A STUDY OF COMPARATIVE ADVANTAGE OF INDIAN AGRICULTURAL EXPORTS

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ABSTRACT: Recent developments in the international trade scenario and corresponding alterations in India’s foreign trade policies have depicted far reaching implications for India’s agricultural sector in general and agricultural exports in particular. The present study has ascertained the changes in comparative advantage status of India’s major agricultural exports during the postreforms period (1994-95 to 2008-09). India had enjoyed a comparative advantage in tea exports but had depicted a declining trend over the years. A similar pattern had been observed in coffee exports also, where India had been found losing its comparative advantage to other world coffee exporters. An unstable pattern of comparative advantage had been observed in the case of rice exports with intermittent ups and downs in the status. A gradual decline in India’s comparative advantage had been depicted for exports of sugar and cashew also.

As opposed to other commodities, India had strengthened its position in the global markets in exports of Ground nut. But as far as the exports of fresh fruits and fresh vegetables are concerned, India cannot boast to have a comparative advantage. India has been found losing out its comparative advantage in export of some of the agricultural commodities to world during the period after economic reforms.

Keywords: FAO – Food and Agricultural Organization; RSCA - Revealed Symmetric Comparative Advantage; US$ - United States Dollar; WTO -World Trade Organization

1. Introduction

Indian agricultural commodities have come to occupy a supreme position in the global market over the years. Today, India is a major supplier of several agricultural commodities like tea, coffee, rice, spices, cashew, oil meals, fresh fruits, fresh vegetables, meat and its preparations and marine products to the international market. However, the country faces fierce competition from other major players in the field, both the existing and new entrants in the fray. Ironically, the major challenge is from within Asia itself where countries like China, Malaysia, Philippines, Thailand, Singapore and Indonesia among others pose a big threat to Indian agricultural products. The demand and supply situations in the Asian continent have undergone a rapid transformation due to the growth of the world economy and lowering of trade barriers (Aksoy and Beghin, 2005). An economic upheaval which took place in most of the South-East Asian countries has resulted in the creation of a huge supply potential in these economies along with an increase in their per capita income and a simultaneous increase in their trade potential. Moreover, some recent developments in the international trade scenario, followed by the establishment of World Trade Organisation (WTO) and subsequent liberalization of trade have resulted in the emergence of new powers like Vietnam and Turkey with substantial potential in agricultural trade. The formation of regional trading blocks like ASEAN Free Trade Area (AFTA), Bangkok Agreement, South Asia Free Trade Agreement (SAFTA), etc. has given rise to powerful associations with strong bargaining power and these can significantly influence the demand and supply factors in the global markets. Above all, the Indian economy in itself has undergone a rapid transformation after the inception of economic reforms in 1991. India’s ratification of the Agreement on Agriculture (AoA) with WTO also had a major impact leading to redefining of its agricultural trade. During this time span, various agricultural commodities exported from India have responded differently and their levels of comparative advantage in the global markets have altered significantly. Hence, it is imperative to have a systematic and well-structured analysis to find alterations in the comparative advantage of India visa-vis World. The present study was undertaken with the specific objective of determining India’s comparative advantage in exports of major agricultural commodities with respect to Asia and to compare it with world exports.

2. Data and Methodology

In the present study was taken up of selected agricultural commodities export value to total export value with the production in India and the country’s and world’s revealed symmetric comparative advantage has calculated by using the standard formulae. Ten
major agricultural commodities/commodity groups were selected for the analysis, based on their major shares in India’s total agricultural exports. The commodities considered were rice, pulses, tea, coffee, cashew, groundnut, cotton, tobacco, fruits and vegetables, and sugar. During the period under study (1994-95 to 2008-09), these commodities together accounted for more than 65 per cent of India’s total agricultural export earnings. The data on exports of selected agricultural commodities for India and other major exporting countries were collected from various issues of FAO Trade Yearbook. The official website of FAO [www.fao.stat.fao.org] was also used for the purpose. The selected commodities corresponded to the various codes of Standard International Trade Classification (SITC) and their export values were provided in US Dollars.

‘Revealed Comparative Advantage’ (RCA) is a measure of international trade specialization (Balassa, 1965). It identifies the comparative advantage or disadvantage a country has for a commodity with respect to another country or group of countries. It provides a ranking of commodities by degree of comparative advantage and identifies a binary type demarcation of commodities based on the comparative advantage (Balance et al., 1987). Under the assumption that the commodity pattern of trade reflects the inter-country differences in relative costs as well as non-price factors, the index is assumed to “reveal” the comparative advantage of the trading countries. The factors that contribute to movements in RCA are economic, structural, world demand and trade specialization. The advantage of using the comparative advantage index is that it considers the intrinsic advantage of a particular export commodity and is consistent with the changes in an economy’s relative factor endowment and productivity. The disadvantage, however, is that it cannot distinguish improvements in factor endowments and pursuit of appropriate trade policies by a country (Batra and Khan, 2005). The original index of RCA was first formulated by Balassa (1965) and can be written as per equation (1)

\[
RCA_{ij} = \left( \frac{X_{ij}}{X_{ik}} \right) / \left( \frac{X_{nj}}{X_{nk}} \right) \quad \ldots (1)
\]

where,
\[
X_{ij} = \text{Exports of country ‘}i\text{’ of commodity ‘}j\text{’}
\]
\[
X_{ik} = \text{Exports of country ‘}i\text{’ of a total agricultural commodities ‘}k\text{’}
\]
\[
X_{nj} = \text{Exports of a world ‘}n\text{’ of commodity ‘}j\text{’}, \text{ and}
\]
\[
X_{nk} = \text{Exports of a world ‘}n\text{’ of a total agricultural commodities ‘}k\text{’}
\]

