregulation of the country, the life insurance sector was fully nationalized and intact. Financial deregulation in India was started way back in 1992-93 but the life insurance sector of the country was waiting for such a reform. As we had already mentioned that the process was initiated in 1994 but during the period, the Government of India took no decisive action to materialize the recommendations of the Malhotra Committee Report. The table given below gives the figure of India's life insurance sector.

Table No. 1: Life insurance sector in India (pre-privatization)

Year	Number of policies (new) (in thousand)	Total premium collection (including renewable) (Rs.in crores)	Life Insurance penetration	Life Insurance density (US \$)	Savings in Life Insurance*
1995-96	11021	13844.28	1.29	5.00	10.40
1996-97	12268	17285.30	1.39	5.03	9.5
1997-98	13311	19252.07	1.90	6.20	10.60
1998-99	14844	22805.80	1.39	6.10	10.60
1999-00	17200	27224.42	1.77	7.60	11.20

Source: Compiled from various issues of Journals and Reports of IRDA

* = as % of total households, in financial assets

Performance of life insurance sector during the selected period before the privatization of the sector is given in the above table. The table number one shows that the number of policies (new) were 11021 thousand in 1995-1996, which increased to 12268 thousand in 1996-97 and to 13311 thousand in 1997-98. In 1998-99 it further increased to 14844 thousand and to 17200 thousand in 1999-2000. One can witness that there is a consistent increase in the number of new policies throughout this period of five years before privatization. There was a steady increase also in the total premium collection by the life insurance sector during the period. The total premium collection went to Rs. 17285.30 crores in 1996-97 from Rs. 13844.28 crores in the previous year which again increased to Rs. 19252.07 crores in the following year. In 1998-99, it further increased to Rs. 22805.80 crores and to Rs. 27224.42 crores in 1999-2000.

Life Insurance penetration shows a mix trend. As the table number 1 shows it was 1.29 in 1995-96, which increased to 1.39 in the following year. It further increased to 1.90 in 1997-98 but again came down to 1.39 in 1998-99. Finally, in 1999-2000, it goes to 1.77. However, Life Insurance density shows a constant increase throughout the period exempt 1998-99. It was \$5 in 1995-96 and increased to \$5.03 in the following year. In 1997-98, it recorded a high increase and went to 6.20 but came down to \$6.10 in 1998-99 after which it finally increased to \$7.60 in 1999-2000.

The given table also shows that investment in life insurance fund as a percentage of total financial savings of the household sector in the pre-privatization period. In an economy, saving is an important determinant of development. The rate of saving and rate of growth is closely related and the latter depends upon the former. For a given rate of growth, a particular rate of saving is required. The growth rate of 8% is possible only with a saving rate of 30 per cent (Patel 1997). Further increase in savings in insurance also shows the development of the life insurance sector. In 1995-96, it was 10.4 per cent, which came down to 9.5 per cent in the following year. However, in 1997-98, it remained unchanged but in the year 1999-2000, it substantially

increased to 11.2 per cent. It can be observed that regardless of some fluctuation there is an increase in the insurance fund and in this selected five year period of pre-privatization, it increased from 10.40 to 11.20.

India's Life Insurance in post-privatization period

The process to initiate reforms in the Indian insurance sector started in 1993 with the formation of the Committee on the Reform of Insurance Sector which submitted its report in 1994 but major policy actions were initiated only after 1999 with the enactment of the Insurance Regulatory and Development Authority (IRDA) Act which among many other things, also allowed both private and foreign companies to enter into the insurance market. After the reforms, an increase in all the selected variables was found.

Table No.2: Life Insurance sector in India (post-privatization)

Year	Number of policies (New business) (in thousand)	Total premium collection (including renewable) (Rs.in crores)	Life Insurance penetration	Life Insurance Density (US \$)	Savings in Life Insurance*
2000-01	20029	34898.47	2.15	9.10	12.90
2001-02	24013	50094.45	2.59	11.70	13.50
2002-03	25371	55738.11	2.26	12.90	15.50
2003-04	28627	66653.75	2.62	13.70	12.80
2004-05	26260	82854.80	2.91	17.23	12.40

Source : Compiled from various Issues of Journals and Reports of IRDA

* = as % of total household in financial assets

The table number 2 shows that in the post-privatization period there is a consistent increase in the number of policies written (new) except in the year 2004-05. The number of policies goes to 24013 thousand in 2001-02 from 20029 thousand in the previous year. Again, it rose to 25371 thousand in 2002-03 and to 28627 thousand in the following year but comes to 26260 thousand in 2004-05. The total premium collection by the life insurance industry in the post privatization period also shows consistent increase throughout the period. It increased from Rs. 34898.47 crores in the first year of privatization to Rs. 50094.45 crores in 2001-02, which again rose to Rs. 55738.11 crores in 2002-03 and to Rs. 66653.75 crores in 2003-04 and finally to Rs. 82854.80 crores in 2004-05. The increase in the total premium collection was consistent and no fluctuation was seen during the selected period.

The table shows that during the selected post-privatization period, life insurance penetration showed an overall increasing trend except in the year 2002-03. It was 2.15 per cent in 2000-01, that went up to 2.59 per cent in the following year. However, it came down to 2.26 in 2002-03. However, in the year 2003-04, it again increased to 2.62 per cent and further to 2.91 per cent in 2004-05. Life insurance density

shows an unflinching trend throughout the period. It increased to \$11.70 in 2001-02 from \$9.10 in the previous year which further increased to \$12.90 in 2002-03. In 2003-04, it further increased to \$13.70 and finally to \$17.23 in 2004-05.

The table depicts the savings in insurance as a percentage of total financial savings of the household sector in post-privatization period. As it shows in 2000-01, it was 12.9 per cent, which increased to 13.5 per cent in 2001-02. In 2002-03, it touched the record high of 15.5 per cent but again came down to 12.8 per cent in 2003-04 and further to 12.4 per cent in 2004-05. In spite of the fact that the life insurance fund decreased in the last two years, all together it remained high in the post-privatization period as compared to the pre-privatization period. Throughout the period, it was above 12 per cent and never fell below that mark.

Pre- and post-privatization comparison of Life Insurance

Table No. 3: Comparison (mean) of Life Insurance before and after privatization

Parameters	Pre-privatization	Post-privatization	t-statistics	Significance
Number of policies	13729	24860	12.049	.000
Total premium collection	20082	58047	6.602	.003
Life insurance penetration	1.54	2.50	5.869	.004
Life Insurance density	5.98	12.92	7.791	.001
Savings in insurance	10.46	13.42	4.480	.011

The above table number 3 shows the comparison of the result of t-test deployed by the various selected variables of the Life Insurance sector before and after privatization. All the results obtained show that there is growth in the Life Insurance sector. When the study takes the number of policies it finds a significant difference ($t=12.049$, $df=4$, $p=.000$) between pre- and post-privatization period. There was significant change in the Total Premium Collection ($t=6.602$, $df=4$, $p=.003$) in the pre- and post-privatization period. Other three results also show that there is improvement in the Life Insurance sector. There is a highly significant difference ($t=5.869$, $df=4$, $p=.004$) in Life Insurance Penetration in pre- and post-privatization period. A highly significant difference was also found in the Life Insurance density in pre- and post-privatization period ($t=7.791$, $df=4$, $p=.001$). There was significant difference between ($t=4.480$, $df=4$, $p=.011$), Life Insurance savings as percentage of the total household savings in financial assets in the pre- and post-privatization period. This improvement is attributed to the competition generated by new entrants in the sector, their aggressive

marketing strategy, increasing insurance awareness among the people, availability of tailor made products etc.

Growth of the General Insurance sector

Non-life business started in the country after the establishment of the life insurance business and remained underdeveloped as compared to the life insurance sector. This happen mainly because of the underdevelopment of the trade and industry in the subcontinent. General insurance too like Life Insurance remained in private hands. After Independence, the general insurance business was nationalized as part of an ongoing process of nationalization and General Insurance Company (GIC) was formed which catered to all types of non-life insurance. The GIC (with its four subsidiaries) was also enjoying a monopoly in the general insurance business as the LIC in the life insurance sector until the opening-up of the Indian insurance sector.

To understand the impact of privatization on the growth of the general insurance business of the country, the study takes up the Gross Direct Premium Collection and Net Premium Collection by the sector, General Insurance Penetration and General Insurance Density. The study presents the above given variable in pre- and post- privatization period and makes a comparison. To determine the significant difference if any, in the selected pre- and post-privatization period, the study subjects the mean of these four variables to the t-test

India's general insurance in pre-privatization period

The general insurance sector of the country was particularly underdeveloped during the nationalized era. The table given below shows the general insurance business in India. It provides the five year data of gross premium collection, net premium collection, general insurance penetration and general insurance density.

Table No. 4: General insurance sector in India (pre-privatization)

Year	Gross Direct Premium Collection (Rs.in crores)	Net Premium Collection (Rs.in crores)	General Insurance Penetration	General Insurance Density (US \$)
1995-96	6047	5087	0.55	2.00
1996-97	7021	6041	0.56	2.04
1997-98	7736	6725	0.71	2.30
1998-99	8759	7732	0.54	2.40
1999-00	9522	8648	0.55	2.30

Source : Compiled from various issues of Journals and Reports of IRDA

Table 4 depicts that there is an unflinching trend in the Gross Direct Premium. It goes from Rs. 6047 crores in 1995-96 to Rs. 7021 crores in 1996-97. It further went up to Rs. 7736 crores in the following year. Continuing the trend, it increased to Rs. 8759 crores in 1998-99 and again to Rs.9522 crores in 1999-2000. It shows that there is continuous increasing

trend. Consistent increase in the net premium collection was also found. It was Rs. 5087 crores in 1995-96 that increased to Rs. 6041 crores in 1996-97 and further to Rs. 6725 crores in 1997-98. Keeping the trend up it increased to Rs. 7732 crores in 1998-99 and to Rs. 8648 crores in the year 1999-2000.

It can be observed that in addition to the overall low insurance penetration and insurance density in India, both insurance penetration and insurance density in the non-life sector in India is lower than that of Life Insurance. Table 4 shows that Insurance Penetration in the non-life sector has been very low and volatile. It shows that general insurance penetration was just 0.55 per cent in 1995-96, which increased very slightly to 0.56 in the following year and further to 0.71 per cent in 97-98 but again came down in 98-99 to 0.54 per cent. It was 0.55 per cent in 1999-2000. As the table showed, the general insurance density was \$2.00 in 1995-96 which to some extent increased to \$2.04 in the following year and to \$2.30 in 1997-98. It again increased to \$2.40 in 2003-04 but came down to \$2.30 in 2004-05. It can be concluded that general insurance density showed an increasing trend except in the year 2004-05, in which it came down.

General Insurance in the post-privatization period

The privatization of the General Insurance sector in the country started with the privatization of the Life Insurance sector. The whole sector was privatized together. The table given below shows the scenario of general insurance after privatization was undertaken in the sectors.

Table No. 5: General insurance sector in India (post-privatization)

Year	Gross Direct Premium Collection (Rs. in crores)	Net Premium Collection (Rs. in crores)	General Insurance penetration	General Insurance density (US \$)
2000-01	10087.03	8086.10	0.56	2.40
2001-02	12383.35	8841.69	0.67	3.00
2002-03	14279.31	9985.88	0.62	3.50
2003-04	16037.39	10862.19	0.63	3.29
2004-05	18095.26	12118.20	0.63	3.76

Source : Compiled from various issues of Journals and Reports of IRDA

The table 5 shows the gross direct premium collection, net premium collection, general insurance penetration and general insurance density in post privatization period. The table reveals that there is consistent increase in gross direct premium collection. Gross direct premium by non-life sector increased to Rs. 12383 crores in 2001-02, from Rs. 10087 crores in the previous year. It further increased to Rs. 14279 crores in 2002-03. In 2003-04 it climbed to Rs. 16037 crores and finally to Rs. 18095 crores in 2004-05. The net premium collection by the non-life sector also shows a consistent increase. It was Rs. 8086 crores in 2000-01, which increased to Rs. 8841.69 crores in 2001-02 and further to Rs. 9985.88

crores in 2002-03. In 2003-04, it further improved to Rs. 10862.19 crores and finally ended to at Rs12118 crores in 2004-05. Therefore, it may be concluded that there is a consistent increase in the gross direct premium collection and net premium collection of the non-life sector during the period selected.

Insurance penetration in the general insurance sector in post-privatization period showed a mixed trend. It was 0.56 per cent in 2000-01, which went to 0.67 per cent in 2001-02 but again came down to 0.62 per cent in the following year. In 2003-04, it increased to a mere 0.63 and remained unchanged in the year 2004-05. Insurance density in non-life sector almost remained unchanged in the post-privatization period fluctuating from \$3 to \$4. It increased to \$3 in 2001-02 from \$2.40 in the previous year. In the following year it further increased to \$3.50. However, it came down to \$3.29 in 2003-04. However, it again increased to \$3.76 in 2004-05. Therefore, it may be said that despite some fluctuation the growth of both General Insurance Penetration and General Insurance Density in selected post-privatization periods has been adequate.

Pre-and post-privatization comparison of General Insurance sector

Table No. 6: Comparison of non-Life Insurance before and after privatization

Parameters	Pre-privatization	Post-privatization	t-statistics	Significance
Gross premium collection	12.05	15.80	8.158	.001
Net premium collection	14.22	10.65	27.570	.000
General insurance penetration	.58	.62	1.093	.336
Insurance density	2.20	3.19	5.561	.005

The table number 6 shows the comparison of the result of t-test deployed to the various selected variables of the growth of General Insurance sector of India before and after privatization. Three out of four results obtained, show that there is improvement in the sector. There is significant growth after the privatization in the gross direct premium collection ($t = 8.158$, $df = 4$, $p = .001$). There was significant difference also between the growth of net premium collection ($t = 27.570$, $df = 4$, $p = .000$) in pre- and post-privatization period. There was an insignificant difference ($t = 1.093$, $df = 4$, $p = .336$) in general insurance penetration in pre- and post-privatization period. However, a significant difference was found in the general insurance density in pre- and post-privatization period ($t = 5.561$, $df = 4$, $p = .005$). The study finds significant increase in the gross direct premium collection, net premium collection and insurance density, but insignificant increase in General Insurance penetration in

pre-and post-privatization period. The findings suggest that the General Insurance sector is recording improvement after the privatization.

Conclusion

The test of the first hypothesis that there is significant association between privatization of insurance sector and growth of Life Insurance sector shows that there is a significant association between the two. For the testing of the hypothesis, the study subjected the mean of four selected variables to t-test (at 95 per cent confidence level). The result of the test shows that there is a significant increase in all the five selected variables. That is, number of Policies (new) ($t=12.049$, $df=4$, $p=.000$), Total Premium Collection ($t=6.602$, $df=4$, $p=.003$), Life Insurance Penetration ($t=5.869$, $df=4$, $p=.004$), Life Insurance Density ($t=7.791$, $df=4$, $p=.001$) and investment in Life Insurance as percentage of total household saving in financial ($t=4.480$, $df=4$, $p=.011$.) in post-privatization period. The increase in all these five variables proves that there is a significant association between the privatization of the insurance sector and the growth of Life Insurance sector and privatization has unfolded a positive impact on India's Life Insurance sector.

The test of the second hypothesis that there is a significant association between privatization of insurance sector and growth of General Insurance sector shows that there is a significant association between two. For the testing of hypothesis, the study subjected the mean of four selected variables to t-test (at 95 per cent confidence level). The result obtained indicated that there was a significant growth in three out of four selected variables that is, Gross Direct Premium Collection ($t=8.158$, $df=4$, $p=.001$), Net Premium Collection ($t=27.570$, $df=4$, $p=.000$) and General Insurance Density ($t=5.561$, $df=4$, $p=.005$) in the post-privatization period. Therefore, it may be inferred that there is a significant association between privatization and the growth of the General Insurance sector.

Therefore, it can be concluded that the privatization of the insurance sector has played an instrumental role in the growth of India's insurance sector. Inter alia, establishment of IRDA as a watchdog, the elimination of monopoly, entry of foreign players, allowing 26 per cent FDI in insurance sector, increased awareness, aggressive marketing along with the availability of tailor-made products are some of the major offshoots of privatization which in turn are responsible for the growth of the selected variables taken in the present study.

References:

- Jha, R. N. (1995), 'Globalization of World Insurance Markets', *Yogakshima*, February, pp. 5-7
- Kumar, D., (2005), 'Indian Insurance: The Historical perspective', *India Insurance Report*, Series I, Birla Institute of Management Technology, Centre for Insurance and Risk Management, Allied Publishers, New Delhi, pp 17-21.
- Patel, U., (1997), 'Aspect of pension fund reform lessons for India', *Economic and Political Weekly*, Mumbai.
- Plande, P. S. et al, (2003), *Insurance In India Changing Polices And Emerging Issues*, Response Books, New Delhi, p. 28-31.
- Ram Mohan, T. T., (2001), 'Privatization: Theory and Evidence', *Economic and Political weekly*, Mumbai, Vol-36 No. 52, pp 4865-4871
- Ranade, A and Ahuja, R., (1999), 'Life Insurance in India Emerging Issues', *Economic and Political Weekly*, Vol-34 No. 3&4
- Rao. D. T. (2000), 'Privatization and Foreign Participation in (Life) Insurance Sector', *Economic and Political Weekly*, Vol-35 No. 13, March 25, p. 1107
- Stoner, J. et al., (1997), 'Management', (6th Edition) Prentice Hall of India, New Delhi, pp.46&47.
- The Indian Insurance Office Association, *Silver Jubilee Souvenir, History and Activities 1928-1953*, (1953), Mumbai





A STUDY OF THEORIES ON THE RELATIONSHIP BETWEEN RETURNS-VOLUME-VOLATILITY AND DYNAMICS OF THE STOCK MARKET

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ABSTRACT

A detailed analysis of return-volume dynamics is important to gain a proper understanding of issues relating to market efficiency, information flows in the market and microstructure in the market. The purpose of the current study is to shed light on various theoretical models for the relationship between returns, volume and volatility in both a contemporaneous and causality framework to improve the understanding of the microstructure of the stock market. This study will enhance our understanding of market asymmetry, market efficiency and information processing in the stock market.

Keywords: Contemporaneous Relationship and Causal Relationship

INTRODUCTION

In a stock market, return and trading volume are two prime indicators of trading activity, jointly determined by the same market dynamics and may contain valuable information about a security (Bhanupant (2001)). Most empirical research on stock markets focuses on stock price movements over time, which reflects investors' expectations about the future prospects of the firms. New information causes investors to change their expectations and is the main reason for stock price changes (Fama (1970)).

Prices and trading volume build a market information aggregate out of each new piece of information. Unlike stock price behavior, which reflects the average change in investors' beliefs due to the arrival of new information, trading volume reflects the sum of investors' reactions. Differences in the price reactions of investors are usually lost by averaging of prices, but they are preserved in trading volume. In this sense, the observation of trading volume is an important supplement of stock price behavior (Mestel et al., (2003)). Gallant et al., (1992), Blume et al., (1994), Suominen (2001) and Lee and Rui (2002) are the more recent studies, which investigated the information content and predictive power of volume on financial markets. They observed that stock prices are noisy which can't convey all available information to the market dynamics of stock prices and trading volume. Therefore, studying the joint dynamics of stock prices and trading volume improves the understanding of the microstructure of stock markets (Gurgul et al., (2005)).

In literature, we have observed two types of relationships between return and volume: contemporaneous and causal relationships. The contemporaneous relationship between return and volume reveals information about asymmetry of trading volume in the market. The contemporaneous relationship between volatility (absolute return) and volume reveals information arrival patterns and observations about quality and dispersion of such information (Blume et al. 1994). Majority of empirical evidences in financial literature support the positive relationship between volume

and volatility (absolute return)¹. In contrast to contemporaneous relationship, analysis of dynamic (causal) relationship between return and volume, which entails an examination of potential causality from past values of volume to present returns, as well as from past returns to present volume, is concerned with issues relating to information efficiency of the market (McMillen and Speight (2002)). An indication of causality from past values of volume to returns violates assumptions of the weak-form efficiency hypothesis, since it carries the implication that an investor is able to make systematic profits. Further, causal relationship between volatility and volume can help to discriminate between different hypotheses about market structure.

Thus, keeping in mind the great need for investigating the contemporaneous and causal relationship between returns, volume and volatility, the current study attempts to explore theoretical explanations for the existence of relationships between returns, volume and volatility, which would surely strengthen the researchers in the empirical investigation of relationship between these dynamics. This paper has been organized into 3 sections. Section 1 discusses the importance of relationships. Section 2 provides various theories on contemporaneous and causal relationships. Section 3 concludes the paper.