In the present study, country ‘i’ refers to India, commodity ‘j’ refers to any of the selected agricultural commodities, set of commodities ‘k’ refers to the total agricultural commodities and ‘n’ refers to World. When RCA assumed the value greater than unity for a given country in a given commodity, the country is said to have a revealed comparative advantage in that commodity. However, RCA suffers from the problem of asymmetry as ‘pure’ RCA is basically not comparable on both sides of unity. It the index ranged from zero to one, a country is said not to be specialized in a given sector and if the value of the index ranged from one to infinity, the country is said to be specialized. The index is made symmetric, following the methodology suggested by Dalum et al (1998) and the resultant index is called as ‘Revealed Symmetric Comparative Advantage’ (RSCA). Mathematically, it can be expressed by the following equation (2)

\[
RSCA = \frac{RCA - 1}{RCA + 1} \quad \ldots (2)
\]

This measure ranges between -1 and +1 and is free from the problem of skewness. A commodity is said to have comparative advantage in its exports if the corresponding RSCA value is positive and vice versa. In the present study, the RSCA was used to look into the comparative advantage of the selected commodities.

3. Results and Discussion

Indian agricultural commodities have come to occupy a supreme position in the global market over the years. Today, India is a major supplier of several agricultural commodities like rice, pulses, tea, coffee, groundnut, cashew, cotton, tobacco, fruits and vegetables and sugar to the international market. However, the country faces fierce competition from other major players in the field, both by the existing and new entrants in the fray. Ironically, the major challenge is from within Asia itself from countries like China, Malaysia, Philippines, Thailand, Singapore and Indonesia, among others; pose a big threat to Indian agricultural products. During this time span, various agricultural commodities exported from India have responded differently and their levels of comparative advantage in the global markets have altered significantly. The result of Revealed Symmetric Comparative Advantage of the principal agricultural commodities in India presented in Table 1. and the figure 1-10 shown the comparative advantage, world’s export value and India’s export value of selected agricultural commodities (see in Appendix-I).
A brief perusal of the RSCA estimates presented in Table 1 and Figure 1 revealed the comparative advantage of India and World. Indian rice exports showed varying levels of comparative advantage in different years of the study period. In 1994-95, the estimated value of RSCA was 0.67 which improved to 0.90 in 2008-09. Therefore, it can be concluded that India enjoyed a comparative advantage in rice exports, though at varying levels.

### 3.1. Rice

![Figure 1. Revealed Symmetric Comparative Advantage Estimates of Rice exports from India](image.png)
3.2. Pulses

Several developments that have taken place after economic liberalization, i.e. post-1991 seemed to have a detrimental effect on the pulses exports from India. There was a noted decline in the RSCA estimates corresponding to India’s pulses exports from 0.07 in 1994-95 to -0.05 in 2008-09 (Table 2 and Figure 2). Thus it could be seen that a mixed trend was observed in India’s position of comparative advantage in pulses with occasional ups and downs. India’s position, as a pulse exporter, was not one to be emulated, since the negative RSCA estimates suggested comparative disadvantage in its exports.

Figure 2. Revealed Symmetric Comparative Advantage Estimates of Pulses exports from India

3.3. Tea

The estimated RSCA indices for tea for India were presented in Table 1 and Figure 3 for the period from 1994-95 to 2008-09. India was found to have a comparative advantage in tea exports in all the years under consideration, as could be seen from the positive values of RSCA. But over the years, India’s comparative advantage seemed to be deteriorating gradually. In 1994-95, the value of RSCA was 0.87 which decreased to 0.67 by the year 2008-09, depicting a clear downward trend. The results showed that India had significant and far reaching implications in the global market and direct impact on the Indian tea industry.

Figure 3. Revealed Symmetric Comparative Advantage Estimates of Tea exports from India

3.4. Coffee

In coffee exports, Indonesia, Thailand and Vietnam are the major competitors to India. The computed RSCA values for India were positive for all the years with the exception of 2007-08 and 2008-09 indicated its comparative advantage in coffee exports. Moreover, the comparative edge which India exhibited during the initial years of liberalization, deteriorated over the years, with the index gradually eroding from 0.60 in 1994-95 to -0.11 in 2008-09 (Table 1 and Figure 4). A mixed trend was
observed in India’s position of comparative advantage with occasional ups and downs. However, the Indian coffee did not enjoy a comparative advantage throughout the study period and its position rather worsened gradually over the years.

3.5. Cashew

India maintained its prime status as the largest exporter of cashew in the world throughout the study period, particularly through its comparative advantage in the international markets. The RSCA estimated of Indian cashew exports was as high as 0.99 in the year 1994-95 (Table 1 and Figure 5) and till 2008-09, India did not face any notable external challenges. In this backdrop, it is imperative for the Indian cashew farmers and exporters to stay vigilant and undertake all possible steps to counter the stiff competition. At the same time, the government should also take appropriate initiatives to make Indian cashew exports more attractive in the global markets.

3.6. Ground Nut

A brief perusal of the RSCA estimates presented in Table 1 and Figure 6 revealed the comparative advantage of India. Indian groundnut exports showed varying levels of comparative advantage in different years of the study period. In 1994-95, the estimated value of RSCA was 0.70 which improved to 0.90 in 1996-97 and 1997-98 but dropped to the lowest value of 0.42 in 2002-03. By the year 2004-05, it recovered to reach 0.77. However, India had a distinct advantage during the entire period under study.
3.7. Cotton

The results presented in Table 1 and Figure 7 clearly depicted that India experienced a comparative disadvantage in export of cotton in all the years under consideration and had negative RSCA values in some years. The RSCA estimate for the year 2001-02 was -0.83 which points a quite unfavorable status of Indian cotton exports in the global market. The situation had hardly improved over the years, and RSCA value was below zero (-0.03) even during 2004-05. Given the current status, considerable efforts are needed to make India a competitive exporter of Cotton in future.

3.8. Tobacco

In tobacco exports, US, Zimbabwe and Brazil are the major competitors to India. The computed RSCA values for India varied from positive to negative over the years and indicated its comparative position in Tobacco exports. Moreover, the comparative edge which India exhibited during the initial years of liberalization, deteriorated over the years, with the index gradually eroding from 0.15 in 1996-97 to -0.52 in 2008-09 (Table 1 and Figure 8). A mixed trend was observed in India’s position of comparative advantage with occasional ups and downs. However, the Indian tobacco did not enjoy a comparative advantage throughout the study period and its position rather worsened gradually over the years.
3.9. Fruits and Vegetables

India’s comparative advantage in export of Fruits and Vegetables seemed to dwindle during various years after economic liberalization. In 1996-97, when the reforms were at the budding stage, India was found to have a marginal comparative advantage with an RSCA value of 0.44 (Table 1 and Figure 9). But the period which followed witnessed India losing its advantage with an RSCA value -0.71 in 2008-09. A gradual decline in India’s comparative advantage had been depicted for exports of Fruits and Vegetables.

3.10. Sugar

There was a noted decline in the RSCA estimates corresponding to India’s sugar exports from -0.32 in 1994-95 to -0.64 in 2008-09 (Table 1 and Figure 10). A mixed trend was observed in India’s position of comparative advantage with occasional ups and downs. India’s position as a sugar exporter was not one to be emulated, the consistent negative RSCA estimates suggested comparative disadvantage in its sugar exports throughout the study period and it did not show any signs of recovery. The RSCA estimate for the year 2007-08 was -0.83 which points towards a quite unfavorable status of Indian sugar exports in the global market. Given the current status, considerable efforts are needed to make India a competitive exporter of sugar in the future.
4. Conclusions

The study had shown that exports of various agricultural commodities from India had responded differently in terms of comparative advantage during the post-reforms period. India had enjoyed a comparative advantage in tea exports but had depicted a declining trend over the years. A similar pattern had been observed in coffee exports also, where India had been found losing its comparative advantage to other world coffee exporters. An unstable pattern of comparative advantage had been observed in the case of rice exports with intermittent ups and downs in the status. A gradual decline in India’s comparative advantage had been depicted for exports of sugar and cashew also.

As opposed to other commodities, India had strengthened its position in the global markets in exports of Ground nut. But as far as the exports of fresh fruits and fresh vegetables are concerned, India cannot boast to have a comparative advantage.

The exports of various agricultural commodities from India have responded differently in terms of comparative advantage during the post-reforms period. A gradual decline in India’s comparative advantage has been depicted for exports of spices and cashew also. Vietnam has bypassed India in the later years in terms of comparative advantage in cashew exports. As opposed to other commodities, India has strengthened its position in the global markets in exports of oil meals. While Philippines and Turkey have dominated in fresh fruits exports, Israel has been dominant in the exports of fresh vegetables. India’s status in exports of meat and its preparations and marine products has not been very comfortable. Although marine products dominate India’s agricultural exports, it cannot be attributed to India’s comparative advantage in the global markets. It is assumed to be more due to a growing demand for these products among the international consumers. India’s comparative advantage in most of the important agricultural exports has been found to be eroding and losing out to other Asian competitors in certain commodities during the period after economic reforms (Shinoj and Mathur, 2008).

India’s status in exports of cotton had not been very comfortable. Although cotton products dominate India’s agricultural exports, it could not be attributed to India’s comparative advantage in the global market. It was assumed to be more due to a growing demand for these products among the international consumers.

5. References


### Appendix I

**Total Export of India and World for 1994-95 to 2008-09**

<table>
<thead>
<tr>
<th>Year</th>
<th>Country’s Total Agricultural Export</th>
<th>World Total Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-95</td>
<td>12587</td>
<td>1059857464</td>
</tr>
<tr>
<td>1995-96</td>
<td>21138</td>
<td>873286036</td>
</tr>
<tr>
<td>1996-97</td>
<td>13223</td>
<td>721950701</td>
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<tr>
<td>1997-98</td>
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<td>654088142</td>
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<tr>
<td>1998-99</td>
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<td>607443140</td>
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<tr>
<td>1999-00</td>
<td>25016</td>
<td>52508964</td>
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<tr>
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</tr>
<tr>
<td>2001-02</td>
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<tr>
<td>2002-03</td>
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</tr>
<tr>
<td>2007-08</td>
<td>76006</td>
<td>442865470</td>
</tr>
<tr>
<td>2008-09</td>
<td>89859</td>
<td>388446646</td>
</tr>
</tbody>
</table>

Source: faostat.com
STOCK MARKET VOLATILITY DURING DIVIDEND ANNOUNCEMENT: A CASE OF SELECTED SCRIPTS

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ABSTRACT: An attempt has been made in this paper 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 Generalised Autoregressive Conditional Heteroscedasticity (GARCH) model. It is based on daily data for the time period from January 2007 to December 2009. The analysis reveals the same trend of volatility in the case of aggregate indices and three different sectors such as Banking, Information Technology and Cement. The GARCH (1,1) model is persistent for all the five aggregate indices and individual company.