1. Importance of Price-Volume Relationship

Return-volume dynamics are of great interest as they may unearth dependencies that can form the basis of profitable trading strategies, and this has implications for market efficiency (Chen et al., (2004)). Karpoff (1987) has cited four reasons for discussing price-volume relations. First, it

¹Ying (1966), Crouch (1970), Clark (1973), Epps (1976), Cornell (1981), Harris (1983) Tauchen and Pitts (1983), Rutledge (1984), Jain and Joh (1986) Gallant et al., (1992), Bessembinder and Seguin (1993), Brailsford (1996), Jones et al., (1994), Ragunathan and Pecker (1997), Daigler and Wiley (1999), Ciner (2002), Gurgul et al., (2005) and Otavio and Bernardus (2006).

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provides insight into the structure of financial markets, such as the rate of information flow to the market, how the information is disseminated, the extent to which market prices convey the information and the existence of short sales constraints. Empirical relations between prices and volume can help differing hypotheses about market structure.

Second, the relationship between price and volume is important for event studies that use a combination of price and volume data from which to draw inferences. It means that this relationship can be used to examine the usefulness of technical analysis. If price changes and volume are jointly determined, incorporating the price-volume relation will increase the power of these tests. For example, Richardson et al., (1987) examined trading volume and price changes to tests for the existence of dividend clientele. Thus, the construction of tests and the validity of the inferences drawn depend on the joint distribution of price changes and volume (Karpoff 1987).

Third, the price-volume relation is critical to the debate over the empirical distribution of speculative prices. When sampled over fixed calendar intervals, rates of return appear kurtotic compared to the normal distribution. Two competing hypothesis to explain this are (1) rates of return are best characterized by a member of a class of distributions with infinite variance (the stable partisan hypothesis), and (2) the distribution of rates of return appear kurtotic because the data is sampled from a mixture of distributions that have different conditional variances (the mixture of distribution hypothesis). Price-volume tests generally support the mixture of distribution hypothesis. Price data are generated by a conditional stochastic process with a changing variance parameter that can be proxied by volume. Knowledge of price-volume relation can then be used in event studies to measure changes in the variance of the price process from non-event to event time.

Some researchers, such as Peck (1981), Garcia et al., (1986) and Weiner (2002) have investigated the role of speculation to price volatility (stabilizing or destabilizing), where speculation is closely related to trading volume. Finally, as Cornell (1981) pointed out, the volume-price variability relationship may have important implications for fashioning new contracts. A positive volume-price variability relationship means that a new future contract will be successful only to the extent that there is enough price uncertainty associated with the underlying asset.

Thus, a good understanding of the relationship between price and volume has significant implications for regulators, hedgers, speculators and other participants in the market. An empirical examination of contemporaneous and inter-temporal relationships between volume and (signed and unsigned) returns may reveal valuable information on different aspects of the dynamics and informational efficiency in equity markets.

Therefore, the purpose of the current study is to shed light on various theoretical models for the relationship between return, return volatility and trading volume in both a contemporaneous and linear causality framework to improve the understanding of the microstructure of the stock market. This study will enhance our understanding of market asymmetry, market efficiency and information processing in the stock market.

2 Relationship between Returns, Volatility and Trading Volume: Theoretical Framework

Stock prices change when new information arrives. Thus, if the trading volume is linked to the information flow entering the markets, a relation of price-volume is obtained. Therefore, theoretical explanations mostly correspond to different views of volume related to the information flow (Lokman and Abdul Nasser, 2005). Most of the research has concentrated only on the study of contemporaneous relationship between return and volume (see Karpoff 1987 and Gallant et al., 1992). Only a few studies have examined the dynamic relationship between return and volume. Different schools of research have constructed different theoretical models to explain contemporaneous and dynamic relationships, which are further sub-divided into two stylized facts viz. (a) return per se and volume (b) return volatility and volume.

2.1 Theories of Contemporaneous Relationship between Return, Volatility and Volume

The various theoretical models developed to explain contemporaneous relationships are given below:

- **Short-Selling Constraint Model**

The positive contemporaneous correlation between volume and return per se in the stock market could be explained by the existence of a short-selling constraint, in the form of either a prohibition or differential cost of taking short and long positions (Karpoff (1988) and Suominen (1996)). The key innovation is that short positions are possible but are more costly than long positions, which implies that the quantity demanded of an investor with a short position is less responsive to price changes than the quantity demanded of an investor with a long holding. Consequently, market activity (trading volume) differs with the direction of price movement, that is, the level of volume associated with a price rise is higher than that associated with a price fall.

- **The Supply and Demand Model**

Crouch (1970), Clark (1973) and Westerfield (1977) employed the basic supply and demand model to explain the positive relationship between volume and absolute return. Starting from the initial position of equilibrium, a price change occurs due to the change in demand. The related adjustment induces transactions to react to the change in demand until a new equilibrium is reached. Thus, trading volume increases

as price changes, regardless of the direction of the changes.

- **Differences of Opinion Model**

Models of heterogeneous trader behavior assess the availability of different types of information or the existence of differing beliefs concerning the importance of information. Models by Harris and Raviv (1993) and Shalen (1993) show that a greater dispersion of beliefs creates excess price variability and excess volume, compared to the equilibrium value. A greater dispersion of beliefs is a lack of consensus about the true price that should result from revealed information. In particular, Shalen's model associates volatility with uninformed traders' dispersion of beliefs, incorrectly formed in response to the noisy liquidity demand of hedgers. This dispersion of beliefs model is relevant for comparing how informed and uninformed traders react to information (Nguyen and Daigler (2006)).

Informed traders have relatively homogeneous beliefs, which they base on their knowledge of the market and the fundamental characteristics of the asset. Thus, informed traders buy and sell within a relatively small range of prices around the fair value of the asset. Uninformed traders cannot observe the transaction of other traders to help them interpret the noisy signals from volume and price changes, resulting in a wider dispersion of beliefs. Therefore, uninformed traders are likely to react to all changes in volume and price as if these changes reflect information, despite their difficulty in differentiating short-term liquidity (hedging) demand from changes in overall fundamental supply and demand. Uninformed traders' frequent revision of their beliefs can also cause the price fluctuations resulting from their trading to disappear more slowly than those of informed investors after new information is revealed. This process of trading is consistent with French and Roll (1986), who state that traders overreact to one another's trades. Therefore, less informed traders tend to exaggerate price movements, which result in a greater price variability (Daigler and Wiley (1999)).

Harris and Raviv (1993) assume that traders receive common information. However, traders differ in the way in which they interpret this information, and each trader believes absolutely in the validity of his interpretation. They refer to this as the assumption that traders have differences of opinion, and assume that traders start with common prior beliefs about the returns of a particular asset. As information about the asset becomes available, each trader uses his own model of the relation between the news and the asset's returns to update his beliefs about returns. Thus, the Harris and Raviv model predicts that absolute price changes and trading volume are positively correlated (Chen et al., 2001).

- **The Information Asymmetry Model**

Wang (1994) claimed that investors are heterogeneous in their information and private investment opportunities. As the asymmetry of information increases, uninformed investors require a higher discount in price when they buy contracts from informed investors to cover the risk of trading against private information. Therefore, trading volume is always

positively related to absolute returns and the correlation increases with the level of information asymmetry.

- **Market Microstructure Model**

The theory of market microstructure suggests that price movements depend on the arrival of new information and the process that impounds this information into market prices. During the trading period, informed traders may arrive at the market with private information regarding the value of an asset. This private signal presents a profitable opportunity to trade at dealers' existing quotes not yet reflecting this new information. The arrival of new private information induces a sequence of trades that reveal the pricing implication of the unannounced information. This dynamic process of incorporating private information into market price simultaneously affects price movement and trading volume (Chunchi and Xiaoqing, 2000). Consequently, a contemporaneous correlation between return volatility and volume is observed.

2.2 Theories of Causal Relationship between Return, Volatility and Volume

Causality investigates whether the past of a one time series improves the forecast of the present and future of another time series. Testing for causality help to better understand the micro-structure of stock markets and can also have implications for other markets (e.g. options markets). The various theoretical explanations that predict a causal relationship between return, return volatility and volume are given below.

- **Informational Role of Volume and Its Applicability for Technical Analysis**

Blume et al., (1994) developed a model to investigate the informational role of volume and its applicability for technical analysis. According to this model, prices are noisy and traders cannot obtain the full information signal from price alone. Aggregate supply is fixed and traders receive signals of differing quality. They showed that volume provides information that cannot be detected from price alone and demonstrate how sequences of volume and prices can be informative. Therefore, current trading volume can be used to predict future price movements.

- **Tax and Non-Tax Related Motives for Trading**

Tax and non-tax related motives for trading are another explanation for dynamic relation. Tax-related motives are associated with the optimal timing of capital gains and losses realized during the calendar year. Non-tax related motives include window dressing, portfolio rebalancing and contrarian strategies. Lakonishok and Smidt (1989) show that current volume can be related to past stock price changes due to tax and non-tax related trading motives. The dynamic relation is negative for tax-related trading motives and positive for certain non-tax related trading motives² (Hiemstra and Jones (1994)).

- **The Noise Trading Volume**

The relationship of causality between return and trading volume can also be explained by the noise trading volume (DeLong et al., 1990). In this model, noise traders are associated with excess volatility and can dominate a market. Their activities are not based upon economic fundamentals and therefore result in a temporary mispricing in the short run. The price, however, reverts to its mean value in the long run because of the disappearance of the transitory component. Hence, the positive causality relationship running from return to volume is consistent with the positive feedback trading strategy of noise traders who trade on the basis of past price changes. Moreover, the positive causality relationship from volume to return is consistent with the hypothesis made in this model that price change is caused by the trading strategies/ actions of noise traders (Lokman and Abdul Nasser, 2005)

• Sequential Information Arrival Hypothesis

This hypothesis suggests the gradual dissemination of information such that a series of intermediate equilibria exists. In other words, new information is disseminated sequentially to traders, and traders who are not yet informed cannot perfectly infer the presence of informed trading. Consequently, the sequential arrival of new information to the market generates both trading volume and price movements, with both increasing during periods characterized by numerous information shocks (Nguyen and Diabler, 2006). Hence, the Sequential Information Arrival Hypothesis (SIAH) suggests that lagged values of volatility may have the ability to predict current trading volume and vice-versa. This hypothesis is associated with Copeland (1976), Morse (1980), Jennings et al., (1981) and Smirlock and Starks (1985).

• The Mixture of Distribution Hypothesis

The relationship between volume and absolute returns helps reveal particulars about information arrival, processing procedures and observations about the quality and dispersion of such information (Blume et al., 1994). One leading hypothesis in order to explain this relationship is the mixture of distributions hypothesis (MDH) of Clark (1973). The mixture of distribution hypothesis (MDH) implies only a contemporaneous relationship between volume and price volatility because they jointly depend on the rate of information flow to the market. Thus, under the MDH, there

²One of the tax-related motives for trading predicts a negative lagged relation from stock price changes to volume given that investors have an incentive to realize capital losses before the end of the calendar year, since taxes are paid by most investors on a calendar-year basis. On the other hand, portfolio rebalancing, one of the non-tax related trading motives, predicts a positive association, since investors who do not hold the market portfolio may well sell those stocks whose prices have risen to restore portfolio diversification (Hiemstra and Jones, 1994).

should be no information content in past volatility data that can be used to forecast volume (or vice-versa) since these variables contemporaneously change in response to the arrival of new information. This model is associated with Clark (1973), Epps and Epps (1976), Tauchen and Pitts (1983), Harris (1986), Lamoureux and Lastrapes (1990) and Andersen (1996).

Under the MDH, asset prices are modelled as a subordinate stochastic process with prices evolving at different rates during identical intervals of time according to the flow of information and evolving faster when unexpected information flows into the market. The interpretation of volume as a proxy for the unobservable directing process thus explains the observed positive correlation between the variance of price changes and volume (McMillen and Speight (2002)).

Further, volatility persistence in return series can also be explained by MDH. Using trading volume as a proxy for the rate of daily information arrival, volatility persistence vanishes under the presence of trading volume series in the conditional variance equation of GARCH model (Wang et al., 2005).

• Rational Expectations Asset Pricing Model

Speculative trading stems from disagreements among traders over the relationship between the announcement and the ultimate performance of the asset in question. Such disagreements can arise either because speculators have different private information or because they simply interpret commonly known data differently.

Rational expectations model generates disagreement through private information. This model generally involves trading among privately informed traders, uninformed traders and liquidity or noise traders.

Wang (1993) developed an equilibrium model of stock trading in which investors are heterogeneous in their information and private investment opportunities and rationally trade for both informational and non-informational reasons. He used the model to study the behavior of stock trading volume and its relationship with returns and observed that different heterogeneity among investors gives rise to different trading volume behavior and return-trading volume dynamics. This implies that trading volume conveys important information about how assets are priced in the market (Chen et al., 2001).

3. Conclusion

It is widely acknowledged in financial literature that trading in asset markets is mainly induced by the arrival of new information and the subsequent revisions of expectations by investors. Trading volume can therefore be thought to reflect information about changes in investors' expectations (McMillen and Speight, 2002). Thus, the major motivation for this study came from the fact that the trading volume plays a central role in the pricing of financial assets through the



arrival of new information.

Hence, an interesting question arises how trading volume is related to price movements in the stock markets. Various flavors of the return-volume relationship are present in financial literature. Based on the above, it can be concluded that financial literature has documented the various theoretical models of the price-volume relationship especially in developed stock markets. In this way, the current study summarizes various theoretical models on return, volume and volatility relationship, which will support the empirical evidences of researchers on the existence of this relationship.

References

- Anderson, H. M. and Vahid, F. (2001), "Market Architecture and Nonlinear Dynamics of Australian Stock and Futures Indices", *Australian Economic Papers*, 40, 541-566.
- Bessembinder, H. and Seguin, P. J. (1993), "Price Volatility, Trading Volume and Market Depth: Evidence from Futures Markets", *The Journal of Financial and Quantitative Analysis*, 28(1), 21-39.
- Bhanupant (2001), "Testing Dynamic Relationship between Returns and Trading Volume on the National Stock Exchange", Downloaded from www.utiicm.com/bhanupant.html on March 27, 2006.
- Blume, L., Easley, D. and Hara, M.O. (1994), "Market Statistics and Technical Analysis: The Role of Volume", *The Journal of Finance*, 49(1), 153-181.
- Brailsford, T. J. (1996), "The Empirical Relationship between Trading Volume, Returns and Volatility", *Journal of Accounting and Finance*, 35(1), 89-111
- Chen, Firth and Yu (2004), "The Price-Volume Relationship in China's Commodity Futures Markets", *The Chinese Economy*, 37(3), 87-122.
- Chen, Firth, G. M. and Rui, O. (2001), "The Dynamic Relation between Stock Returns, Trading Volume and Volatility", *The Financial Review*, 36(3), 153-174.
- Chunchi Wu and Xiaoqing Xu (2000), "Return Volatility, Trading imbalance and the Information Content of Volume", *Review of Quantitative Finance and Accounting*, 14, 131-153.
- Ciner, C. (2002), "The Stock Price-Volume Linkage on the Toronto Stock Exchange: Before and After Automation", *Review of Quantitative Finance and Accounting*, 19(4), 335-349.
- Ciner, C. (2003), "The Dynamic Relationship between Stock Prices and Trading Volume: An Examination of Call Markets", Downloaded from <http://207.36.165.114/Denver/Papers/callmarkets.pdf> on May 26, 2006.
- Clark, P. (1973), "A Subordinated Stochastic Process Model with Finite Variances for Speculative Prices", *Econometrica*, 41(1), 135-155.
- Copeland (1976), "A Model of Asset Trading under the Assumption of Sequential Information Arrival", *The Journal of Finance*, 31(4), 135-155.
- Cornell, B. (1981), "The Relationship between Volume and Price Variability in Future Market", *The Journal of Future Market*, 1(3), 303-316.
- Crouch, R. L. (1970), "The Volume of Transaction and Price Changes on the New York Stock Exchange", *Financial Analysts Journal*, 26(4), 104-109.
- Daigler and Wiley (1999), "The Impact of Trader Type on the Future's Volatility-Volume Relation", *The Journal of Finance*, 54(6), 2297-2316.
- De Long, J. (1990), "Positive Feedback, Investment Strategies and Destabilizing Rational Speculation", *The Journal of Finance*, 45(2), 379-395.
- Epps, T. W. (1975), "Security Price Changes and Transaction Volumes: Theory and Evidence", *American Economic Review*, 65(4), 586-597.
- Epps, T. W. (1977), "Security Price Changes and Transaction Volumes: Some Additional Evidence", *The Journal of Financial and Quantitative Analysis*, 12, 141-146.
- Epps, T. W. and Epps, M. L. (1976), "The Stochastic Dependence of Security Price Changes and Transaction Volumes: Implications for the Mixture of Distribution Hypothesis", *Econometrica*, 44(2), 305-321.
- Fama, E. F. (1970), "Efficient Capital Markets: A Review of Theory and Empirical Work", *The Journal of Finance*, 25(2), 383-417.
- French, K. R. and Roll, R. (1986), "Stock Return Variances: The Arrival of Information and Reaction of Traders", *Journal of Financial Economics*, 17, 5-26.
- Gallant, Rossi and Tauchen (1992), "Stock Prices and Volume", *The Review of Financial Studies*, 5(2), 199-242.
- Garcia, P., Raymond, M. L. and Hector, Z. (1986), "Lead-Lag Relationships between Trading Volume and Price Variability: New Evidence", *The Journal of Futures Markets*, 6(1), 1-10.
- Gurgul, H., Majdosz, P. and Mestel, R. (2005), "Joint Dynamics of Prices and Trading Volume on the Polish Stock Market", *Managing Global Transitions*, 3(2), 139-156.
- Harris, L. and Gurel, E. (1983), "The Joint Distribution of Speculation Prices and of Daily Trading Volume", Working Paper No.34-84, University of Southern California, Los Angeles, CA.
- Harris, M. and Raviv, A. (1993), "Differences of Opinion Make a Horse Race", *The Review of Financial Studies*, 6(3), 473-506.
- Hiemstra, C. and Jones, J. (1994), "Testing for Linear and Nonlinear Granger Causality in the Stock Price-Volume Relation", *The Journal of Finance*, 49(5), 639-1664.
- Jain, P. C. and Joh, G. (1986), "The Dependence between Hourly Prices and Trading Volume", *The Journal of Financial and Quantitative Analysis*, 23(3), 269-283.
- Jennings, R. H., Starks, L. T. and Fellingham, J. C. (1981), "An Equilibrium Model of Asset Trading with Sequential