Keywords: GARCH, Stock Market Volatility

1. INTRODUCTION

Stock market volatility has vital importance for investor’s decision making, and has considerable influence on investor behavior in the market. In general terms, volatility may be described as a phenomenon, which characterizes changeableness of a variable under consideration. Volatility is associated with unpredictability and uncertainty and is synonymous with risk, and hence high volatility is thought of as a symptom of market disruption whereby securities are not being priced fairly. It measures the variability or dispersion about a central tendency. However, there are some subtleties that make volatility challenging to analyse and implement. Since volatility is a standard measure of financial vulnerability, it plays a key role in assessing the risk/return tradeoffs.

Policy makers rely on market estimates of volatility as a barometer of the vulnerability of the financial markets. The existence of excessive volatility or “noise” also undermines the usefulness of stock prices as a “signal” about the true intrinsic value of a firm, a concept that is core to the paradigm of international efficiency of the markets. Considerable research effort has already gone into modeling time-varying conditional heteroskedastic asset returns. It is important because if both returns and volatility can be forecasted, then it is possible to construct dynamic asset allocation models that use time dependent mean-variance optimization over each period. Financial econometrics suggests the use of non-linear time series structures to model the attitude of investors toward risk and expected return. In this context, Bera and Higgins (1993) remarked, “a major contribution of the ARCH literature is the finding that apparent changes in the volatility of the economic time series may be predictable, and result from a specific type of non-linear dependence rather than exogenous structural changes in variables.” When the variance is not constant, it is more likely that there are more outliers than expected from the normal distribution, i.e., when a process is heteroskedastic it will follow heavy–tailed or outlier–prone probability distribution. According to Mc Nees (1979), “the inherent uncertainty or randomness associated with different forecast periods seem to vary over time, and large and small errors tend to cluster together”. Although there is a plethora of research concerning stock market volatility, most of the studies have been done for stock market of the developed country as a whole, making use of aggregate information data. There are varying few studies, which have gone into the volatility issues at the level of specific industries or the companies in an industry. More specifically, this paper is an attempt towards explaining the stock market volatility among three Industries in the service sectors.

In light of the above, **the objective of this paper is to examine the daily price volatility of the stock return during the dividend announcement among the selected sectors.** The rest of the paper is as follows: Review of literature is explained in section II; section III explains the data and methodology of the study. Section IV, presents the empirical results. Finally, conclusions are presented in section V.

2. RELATED WORKS

Many traditional asset-pricing models (e.g. Sharpe 1964; Merton, 1973) postulate a positive relationship between a stock portfolio’s expected return and the condition variance as a proxy for risk. More recent theoretical works (Whitelaw 2000, Bekaert and Wu 2000; Wu 2001) consistently assert that stock market volatility should be negatively correlated with stock returns.
Earlier studies for instance French et al. (1987) found a positive and significant relationship and studies such as Baillie and DeGennaro (1990) Theodossiou and Lee (1995) reported a positive but insignificant relationship between stock market volatility and stock returns. Consistent with the asymmetric volatility argument, many researchers (Nelson 1991, Glosten et al 1993, Bekker and Wu 2000, Wu 2001; Brandt and Kang 2003) recently report negative and often significant relationship between the two.

Researchers have empirically demonstrated (e.g. Harvey 2001, Li et al 2003) that the relationship between return and volatility depends on the specification of the conditional volatility. In particular, using a parametric GARCH-M model, Li, et al (2003) finds that a positive but statistically insignificant relationship exists for all the 12 major developed market. By contrast, using a flexible semi parametric GARCH-M model, they document that a negative relationship prevails in most cases and is significant in 6 out of 12 markets.

Malkiel and Xu (1999) used a disaggregate approach to study the behaviour of stock market volatility. While the volatility for the stock market as a whole has been remarkably stable over time, the volatility of individual stocks appears to have increased.

There are some possible reasons to believe that volatility in the stock market as a whole should have increased over recent decades. Improvements in the speed and availability of information, the growth in the proportion of trading done by institutional investors and new trading techniques all may have increased the responsiveness of markets to changes in the sentiment and to the arrival of new information. The facts, however, at least with respect to the market as a whole, do not suggest that the volatility has increased. They have not looked at the market portfolio but rather at individual stocks and industry average. By looking at the disaggregated volatility of stock prices, they reached a different conclusion that volatility in the stock market has in fact increased considerably during the past quarter century. Most of the time series data used in the study are constructed from the 1997 version of CRSP (Center for Research in Security Prices) tape.

Data measuring in the daily return are available from January 1, 1963 to December 31, 1997 and monthly returns are available from January 1926 to December 1997. In the analysis, both exchange traded stocks (New York Stock Exchange (NYSE) and American Stock Exchange (AMSE) and NASDAQ files are used.

In order to study the robustness of their findings of increasing idiosyncratic volatility. They approached the issue from both a correlation structure and diversification perspective. Idiosyncratic volatility is precisely the kind of volatility that is uncorrelated across stocks and thus is completely washed out in a well-diversified index portfolio. According to Capital Asset Pricing Model; such an increasing in the idiosyncratic volatility should not command an added risk premium on the market. Thus, while it is possible to argue that the volatility of individual stock has increased, as long as their systematic risk remain unchanged, there should be no consequence for asset pricing, at least according to Capital Asset Pricing Model holds, an increase in the idiosyncratic volatility will have an important effect on the number of the securities one must hold in a portfolio to achieve full diversification. The general conclusion is that while market as a whole has been no more volatile in the recent decades, the idiosyncratic volatility of the individual stocks has exhibited an upward trend.

Yu (2002) evaluates the performance of nine alternative models for predicting stock price volatility. The data set he used is the New Zealand Stock Market Exchange (NZSE40) capital index, which covers 40 largest and most liquid stocks listed and quoted on the New Zealand Stock Market Exchange, weighted by the market capitalization without dividends reinvested. The sample consists of 4741 daily returns over the period from 1 January 1980 to 31 December 1998. The competing models contain both simple models such as the random walk and smoothing models and complex model such as ARCH type models and a stochastic volatility model. Four different measures are used to evaluate the forecasting accuracy. The main results are (i) the stochastic model provides the best performance among the candidates; (ii) ARCH type models can perform well or badly depending on form chosen the performance of the GARCH (3,2) model, the best model within ARCH family, is sensitive to the choice of assessment measures; and (iii) the regression and exponentially weighted moving average models do not perform well according to any assessment measure, in contrast to the results found in various markets.

Li, et al (2003) examined the relationship between expected stock returns and volatility in the twelve largest international stock markets during January 1980 – December 2001. Consistent with the most previous studies they found the estimated relationship between return and volatility sensitive to the way volatilities are examined. When parametric EGARCH-M models are estimated ten out of twelve markets have positive but statistically insignificant relationship. On the other hand, using a flexible semi parametric specification of conditional variance, they found that negative relationship between return and volatility prevails in most of the markets. Moreover, the negative relationships are significant in six markets based on the whole sample period and seven markets after the 1987 international stock market crash. They have used weekly data from November 1987 to December 2001 for the 12 largest stock market in the world in terms of market capitalization.

Batra (2004) examined the time variation in volatility in the Indian stock market during 1979–2003. The study has used the asymmetric GARCH methodology augmented by structural changes. The paper identifies sudden shifts in the stock price volatility and nature of events that cause these shifts in volatility. He undertook an analysis of the stock market cycles in India to
see if bull and bear phases of the market have exhibited greater volatility in recent times. The empirical analysis in the paper reveals that the period around the BOP crisis and subsequent initiation of the economic reforms in India is the most volatile period in the stock market. The time period he has taken for Sensex is 1979:04-2003:03 and for IFGC is 1988:01-2001:12. The data have been taken from SEBI, RBI and BSE has been used. As a conclusion one may therefore say that liberalization of the stock market or the FII entry in particular does not have any direct implication in the stock return volatility. Level of volatility does not show much change pre and post liberalization. Significant developments in the market indicators-turn over or market capitalization does not lead to volatility shifts in the stock return. Volatility estimation is important for several reasons and for different people in the market. Pricing of securities is supposed to be dependent on volatility of each market. Raju and Ghosh (2004) used the International Organization of Securities Commission (IOSCO) clarification to categories countries into emerging and developed market. There are six countries from developed capital market and twelve from emerging markets including India. Bloomberg data base is used by them as the data source. For India two indices BSE Sensex and S&P CNX Nifty. Amongst emerging markets except India and China, all other countries exhibited low returns. India with long history and China with short history, both provides as high a return as the US and the UK market could provide but the volatilities in both countries is higher. The third and fourth order moments exhibit large asymmetry in some of the developing markets. Comparatively, India market shows less of skewness and kurtosis. Indian markets have started becoming informationally more efficient. Contrary to the popular perception in the recent past, volatility has not gone up. Intraday volatility is also very much under control and has come down compared to past years.

Shin (2005) examined the relationship between return and risk in a number of emerging stock markets. The main contribution of this study is to present more reliable evidence on the relationship between stock market volatility and returns in emerging stock market by exploiting a recent advance in non parametric modeling of conditional variance. This study employed both a parametric and semi parametric GARCH model for the purpose of estimation and inference. The data for this study covers 14 relatively well-established emerging markets which have stock price index series available from the International Finance Corporation (IFC) emerging market data base. Regionally speaking there are six Latin American emerging markets (Argentina, Brazil, Chile, Colombia, Mexico and Venezuela), six Asian emerging markets (India, Korea, Malaysia, Philippins, Taiwan and Thailand) and two European emerging markets (Turkey and Greece). The sample period is from January 1989 to May 2003, after and before the 1987 international stock market crash. This study examines the impact of the 1987-1998 global emerging stock market crisis on GARCH parameters in the line with Choudhary (1996), who studies the impact of the 1987 stock market crash using monthly data between January 1976 and August 1994.

The findings of this study also suggest fundamental differences between emerging markets and developed markets. Investors in emerging markets are often compensated for bearing relevant local market risk, while investors in developed markets are often penalized by bearing irrelevant local market risk. Another factor could be related to the most commonly known characteristics of emerging stock market-that their stock market volatility is notoriously high compared to developed markets.

3. RESEARCH METHODOLOGY

Section III: Data and Research Methodology

Data and its Sources

The data employed in the study consists of daily prices for the time period from January 2007 to December 2009 for three different sectors such as Banking, Information Technology and Cement. The prices used were daily open and close prices; this data has been collected from the Prowess.

Research Methodology

The impact on the volatility has been computed by using standard deviations, rolling standard deviations, etc., by many researchers (Hodgson et al., 1991, Herbst et al., 1992). However, simply testing for changes in unconditional variance may be inadequate as some researchers show that stock index returns are conditionally heteroskedastic (Bollerslev, 1986). Hence, the GARCH model has been a preferred measure of volatility by many researchers (Antoniou and Holmes, 1995, Gregory et al., 1996) to accommodate for heteroskedasticity in the observed returns.