- Information Arrival", *The Journal of Finance*, 36(1), 143-161.
- Jones, C. M., Kaul, G. and Lipson, M. L. (1994), "Transactions, Volume and Volatility", *The Review of Financial Studies*, 7(4), 631-651.
- Karpoff, J. M. (1986), "A Theory of Trading Volume", *The Journal of Finance*, 41(5), 1069-1087.
- Karpoff, J. M. (1987), "The Relation between Price Changes and Trading Volume: A Survey", *The Journal of Financial and Quantitative Analysis*, 22(1), 109-126.
- Karpoff, J. M. (1988), "Costly Short Sales and the Correlation of Returns with Volume", *The Journal of Financial Research*, 11(3), 173-188.
- Lakonishok, J. and Smidt, S. (1989), "Past Price Changes and Current Trading Volume", *Journal of Portfolio Management*, 15, 18-24.
- Lamoureux, C. G. and Lastrapes, W. D. (1990), "Heteroskedasticity in Stock Return Data: Volume Versus GARCH Effects", *The Journal of Finance*, 45(1), 221-229.
- Lee, B. S. and Rui, O. M. (2002), "The Dynamic Relationship between Stock Returns and Trading Volume: Domestic and Cross-Country Evidence", *Journal of Banking and Finance*, 26(1), 51-78.
- Lokman, G. and Abdul Nasser, H. (2005), "Stock Price-Volume Relation in East European Stock Markets", *Emerging Markets Finance and Trade*, 41(1), 29-45.
- McMillan, D. and Speight, A. (2002), "Return-Volume Dynamics in UK Futures", *Applied Financial Economics*, 12, 707-713.
- Mestal, R., Gurgul, H. and Majdosz, P. (2003), "The Empirical Relationship between Stock Returns, Return Volatility and Trading Volume on the Austrian Stock Market", Downloaded from www.chartricks.com/Resources/Articles/volume_volatility_Mestel.pdf on February 21, 2006.
- Morse, D. (1980), "Asymmetrical Information in Securities Markets and Trading Volume", *The Journal of Financial and Quantitative Analysis*, 40(5), 1129-1148.
- Nguyen and Diabler (2006), "A Return-Volatility-Volume Analysis of Futures Contracts", Downloaded from <http://www.fma.org/> on May 18, 2006.
- Otavio, R. and Bernardus, F. N. (2006), "The Empirical Relationship between Stock Returns, Return Volatility and Trading Volume in the Brazilian Stock Market", SSRN Working Paper, Downloaded from www.ssrn.com on March 17, 2006.
- Peck, A. (1981), "Measures and Price Effects of Changes in Speculation on the Wheat, Corn and Soybean Future Markets", *Research on Speculation: Seminar Report*, The Chicago Board of Trade, 138-149.
- Ragunathan and Peker (1997), "Price Variability, Trading Volume and Market Depth: Evidence from the Australian Future Market", *Applied Financial Economics*, 7(5), 447-454.
- Richardson, M. and Smith, T. (1994), "A Direct Test of the Mixture of Distribution Hypothesis: Measuring the Daily Flow of Information", *The Journal of Financial and Quantitative Analysis*, 29, 101-116.
- Rutledge, D. J. S. (1979), "Trading Volume and Price Variability: New Evidence on the Price Effects of Speculation", in A.E. Peck (Ed), *Selected Writings On Future Markets*, The Chicago Board of Trade, 237-251.
- Shalen, C. (1993), "Volume, Volatility and the Dispersion of Beliefs", *The Review of Financial Studies*, 6(2), 405-434.
- Smirlock, M. and Starks, L. (1985), "A Further Examination of Stock Price Changes and Transaction Volume", *The Journal of Financial Research*, 8(3), 217-225.
- Smirlock, M. and Starks, L. (1988), "An Empirical Analysis of the Stock Price-Volume Relationship", *The Journal of Financial Research*, 8(1), 31-41.
- Suominen, M. (2001), "Trading Volume and Information Revelation in Stock Markets", *The Journal of Financial and Quantitative Analysis*, 36(4), 546-565.
- Tauchen, G. and Pitts, M. (1983), "The Price Variability-Volume Relationship on Speculative Markets", *Econometrica*, 51(2), 485-505.
- Tauchen, G. and Pitts, M. (1983), "The Price Variability-Volume Relationship on Speculative Markets", *Econometrica*, 51(2), 485-505.
- Wang, J. (1993), "A Model of Intertemporal Asset Prices under Asymmetric Information", *Review of Economic Studies*, 60, 249-282.
- Wang, J. (1994), "A Model of Competitive Stock Trading Volume", *Journal of Political Economy*, 102(1), 127-168.
- Wang, P., Peijie, W. and Liu, A. (2005), "Stock Return Volatility and Trading Volume: Evidence from the Chinese Stock Market", *Journal of Chinese Economic and Business Studies*, 3(1) 39-54.
- Weiner, R. J., (2002), "Sheep in Wolves' Clothing? Speculators and Price Volatility in Petroleum Futures", *Quarterly Review of Economics and Finance*, 42(2), 391-400.
- Westerfield, R. (1977), "The Distribution of Common Stock Price Changes: An Application of Transactions Time and Subordinated Stochastic Models", *The Journal of Financial and Quantitative Analysis*, 12(5), 743-765.
- Ying, C. C. (1966), "Stock Market Prices and Volume of Sales", *Econometrica*, 34(3), 676-686.





ANALYSIS OF WORKING CAPITAL STRUCTURE AND ITS ASSOCIATION WITH EFFICIENCY A CASE STUDY OF DISHMAN PHARMACEUTICALS LIMITED

Abhishek Ranga*

ABSTRACT

Working capital is an important aspect of financial management, improper management of liquidity may lead to economic failure of the business. One of the imperative features of working capital management is the working capital structure. In this study, an attempt has been made to analyze the working capital structure of Dishman Pharmaceuticals Limited (DPL), it was observed that for the period under study, inventory and debtors formed the major portion of the gross working capital of DPL. An attempt was made to study the degree of association between liquidity and the efficiency in managing its working capital, the study found a weak degree of association. On the basis of research findings it was strongly recommended to DPL to adopt a just-in-time technique for managing the levels of inventory and use of factoring is advisable to manage the levels of debtors.

Keywords: Working Capital, Working Capital Structure, Working Capital Management

INTRODUCTION

Capital is a scarce commodity today but it is scarcer to find an effective and efficient mechanism for management of the same. When it comes to management of capital, we may find many a times, corporate managers giving more attention to long-term capital decisions as compared to short-term capital decisions. But as pointed out by Brealey and Myers, both short-term and long-term decisions are equally important for the efficient functioning of the business. Working capital management refers to all management decisions and actions that ordinarily influence the size and effectiveness of the working capital. It is concerned with the most effective choice of working capital sources and the determination of the appropriate levels of current assets, which I call working capital structure, and their use. In this paper, an attempt has been made to analyze the working capital structure and its association with efficiency in managing the same for Dishman Pharmaceutical Limited (DPL), a Ahmedabad-based pharmaceuticals major. The following section presents a theoretical framework for studying various components of working capital, which is followed by a section describing methodology of the study. Working capital structure analysis is presented in the third section and the fourth section talks about the association between liquidity and efficiency. Fifth section presents the conclusions drawn from the study followed by the last section on suggestions based upon the research findings.

I. Theoretical Framework

This section deals with the theoretical aspects of various working capital policy areas and their practical implication for pharmaceutical firms. There are three main dimensions of working capital management: cash management, management of accounts receivables and management of inventory.

a. Cash Management

The most important of all the liquidity responsibilities of the financial manager is the managing of cash, both flows and balances. Cash is the benchmark of liquidity. This underscores the fact that the most important test of a

financial manager is to maintain an adequate reserve of cash for all times so as to absorb the shocks of sporadic receipts and payments and meet the needs of emergency situations, otherwise paucity of cash even on a temporary phase may cause trouble. Concentration banking: It refers to a system of centralizing corporate cash with a goal of controlling the movement of funds and minimizing idle cash balances.

A firm should forecast cash to anticipate cash surplus and shortage, estimate timing of borrowing and lending of funds and have a better control over funds. Hedging Strategies: Hedging is important to protect the uncertainty associated with obtaining cash balances in time. One common strategy for hedging is funding the firm's expected financing needs by the establishment of a reserve credit line with a bank or group of banks.

b. Receivable Management

Receivables occupy the second place, in order of investment, among the various components of working capital in manufacturing concerns. The manipulation of receivables is to push up sales and ultimately profits by allowing certain credit to the potential customers who otherwise may find it difficult to make cash purchases. Moreover, receivables being near cash items improve the liquidity position of an enterprise. The financial significance of a credit transaction is evidenced by statistics reporting that 20 to 25 percent of the typical manufacturer's total asset is receivables. As we know, the emergence of receivables in business operation creates revenue and cost. Hence, the volume, composition and movements of receivables are required to be so designed and maintained that these ultimately help maximization of the value of a firm which is the long standing and accepted principle of financial management.

c. Inventory Management

Inventory represents an investment and must, therefore, compete with other investment of the firm. As a consequence, total investment in inventories must be related to some optimum investment level that contributes to the

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overall wealth, maximization object of the shareholders. Since the proper management of inventory has a significant influence on profitability and liquidity, to a large extent, the success and failure of a business depends upon its inventory management performances.

II. Methodology of the study:

a. Objectives of the Study

This study has the following broad objectives:

- i. To analyze the working capital structure of DPL.
- ii. To measure the extent of relationship between liquidity and efficiency.

b. Data and variables under study:

The data for the study has been collected from the DPL's annual reports and CMIE Prowess for the period 2003 to 2008. Inventory (INT), Receivable (REC), Loans and Advances (LA) and Cash and Bank Balance (CBB) as a percentage of gross working capital are taken as parameters for liquidity. Working capital turnover ratio (WCTR), Inventory turnover ratio (ITR), Debtors turnover ratio (DTR), Fixed asset turnover ratio (FATR), Current asset turnover ratio (CATR) and Total asset turnover ratio (AT) are taken as parameters for efficiency.

Performance of the firm for the period under study on the basis of liquidity and efficiency has been ranked. Spearman's rank correlation has been calculated between ranks on the basis of liquidity and efficiency, using the relation as provided in equation 1.

$$r = 1 - [6Sd^2 / n(n^2 - 1)] \quad \text{--- Equation 1}$$

where,

r = coefficient of rank correlation

n = number of paired observations

d = difference between the ranks for each pair of observations

T-test has been performed on the coefficient of correlation using the formula as provided in equation 2.

$$t = r / \sqrt{1 - r^2} \sqrt{(n-2)} \quad \text{--- Equation 2}$$

Ranks have been assigned individually to all the components of liquidity and efficiency thereafter, summation of ranks is done to get the ultimate rank.

Throughout the paper, the period under study (commonly referred to as period) is the time period from 2003 – 2008, period 1 under study (commonly referred to as period-1) is the time period from 2003 – 2005 and period 2 under study (commonly referred to as period- 2) is the time period from 2006 – 2008.

III. Analysis of Working Capital Structure:

The investment in GWC by DPL was almost constant during period-1 with an average of Rs. 115.23 crs. Period-2 witnessed a sharp increase in the GWC, maintaining an average of Rs. 317.55 crs. For the period under study average level of GWC was Rs. 216.39 crs.

Table 1: Composition of Gross Working Capital of DPL

Year	CBB	INT	REC	EPA*	LA	DRE**	GWC
2003	2.22	35.45	44.62	3.32	0	0.32	85.93
2004	1.85	48.47	47.68	4.24	2.19	3.01	107.44
2005	2.17	64.31	78.52	5.09	1.51	0.73	152.33
2006	124.03	84.54	101.29	8.13	7.22	1.08	326.29
2007	4.95	98.65	149.53	13.23	32.77	0.77	299.9
2008	4.49	120.64	147.19	21.35	32.17	0.64	326.48

Source: DPL Annual Reports and CMIE Prowess

*EPA: Expenses paid in advance; **DRE: Deferred revenue expenditure

Figure 1 : Composition of Gross Working Capital of DPL

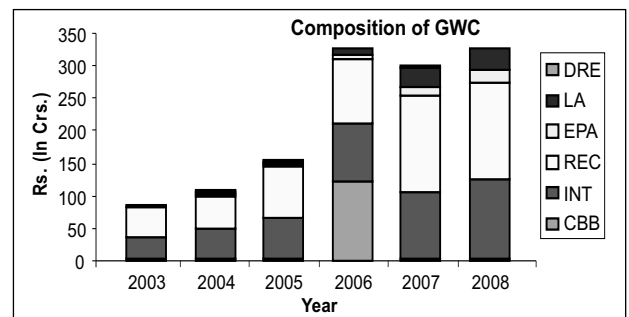
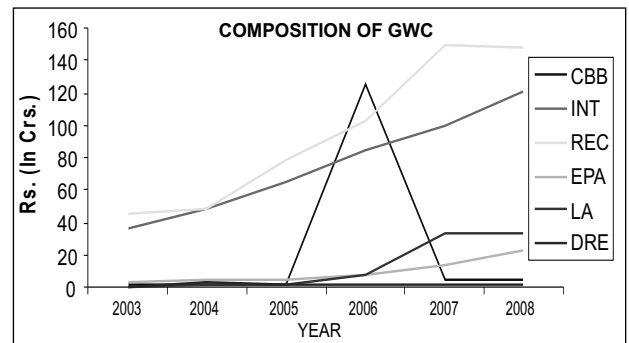


Figure 2: Composition of Gross Working Capital of DPL (Trend)



Inventory and Receivables form a major section of DPL's GWC, collectively on an average for the period under study, they were at a level of 83% (Rs.170.15 crs.) of GWC and they peaked to 93.77% (Rs. 142.83 crs.) of GWC for the year ending March 2005.

Table 2: Composition of Gross Working Capital in Percentage Terms

Year	2003	2004	2005	2006	2007	2008
CBB	2.58	1.72	1.42	38.01	1.65	1.38
INT	41.25	45.11	42.22	25.91	32.89	36.95
REC	51.93	44.38	51.55	31.04	49.86	45.08
EPA	3.86	3.95	3.34	2.49	4.41	6.54
LA	0.00	2.04	0.99	2.21	10.93	9.85
DRE	0.37	2.80	0.48	0.33	0.26	0.20

Table 3: Descriptive Statistics of Components of GWC

Particulars	CBB	INT	REC	EPA	LA	DRE
Mean	23.29	75.34	94.81	9.23	12.64	1.09
Standard Error	20.16	13.06	18.96	2.83	6.35	0.40
Median	3.36	74.43	89.91	6.61	4.71	0.75
Standard Deviation	49.37	31.98	46.44	6.94	15.55	0.97
Sample Variance	2437.60	1022.99	2157.11	48.21	241.77	0.94
Kurtosis	5.99	-1.18	-2.06	0.97	-1.90	4.75
Skewness	2.45	0.20	0.22	1.29	0.87	2.11
Range	122.18	85.19	104.91	18.03	32.77	2.69
Minimum	1.85	35.45	44.62	3.32	0.00	0.32
Maximum	124.03	120.64	149.53	21.35	32.77	3.01
Sum	139.71	452.06	568.83	55.36	75.86	6.55
Count	6.00	6.00	6.00	6.00	6.00	6.00
Largest(1)	124.03	120.64	149.53	21.35	32.77	3.01
Smallest(1)	1.85	35.45	44.62	3.32	0.00	0.32
Confidence Level (95.0%)	51.81	33.57	48.74	7.29	16.32	1.02

Receivable individually add to 45% (Rs. 45.64 crs.) of GWC on an average for the period, attaining a level of 51.93% (Rs. 44.62 crs.) of GWC for the year ending March 2003, which increased to Rs. 147.19 crs (45.08% of GWC) in the year ending March 2008.

IV. Association between Liquidity and Efficiency:

a. Ranking on the basis of Liquidity

This portion deals with assigning ranks to different parameters of liquidity viz inventory, receivable, loans and advances, cash and bank balance. The criteria for assigning ranks to all parameters of liquidity varies according to the nature of the parameter. For inventory lower the percentage with respect to gross working capital is favorable hence higher rank is given to the year with lower percentage of inventory to gross working capital. The argument in support of this logic is that more inventories in gross working capital reflect under utilization of inventory hence capital is blocked in the form of inventory raising cost of capital for the firm. The treatment for receivables is similar with that of inventory; year with higher percentage of receivables to gross working capital reflects firms' inability to recover its receivables in a timely manner, thus increasing the cost of capital as capital is blocked in the form of receivables. For loans and advances, cash and bank balance, higher ranks are given to the year with a higher percentage of the parameter with respect to gross working capital.

Table 4: GWC Components of DPL in Percentage Terms

Year	INT	REC	LA	CBB
2003	41.25	51.93	0	2.58
2004	45.11	44.38	2.04	1.72
2005	42.22	51.55	0.99	1.42
2006	25.91	31.04	2.21	38.01
2007	32.89	49.86	10.93	1.65
2008	36.95	45.08	9.85	1.38

From the table we can notice for the financial year ending on March 31, 2006 DPL was in best position towards maintaining its liquidity while for the year ending on March 31, 2005 its liquidity ranking was last for the period under study.

Table 5: Ranking of GWC Components of DPL for Liquidity

Year	R1	R2	R3	R4	TR	UR
2003	4	6	6	2	18	5
2004	6	2	4	3	15	4
2005	5	5	5	5	20	6
2006	1	1	3	1	6	1
2007	2	4	1	4	11	2
2008	3	3	2	6	14	3

R1: Rank on the basis of INT

R2: Rank on the basis of REC

R3: Rank on the basis of LA

R4: Rank on the basis of CBB

TR: Total of Rank

UL: Ultimate Rank

b. Ranking on the basis of Efficiency

This portion deals with assigning ranks to different parameters of efficiency viz working capital turnover ratio, inventory turnover ratio, debtors turnover ratio, fixed asset turnover ratio, current asset turnover ratio and total asset turnover ratio. The criteria for assigning ranks to all parameters of efficiency is uniformly higher; the higher the value of parameter the higher is the rank assigned. The argument in support of this logic is that higher turnover ratios reflects fast cash conversion cycles. Thus following this criteria, ranks have been assigned to all the parameters and summation of ranks is done to get the ultimate rank for efficiency.

Table 6: Activity Ratios of DPL

Particulars	WCTR	ITR	DTR	FATR	CATR	AT
2003	2.51	2.94	2.34	1.02	1.22	0.53
2004	2.19	2.60	2.64	1.17	1.23	0.57
2005	1.56	2.48	2.03	1.21	1.06	0.54
2006	0.86	2.59	2.16	1.16	0.69	0.41
2007	1.80	2.86	1.88	1.11	1.06	0.41
2008	1.81	3.05	2.50	1.00	1.25	0.45

From the above table we can notice for the financial years ending on March 31, 2004 DPL was in the best position towards maintaining its efficiency while for the year ending on March 31, 2006 its efficiency ranking was last for the period under study.

Table 7: Ranking of GWC Components of DPL for Activity

Particulars	R1	R2	R3	R4	R5	R6	TR	UR
2003	1	2	3	5	3	3	17	2
2004	2	4	1	2	2	1	12	1
2005	5	6	5	1	4	2	23	3
2006	6	5	4	3	6	5	29	5
2007	4	3	6	4	5	5	27	4
2008	3	1	2	6	1	4	17	2

R1: Rank on the basis of WCTR

R2: Rank on the basis of ITR

R3: Rank on the basis of DTR

R4: Rank on the basis of FATR

R5: Rank on the basis of CATR

R6: Rank on the basis of AT

TR: Total of Rank

UL: Ultimate Rank

c. Degree of association between liquidity and efficiency

Coefficient of rank correlation between liquidity and efficiency is -0.3714 and the corresponding t-value is -0.2309. This reflects a weak negative association between liquidity and efficiency.

V. Conclusion:

- i. DPL was having an average GWC of Rs. 217 crs during the period under study. In AY 2002-03 it was at its lowest level of Rs. 85.93 crs and it reached at its peak level in AY 2007-08 at Rs. 326.48 crs. Receivables and inventory formed the major part of GWC for DPL.
- ii. DPL had an average inventory of Rs. 75.34 crs during the period under study. In AY 2002-03 it was at its lowest level of Rs. 35.45 crs and it reached at its peak level in AY 2007-08 at Rs. 120.64 crs.
- iii. DPL had average receivables of Rs. 94.81 crs during the period under study. In AY 2002-03 it was at its lowest level of Rs. 44.62 crs and it reached at its peak level in AY 2006-07 at Rs. 149.53 crs.
- iv. DPL had average loans and advances of Rs. 12.64 crs during the period under study, In AY 2002-03 it was at its lowest level of Rs. 0 crs and it reached at its peak level in AY 2006-07 at Rs. 32.77 crs.
- v. DPL's working capital rankings based on liquidity and efficiency showed very weak negative correlation of -0.3714.

VI. Suggestions:

From the study it was found that inventory and sundry debtors formed the major portion of gross working capital. Now if we concentrate our efforts to control these two components only, our overall position would improve drastically. We will look for these one by one, starting with inventory.

To find methods for controlling inventory is not a major issue. What is important is to implement the same. There are various methods available like EOQ, VED, JIT etc. The best measure that I would suggest for this purpose is Just-in-time (JIT) technique. The firms have to improve its business operations

regarding inventory management radically. Till now, with the traditional method they follow for inventory management many times results in over-investment in stocks and some time it's under-investment in stocks. In the former case there is a risk of stock obsolesces, destroyed etc. and in former there is a risk of stock-outs and off-course, Both the cases involve additional costs like ordering cost, storage cost etc.

But in JIT firms are free of all these hassles. The only thing they have to do is to select a good supplier of stocks and to maintain good relationships with them. The main aim and benefit of JIT is it aims for zero-inventory, thus as a result of zero inventory approach, the efficiency of firms in utilizing assets will be very high.

Now we will look at the second component; sundry debtors or accounts receivable. There are two ways in which we can reduce accounts receivable. These are as follows:

- i. To adopt a strict credit policy
- ii. To make use of 'factoring' services

It's sure that a strict credit policy will improve the position of accounts receivable but at the same time it will effect the overall image of the firm and there are chances that it may dampen future sales of the firm. Thus we will look now for the second option i.e. 'Factoring'.

In factoring, the factor house (usually a division of a bank) purchases the account receivable of the firm and makes 80% payment of the total amount and charges some factoring fees. Thus it will reduce the level of accounts receivable drastically. One thing to be kept in mind is that factoring cost will be almost equal to other source of capital so it will not reduce cost of capital; it will only improve the management of accounts receivable.

References:

- Richard I. Levin and David S. Rubin (1995) : "Statistics for Management", Prentice – Hall of India (P) Ltd., New Delhi, P 738.
- S. H., PM. Reddy and C.S. Reddy (1999) : "Liquidity in Small Scale Industries : An Analysis", Management Perspective Journal, Vol. 2 No. 1, P 48.