The assumption of the Classical linear regression model that variance of the errors is constant is known as homoscedasticity. If the variance of the errors is not constant, this is known as heteroscedasticity. It is unlikely that in the context of stock return data that the variance of the errors will be constant over time. Hence, it makes sense to consider a model that does not assume that the variance is constant, and which describes how the variance of errors evolves. The prime motivation behind
the development of conditional volatility models emanated from the fact that the existing linear time series models were inappropriate, in the sense that they provided very poor forecast intervals and it was contended that like conditional mean, variance (volatility) could as well evolve over time.

One particular non-linear model in widespread usage in finance is the ‘ARCH’ model. Engle (1982) introduced the ARCH process, which allows the conditional variance to change over time. In ARCH model, the variance is modelled as a linear combination of squared past errors of specified lag. Under the ARCH model, the autocorrelation in volatilities modelled by allowing conditional variance of the error terms, to depend on the immediately previous value of the squared error.

The ARCH models provide a framework of analysis and development of time series models of volatility. However, ARCH models themselves have a number of difficulties. i) It is very difficult to decide the number of lags (q) of the squared residual in the model. One approach to this problem would be the use of likelihood ratio tests. ii) The number of lags of the squared error that are required to capture all of the dependence in the conditional variance might be varying large. This would result in a large conditional variance model that was not parsimonious. Engle (1982) circumvented this problem by specifying an arbitrary linearly declining lag length on an ARCH (4). iii) Other things being equal, the more parameters there are in the conditional variance equation; the more likely it is that one or more of them will have negative estimated values. Non-negativity constraints might be violated.

To overcome these limitations, GARCH model was introduced. In this model artificial constraints have been imposed to make the model satisfy the non-negativity condition. The Generalised Autoregressive Conditional Heteroscedasticity model was developed independently by Bollerslev (1986). GARCH models explain variance by two distributed lags, one on past squared residuals to capture high frequency effects or news about volatility from the previous period measured as lag of the squared residual from mean equation, and second on lagged values of variance itself, to capture long term influences.

4. EMPIRICAL ANALYSIS

This sub section reports the results of the empirical application. This study is based on the daily closing values of three sectors drawn from the National Stock Exchange. The sectors chosen are: Banking, Information Technology and Telecommunication. Since the primary objective of this paper is to understand the volatility process all these three sectors with the selected company scrip’s, the study has identified twelve individual companies belonging to various sectors namely, Banking, Information Technology and Telecommunication sector. These companies have been chosen such that they fairly represent the different sectors of the economy. Three companies from each sector have been chosen based on the performance of the ARCH, ARCH-M and GARCH model. The list of nine companies chosen for the study is given in appendix towards the end of the paper. The data is drawn from the PROWESS database. The data are daily closing prices and adjusted for dividends. The study period spans over the period January 1, 2007 to December 31st 2009, thus involving around 3414 number of data points, which provide rich data set for the analysis.

<table>
<thead>
<tr>
<th>Sectors &amp; Companies</th>
<th>Average Closing Price</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Banking</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allahabad Bank</td>
<td>Pre 50.4033</td>
<td>-0.987</td>
<td>-0.194</td>
</tr>
<tr>
<td></td>
<td>Post 65.6200</td>
<td>0.642</td>
<td>-1.501</td>
</tr>
<tr>
<td>Axis bank</td>
<td>Pre 437.2000</td>
<td>0.357</td>
<td>-0.054</td>
</tr>
<tr>
<td></td>
<td>Post 578.5500</td>
<td>-0.197</td>
<td>-1.096</td>
</tr>
<tr>
<td>HDFC bank</td>
<td>Pre 1044.9900</td>
<td>-0.969</td>
<td>0.062</td>
</tr>
<tr>
<td></td>
<td>Post 1167.7433</td>
<td>1.915</td>
<td>5.987</td>
</tr>
<tr>
<td><strong>IT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMC Ltd</td>
<td>Pre 316.9767</td>
<td>0.561</td>
<td>-1.634</td>
</tr>
<tr>
<td></td>
<td>Post 489.4100</td>
<td>0.728</td>
<td>0.003</td>
</tr>
<tr>
<td>Infosys Technologies Ltd</td>
<td>Pre 1360.1533</td>
<td>0.141</td>
<td>-1.639</td>
</tr>
<tr>
<td></td>
<td>Post 1467.4267</td>
<td>0.388</td>
<td>-1.064</td>
</tr>
<tr>
<td>Sathyam Computer Service</td>
<td>Pre 43.0633</td>
<td>0.313</td>
<td>-1.186</td>
</tr>
<tr>
<td>Industries</td>
<td>Companies</td>
<td>Levene’s Test</td>
<td>P-Value</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>Banking Industry</td>
<td>Allahabad Bank</td>
<td>0.000</td>
<td>0.000&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Axis Bank</td>
<td>0.010</td>
<td>0.000&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>HDFC Bank Ltd</td>
<td>0.628</td>
<td>0.000&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td>IT Industry</td>
<td>CMC Ltd</td>
<td>0.889</td>
<td>0.000&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Infosys Technologies Ltd</td>
<td>0.014</td>
<td>0.000&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Sathyam Computer Service Ltd</td>
<td>0.001</td>
<td>0.001&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td>Telecom Industry</td>
<td>GTL Ltd</td>
<td>0.160</td>
<td>0.000&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Mahanagar Telephone Nigam Ltd</td>
<td>0.009</td>
<td>0.221</td>
</tr>
<tr>
<td></td>
<td>Tata Communications Ltd</td>
<td>0.456</td>
<td>0.000&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

From the above table it can be observed that Levene’s test value for Banking sector has shown 0.000 value for Allahabad bank, 0.010 for Axis Bank and 0.628 for HDFC Bank Ltd, it can be inferred that variations is there only for HDFC bank.