PLIGHT OF MATCH INDUSTRY IN ANDHRA PRADESH: CERTAIN ISSUES AND CONCERNS

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ABSTRACT

This paper made an earnest attempt to present the various maladies that are encountered by the match industry in Andhra Pradesh. It also emphasizes the manufacturing process of hand made safety match units in the Chittoor district of Andhra Pradesh. The cottage match enterprises in Chittoor district of Andhra Pradesh provide employment to thousands of unemployed youth directly or indirectly. These cottage match units generate tremendous gainful employment especially to women in rural and urban areas. This activity helps better the economic conditions of the poor people in the region. However, in recent years, these cottage match units are confronting multifarious problems in the areas of production, finance and in marketing. It is in order to dig out the problems of the match industry in the region and to advise suitable remedial measures to overcome the problems and to put the whole gamut of the match industry on a more viable footing, that this attempt is made. It is the fervent hope of researchers, that the various suggestions are recommended in this paper which when implemented in the true spirit as and when necessary, the match units would be placed on more rational, scientific, modern and result oriented lines.

Key words: Match Industry, Economic Conditions, Organized Sector

INTRODUCTION

The age old match industry in India is belongs to the cottage sector. It is an industry which is about 70 years old in the country. A majority (70%) of the match manufacturing activity is accounted for by the small scale sector. About 4000 units are working in the match manufacturing cottage sector. The industry is highly labor oriented. Female workers play a predominant role in the match industry. Since the industry belongs to the cottage sector, it can be conveniently started with a modest capital.

Match Industry – A Backdrop

The origin of the safety match industry in India goes back to the beginning of this century. Around 1910 immigrant Japanese families who settled in Calcutta began making matches with simple hand – and power – operated machines. Local people soon learned the necessary skills and a number of small match factories sprang up in and around Calcutta. These small match factories could not meet the total requirements of the country however, and India began to import matches from Sweden and Japan. During the First World War, when Swedish matches could not be imported, the Indian market was fed mainly by imported matches from Japan and by the locally made ones which followed the Japanese pattern introduced in Calcutta. After the war, factories in Calcutta were unable to compete with imports, and handmade match production shifted to Southern India, especially in the Ramanathapuram and Tirunelveli districts of Tamil Nadu State. This shift was due to the pioneering efforts of P. Iya Nadar and A Shanmuga Nadar who went to Calcutta to learn the process from Purna Chandra Ray, a local businessman, who had learned the trade in Germany. The Nadars set up a number of manual match production units in the extremely poor regions of Tamil Nadu, where a combination of the dry climate, cheap labour and availability of raw materials from nearby Kerala created the ideal conditions for match production. The first sulphur match that would burn when brought into contact with a

rough surface was produced in South India in 1923, and the first safety match, in the form we know today, in 1932. Mechanization came to the Indian match industry in 1924 when Messrs. Wimco Ltd started operations in 1924 as a unit of the multinational Swedish Match Company. Wimco is still the only representative of the large scale sector in wooden match manufacturing and is the only fully mechanized match factory in the country.

Match Industry – Its Rapid Growth

During the past three decades, the Indian match industry grew rapidly. Government policies protected Indian matches by placing protective tariffs on imported products and specifically favored the expansion of the handmade, small scale sector through the use of differential excise taxes. There are now 12,000 units in the small scale, non-mechanized sector, of which 75% to 90% are situated in Southern India.

Match Industry In The Organized Sector

In the match industry, organized factories sprang up in Kerala, Maharastra, Gujarat, Karnataka, Andhra Pradesh, West Bengal and Uttar Pradesh. Largely hand – made earlier, the industry turned mechanical since 1991, moved away from conventional wood to the cardboard box and from wooden sticks to the wax match.

Industry associations in the handmade match sector point out that adoption of the mechanized process and entry of corporate companies like ITC (Indian Tobacco Company) are compounding the industry situation, putting their existence at stake. Currently, the domestic demand for matches is on the decline and the industry is faced with excess capacity, mechanized units. The production has come down by 30% says Mr S Ashok, Director, Pioneer Asia Group. Further, the industry is beset with problems of shortage and increased cost of raw materials and quality labour. However, the price of a matchbox has remained

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stagnant and cannot be raised for obvious reasons, the industry sources pointed out.

According to the CII study, the decline in demand is due to increased use of lighters and a fall in smoking habits, especially among the younger generation. With the scope for new entrants into the industry getting limited, the existing industries in the organized sector expect that they must be allowed to modernize in a systematic manner in the changing global scenario for survival. Adoption of new technologies for the betterment cannot be wished away as the changes would ultimately benefit only the consumers. While the other industries are allowed to modernize and adopt new technologies, the match industry is not.

Support from the government is not very forthright. Rather, "we are very much singled out and penalized" an industry entrepreneur in the organized sector feels. Already the entrepreneurs in the industry have started taking to diversification. A fear has emerged recently over the impact the proposed free trade arrangement among the SAARC countries would have on the industry as Pakistan and Sri Lanka might pose problems for them. "Indian match industry will need strong protection," asserts the MLA from Virudhunagar, Mr C Damodharan.

The organized fireworks industry, despite its success and eminence, is facing problems of stringent rules and regulations over decibels and use and licensing by the authorities, being held as a hazardous industry and categorized as belonging to a high risk explosive segment. The classification creates difficulties while loading consignments in ships, especially in mother ships, says Mr A P Selvarajan. Increasing use of explosives by terrorist groups and naxalites and accidents that occur within the industry pose further problems. This is because Sivakasi is looked at as a source for the supply for explosive materials.

Impact of Govt. Policies

As a result of the policy measures described above the Indian match industry boomed. Between 1926 – 28 and 1949 the number of factories increased from 27 to 192. Since that time, there has been a continuous expansion of the hand – made sector whose share of the market has shot up from 22% in 1949 -50 to 50% in 1969 – 70 and now constitutes 82%. With Wimco's production level frozen and growing population fueling an increase in demand estimated at 6% per annum, the handmade sector will clearly increase even further in the future. The cottage sector under the coordination of the Khadi Village & Industries Commission (KVIC) has been selected to be the major growth sector in the future.

The Government is aware that the policy of differential excise levies acts as a positive disincentive for small units to expand their production and even encourages some bigger units to go in for deliberate fragmentation. No satisfactory solution which would strike a balance between the legitimate interests of the small sector and prevention of abuse of official policy has been developed. There are a number of match producers who have fragmented their units to get the benefit

of concessions, but at the same time there is growing trend towards centralized ownership of many smaller units. In the two major Southern match centers, Shivakasi and Kovilpatti, 18 families known as the "Match Kings of India," now control almost 67% of the total match production in the country. Another result of government policies has been to severely limit the activities of Wimco in the mechanized sector. The increase in excise duties initially proposed in 1979 represented seven times the Company's profits in 1977.

Match Industry In Chittoor District of Andhra Pradesh

The Chittoor district of Andhra Pradesh has been chosen as a sample unit for the study. As per the information available at District Industries Centre (DIC) Chittoor and according to the directory of small industries, Chittoor, the total number of match making units in the district was only 30. As the total number was very small, a census sampling method was followed and all the industrial units in the district were surveyed. The schedule designed for the collection of data from match industrialists widely covered the objectives. The proprietor of the match industry was taken as the principal respondent for the purpose of the study of each unit. The survey was confined to the match industries of Chittoor district only.

This region is the southern most part of Andhra Pradesh surrounded by Tamilnadu on the east and south and Karnataka on the west. Kadapa, Ananthapur and Nellore districts of Andhra Pradesh are on the northern side of Chittoor district. The topography of the district is so clear that it can be divided so easily into the well defined natural divisions, the mountains formed by hilly terrains and the midland consisting of undulating plains. Chittoor district is spread over an area of 5,806 square miles comprising of 15 tehsils. The district is located between longitudes of 12o37' and 14o18' and between eastern longitudes of 78o03' and 79o55'. The climate of the district is generally dry and salubrious. Both summer and winter are severe with wide variations in temperature. Good marketing facilities are available in the district. The Government has taken steps for the establishment of organized Government markets.

The study revealed that out of 30 respondents, 56.66 percent belonged to the age group of 40-45 years, 23.33 percent belonged to the age group of 45-50 years and 20 percent belonged to the age group of 35-40 years. As many as 73.33 percent of proprietors were matriculates and 26.67 percent have studies up to plus two and graduate level. All the respondents were males. It was interesting to note that 43.33 percent of the respondents are Tamilians (who are migrated from Tamilnadu state to Chittoor for a livelihood) and 36.66 percent of them belonged to the Muslim community and rest were Hindus.

The multifarious maladies that are encountered by the match units in the study area are highlighted here as under.

1) Soft Wood

The first and foremost problem encountered by the match



industry in the district is the inadequate availability of softwood. A majority of the respondents, 83.33 percent, have reported that the required soft wood for preparation of matches was either not available or inadequate. The mechanized sector has cornered about 85% of softwood from the country's forests and they are in a near monopoly position. The mechanized units can procure this at a more moderate price than the non – mechanized units.

2) Match Paper and Match Wax

Another major problem confronted by the match industry in the study area is non – availability of match paper and match wax. The well equipped, affluent match units are manufacturing these materials themselves by establishing separate units. But the non – mechanized units have to purchase them at exorbitant prices. Majority of the respondents, 73.3 percent, covered in this study reported that it has become inevitable on their part to purchase these materials by paying the highest percentage of central excise duty which enhanced their manufacturing cost. Even though these people bought these materials at exorbitant prices, the materials were often of sub – standard quality.

3) Timely Finance

Much finance may be available. But it may not be available when the need arises. Regarding the problems of finance, a majority of the respondents, 76.66 percent, expressed that the necessary working capital was either not available on time or was inadequate. Owing to the hard and fast rules of banks with regard to security, they are unable to get finance from the banks and it has become a serious drawback for the match industries.

4) Preparatory Chemicals and Glue

It is reported that the procurement of preparatory chemicals and glue has become an arduous task for these match units. With regard to the supply of preparatory chemicals and glue, the intermediaries are playing a predominant role. About 66.6 percent of the respondents reported their dissatisfaction with the non – availability of preparatory chemicals and glue and the exorbitant prices charged by them.

5) Lack of Strategic Marketing

The study revealed that the marketing of match products has become a big burden for them. As these units are running with the financial assistance of borrowed funds, it became imperative on their part to improve their marketing strategies. Marketing for them has a wider connotation. It does not only involve the disposal of final products. Strategic marketing also involves intensive research in the tastes of the public, demand and the factors influencing the changes in demand. But these poor match manufacturers are not keeping in view the changes and tastes of consumers.

6) Remedial Measures

We have discussed a plethora of maladies that are encountered by the match industrial units in the study area. A few remedial measures are given below.

The implementation of these suggestions, it is hoped, will improve the working conditions of the match units and match industrialists can overcome the cited maladies very easily.

- 1) The state industrial infrastructure corporation may procure the match paper and match wax from the producers at rational prices, and distribute the same to the match industrialists at subsidized prices in optimum quantity.
- 2) The state Industrial Development Corporation may purchase softwood from the concerned forest authorities and hand it over to the civil supplies department to distribute among the match units in sufficient quantities at concessional prices.
- 3) The bank managers should be motivated to lend to the needy units on the basis of the schemes launched and give the applicants the full benefits of the exemptions allowed by the Reserve Bank of India regarding security, subsidy, margin money, guarantee etc.
- 4) In order to increase the supply of preparatory glue and chemicals like chlorate and potash the District Industries Centre (DIC) should procure them from the manufacturers at controlled rates and supply them to the match units at reasonable prices.
- 5) The present era is the age of advertisement and publicity. These poor match manufacturers can not pay higher costs of advertisements for the media. In order to create a regular demand for the products of these poor match manufacturers, the Doordarshan may arrange for commercial advertising at concessional rates. In addition, the Government may provide a subsidy to these industrialists to meet a certain portion of the advertising costs.

References:

1. Papola T.S: "Rural Industrialization" Himalaya Publishing House, Bombay, 1994, PP 152-154.
2. Misra S.K & Puri V.K: "Indian Economy" Himalaya Publishing House, Bombay, 2006, PP 221-224
3. Doss V.B.M: "Industrial Economics" Himalaya Publishing House, Bombay 1999, PP 110-111
4. Rudranath & Sundaram: "Indian Economy" Vikas Publishers, New Delhi., PP 211-213.
5. The Hindu, Online edition of India's national newspaper, Nov 26, 2004
6. www.netexpress.co.in
7. www.indiaenvironmentportal.org.in
8. www.thehindubusinessline.com



MOTIVATION TO INSURANCE ADVISORS OF ICICI PRUDENTIAL LIFE INSURANCE COMPANY (A RESEARCH CONDUCTED AT MAIN BRANCH, SHIMLA)

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Richa Garg ***

ABSTRACT

Motivation of the sales team is an essential ingredient to drive sales. Amongst the private life insurance companies in India ICICI prudential is the most preferred investment destination for most of the life insurance customers. There are various channels through which life insurance policies are sold like banc assurance, advisors (agents), corporate tie –ups and tied channels but it's the advisors (agents) who have a mammoth share in the overall business. The study was conducted at the state capital of Himachal Pradesh, Shimla where ICICI prudential has achieved a sizeable market share in a short period of time. The various elements of motivation were studied and their effect on advisor's motivation and work output were correlated.

Keywords: Reward, Motivation, Satisfaction

Introduction

ICICI Prudential Life Insurance Company is a joint venture between ICICI Bank and Prudential plc – an international financial services group headquartered in the United Kingdom. Total capital infusion stands at Rs. 2602 crore, with ICICI Bank holding a stake of 74% and Prudential plc holding 26%. Company began its operations in December 2000 after receiving approval from Insurance Regulatory Development Authority (IRDA) in India. Today, company's nation-wide team comprises of over 680 offices and over 235,000 advisors. ICICI Prudential was the first life insurer in India to receive a National Insurer Financial Strength rating of AAA (Ind) from Fitch ratings. For three years in a row, ICICI Prudential has been voted as India's Most Trusted Private Life Insurer, by The Economic Times. The study was conducted at a large life insurance organization in the India, but was contained to the Mumbai main branch, which is the office support to the largely sales driven teams of insurance advisors that sell life insurance products or solutions. The outputs of this branch are significantly important to the organization as its key functions are processing of new policies and claims, which often have to be performed under high levels of pressure and against deadlines. The organization has as one of its strategic drivers, a high performance culture as a business priority and strategic intent. Creating a high performance culture requires a number of elements to be present, one of which is high levels of job performance that is underpinned by a highly motivated workforce. The organization is thus under constant pressure to revise its benefit offering to insurance advisors, which includes a reward and recognition programme that insurance advisor buy-in too, is satisfied with and which is linked with the organization's strategy

Objectives of Research

The Research aimed at

- 1) Determining factors that contribute to work motivation and satisfaction of Insurance advisors.
- 2) Determining the impact of rewards and promotional programs on motivation and satisfaction of insurance advisors.

- 3) Studying the relationships between rewards and recognition & insurance advisor motivation and satisfaction.
- 4) Determining the impact of biographical variables on work motivation and satisfaction.

Hypothesis

- (i) There is no statistically significant relationship between work content, payment, promotion, recognition, working conditions, benefits, personal, leadership/supervision, general and work motivation and satisfaction in the Branch of an insurance organization.
- (ii) The nine independent variable (work content, payment, promotion, recognition, working conditions, benefits, personal, leadership/supervision and general) will not significantly explain the variance in work motivation and satisfaction.
- (iii) There are no statistically significant differences in rewards and recognition based on the biographical variables (gender, home language, marital status, age, religion, cast classification, educational qualifications, job grade and tenure).

Literature Review

The word "Motivation" is often used to describe certain sorts of behavior. Motivation can be defined as a concept used to describe the factors within an individual which arouse, maintain and channel behavior towards a goal. Another way to say this is that motivation is goal-directed behavior. While it is easy to see the things that a person does, it is much harder to guess at why they are doing it. It is dangerous to assume that you know what is motivating someone because you really can't "read their mind".

Motivation and Job Performance

Baron (1983, p. 123) defines motivation as "a set of processes concerned with the force that energizes behaviour and directs it towards attaining some goal.

Kreitner and Kinicki (1992, p. 162) postulate that motivation represents "those psychological processes that cause the arousal, direction and persistence of voluntary actions that

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are goal directed.”

Schermerhorn, Hunt and Osborn (1991) conceptualize motivation as based on content and process approaches. The content theories of motivation emphasis the reasons for motivated behaviour and/or what cause it.

Motivated teams of insurance advisors are now seen as the primary source of an insurance company’s competitive advantage. Therefore, the way insurance advisors are treated increasingly determines whether an organization will prosper or even survive (Lawler, 2003). To ensure that insurance advisors are treated fairly, organizations are acknowledging that they need to establish an equitable balance between insurance advisors contribution to the organization and the organization’s contribution to the insurance advisor. Establishing this balance and meeting this need is one of the first reasons, according to Deeprose (1994), to reward and recognize insurance advisors.

Nel, Gerber, van Dyk, Haasbroek, Schultz, Sono and Werner (2001) concur with this theory and argue that motivated individuals are aware of a specific goal that must be attained and would direct their effort at attaining that goal. Traditionally, individual performance in organizations has centred on the evaluation of performance and the allocation of rewards. Organizations are starting to acknowledge that planning and enabling individual performance have a critical effect on organizational performance. Strategic success for the organization lies in focusing attention at all levels on key business imperatives, which can be achieved through effective performance management (Nel et al., 2001). According to Wilson (1994), the performance management process is one of the primary elements of the total reward system. It is the process that impacts performance between paychecks and provides the basis on which individual results are measured. It is the bonding agent in programmes that direct rewards to true performance. The primary focus of reward and recognition programmes is how organization define their reward schemes and communicate this in a manner that insurance advisors clearly understand the link between reward and performance (Flynn, 1998).

Deeprose (1994, p. 3) posits the view that “Good managers recognize people by doing things that acknowledge their accomplishments and they reward people by giving them something tangible. They create environments where jobs provide intrinsic rewards – good feelings people get from doing the work itself. Yet in too many organizations, recognition is reserved for an elite few and rewards are defined solely in terms of commission and salaries.”

Effective recognition enhances insurance advisor motivation and increases insurance advisor productivity all of which contribute to improved organizational performance. Baron (1983) argues that there is a close relationship between motivation and job performance. He notes that if successful performance does in fact lead to organizational rewards, such performance could be a motivational factor for insurance advisors. Under such conditions, they can see that

their efforts result in rewards. Consequently, they may be motivated to exert higher levels of effort on the job. In summary, there is a reciprocal relationship between the two constructs, not only can motivation influence performance, but also that performance – if followed by rewards – can influence motivation (Baron, 1983).

Research Methodology

Population and Sample

Sekaran (2001, p. 225) defines a population as “the entire group of people, events or things of interest that the researcher wishes to investigate.”

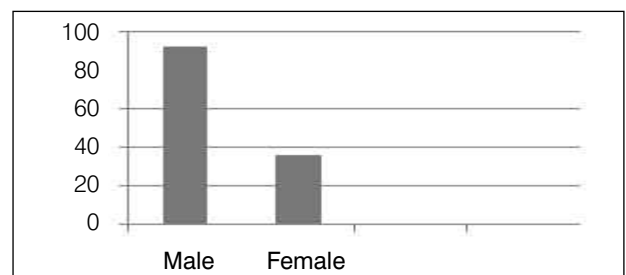
The population for the study was obtained from a branch of a large life insurance organization in the India. The study was contained to the group of insurance advisors that sell life insurance products of ICICI Prudential Life Insurance Company. The SHIMLA main branch is the largest business unit, also have incentives reward programmes. The outputs of this branch are significantly important as a support function to the organization. Its key functions include getting new customers; provide insurance solution and guide to existing customers, processing of new policies and claims, dealing with client queries and complaints, improving information technology and technology architecture that would ensure system efficiently and effectiveness. These functions often have to be performed under high levels of pressure and against deadlines. The unit population consisted of approximately 1373 Insurance advisors who are predominantly working with ICICI Prudential life insurance Company’s SHIMALA main branch. To access advisors to participate in the study, the researcher relied on the assistance and cooperation of the branch managers. The sample used in this study was selected from advisors who are working with branch since more than two years. The focus was on advisors who are working with branch since more than two years, this group was usually more responsive to completing questionnaires and that it would result in the least amount of disruption, which was an important factor to take into account.

Sample Characteristics

The biographical information of the 128 respondents is represented in graphical format.

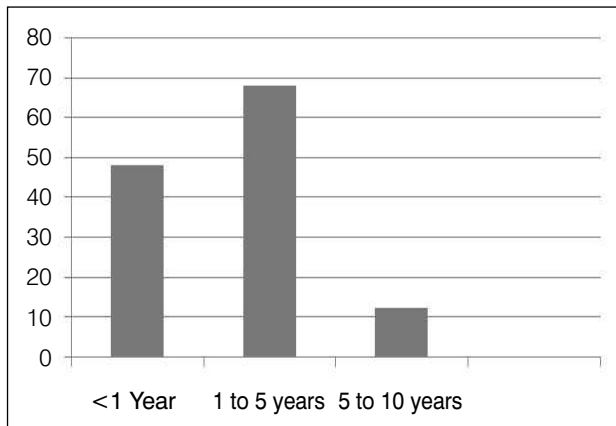
Figure1 represents the subjects responses with regard to their gender

As can be seen from the figure, the majority of the sample (n



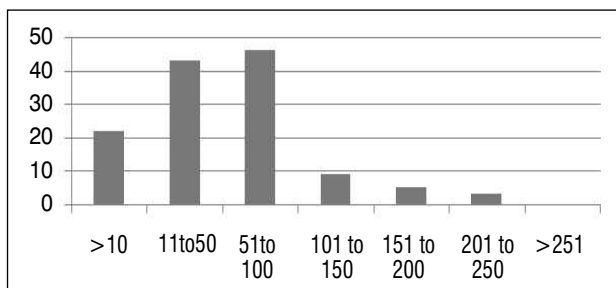
= 92) or 72% was male, while the remaining 28% (n = 36) comprised of female respondents.

Figure 2 presents the respondents' years of service in the insurance organization as insurance advisor



53% (n=68), have worked for the organization for 1-5 years, while a further 37.5% (n=48) have worked for the organization for less than one year 9.5% (n= 12) have worked for the organization for more than five years.

Figure 3 presents the distributions of the sample with regard Number of policies sold till today.



36% (n=46), have sold 51 to 100 policies, while a further 34% (n=43) have sold 11 to 50 policies. There are 17% respondents (n=22) have sold less than 10 policies. There are only 9 respondents who sold more than 101 but less than 151 policies.

For the purpose of this study a quantitative methodology was followed and a questionnaire was used as the measuring instrument.

Data Collection Methodology

Although known to the population, the study was relied on the unit manager, Branch Manager to obtain access to the sample. The unit manager has direct contact with the population and therefore had more influence in terms of creating a sense of urgency to complete the questionnaires. Even the sample operates in an electronic-driven environment it was decided to send the questionnaires in manual form. Unit managers desk used to distribute the questionnaires amongst the insurance advisors.

Respondents were given five days within which they could complete the questionnaire and submit to their unit manager.

Results of Work Motivation & Satisfaction

Descriptive statistics in the form of arithmetic means for the respondents were computed for the various dimensions assessed by the work Motivation and Satisfaction Questionnaire.

Table 1 The means of the Work Motivation and Satisfaction

Sr. No.	Variable	Mean
1	Payment	3.63
2	Satisfaction	3.50
3	Leader/Unit Manager	3.45
4	Reorganization & Benefits	2.52
5	General	2.42
6	Personal	152
7	Working Conditions	150
8	Promotion	131

*** Where high variables correspond to low motivation.**

With respect to the dimensions of work motivation assessed by the work motivation and satisfaction questionnaire, Table 1 indicates that the means for the payment, satisfaction, leader/unit manager, recognition & benefits and general ranged from a low of 2.42 to a high of 3.63. It therefore appears that staff in the sample are relatively motivated, however, the mean values for payment, satisfaction, leader/unit manager, recognition & benefits were the higher. These mean values indicate the areas that employees were most likely to be motivated and satisfied. Table 1 thus shows that staff in the sample is most likely to be motivated due to their payment, satisfaction, leader/unit manager, recognition & benefits dimensions. They are least motivated by the working condition and promotion as determined by the Work Motivation and Satisfaction Questionnaire.

Correlation

The Pearson's Product Moment Correlation Coefficient was computed for the purposes of determining the following relationships:

- The relationship between the different dimensions of the Work Motivation and Satisfaction Questionnaire.
- The relationship between rewards, recognition and work satisfaction and motivation.

In order to delineate the relationship between the various facets of the work environment on work motivation and satisfaction, the sub-dimensions of the Work Motivation and Satisfaction questionnaire were correlated and are presented in Table 2.

Table 2 Dimension Correlations with work motivation & satisfaction

Work Motivation and Satisfaction		
Variable	Pearson correlation	Significance (2-tailed)
Work Content	0.66**	0.000
Payment	0.86**	0.000
Promotion	0.74 **	0.000
Recognition	0.92**	0.000
Working Conditions	0.61**	0.000
Benefits	0.65**	0.000
Personal	0.37*	0.000
Leader/Supervisor	0.32*	0.023
General	0.34*	0.005

* **Correlation is significant at the 0.05 level (2-tailed)**

** **Correlation is significant at the 0.01 level (2-tailed)**

The results indicate that work content correlates significantly with work motivation and satisfaction ($r = 0.66, p < 0.01$). This supports the hypothesis that there is a significant relationship between work content and work motivation and satisfaction. A significant correlation is shown to exist between payment and work motivation and satisfaction ($r = 0.86, p < 0.01$), supporting the hypothesis that there is a significant relationship between payment and work motivation and satisfaction. There was also a significant relationship between promotion and work motivation and satisfaction ($r = 0.74, p < 0.01$). Hence, this supports the hypothesis that promotion opportunities are significantly related to work motivation and satisfaction. A significant correlation also exists between recognition and work motivation and satisfaction ($r = 0.92, p < 0.01$), supporting that recognition is significant in explaining the variance in work motivation and satisfaction. There was a significant relationship between working conditions and work motivation and satisfaction ($r = 0.61, p < 0.01$). Hence, the hypothesis that there is a relationship between working conditions and work motivation and satisfaction is supported. There was a significant relationship between benefits and work motivation and satisfaction ($r = 0.65, p < 0.01$), supporting the hypothesis that benefits are significant in explaining work motivation and satisfaction. A significant correlation was found to exist between the dimension of personal and work motivation and satisfaction ($r = 0.37, p < 0.05$). There was a significant relationship between leader/supervisor and work motivation and satisfaction ($r = 0.32, p < 0.05$), as well as between general and work motivation and satisfaction ($r = 0.34, p < 0.05$). The results indicate that for the Interco relation matrix exploring the relationship between the dimensions of the Work Satisfaction and Motivation Questionnaire, that all the coefficients were positive. The results depicted in Table 4.2 indicate that there is a significant statistical relationship between the dimensions of work motivation and satisfaction.

Accordingly, the null hypothesis is rejected.

Table 3 The relationship between rewards, recognition and work motivation and satisfaction

Work satisfaction and Motivation	
Rewards	0.86**
Recognition	0.92**

** **Correlation is significant at the 0.01 level (2tailed).**

There is a statistically significant, direct and positive relationship between rewards and work satisfaction and motivation ($r = 0.86, p < 0.01$). Hence, if rewards offered to employees were to be altered, then there would be a corresponding change in work motivation and satisfaction. The coefficient of determination, ($R - \text{squared} = 0.74$), implies that 74% of the variation in work motivation and satisfaction of the sample can be attributed to rewards received, which implies that the remaining 26% can be explained by other factors not considered. The results indicate that there is a statistically significant, direct and positive relationship between recognition and work satisfaction and motivation ($r = 0.92, p < 0.01$). This implies that if the recognition accorded to employees were to change, there would be a change in work motivation and satisfaction. The coefficient of determination, ($R - \text{squared} = 0.60$), implies that 60% of the variation in work motivation and satisfaction of the sample can be attributed to recognition, while the remaining 40% can be attributed to other variable which were not explored in the current research.

Multiple Regression Analysis

On the basis of the results obtained indicating a direct positive relationship between the dimensions of work satisfaction and motivation, all the dimensions of the instrument were assessed using multiple regression analysis to ascertain the extent to which they explain the variance in work satisfaction and motivation. The results shown in Table 4.4 indicate a relatively high percentage of the variation in work motivation and satisfaction can be explained by the variables entered in the equation ($R - \text{squared} = 84.27\%$, $R - \text{squared (adjusted)} = 71.4\%$). Thus 71% of the variance in work motivation and satisfaction can be explained by work content, payment, promotion, recognition, working conditions, benefits, personal, leader/supervisor and general dimensions. The F-ratio of 16.59 ($p < 0.01$) dimensions assessed, expressed through the adjusted squared multiple ($R - \text{squared (adj.)} = 71.40\%$) is statistically significant. Hence the null hypothesis is rejected. These variables account for 71% of the variance in work motivation and satisfaction. This finding suggests that other unexplored variables could account for the other variance in work motivation and satisfaction.

Table 4 Stepwise Regression: Dependent variable (work motivation and satisfaction).

Multiple Regression	0.93952			
R squared (R2)	0.84276			
R squared (Adjusted R2)	0.71404			
Standard error	3.43232	F = 16.59	Sig. F = 0.00**	
Variables in the equation	B	SE for B	T	P
Work Content	-2.9645	1.1857	2.36	0.03*
Payment	-1.5234	0.2863	5.32	0.00**
Promotion	-0.6828	0.2903	3.65	0.00**
Recognition	-2.6846	1.1857	2.48	0.00**
Working conditions	-1.2534	0.2863	1.34	0.00**
Benefits	-0.5856	0.2903	1.65	0.00**
Personal	-3.5535	0.1452	1.79	0.00**
Leader Supervisor	-2.2338	1.7683	1.43	0.00**
General	-2.1045	0.1564	1.33	0.00**

Analysis of Variance (ANOVA)

An investigation was undertaken to determine whether there are differences in work motivation and satisfaction based on the biographical characteristics of the sample

Table 5 ANOVA: Differences in rewards and recognition and work motivation and satisfaction based on gender

Gender	Mean	S	N	F	P	Scheffe's Test
Male	1.56	0.63	73	3.14	0.000**	Females received lower rewards and were less motivated.
Female	1.78	.49			111	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation. ** P > 0.01 There is a significant mean difference in the overall levels of work motivation and satisfaction experienced by male and female employees (p > 0.00). Females reported lower levels of work satisfaction and motivation (Mean = 1.78, s = .49) than males (Mean = 1.56, S = .63) on the basis of rewards and recognition received.

Table 6 ANOVA: Differences in rewards and recognition and work motivation and satisfaction based on home language

Home language	Mean	S	N	F	P	Scheffe's Test
English	1.69	.53	44	3.26	0.000**	Punjabi speaking respondents differ significantly from the other groups
Hindi	1.48	.34			135	
Punjabi	1.85	.56			3	
Other	1.78	.46			2	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation, ** p < 0.01. There is a significant mean difference in the rewards and recognition (work motivation and satisfaction levels) of

employees based on their home language. Punjabi speaking employees evidenced the lowest levels of work motivation and satisfaction (Mean = 1.85, s = .56), followed by those indicating they spoke other languages (Mean = 1.78, s = .46). Hindi speaking respondents reported the highest levels of rewards and recognition and hence work motivation and satisfaction (Mean = 1.48, s = .34).

Table 7 ANOVA : Differences in rewards and recognition and work motivation and satisfaction based on marital status

Marital Status	Mean	S	N	F	P	Scheffe's Test
Single	1.87	.58	28	3.55	0.000**	Those who are married differ significant from those in the other groups
Married*	2.12	.20			130	
Divorced	1.76	.65			25	
Widowed	1.79	.59			1	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation. **p < 0.01. There is a significant mean difference in the rewards and recognition (work motivation and satisfaction) levels of employees based on their marital status. Married employees reported the lowest rewards and recognition (work motivation and satisfaction), followed by single employees. Those who are divorced indicated the greatest satisfaction and motivation based on the rewards and recognition they receive. The results need to be interpreted with caution due to the fact that most respondents were married, with under representation from the other categories of employees.

Table 8 ANOVA: Difference in rewards and recognition and work motivation and satisfaction based on age

Age	Mean	S	N	F	P	Scheffe's Test
< 30 years	1.71	.56	19	2.48	0.000**	Respondents in the age category 41-50 yrs. differed significantly from the other groups
31-40	1.69	.35			91	
41-50 years*	1.94	.92			61	
51 years +	1.63	.48			12	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation. p < 0.01 There is a significant mean difference in the rewards and recognition (work motivation and satisfaction) levels of employees in the age group 41-50 years and employees in other age groups. Employees in the age group 41-50 years reported lower rewards and recognition (lower levels of work motivation and satisfaction)

(Mean = 1.94, s = .92) than employees in the age groups up to 30 years (Mean = 1.71, s = .56), 31-40 years (Mean 1.69, s = .35), and older than 50 years of age (Mean = 1.63, s = .48).

Table 9 ANOVA : Differences in rewards and recognition and work motivation and satisfaction based on race

Race	Mean	S	N	F	P	Scheffe's Test
Afro*	2.18*	.27	3	3.92	0.000**	Also respondents differed significantly from the other groups
Coloured	1.74		.43		28	
Asian	1.68		.32		3	
White	1.54		.45		145	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation. $p < 0.01$

There is a significant mean difference in the rewards and recognition (motivation and satisfaction) levels of employees based on their race. Hindu employees reported the lowest levels of motivation and satisfaction (Mean = 2.18, $s = .27$) than White employees (Mean = 1.54, $s = .45$), Asian employees (Mean = 1.68, $s = .32$) and coloured employees (Mean = 1.74, $s = .43$). In interpreting the data though, cognizance needs to be taken of under-representation of employees from the group: African, Asian and Coloured, making any generalizations tentative.

Table 10 ANOVA : Differences in rewards and recognition and work motivation and satisfaction based on job classification.

Job Classification	Mean	S	N	F	P	Scheffe's Test
Specialist	1.73	.69	43	4.10	0.000**	Clerical staff differ from the other groups.
Line manager	1.82		.67		50	
Clerical*	2.03*		.53		15	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation. * $p < 0.01$

There is a significant mean difference in the rewards and recognition (work motivation and satisfaction) levels of employees based on their job classification. Clerical grade employees reported the lowest rewards and recognition and hence the lowest work motivation and satisfaction (mean = 2.03, $s = .53$), followed by line managers (mean = levels of rewards and recognition (work motivation and satisfaction) (Mean = 1.73, $s = .69$).

Table 11 ANOVA: Difference in rewards and recognition and work motivation and satisfaction based on educational qualifications

Educations	Mean	S	N	F	P	Scheffe's Test
1 level Metric *	2.1	.60	11	3.95	0.000**	Respondents with educational levels up to metric differ significantly from the remaining groups
Diploma	1.67		.47		68	
Degree	1.73		.57		28	
Masters	1.67		.69		2	
Other	1.62		.34		-	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation.* $p < 0.01$ There is a significant mean difference in the rewards and recognition (work motivation and satisfaction) experienced by employees with lower levels of education. In this instance, those with education levels up to metric indicated the least work motivation and satisfaction relative to the other education levels. Employees with the educational level of metric reported the lowest levels of work motivation and satisfaction (Mean = 2.1, $s = .60$) than employees with diplomas (1.67, $s = .47$), degrees (Mean = 1.73, $s = .57$), Masters Degrees (Mean = 1.67, $s = .69$) and other qualifications (Mean 1.62, $s = .34$).

Table 12 ANOVA: Differences in rewards and recognition and work motivation and satisfaction based on job grade

Job Grade	Mean	S	N	F	P	Scheffe's Test
PG 9	2.01	.56	56	3.95	0.000**	PG 11 respondents differ significantly from the other groups
PG 10	1.73		.37		58	
PG 11*	2.27		.59		18	
PG 12	1.74		.34		37	
PG 13	1.69		.48		8	
PG 14	1.68		.59		3	
PG 15	1.62		.36		3	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation.* $p < 0.01$ There is a significant mean difference in the rewards and recognition (work motivation and satisfaction) experienced by employees based on their job grade. Employees in PG 11 reported the lowest levels of reward and recognition (work motivation and satisfaction) (Mean = 2.27, $s = .59$) than employees in the other job grades. Employees in PG 15 evidenced the highest work motivation and satisfaction relative to the rewards and recognition they received (Mean = 1.62, $s = .36$).

Table 13 ANOVA: Differences in rewards and recognition and work motivation and satisfaction based on tenure

Tenure	Mean	S	N	F	P	Scheffe's Test
< 1 yr.	1.79	.56	3	3.55	0.000**	Those employed between 1 and 5 yrs. differ significantly from Those in the other groups
1-5 yrs*	2.12		.24		26	
6-10 yrs	1.76		.63		15	
16-20 yrs.	1.68		.45		54	
> 20 yrs.	1.72		.56		46	

Where higher scores are indicative of lower rewards and recognition, work satisfaction and motivation. ** $p < 0.01$ There is a significant mean difference in the rewards and recognition (work motivation and satisfaction) levels of

employees with 1-5 years of experience (Mean = 2.12, s = .24) and those with fewer or more years' service. Those with 1-5 years' service reported the lowest rewards and recognition (work motivation and satisfaction) compared to the other groups. Those with 16-20 years' service in the organization indicated the highest rewards and recognition (work satisfaction and motivation) compared to all the other categories of employees.

The Scheffe's Test reflected the following findings in terms of rewards and recognition levels based on the work motivation and satisfaction questionnaire and the biographical variables of the sample :

- a) Female employees indicated they were least motivated and satisfied by rewards and recognition.
- b) African respondents indicated lower levels of work motivation and satisfaction relative to other race groups based on rewards and recognition.
- c) Respondents in the age category 41-50 years evidenced the lowest level of work motivation and satisfaction in relation to their rewards and recognition levels.
- d) Respondents with educational levels up to metric were the least motivated and satisfied due to their rewards and recognition.
- e) Those employees who had been working for the organization for between 1 and 5 years were the least motivated and satisfied on the basis of rewards and recognition.
- f) Those speaking employees reported the lowest levels of work motivation and satisfaction based on rewards and recognition.
- g) Post grade 11 employees experienced lower rewards and recognition relative to the other groups.
- h) Married employees reported the lowest motivation and satisfaction based on rewards and recognition.

Hence, the null hypothesis show that there are no statistically significant differences in rewards and recognition (work motivation and satisfaction) of employees based on their biographical variables, is rejected.

Conclusion

For the purposes of this study the Scheffe Test reflected significant differences in terms of rewards and recognition levels based on work motivation and satisfaction questionnaire and the biographical variables of the sample. Through its 2002 "People at Work Survey", Mercer concluded

that 48% respondents believed that they were paid fairly, 28% were motivated by their organizations incentive compensation plan, only 29% said that when they do a good job, their performance get rewarded. In the same study they found that among insurance advisors who say their performance is rewarded when they do a good job, 90% are satisfied with their work; 88% are satisfied with their organizations and 12% were seriously considering leaving (Compensation & Benefits Report, 2003). Stephenson (2005) posits the view that top insurance company must actively demonstrate its support for organizational policies designed to encourage work-life balance. Some insurance advisors believe that all work and no play is the only certain path to the corner office on the executive floor. The rules must be applied fairly to everyone. Berry (2005) reported that the construction firm ISG Interior Exterior was running a series of on-site pilot schemes to try and improve the work-life balance of its insurance advisors, as managers are responding to staff concerns over the construction industry's long-hours culture and pressurized work environment, which has made it difficult to balance personal and working lives. The more highly rewarded and recognized people are, the more satisfied they tend to be with their job and with their life. This implies that satisfied employees are less likely to quit, change jobs, join unions, or be absent. In summary, organizations are better off when they provide people with a reward level that leads them to feel at least moderately satisfied (Lawler, 2003). Consistent in the literature is that, albeit a well-researched area, many organizations are still not leveraging off the value that a well-structured total reward programme could add. It would appear that many organizations continue to make the mistake to have programmes that focuses primarily on reward, rather than a healthy balance of reward and recognition.

References

- Benowitz. Ellen A and Notes Cliff , Principles of Management, Publisher Cliff Notes
- McShane Steven and Hill. W.L.Charles, Principles of management, 5e,2006, Publisher Tata Mgraw Hill, New Delhi
- ICICI Prudential official website
- "http://en.wikipedia.org/wiki/ICICI_Prudential
- <http://www.insureme.com/insurance-agent/staying-motivated-as-an-agent>





PROBLEMS FACED BY THE HEALTH INSURANCE POLICY HOLDERS OF DIFFERENT PUBLIC AND PRIVATE HEALTH INSURANCE COMPANIES FOR SETTLEMENT OF THEIR CLAIMS (A case study of Punjab)

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ABSTRACT

From a consumer's standpoint, it is extremely essential to be clear on several aspects of the product and post-sale service at the point of sale itself. The researchers study is intended to measure the problems faced by customer after purchasing; during claim process, and receiving claim of the health insurance policy from different Public-Private health insurance companies. Primary data was gathered using detail customer survey in Patiala from 1st April 2010 to 30th June 2010. We have tried to include all types of people in our survey and as such we presume this study represents the entire Punjab because Patiala having a population of more than 18 lacs which includes almost all types of people.