It is evident from the above table that IT sector has shown positive fluctuations. Levene’s test value of CMC Ltd is 0.889, Infosys Technologies Ltd is 0.014 and Sathyam Computer Service Ltd is 0.001. It can be inferred that IT sector has shown volatility in the stock prices.

It can be observed from the above table, GTL Ltd has shown a value of 0.160, Mahanagar Telephone Nigam Ltd has shown a value of 0.009 and Tata Communications Ltd has shown a value of 0.456. It can be inferred that there is fluctuations in the stock prices.
Table 3 Abnormal Returns – GARCH MODEL

<table>
<thead>
<tr>
<th>Industry</th>
<th>Bank</th>
<th>IT</th>
<th>Telecommunication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AR</td>
<td>T stat</td>
<td>AR</td>
</tr>
<tr>
<td>Year - 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>-0.012</td>
<td>-0.269</td>
<td>-0.019</td>
</tr>
<tr>
<td>Post</td>
<td>-0.022</td>
<td>-0.408</td>
<td>-0.022</td>
</tr>
<tr>
<td>Year - 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>-0.022</td>
<td>0.049</td>
<td>-0.006</td>
</tr>
<tr>
<td>Post</td>
<td>-0.018</td>
<td>-0.396</td>
<td>-0.007</td>
</tr>
<tr>
<td>Year - 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>-0.006</td>
<td>-0.217</td>
<td>-0.004</td>
</tr>
<tr>
<td>Post</td>
<td>-0.015</td>
<td>-0.319</td>
<td>0.001</td>
</tr>
</tbody>
</table>

It is observed from the above table that average abnormal return and t-statistics of share price have been calculated for Banking, IT and telecommunication industry. For the Banking industry, the average abnormal return for all the years both in pre-event and post-event windows shows negative performance of share price. T-statistics was performed to measure the significant difference among companies in banking industry. During the study period, pre event window of second year (0.049), the industry found significant difference in pre-event window. For all the years, the industry found no significant difference in both pre-event and post-event window. It is tested at 5% level of significant.

Similarly, abnormal return has been computed for IT industry, which shows the excess return of 0.001 during the third year in the Post event window. Other part of pre and post-event window shows negative impact on share price. T-statistics was performed to measure the significant difference among companies in IT industry. During the study period, post event window of third year (0.024), the industry found significant difference in post-event window. For all the years, the industry found no significant difference in both pre-event and post-event window. It is tested at 5% level of significant.

Similarly, abnormal return has been computed for Telecommunication industry, which shows the excess return of 0.003 during the second year in the Post event window and 0.006 during the third year in the Post event window. Other part of pre and post-event window shows negative impact on share price. T-statistics was performed to measure the significant difference among companies in Telecommunication industry. During the study period, for the years, both in pre and post event window (0.011 0.007 0.025 0.020 0.046 0.047), the industry found significant difference. It is tested at 5% level of significant.

Final observation of above table exhibits IT industry had found impact on share price in both pre-event window and post-event window.

Table 4 Variance

<table>
<thead>
<tr>
<th>Industries</th>
<th>Event Period</th>
<th>Bank Variance</th>
<th>IT Variance</th>
<th>Telecom Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year - 1</td>
<td>Pre</td>
<td>0.002</td>
<td>0.002</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>0.003</td>
<td>0.014</td>
<td>0.000</td>
</tr>
<tr>
<td>Year - 2</td>
<td>Pre</td>
<td>0.002</td>
<td>0.000</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>0.002</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td>Year - 3</td>
<td>Pre</td>
<td>0.001</td>
<td>0.003</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>0.002</td>
<td>0.001</td>
<td>0.002</td>
</tr>
</tbody>
</table>

It is observed from the above table that, in case of banking industry high variance is extracted during the post dividend announcement period in the first year, in case of IT industry also high variance is observed during the post dividend announcement period in the first year, but in case of telecom industry, high variance is observed during the third year only.

5. Conclusion

This study in particular addresses the stock market volatility of selected sectors in National Stock Exchange of India using GARCH (1, 1) model. It can be observed that among all the three sectors selected, IT sector had got more volatility during the study period.
The study has tried to dig into the very vast and interesting issue, which requires more elaborated analysis. Due to the limitation of time and resources the study restricted to conclude general findings with limited data set. Future research can be extended for other service sectors by utilizing the more sophisticated techniques of operational research.

6. References


*****
ABSTRACT: Quality of working life has been differentiated from the broader concept of quality of life. To some degree, this may be overly simplistic, as Eltzur and Shye,(1990) concluded that quality of work performance is affected by quality of life as well as quality of working life. However, the specific attention to work-related aspects of quality of life is valid. Whilst quality of life has been more widely studied, quality of working life remains relatively unexplored and unexplained. A review of the literature reveals relatively little on quality of working life. Where quality of working life has been explored, writers differ in their views on its core constituents. Various authors and researchers have proposed models of quality of working life which include a wide range of factors. This paper concentrates on the role of job satisfaction in quality of work life.