Key Words: Health Insurance, TPA, Claim.

INTRODUCTION

What is claim? An itemized statement of services and costs from a health care provider or facility submitted to the insured for payment. A claim arises on account of happening of a loss producing event (peril) inflicting financial damage (loss) to the insured. For the claim to be admissible, both the peril as well as the nature of loss should be insured or not excluded from the coverage. Insurance is the business of settling claims and a vast majority of claims received by an insurance company are settled with minimum of effort, either for the policyholder/claimant or for the company. Claimant has the right to a fair, quick and correct claim decision, and this is every insurer's duty to ensure the claimants for fair and reasonable compensation as per the terms of the policy. When one is shopping for health insurance coverage, what one is shopping for is the covered expenses and payment. For an insurance customer, the most important event during his relationship with the insurer or the moment of truth is the settlement of claim. The policyholder looks forward to the particular time when the promise to pay the sum assured is kept by the insurer. If the promise made is fulfilled, the policyholder built great trust and wishes further to keep the contract alive. But when a claim is rejected, he is thoroughly disillusioned and regrets being associated with the insurance company. Repudiation of a claim by the insurer hits at the very root of the faith and confidence of the insured. A major cause of customer dissonance towards insurers and insurance is the fact that claims do get rejected, for one reason or the other.

Its not always an insurance companies which is responsible for non settlement of claims but customer are also sometimes responsible for the rejections of their claims. Insurance contracts are heavily dependent on reciprocal obligations and in an ideal situation, where both the parties have fully understood their rights and responsibilities, and acted accordingly; the need for repudiating a claim would never arise. It has often been said that there is a great deal of asymmetry of information in insurance contracts; and most

of this asymmetry arises because the policyholder does not understand the nuances of the contract – either on account of the lack of awareness or owing to the fact that the insurer has not bothered to explain the terms of the contract in their exhaustive detail. In any case, the controversy arises only when there is a repudiation of a claim, and by then it is too late. Insurance selling has become an aggressive business after private players entered the marketplace. While this was required to a great extent in the interest of increasing insurance penetration in the country, it has, on the flip side, also resulted in instances of gross mis-selling by unscrupulous salespersons. In the lure of 'closing a deal', critical elements of insurance selling like explaining the coverage, exclusions, duties of insured in the event of claims and the like are often not communicated to the insured. The perception of the product created in the mind of the policyholder at the point of sale, plays a crucial role in building his expectations at the time of claim. Hence from a consumer's standpoint, it is extremely essential to be clear on several aspects of the product and post-sale service at the point of sale itself.

THIRD PARTY ADMINISTRATION (TPA)

Third party administrators are prominent players in the managed care industry and have the expertise and capability to administer all or a portion of the claims process. They are normally contracted by a health insurer or self-insuring companies to administer services, including claims administration, premium collection, no enrollment and other administrative activities. A hospital or provider organization desiring to set up its own health plan will often outsource certain responsibilities to a TPA.

For example, an employer may choose to help finance the health care costs of its employees by contracting with a TPA to administer many aspects of a self-funded health care plan. The Insurance Regulatory Development Authority (IRDA) selects the TPAs on the basis of strict professional norms. The Insurance industry in India has experienced a sea of

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change since the opening up of the sector for private participation. With a plethora of companies entering the foray in the near future, the health insurance sector is surging forward and is poised for a phenomenal growth.

Health insurance is an important mechanism to finance the health care needs of the people. To manage problems arising out of increasing health care costs, the health insurance industry had assumed a new dimension of professionalism with TPAs. Further, the uncertainty related to a medical condition increases the need for a health insurance for all the citizens.

Health insurance is any health plan that pools resources up front by converting unpredictable medical expenses into a fixed health insurance premium. It also centralizes funding decisions on health needs of a policyholder. This covers private health plans as well as mediclaim policies.

While call center facilities and personalized financial planning tools are some of the innovative trends, experienced in the products front, the best thing to happen on the service front is the introduction of third party administrators as they serve as a vital link between insurance companies, policyholders and health care providers.

TPAs were introduced by the IRDA in the year 2001. The core service of a TPA is to ensure better services to policyholders. Their basic role is to function as an intermediary between the insurer and the insured and facilitate cash less service at the time of hospitalization.

A minimum capital requirement of Rs.10 million and a capping of 26% foreign equity are mandatory requirements for a TPA as spelt by the IRDA. License is usually granted for a minimum period of three years. Ideally, The TPA functions by collaborating with the hospitals in order for the patient to enjoy hospitalization services on a cashless basis.

Unfortunately health insurance in India has the most dissatisfied customers, and their loyalty levels are also declining as PSUs fail to match up to customer expectations. Tardy clearance of mediclaims, and inefficient cash-less facilities are just some of the drawbacks.

There might be many reasons for Rejection or Non – Settlement of claims:

- Insured has pre-existing disease and it was already mentioned in policy document as exclusion.
- The specific diseases are not covered under the policy
- Disease is a pre-existing disease and it was not revealed by the insured at the time of Purchase/issue of policy.
- The main reasons for claim being passed in part are :
- Some of the tests conducted/treatment were not relevant to the disease for which patient was admitted.
- Some costs like consumables are not payable by the insurance company. Examples are :-

With a view to cover some of these payments some TPA's insist that 5% of the hospital bill will be paid by the patient. You should not be surprised if you are asked to pay 5% of the bill even if you are covered under cashless scheme. In the event of consumables are not 5% or more than 5% there is good possibility that you may get part of this paid to you at time of finalization of their claim.

RATIONALE OF STUDY

Health insurance in India has the most dissatisfied customers, and their loyalty levels are also declining as

companies fail to match up to customer expectations. Tardy clearance of mediclaims, and inefficient cash-less facilities are just some of the drawbacks. Why would you pay good money for something that doesn't do what it said it would do? Insurance companies are no different. They understand that if their product doesn't perform, people aren't going to buy it. In their quest to weed out invalid claims, sometimes they make it difficult for the rest of us who have real claims. So there is great need to make understand and make aware customers about the product at insurers end and better treatment and knowledge to the insurer at the customer end.

REVIEW OF LITERATURE

Karen Davis, Stuart Guterman, Michelle M. Doty and Kristof M. Stremikis IN HIS TITLE ;Meeting Enrollees' Needs: How Do Medicare And Employer Coverage Stack Up?- One key issue in health reform concerns the relative roles of coverage offered through private insurance and public programs. This paper compares the experiences of aged Medicare beneficiaries with those of people under age sixty-five who have private employer coverage. Compared with the employer-coverage group, people in the Medicare group report fewer problems obtaining medical care, less financial hardship due to medical bills, and higher overall satisfaction with their coverage. Although access and bill payment problems increased across the board from 2001 to 2007, the gap between Medicare and private employer coverage widened.

Customer Relationship YOUR MOST IMPORTANT ASSET Customer relationship is centred in partnership Ultimately, effective customer relationship is centred in partnership, focused on the fact that all players – whether customer as policyholder or distributor, employee or management, shareholders or promoters ¾ are partners in the success of the service that the company provides. The understanding that a life insurance business is essentially one of partnership in helping customers meet their life's opportunities and adversities will go a long way in aligning the functional arms in a life insurance business. If proper attention to this is not given at all times, the customer may start distrusting the principal in a downturn since relationships were never strong to start with. And when the upturn comes, the company may find itself without much of a 'partnership' and not be able to enjoy the consequent upside that the ones who are successful in their customer management practices may do. Neil I. Goldfarb, Vittorio Maio, Chureen T. Carter, Laura Pizzi, and David B. Nash* How Does Quality Enter into Health Care Purchasing Decisions?- Efforts on the part of several large employers and business coalitions are beginning to demonstrate health care purchasers' commitment to quality. The Leapfrog Group, for example, has developed a small number of quality-improvement expectations for inpatient providers and plans to continue broadening the scope of its initiatives over time. However, for this and other nationally visible initiatives, it appears that many purchasers are either choosing not to participate, or are passive participants. As one of the respondents to our survey commented, "The pioneers have blazed the path, but not many have followed." This issue

brief has highlighted obstacles to growth of the value-based purchasing movement, including data limitations,

measurement concerns, administrative and financial barriers, and stakeholder behaviors and attitudes. Future research should focus on increasing our understanding of how these barriers can be overcome and how the purchaser's role in driving quality improvement can be fostered.

RESEARCH METHODOLOGY

The detailed customer survey was conducted intensively over the month, from 1st April 2010 to 30 June 2010, in Patiala. We sent out questionnaires to 150 customers on the basis of random sampling. A total of just 110 questionnaires were returned and after eliminating uncompleted questionnaires, the remaining 100 questionnaires were used as the sample. Chi-square test and cross tabulation method for multiple responses have been adopted to analyze the result.

SCOPE OF STUDY

The study has been carried out in Patiala, which has a total population of 18,44,934 and is the 6th largest district in terms of population in Punjab, with view of comparative study of major players in health insurance each from public and private sector. We have tried to cover various types of respondents from different segments like Industrialist, Businessman/ Service class, Entrepreneurs, Students, Housewife's, Male/Female, Married/Un-married etc.

OBJECTIVE OF THE STUDY

- 1) To study the reasons for rejection of the claims.
- 2) To study satisfaction level of the customer with the health insurance companies they are dealing with.
- 3) To study difficulties faced by insurers in getting their

health insurance claims.

- 4) To study the performance of the public and private sector companies on these parameters.

ANALYSIS OF DATA, FINDINGS AND RESULTS

Table 1 shows that 56 respondents have health insurance policies from public sector undertaking and 44 respondents have health insurance policies from private sector undertaking. The details are given as under:-

At 5% level of significance for degree of freedom is 6. The table value of chi-square is equal to 12.59 and calculated value is 100.000. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attributes are independent.

Table 2 shows distribution of sex ratio among the respondents of public/Private sector undertaking.

Total 56 Respondents, out of which 48 are Male respondents and 8 are female respondents who have purchased health insurance from Public sector undertaking and out of total 44 respondents, who have purchased policies from private sector undertakings, 32 are male respondents and 12 are female respondents Table 2

a. 7 cells (50.0%) have expected count less than 5. The minimum expected count is .80.

At 5% level of significance for degree of freedom is 6. The table value of chi-square is equal to 12.59 and calculated value is 18.611. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attributes are independent. Chart 2

Table 1

	dealing with which company?										Total Number of respondents from Private & Public sector
	Oriental Insurance	New India Assurance	National Insurance	United Indian Ins.td.com	Total no of respondents from Public Sector	MAX NEW YORK LIFE	Lombard ICI	Bajaj allianz	Royal Sundaram Alliance	Total no. of respondents from Private sector	
public	8	36	12	0	56	0	0	0	0	N.A	100
private	0	0	0	0	N.A.	4	20	8	12	44	
Total no of Respondents					56					44	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	100.000 ^a	6	.000
Likelihood Ratio	137.186	6	.000
Linear-by-Linear Association	88.350	1	.000
N of Valid Cases	100		

a. 6 cells (42.9%) have expected count less than 5. The minimum expected count is 1.76.

At 5% level of significance for degree of freedom is 6. The table value of chi-square is equal to 12.59 and calculated value is 100.000. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attributes are independent.

Table 2 shows distribution of sex ratio among the respondents of public/Private sector undertaking.

Total 56 Respondents, out of which 48 are Male respondents and 8 are female respondents who have purchased health insurance from Public sector undertaking and out of total 44

respondents, who have purchased policies from private sector undertakings, 32 are male respondents and 12 are female respondents Table 2

a. 7 cells (50.0%) have expected count less than 5. The minimum expected count is .80.

At 5% level of significance for degree of freedom is 6. The table value of chi-square is

equal to 12.59 and calculated value is 18.611. Since calculated value is greater than

tabulated value of chi-square therefore we can calculate that

the both the attributes are independent.

Table 3 shows Age distribution of the respondents who have purchased health insurance policies from different health insurance companies.

Total 56 respondents who have purchased their health insurance policies from Public sector undertakings, 12 respondents are less than the age of 25, 40 respondents are between the age group of 25-40, and 4 respondents are between the age group of 40-55.

Total 44 respondents who have purchased their health

insurance policies from Private sector undertaking, 8 respondents are less than the age of 25 years, 24 are between the age group of 25-40, 8 are between the age group of 40-55 and 4 respondents are above 55 years of age.

At 5% level of significance for degree of freedom is 18. The table value of chi-square is equal to 28.87 and calculated value is 125.111. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attributes are independent. Chart 3

Table 2

Crosstab											Total number of respondents
Dealing with which company?											
sex		Oriental Insurance	New India Assurance	National Insurance	United India insurance	Total no. of respondents public sector undertaking from	MAX NEW YORK LIFE	ICICI Lombard	Bajaj allianz	Royal Sundaram Alliance	
Male	8	32	8	0	48	4	12	4	12	32	
Female	0	4	4	0	8	0	8	4	0	12	
Total					56					44	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.611 ^a	6	.005
Likelihood Ratio	21.677	6	.001
Linear-by-Linear Association	2.230	1	.135
N of Valid Cases	100		

Table 3

age	dealing with which company?										Total number of respondents
	Oriental Insurance	New India Assurance	National Insurance	United India insurance ltd	Total no. of respondents from Public sector	MAX NEW YORK LIFE	ICICI Lombard	Bajaj allianz	Royal Sundaram Alliance	Total no. of respondents from Private sector	
<25	4	8	0	0	12	0	4	4	0	8	
25-40	0	28	12	0	40	4	16	0	4	24	
40-55	4	0	0	0	4	0	0	0	8	8	
Above 55	0	0	0	0	0	0	0	4	0	4	
Total					56					44	100

Chi square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	125.111 ^a	18	.000
Likelihood Ratio	102.528	18	.000
Linear-by-Linear Association	9.693	1	.002
N of Valid Cases	100		

At 5% level of significance for degree of freedom is 18. The table value of chi-square is equal to 28.87 and calculated value is 125.111. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attributes are independent.

Table 4 reveals marital status of the respondents who have purchased health insurance policies either from Public

sector undertaking or from Private sector undertaking. Total 56 respondents who have purchased their health insurance policies from Public sector undertakings, 48 are married and 8 are un-married.

Total 44 respondents who have purchased their health insurance policies from Private sector undertakings, 32 are married and 12 are un-married.

Table 4

Marital Status	Dealing with which company?									Total number of respondents
	Oriental Insurance	New India Assurance	National Insurance	United India ins. Ltd	Total number of respondents from Public sector undertaking	MAX NEW YORK LIFE	ICICI Lombard	Bajaj Allianz	Royal Sundaram Alliance	
Married	4	32	12	0	48	4	12	4	12	32
Un-married	4	4	0	0	8	0	8	4	0	12
Total					56					44

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.778 ^a	6	.001
Likelihood Ratio	25.863	6	.000
Linear-by-Linear Association	.440	1	.507
N of Valid Cases	100		

a. 7 cells (50.0%) have expected count less than 5. The minimum expected count is .80.

At 5% level of significance for degree of freedom is 6. The table value of chi-square is equal to 12.59 and calculated value is 22.778. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attributes are independent.

Table 5 shows the respondents details who have lodged their claims with health insurance companies.

Out of total 100 respondents 44 respondents claim was rejected at the initial stage due to various reasons but some of them got their claims settled at later stages.

At 5% level of significance for degree of freedom is 6. The table value of chi-square is equal to 12.59 and calculated

value is 22.778. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attributes are independent.

Table 5 shows the respondents details who have lodged their claims with health insurance companies.

Out of total 100 respondents 44 respondents claim was rejected at the initial stage due to various reasons but some of them got their claims settled at later stages.

Table 5

	Cases		
	Valid	Missing	Total
	Respondents whose claim got rejected	Respondents whose claim dint got rejected	Number if respondents
claim_rejection_reason	44	56	100

Table 5 .1 Reason for claim rejection						
Public/Private company taken	pre-existing disease	incomplete documents	disease not covered under the policy	policy got lapsed	difficulty dealing with TPA's	Any other
Public	0	12	0	0	8	0
Private	16	4	12	0	4	4
Total number of respondents who's claim got rejected is 44						

Table 5.1 Out of 44 Respondents who have insurance policies from Public sector undertakings, we have received 12 responses whose claim got rejected due to incomplete documents and 8 responses from the total 44 have informed that they have faced difficulties in dealing with TPA's. and most of the times TPA's attitude was found negative.

Of the total 44 Respondents who have insurance policies from Private sector undertakings, we have received, 16 responses whose claim got rejected due to Pre- existing diseases which were not disclosed at the time of

Table 6

Difficulties in getting claims							
Public/Private company taken	Knowledge of customer service representatives/TPA executives is poor	behavior of the customer services representatives/TPA executives is rude	Quality of treatment Is not good	Quality of infrastructure of TPA Is poor	interconnectivity of hospitals with insurance companies is bad	difficult in processing	any other
Public	0	40	4	40	12	56	0
Private	0	24	0	0	4	16	4
Total no of responses from respondents 88							

Table 6 shows respondents who faced difficulties in getting their claims settled either from private sector undertaking or Public sector undertaking. 88 respondents faced difficulties in getting their claims.

Among Public sector undertaking respondents, we got 40 responses who have informed that behavior of customer services representatives/TPA executives was Rude and not at all customer friendly, 4 responses found that the quality of treatment was not good, 40 responses contains that the quality of infrastructure of TPA's was useless, 12 responses for interconnectivity of hospitals with insurance companies is bad, 56 responses for difficulty in processing the claims.

Among Private sector undertaking 24 respondents responses reveals behavior of the customer services representatives/TPA executives was rude, 4 responses for interconnectivity of hospitals with insurance companies is bad, 16 responses for difficulty in processing the claims, and 4 responses for other reasons.

Table 7 shows the performance parameter on which

Table 7

Performance Parameter							
Public/Private company taken	TPA's and their services	Tangibility	Problem solving systems	Reliability	Quality of treatment provided	Applicability of the product/policy cover on customer	faith/trust
Public	8	12	20	52	8	36	44
Private	28	12	28	16	28	16	0
Total no of respondents 100							

purchase/issues of the policies, 4 responses whose claim got rejected due to incomplete documents, 12 responses who revealed that their claim was rejected due to non-coverage of diseases under the policies, 8 responses have informed that they have faced difficulties in dealing with TPA's. and most of the times TPA's attitude was found negative, and 4 responses for any other reason. However some policy holders got their claim only in parts at various stages.

companies work and liked by the 100 respondents who purchased the health insurance policy of different companies either from public or private.

Among respondents who purchased health insurance policies from public sector undertaking, 8 responses favored Public sector companies because of their better TPA's and their services, 12 responses for tangibility of product, 20 for problem solving system, 52 for reliability, 8 responses for Quality of medical treatment provided, 36 responses for applicability of product and 44 faith / trust in the particular insurance company.

Among respondents who purchased health insurance from private sector undertaking, 28 responses favored Private sector companies because of their better TPA's and their services, 12 responses for tangibility of product, 28 for problem solving system, 16 for reliability, 28 responses for Quality of treatment provided, 16 responses for applicability of product and none responded for faith / trust in the particular insurance company.



Tables 8 show The rating's of the company rated by the 100 respondent who are holding the policies of different companies either from public/private sector undertakings.

Among 56 respondents who have purchased health insurance policies from Public sector undertakings 4 said that company they are dealing with is little good, 4 responded replied that the company is good and 48

respondents said it is great.

Among 44 respondents who have purchased health insurance policies from Private sector undertakings, 4 said that company is not all good, 4 said that company they are dealing with is little good, 16 respondents said it is great, and 20 said it is excellent experience dealing with the company under private sector undertaking.

Table 8

How would you rate your health insurance company you are dealing with						
Public/Private Company Taken	Not at all	Little good	good	great	excellent	Total
Public	0	4	4	48	0	56
Private	4	4	0	16	20	44
Total	4	8	4	64	20	100

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	43.182 ^a	4	.000
Likelihood Ratio	54.117	4	.000
Linear-by-Linear Association	1.237	1	.266
N of Valid Cases	100		

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is 1.76

At 5% level of significance for degree of freedom is 4. The table value of Chi square is equal to 9.49 and calculated value is 43.182. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attribute are independent.

Table 9 shows satisfaction level of 100 customers who have purchased the health insurance policies either from Public/Private sector companies.

56 customers who purchased health insurance policies from

Public sector undertakings, 4 revealed that they were not all satisfied with their insurer, 48 were satisfied with their insurer and 4 were highly satisfied with their insurer.

44 Customers who purchased health insurance policies from Private sector health insurance undertakings, 24 respondents responded that they were not all satisfied with their insurer, while 16 were satisfied with their insurer and 4 were highly satisfied with their insurer.

Table 9

		satisfaction level with health insurance company you are dealing with?			Total
		not satisfied	satisfied	Highly satisfied	
Public or Private company taken	Public	4	48	4	56
	Private	24	16	4	44
Total		28	64	8	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.267 ^a	2	.000
Likelihood Ratio	31.150	2	.000
Linear-by-Linear Association	15.750	1	.000
N of Valid Cases	100		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.52.

At 5% level of significance for degree of freedom is 2. The table value of Chi square is equal to 5.99 and calculated value is 29.267. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attribute are independent.

Table 10 shows chances of changing health insurance Companies by the 100 respondents from which they have purchased health insurance policies or are presently holding.

56 customers who have purchased health insurance policies from public sector undertakings, 8 said that they never

Table 10

		chances of changing health insurance company			Total
		not at all	little	maximum	
Public or Private company taken	Public	8	48	0	56
	Private	8	12	24	44
Total		16	60	24	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.805 ^a	2	.000
Likelihood Ratio	54.957	2	.000
Linear-by-Linear Association	15.899	1	.000
N of Valid Cases	100		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.04.

At 5% level of significance for degree of freedom is 2. The table value of Chi square is equal to 5.99 and calculated value is 44.805. Since calculated value is greater than tabulated value of chi-square therefore we can calculate that the both the attribute are independent.

Conclusion and Recommendation

Though health insurance is the fastest growing segment in insurance market in India but still India lacks behind, not because it don't have customers rather it is unable to build trust and healthy relation with the customer.

In order to avoid such a scenario and move ahead, there is need for making the proposal form more exhaustive, simple and meaningful; and to ensure that the proposer is explained the terms of interpretation of the queries and the replies thereto. It needs no emphasis to mention that in most repudiated cases, one common argument is that the proposer has simply signed on the dotted line. The importance of the queries and the declaration has to be clearly explained to the proposer before obtaining his

wanted to change the company as they are highly satisfied, 48 said they have little chance of changing their health insurance companies, and none of them informed that they had any chance of changing health insurance companies in the near future.

Among 44 customers who have purchased health insurance policies from private sector undertakings, 8 said that they never wanted to change the company as they are highly satisfied, 12 said they have little chance of changing their health insurance companies, and 24 said they have maximum chance of changing their health insurance companies in near future.

signature to ensure that the asymmetry is reduced to a great extent. The insurers should also highlight the utility of the free-look period in order that the policyholder takes an informed decision. By doing so health insurance marketing could make a kick start and very healthy in itself. The insurance companies should not hide any clause due to which the insurer face lot of difficulties in getting their insurance claims.

On the other hand the insurer is also advised to read all the clauses of the policy before they purchase it. This type of understanding between the insurer and the company will reduce repudiation of the claims and a customer's satisfaction level will increase.

REFERENCES

- Karen Davis, Stuart Guterman, Michelle M. Doty and Kristof M. Stremikis (2009) Meeting Enrollees' Needs: How Do Medicare And Employer Coverage Stack Up?
- Health Affairs, 28, no. 4 (2009): w521-w532 (Published online 12 May 2009)
- Customer Relationship YOUR MOST IMPORTANT ASSET IRDA Journal (Vol 7 Iss 4), irda journal 31 Apr 2009
- Neil I. Goldfarb, Vittorio Maio, Chureen T. Carter, Laura Pizzi, and David B. Nash* (2007)- How Does Quality Enter into Health Care Purchasing Decisions? Jefferson School of Population Health School of Population Health Faculty Papers Thomas Jefferson University Year 2007
- Seenivasan in his title "SCOPE OF MEDICAL HEALTH INSURANCE" writes....
- R Srinivasan issues and prospects in the title "HEALTH CARE IN INDIA - VISION 2020
- Tuli neeraj(24 April 2008), India: Health insurance in india www.mondaq.com/article.asp?articled=59780
- Integrated Database India Ltd., an India Today group and yellow pages(Singapore) Pte. Ltd... Industry Overview:: Insurance <http://www.directories-today.com/insurance.html>





CARPOOLING: AN EMERGING BUSINESS IN INDIA

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ABSTRACT

Carpooling is a business opportunity of potential. People commute long distances from their residence to office everyday and have limited access to public and private transportation. Generally people working for same organisation will have a common transport. If they do not have a common transport they share their vehicles. Organised Carpools can be of different varieties like carpools for week-ends, exceptional trips, vacations etc. and regular carpools on a daily or weekly basis for commuters who live nearby and have a common work destination. Although commuters in India have been slow in adopting this, seeing the present day conditions, its bound to catch on soon. Commuters don't need to own a car to carpool as they can carpool with other car owners and share the fuel cost. Through this medium of car-pooling, fuel expenses, traffic chaos, pollution and carbon emissions can be effectively reduced. Hence it has a potential to become a lucrative and unique business opportunity. It is still in a nascent stage, and can be categorised as a niche market. Carpooling is an organized, professional and secure system that can be run via SMS & the internet. It presents the business opportunity for Carpool firms to go for a green business. This paper will study the select Carpool business firms in particular and Carpool market in India in general. It explore into the possibilities of green business having focus on the benefits and problems of this opportunity.

Keywords: Carpooling, Emerging Business, Green Business, India, Niche Market

INTRODUCTION

Carpoolers use pool member's private cars, or a jointly hired vehicle, for private shared journeys. Carpooling is also distinct from the use of a company/government or private vehicle by several pool members but at different times, for economic or other reasons. Carpooling reduces the costs involved in repetitive or long distance driving by sharing cars, sharing rental charges, or paying the main car owner. Countries like Singapore have introduced high-occupancy vehicle (HOV) lanes to encourage carpooling and use of public transport, to combat rising traffic congestion. In reducing the number of cars on the road, carpooling decreases pollution and the need for parking space, and in a global perspective, reduces greenhouse gas emissions. Shared driving carpooling can also reduce driving stress. No money changes hands, but a mutual benefit still exists between the driver and passenger making the practice worthwhile.

Such an arrangement is an environmentally & financially sound alternative to single or low occupancy private vehicle transport and is also beneficial for commuters who have to brave the inefficient public transport system in cities across India. The primary benefits of carpooling include: - Fuel saving, reduction of vehicular emissions, lowering of traffic, and monetary savings for commuters and greater social interaction within the community. Though carpools are still a nascent concept in India, thousands of commuters have already used Indimoto.com to find carpool partners traveling on their routes in their cities by posting free carpool wanted ads and browsing ads from across the country.

In some cases, companies or local authorities will introduce facilities to encourage private carpooling, often as part of wider transport programs. These can include central listing facilities, defined pick-up points, preferential parking and general advice. This has increased through use of the Internet, mobile phones and other software support systems. A third party rideshare agency may also provide services to enable one off or regular carpooling in defined areas.

Origin & Evolution

In wartime, carpooling was encouraged to save oil.

Propaganda poster from the United States government urging carpooling during World War II Carpooling (also known as car-sharing, ride-sharing, lift-sharing), is the shared use of a car by the driver and one or more passengers, usually for commuting. Carpooling arrangements and schemes involve varying degrees of formality and regularity. Formal carpool projects have been around in a structured form since the mid-1970s.

The title of the book is a parody of a World War II propaganda poster that read "When you ride ALONE you ride with Hitler!" (See left), which suggested that automobile owners carpool to conserve gasoline for the war effort.

The choice and selection of carpooling instrument to curb pollution in mega cities can be dictated by three main objectives:

- fewer vehicle kilometres to be travelled;
- less fuel used per kilometre travelled; and
- less emission per unit of fuel used

(World Bank, 2001a: 3).

The first objective to reduce vehicle kilometres can be realised by means such as, giving priority to public transport through special lanes, parking provisions etc.; discouraging private transport through high congestion parking, adopting day-of-the-week strategy etc. The second objective, where the aim is that less fuel is consumed for each kilometre travelled can be actualised by introducing fuel economy standards, inducing lane driving or by installing timers at different intersections. The fulfilment of third objective requires improvement in fuel characteristics, engine specification, shift from polluting fuel to clean fuel etc.

Increase In Number Of Vehicles

The number of motor vehicles has increased from 0.3 million in 1951 to 37.2 million in 1997 (MoST 2000). Out of these, 32% are concentrated in 23 metropolitan cities. Delhi itself accounts for about 8% of the total registered vehicles and has more registered vehicles than those in the other three metros (Mumbai, Calcutta, and Chennai) taken together. At the all-India level, the percentage of two-wheeled vehicles in the total number of motor vehicles increased from 9% in 1951

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to 69% in 1997, and the share of buses declined from 11% to 1.3% during the same period (MoST 2000). This clearly points to a tremendous increase in the share of personal transport vehicles. In 1997, personal transport vehicles (two-wheeled vehicles and cars only) constituted 78.5% of the total number of registered vehicles. Road-based passenger transport has recorded very high growth in recent years especially since 1980-81. It is estimated that the roads accounted for 44.8 billion passenger kilometer (PKM) in 1951 which has since grown to 2,515 billion PKM in 1996. The freight traffic handled by road in 1996 was about 720 billion tonne kilometer (TKM) which has increased from 12.1 TKM in 1951 (MoST 1996). In contrast, the total road network has increased only 8 times from 0.4

The quantum of vehicular pollutants emitted is highest in Delhi followed by Mumbai, Bangalore, Calcutta and Ahmedabad. The daily pollution load generated due to automobiles in 12 metropolitan cities is shown in Table 10.1. Carbon monoxide (CO) and hydrocarbons (HC) account for 64% and 23%, respectively, of the total emission load due to vehicles in all these cities considered together (CPCB 1995). Apart from the concentration of vehicles in urban areas, other reasons for increasing vehicular pollution are the types of engines used, age of vehicles, congested traffic, poor road conditions, and outdated automotive technologies and traffic management systems. Vehicles are a major source of pollutants in metropolitan cities. In Delhi, the daily pollution load has increased from 1,450 tonnes in 1991 to 3,000 metric tonnes in 1997 (MoEF 1997). The share of the transport sector has increased from 64% to 67% during the same period while that of the industrial sector (including power plants) has decreased from 29% to 25% (MoEF 1997).

But in urban areas – both developing and developed countries, it is predominantly mobile or vehicular pollution that contributes to overall air quality problem. In Delhi, the data shows that of the total 3,000 metric tonnes of pollutants belched out everyday, close to two-third (66%) is from vehicles. Similarly, the contribution of vehicles to urban air pollution is 52% in Bombay and close to one-third in Calcutta.² Katz (1994) has estimated that in Santiago, Chile, wherever pollution concentration exceeds ambient standards, mobile sources or vehicles are the cause. Similarly, in case of Budapest, Hungary, transport is the dominant source of emissions except sulphur dioxide (SO₂), contributing 57% of Oxides of Nitrogen (NO_x), 80% of lead (Pb), 81% of carbon monoxide (CO) and 75% of hydrocarbon (HC)

Categories of Carpool

(I) Carpool with assigned driver

This carpool comprises of one driver with more than one passengers. The vehicle is solely owned by the driver and the passenger pays the fare monthly, weekly, or on a daily basis. This fare includes the fuel, maintenance and parking of the vehicle.

(ii) Optional Carpooling

Optional carpooling in simple term means 'pay when you drive' and 'ride free of cost'.

In this type of carpooling driving is on a rotation basis, either daily, weekly or monthly, commuter is charged when you drive or else it is free of cost.

(iii) Carpool by employer

Employers encourage the employees to use the company vehicle for commuting from office to residence. Employees pay the fare for fuel, maintenance and insurance cost.

This type of carpooling is mutually beneficial to both the employer and employee.

(iv) Carpool program

In certain carpool programs, agencies provide commuters and vehicles to travel to and from office, school or work. Fare is generally decided on the kilometers covered and the maintenance of the vehicle.

Benefits of Carpooling

There are certain advantages while commuting from origination (office / home / inter city / inter state) to destination (office / home / inter city / inter state) with carpooling.

Some of the advantages are mentioned below:

(i) Feeling of Relaxation

Since 100 years there has been a massive change in the means of communication. Gone are the days when people used to travel by horse cart or foot. Today the roads are occupied by cars, two wheelers and three wheelers. The greatest advantage of carpooling is the feeling of relaxation while reaching to office. You don't need to struggle all the way driving to office and feel relaxed - No Parking / Traffic tensions. The feeling of relaxation rejuvenates you to start your work natural fresh.

(ii) Money Saver

According to the our daily needs, an office goers spends approx. Rs. 300/- per day while commuting to office on a daily basis covering approximately 60 km. Annually he spends approx Rs. 90,000/- covering 18000km. The total cost includes fuel, parking and maintenance of the vehicle. Carpooling can drastically reduce the cost incurred on these basic necessities and save a large amount.

(iii) Carpooling is Environment Friendly

A major set back due to increase in automobiles is 'environment degradation'. Increase in the number of vehicles is affecting our atmosphere. Air pollution is the major environmental issue causing 'global warming'. There is a rise in lung ailments among individuals further deteriorating their health.

Carpooling, reduces the inflow of automobiles in the road by traveling in groups rather than alone. This helps in reducing the pollution from the atmosphere.

(iii) Carpooling saves from traffic chaos

Carpooling, reduces the inflow of automobiles on the road by traveling in groups due to which there is less traffic on roads with compare to non pooling. In this drive demand & expect co-operation from our Traffic controlling authorities / Traffic Police, these organization plays a major role in this drive.

Certain points to be considered for maintaining the carpool decorum are:

(i) Monetary aspect

One has to decide what fare is to be given based on fuel, maintenance and parking. Also one important thing is to be kept in mind is that when should the fare be collected daily, weekly, or monthly and should be informed in advance.

(ii) Late comers

Carpool management solely depends upon time management. Late comers disrupt the whole process. Strict



rules should be established for latecomers. The maximum time for waiting should be fixed up to 5 minutes. To avoid it fix well in advance the meeting point (pick & drop place).

(iii) Avoiding frequent stopping

Frequent stopping in between your office and home or any destination should be avoided. This saves time and late arrival at both the office and back home journey.

(iv) Substitute

Unforeseen can happen anytime. So to be on the safer side other substitute should be kept in mind. For e.g. mechanical breakdown or illness of the driver. A tie up with any automobile association would be of great help.

(v) Insurance coverage

Necessity to protect yourself under Insurance coverage is an important part of carpooling. Make sure that some amount of insurance policy should be insured.

(vi) Maintaining of vehicle

A well maintained vehicle will consume less fuel in comparison to a poorly maintained vehicle. Ensure that the vehicle is well maintained. This will guarantee a secure, steadfast and comfortable journey.

(vii) Mutual co-operation among the riders / members

Mutual cooperation among the riders is a must. In between the journey, smoking should be prohibited. Seating arrangements should be proper- small person in the back row as there is less legroom / leg space in some vehicles and big person in the front row. Caring for the fellow passenger would make the journey more comfortable. If you are rider make sure that you should not hurt the feeling of car / van / bike owner by unnecessary fingering to his vehicle. If you want to use anything, ask for it before using.

(viii) Checking all details

Before going into any pool checking all details of the person(s) details with whom travel is planned is an imperative.

(vii) Providing all details

Providing all necessary details (relevant & genuine) to the service provider as well as friends / family members about the carpool arrangement will help - in case of any incidence / mishap.

Outline of Instant Ride Sharing Service

Carpoolers can either share driving and expenses or one person may drive most or all of the time, in which case the passenger shares operating expenses with the driver.

Figuring out who's going to drive and when will help. If everyone takes turns driving, there is need decide if one want to alternate on a daily, weekly, or monthly basis. If there are more than two of commuters in one carpool, designating a back-up driver in case someone's unable to drive during their rotation is helpful. Then, a schedule is prepared and made sure every member of carpool gets a copy of your schedule and contact numbers.

SMS Receiving

One can avail SMS service by accepting it. Through this service the commuter will be updated the moment any member leave information which matches the need. It's a chargeable service. Commuter will be charged by the service provider too the moment one receive SMS. New online carpooling services are offering new ways to make social connections through discussion sites and custom

ridesharing services.

When to Carpool?

Because of the organization involved, car sharing is most appropriate for pre-planned or regular journeys, including:

- Getting to and from work
- Doing the weekly shop
- Getting the children to school
- Traveling to a festival, big event or show
- Simply visiting friends
- Using Flexible Spending for Transit

Advantages

- Carpool participants save money by sharing the cost of driving one car. Driving one car saves on gasoline, tolls, parking and vehicle maintenance.
- Carpools reduce pollution and carbon dioxide emissions thereby reducing global warming.
- Carpools reduce driving-related stress for participants who are not driving on a specific ride. The participants take turns sharing their vehicles and driving with others.
- Carpools may provide social connections in an increasingly disconnected society.
- fuel expenses, traffic chaos, pollution and carbon emissions can be effectively reduced Carpool participants save money by sharing the cost of driving one car. Driving one car saves on fuel, tolls, parking and vehicle maintenance.

Disadvantages

- Drivers carry the additional burden of potential legal action from passengers in case of an accident.
- When carpooling, it becomes difficult to run errands on the way to and from the common locations.
- Tends to be complicated to reliably organize and is difficult to maintain, due to changing travel patterns and needs. Sign mark locations outside of their metro stops and large bus stations where drivers can share rides with other passengers in an orderly fashion

Challenges

- Poor fuel quality
- Improper vehicle maintenance
- Dated vehicle technology
- Non-proactive traffic planning
- Irregular working hours

Carpooling in India

New Delhi

Off late, college students in Lady Sriram College have developed their own car pools. And this is just not the juniors, freshers as they are popularly known, the second and third year students are also preferring this mode of travel. The cars too are the most hip and latest ones in the market. There are two parallel carpools running in the class. A team of six people usually decide in the morning itself as to who would travel with whom. While most of such car pools are out of the voluntary choice of the car owner, some also have a mutual agreement of pooling in for petrol. There is a clear understanding between the car pool mates. Other colleges are following the trend.

Koolpool Mumbai

USP: World's first carpooling service via SMS

Over 70 per cent of Mumbai's cars carry a single passenger.

This amounts to approximately 15 lakh empty seats on the road daily. Mumbai's citizens are India's first commuter group to shift gears from whining about traffic and pollution to driving a sensible eco-friendly campaign. The country's pioneering car pool system is launched early in the year 2008. The project, will initially be open only to corporate clients.

The concept, which has long been advocated by NGOs like the Mumbai Environment and Social Group, is designed to reduce the number of vehicles on city roads by creating an effective car pool. (Not only would the initiative lower pollution and fuel consumption, but it would also prove an economical alternative to the overcrowded public transport system.) Several corporations such as HDFC, ICICI, SBI, Godrej, Colgate, and Porsche India have expressed an interest. This system will be extended to the public as soon as the firm have a critical mass of 200 members in a certain area.

Once a request for registration is submitted at the Koolpool website, it is verified as a safety measure by ICICI Bank. The membership, which comes at an annual fee of Rs350, allows members travelling along the same route to network. It offers the car-owner Rs25 per passenger as fuel cost in the form of credits at Hindustan Petroleum pumps, which will also serve as pick-up points.

Carpoolindia.net

Having filled in commuter's details to us via phone, fax, mail, company will search the database for possible matches. Once a suitable traveling match is made, company will contact commuter with the match details, commuter should make contact (to agree a time and place to meet) using their e-mail address and phone number. Company do not recommend commuter to exchange home addresses (for security reasons), and it is advised to all members to meet in public locations such as a train station or bus station, which are easy to get to and away from, should the lift fail.

Carpool Zone

Carpool Zone uses precise technology to match up commuters as close to their home and work address as possible. Search options let users decide how flexible they are in distance, driving times, and other preferences. Google maps are used to display locations, route and match information. Intelligent route-matching was recently added, greatly improving the number of possible carpool matches. Route-based matching considers the entire route a commuter actually drives, allowing matches with commuters who can be picked up part-way. Routes can be customized and comparisons between one individual's route and those of multiple matching commuters are possible. Drivers can also compare their route with other drivers' routes in the same match listing. The system provides extremely high-quality matches. Technologically sophisticated and flexible, Carpool Zone provides more options than ever to drivers and commuters, taking carpooling to the next level.

Carpool.in

Days after the increase in prices of petrol and diesel, various carpooling websites have recorded an increase in the number of hits - some by as much as 100 per cent!

The number of hits on this website went up by a whopping 110 per cent a day after the hike was implemented. Since the last fuel price rise, the hit count per day on its website had

increased by 20 per cent. But after it was implemented the number of hits went up by 110 per cent. According to experts, carpooling, in which a vehicle is shared by five people, can help save fuel by 80 per cent.

There is, however, a legal tangle to carpooling. According to section 66 of the Motor Vehicles Act, it is illegal for an individual to pay money to travel in a privately registered car. This is one reason why the Petrol Conservation Research Association (a government body), has not associated with carpooling endeavor, although it encourages it.

Carpool Bangalore

There is an increase in the number of vehicles travelling to the International Tech Park in Bangalore every day. If one car used in place of four, consider the amount of petrol saved. Bangalore techie Navratan Katariya thought about it and launched a group (<http://groups.yahoo.com/group/carpool-bangalore>) to encourage Bangaloreans to carpool.

Sending a blank email to carpool-bangalore@yahoo.com fetches a registration form to make the user a group member. The form asks for basic details like whether the commuter is offering to drive or need a lift, along with the starting point, destination, timings, basic email and contact details, type of vehicle offered or required and days of travel.

This website offers valuable tips to member carpoolers, such as, arrange to meet and work out details like who will drive whether money should enter the transaction, pickup points and waiting duration.

Indiamoto.com

Indimoto.com was the first online carpool classifieds which enabled commuters to post carpool requests and also search for commuters travelling in their city, on their route and time, without any charge. Indimoto.com provides an efficient online mechanism to match commuters and form carpools across 130 Indian cities. The website (www.indimoto.com) which is India's 1st carpool website has announced the launch of a nationwide campaign 'Carpool India' on the occasion of Gandhi Jayanti on 2nd October' 2006. Despite offering free service all over India for the past two years, www.indimoto.com, has till now been used successfully by only 10,000 commuters.

The 'Carpool India' campaign is a participative campaign and Indimoto.com is inviting volunteers to promote the cause of carpools across India and make it a wide spread phenomenon amongst urban commuters. The website is counting on its large pool of registered members and building a team of individual volunteers who can contribute to the campaign in various ways, based anywhere in India and even with little time. To become a volunteer, individuals need to register via an email to volunteer@indimoto.com. Once registered, each volunteer will be allocated 'tasks' according to his/her profile and time contribution. Being a free to use website Indimoto.com is also inviting corporate organizations to be associated with this noble cause by sponsoring the campaign. Many organizations have corporate social responsibility (CSR) cells which contribute to the society in many diverse ways and who the website believes would want to sponsor the campaign.

"On an average a car driven for 100kms in the city, consumes 10 liters of petrol which costs Rs. 469 (At Delhi



Prices) and release 23Kgs of Carbon (CO₂) into the atmosphere which is the biggest cause of global warming. These figures look rather negative when only one person is using the vehicle but in the case of carpools the more people you share the ride with, the lesser is the cost per commuter (provided they share the fuel cost) and they also help in cutting down on their carbon footprint (the amount of carbon released by each individual)." The global concern for controlling global warming is at its peak with Earth reaching near its hottest temperature in 1 Million years according to a recent report by NASA, worldwide people are scrambling for solutions to this problem and carpooling is a ready made solution.

Easy Drive Car Pool

Easy Drive Car Pool is a revolutionary means of facilitating car pooling in congested urban areas. It is India's first attempt at organized car pooling. Recent surveys on Vehicle Occupancy Levels have showed that the average occupancy of private vehicles was not coming to even 2 people per car. So what is happening is that a lot of people are just sitting in their AC cars and taking a good 30 - 45 minutes extra to reach their destinations.

Commute Easy

Commute Easy is a pooling initiative launched by Buzzword Technologies. It aims to leverage technology and innovation to work out a feasible solution to the nightmarish traffic problems in metros like Bangalore. It has tied up with 'Activ Mobs' to set up an SMS facility that would increase the flexibility with pooling.

Carpool Softwares

In the "dynamic ridesharing" concept the system does one-to-one matching automatically, and all that both, the driver and passenger have to do is accept the match done by the system. Dynamic carpooling denotes a special implementation of a carpooling service which enables the formation of carpools on very short notice. Typical for this type of carpooling is arrangement of one-time trips instead of recurrent appointments for commuters, the usage of mobile phones for placing carpooling requests and offers through a data service, automatic and instant matching of rides through a network service, the network service compensates the driver by an integrated billing system. While there exist plenty of carpooling agencies for commuters, there is no large scale operation of an instant ridesharing service today.

In the "dynamic ridesharing" concept, a separate system performs a carpool match automatically for approval by the travelers. Inflexibility in carpooling can arise in accommodating en-route stops or changes to working times/patterns. Some larger carpools offer 'sweeper services' with later running options. A further backup can also be a 'guaranteed ride home' arrangement with a local taxi company.

Advanced Concept

Advanced Concepts, only described in publications so far, explore options for position tracking of users using GPS enabled devices to avoid the necessity to manually enter the current position when requesting/offering a ride. This also allows the use of fleet management systems for vehicle tracking and guiding. Ideally, the navigation system integrates a ridesharing functionality.

Analysis of Carpooling Customers and Patterns

A survey was conducted by Indimoto.com to understand the profile of urban commuters who have opted for a carpool/rideshare. The findings of this survey throw light on interesting facts about the demographic, social and economic profile of commuters who have adopted carpooling as a mode of commuting. The survey also brings out the trigger factors which prompted these commuters to start carpooling and the accrued benefits of such an arrangement.

The survey intended to profile the 'Indian car-pooler' on the following criterion:

1. Geo Location (City)
2. Gender
3. Age
4. Education Level
5. Occupation
6. Income
7. Vehicle Ownership
8. Daily Commute Distance
9. Monthly Commuting Expense
10. Accrued Benefits of Carpooling

Survey Sample

Commuters who have used the internet (carpool listing/classified sites including Indimoto.com) to enter into carpool/rideshare arrangements across India since 2006.

Sample Size: 525

Survey Mode

Objective and subjective questionnaire distributed via e-mail

Survey Result Summary

The maximum car-poolers belong to New Delhi (57%) followed by Mumbai (23%) and Bangalore (8%). Only 16% of the car-poolers are female who however believe the concept to be relatively safe. Majority of car-poolers fall between the age group of 25-40 years (70%) since they account for the most active working population and commute to work daily. Car-poolers are highly educated with most holding a post graduate qualification (57%). 99% of respondents carpool for an income generating activity and majority (84%) are salaried employees. It becomes evident from the survey that car-poolers are in well paying professions with a majority (57%) earning over Rs. 50 thousand per month and 10% earning upwards of Rs. 1 lakh per month. This can be contributed to well paid private sector employees who are car-pooling to their office places in various metros. Only 6% of the car-poolers do not possess a private vehicle while 86% own one or more cars and share driving responsibilities with fellow car-poolers.

As expected, majority of car-poolers commute over long distances each day, 84% commute over 26 kilometres everyday with 17% traveling over 76 kilometres on a daily commute. Despite this 38% car-poolers are able to keep their commuting costs below Rs. 3000 per month by carpooling. For the car-poolers the primary accrued benefit of carpooling was reduction in CO₂ emissions which helps them reduce their carbon footprint in the race to save the planet from global warming. 67% respondents cited this as the main benefit of carpool, this indicates the environmental consciousness. 62% appreciated the money saving

opportunity which carpooling has created while 53% were glad that they were reducing traffic on choked city streets. Saving of precious fuel was cited as another benefit by 41% of the car-poolers. Contrary to popular belief that carpools are a social challenge, 38% opted for it to increase social interaction with like minded commuters working or living in their vicinity. Reduction of stress due to driving/commuting alone was also a factor which encouraged 31% of the respondents to carpool.

Geo Location (City)

Inference: Of the car-poolers surveyed a maximum of 57% belonged to Delhi & NCR followed by Mumbai with 23%, Bangalore with 8%, Hyderabad with 4%, Pune with 3% and Chennai with only 2%. The rapid economic growth of the Delhi region has resulted in more commuters traveling over longer distances and spending greater money on commuting. Moreover the inclusion of sub cities including Gurgaon & Noida in NCR has also increased its representation. This has been a primary factor why Delhi & NCR commuters have opted for carpooling the most. Mumbai stands second in terms of carpool adopters due to the fact that it has an efficient (though very crowded) local train network as well as 'hail and use' taxi system which are alternatives to carpooling.

Gender

Inference: 84 % of the car-poolers were male, females accounted for only 16%. Though this number has increased from the previous year when female car-poolers accounted for only 9% there are still some issues which need to be addressed before women can come on par with men. Lesser representation of women in the white collar workforce is also a factor. Maximum female car-poolers were from the Delhi & NCR region.

Age

Most car-poolers fall between the age group of 25-40 years (70%) since they account for the most active working population and carpool regularly to and from work. Beyond the age of 40 rising incomes and the need for more flexibility negatively affects carpooling.

Education

Majority of car-poolers are highly educated with a post graduate qualification (57%). This is because of two primary reasons, one that they are aware of the benefits of carpooling and second they have access to the Internet which enabled them to post carpool wanted ads to find a match online. Only 3% of the surveyed population did not have a graduate level qualification.

Occupation

Majority of the car-poolers (84%) are salaried employees, 13% are self employed professionals, 2% are businessmen/businesswomen and only 1% are students. These findings are in line with the age of the respondents which indicates that most are in the working age group and carpool to their offices and back. What is interesting to note here is that 99% of car-poolers are in an income generating activity.

Income

A majority of 44% of car-poolers belong to high income group and earn more than Rs.50000 per month, 40% earn between Rs.25000-50000, 14% between Rs. 10000-25000 and only

2% earn less than Rs.10000.

Vehicle Ownership

Only 6% of the respondents do not own any personal vehicle. 8% owned a two wheeler only, a majority of 73% owned a single car (and a two wheeler in some cases) while 13% own more than one car.

Monthly Fuel / Commuting expenses

The fuel / commuting expense figures for car-poolers: 19% spend up to Rs. 1500/month, 19% spend between Rs. 1501-Rs. 3000, 15% spend between Rs. 3001-4500, 36% spend between Rs.4501-6000 and 11% of respondents spend over Rs. 6000 each month.

Average Daily Commute Distance

Majority of car-poolers commute over long distances each day, 84% commute over 26 kilometres everyday with 17% travelling over 76 kilometres on a daily commute. Only 16% commute less than 25 kilometres each day. Long distance daily commuting is the primary reason for people to opt for carpooling and make it a feasible option.

Accrued Benefits of Carpooling

- 67% carpool to reduce emissions and control global warming. This highlights the growing awareness of the cause amongst the environmentally conscious population of urban India.
- 63% of car-poolers site monetary savings as a benefit of car-pooling.
- 53% feel carpools help in reducing traffic congestion.
- 41% feel that carpools help in fuel saving.
- 38% felt carpools are a good way of meeting new people and socializing while commuting.
- 31% are of the opinion that carpools ease stress of commuting.

Note: Benefits results are non-exclusive since many respondents ticked more than one option.

Survey Results Analysis

The carpool survey has highlighted some interesting facts. The findings indicate that carpool as a concept has been embraced as yet primarily by educated commuters from major metros who have high incomes and are well employed with private firms. This trend can be attributed to high internet penetration in the metros and greater awareness of carpools and its benefits amongst such individuals. The traffic situation is the worst in the major metros mainly Delhi, Mumbai & Bangalore so it's not surprising that majority of car-poolers are from these cities. Another finding is that most of the car-poolers are male and between the age group of 25-40 years. This age group represents active working individuals, who need carpools to travel to work daily and have found this service of maximum use. A surprising finding was that most of the car-pooler earn a relatively high monthly income and a majority own cars, this clearly indicates that these car-poolers are not only interested in saving fuel money but also helping the environment and reducing traffic in their cities. Some people also found carpools to reduce stress of commuting and found it as a way to meet with new people on way to their destination.

Suggestions & Conclusions

The success depends upon the people's behavioral attitudes and cultures. It should become the part of the

culture to have a long term business habit. The challenge carpool business is facing are

1. It does not have any regulatory legislations for making carpooling mandatory at least in some areas
2. It is being looked as threat to different stakeholders (Local Bus Operators, RTC Employees, Private Bus operators, Cab /Taxi wallahs)
3. Though people like this novel idea and conscious of vehicular pollution they are not in a state to accept carpooling as it does not provide them complete flexible solution.
4. Women Safety Concern
5. Requires: the business, including GPS, GPRS, RFID, Bluetooth, full Web-based car-sharing software and non-invasive hardware installation.
6. Town planner should provide for carpooling.
7. Creation of Carpool Lanes like in US
8. Should provide Vehicle tracking system
9. Carpool pickup zones can be established like parking bays by the government
10. People are changing their commuting habits, and this is

having positive impacts on traffic congestion and our environment

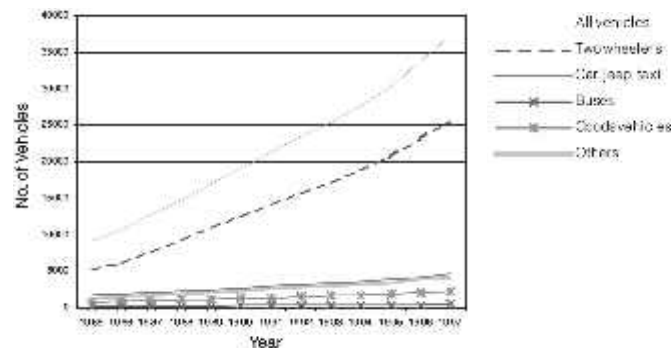
So far there is no branding exercise is taken by any of the Indian carpool companies. Promotional efforts can help in carpool brand building. Accordingly the onus to address this situation, 'responsively and responsibly' lies with the Government, the Indian Automobile Industry, the Planning Authorities and the Indian road user. Each of one holds a different key to unlocking a common solution in clearing the smog of ignorance that hangs heavy over the future of Indian cities.

References

Emissions (Lehoczi, 2000)
<http://www.carpoolglobal.com>
<http://www.commuteeasy.com/aboutUs.jsp>
www.indiaprwire.com/downloads/200712176268-1.pdf
<http://www.practicalecommerce.com/articles/623/Green-Commerce-Is-Good-Commerce/>
<http://timesofindia.indiatimes.com/articleshow/3107095.cms>
<http://timesofindia.indiatimes.com/articleshow/20446.cms>
http://timesofindia.indiatimes.com/Pool_cars_get_goodies_galore/articleshow/2810898.cms

Appendix I

Figure 1 Growth of Vehicles



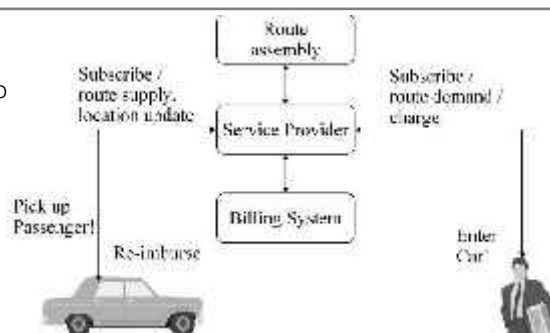
Appendix II

Figure: 2 Estimated Vehicular Emission Load in Metropolitan Cities, 1994

Name of the city	Vehicular pollution load (tonnes per day)					
	Particulates	SO ₂	NO _x	HC	CO	Total
Delhi	10.30	8.96	126.46	249.57	651.01	1046.30
Mumbai	5.59	4.03	70.82	108.21	469.92	659.57
Bangalore	2.62	1.76	26.22	78.51	195.36	304.47
Calcutta	3.25	3.65	54.69	43.88	188.24	293.71
Ahmedabad	2.95	2.89	40.40	67.75	179.14	292.73
Pune	2.39	1.28	16.20	73.20	162.24	255.31
Madras	2.34	2.02	28.21	50.46	143.22	226.25
Hyderabad	1.94	1.56	16.84	56.33	126.17	202.84
Jaipur	1.98	1.25	15.29	20.99	51.28	88.99
Kanpur	1.06	1.08	13.37	22.24	48.42	86.17
Lucknow	1.14	0.95	9.68	22.50	49.22	83.49
Nagpur	0.55	0.41	5.10	16.32	34.99	57.37
Grand total	35.31	29.84	422.88	809.96	2299.21	3597.20

Appendix III

Figure: 3 Working of a Carpool





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We hope you have found the present issue informative and with in depth coverage of various topics. Please spare a moment out of your invaluable time and help us make the forth coming issues more useful and enriching.

Thank you

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WITH EFFICIENCY A CASE STUDY OF DISHMAN PHARMACEUTICALS LIMITED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLIGHT OF MATCH INDUSTRY IN ANDHRA PRADESH:CERTAIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ISSUES AND CONCERNS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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DIFFERENT PUBLIC AND PRIVATE HEALTH INSURANCE COMPANIES FOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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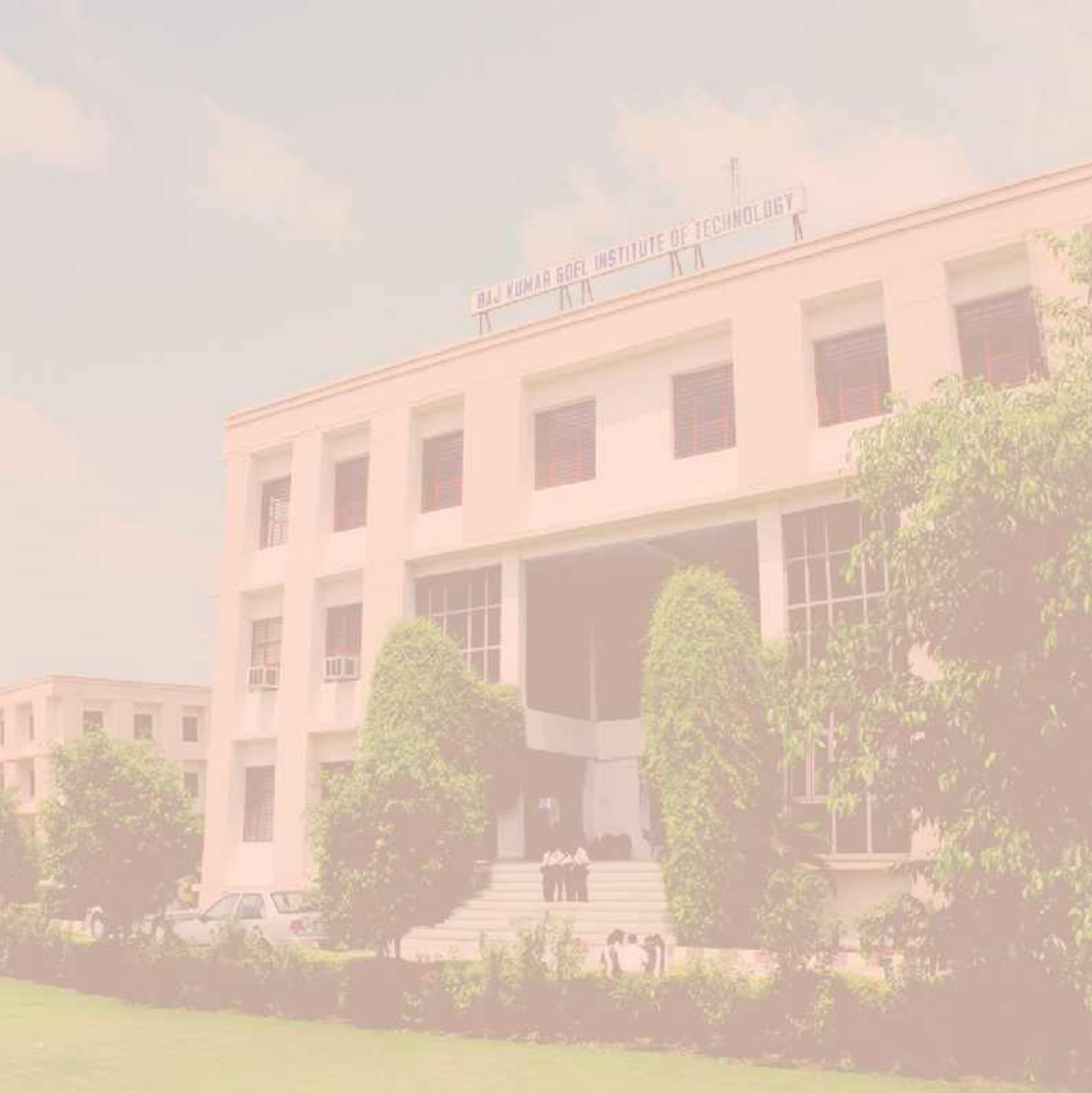
Srivastava, Vinay K. (2007), Privatization of Public Enterprises in India, Allahabad, Kitab Mahal.

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