Keywords: Job Satisfaction and Quality of Work Life

INTRODUCTION

Work is an integral part of our everyday life, as it is our livelihood or career or business. On an average we spend around twelve hours daily in the work place, that is one third of our entire life; it does influence the overall quality of our life. It should yield job satisfaction, give peace of mind, a fulfillment of having done a task, as it is expected, without any flaw and having spent the time fruitfully, constructively and purposefully. Even if it is a small step towards our lifetime goal, at the end of the day it gives satisfaction and eagerness to look forward to the next day.

One of the biggest preludes to the study of job satisfaction was the Hawthorne studies. These studies (1924–1933), primarily credited to Elton Mayo of the Harvard Business School, sought to find the effects of various conditions (most notably illumination) on workers’ productivity. These studies ultimately showed that novel changes in work conditions temporarily increase productivity (called the Hawthorne Effect). It was later found that this increase resulted, not from the new conditions, but from the knowledge of being observed. This finding provided strong evidence that people work for purposes other than pay, which paved the way for researchers to investigate other factors in job satisfaction.

Job satisfaction can also be seen within the broader context of the range of issues which affect an individual's experience of work, or their Quality of Working Life. Job satisfaction can be understood in terms of its relationships with other key factors, such as general well-being, stress at work, control at work, home-work interface, and working conditions. Hackman and Oldham (1976) drew attention to what they described as psychological growth needs as relevant to the consideration of Quality of working life. Several such needs were identified: Skill variety, Task Identity, Task significance, Autonomy and Feedback.

They suggested that such needs have to be addressed if employees are to experience high quality of working life. In contrast to that, Taylor (1979) more pragmatically identified the essential components of quality of working life as basic extrinsic job factors of wages, hours and working conditions, and the intrinsic job notions of the nature of the work itself. He suggested that a number of other aspects could be added, including:

Individual power, employee participation in the management, fairness and equity, social support, use of one’s present skills, self development, a meaningful future at work, social relevance of the work or product, Effect on extra work activities.

In summary, where it has been considered, authors differ in their views on the core constituents of Quality of Working Life, it is not a unitary concept, but has been seen as incorporating a hierarchy of perspectives that not only include work-based factors such as job satisfaction, satisfaction with pay and relationships with work colleagues, but also factors that broadly reflect life satisfaction and general feelings of well-being (Danna & Griffin, 1999). More recently, work-related stress and the relationship between work and non-work life domains (Loscosco & Roschelle, 1991) have also been identified as factors that should conceptually be included in Quality of Working Life. Regular assessment of Quality of Working Life can potentially provide organizations with important information about the welfare of their employees, such as job satisfaction, general well-being, work-related stress and the home-work interface. Other things seem to be more likely to make people feel good about work and themselves once the basics are OK at work. Challenging work (not too little, not too much) can make them feel good. Similarly, opportunities for career progression and using their abilities can contribute to someone's quality of working life. The emphasis on
assessing and monitoring wellbeing springs from the fact that these processes are the key first step in identifying areas for improving quality of working life and addressing risks at work confined to the organizational context.

1. INDUSTRY PROFILE

Information Technology (IT) industry in India is one of the fastest growing industries. Indian IT industry has built up valuable brand equity for itself in the global markets. IT industry in India comprises of software industry and information technology enabled services (ITES), which also includes business process outsourcing (BPO) industry. India is considered as a pioneer in software development and a favorite destination for IT-enabled services.

Today, Indian IT companies such as Tata Consultancy Services (TCS), Wipro, Infosys, and HCL are renowned in the global market for their IT prowess. Some of the major factors which played a key role in India's emergence as a key global IT player are: Indian Education System; High Quality Human Resource; Competitive Costs Infrastructure Scenario

In the last few years Indian IT industry has seen tremendous growth. Destinations such as Bangalore, Hyderabad and Gurgaon have evolved into global IT hubs. Several IT parks have come up at Bangalore, Hyderabad, Chennai, Pune, Gurgaon etc. The growth in the service sector in India has been led by the IT–ITES sector, contributing substantially to increase in GDP, employment, and exports. The sector has increased its contribution to India's GDP from 6.1% in 2009-10 to 6.4% in 2010-11. According to NASSCOM, the IT–BPO sector in India aggregated revenues of US$88.1 billion in FY2011. The top seven cities that account for about 90% of this sectors exports are Bangalore, Chennai, Hyderabad, Mumbai, Pune, Delhi, Kolkata, Coimbatore and Kochi dominate the IT–ITES industry, and constitute about 77% of the total industry revenue. Though the IT–OTES sector is export driven, the domestic market is also significant with a robust revenue growth. There are thousands of employees working for this sector, for which a better quality of work life is very important to sustain them in the job.

2. LITERATURE REVIEW

Davis, Levine and Taylor (1984), said that quality of work life is defined by those aspects of work that the organization’s members see as desirable and as enhancing the quality of life at work. This could mean that for no two organizations the definition of quality of work life could be exactly the same. There could be no well developed or well-accepted definition of the quality of work life, because the concept takes on different meanings for different sectors of the working population. In other words, even in the same organization the perception of what quality of work life is, can differ from group to group. Therefore, it is suggested by these authors that organizational members should participate in defining quality of work life in their own language and meaning.

Wart (1987) depicts quality of work life as absence of stressors in the work environment, although he gives credit to the role that motivational needs and the importance of growth needs as factors to be present in the work environment play to provide satisfaction. More recently, Hart (1994) investigated the positive and negative work experiences reported by teachers and how these contribute to their quality of work life. The theoretical model developed by Hart contends that it is psychologically meaningful to distinguish between positive and negative work experiences and that these operate along separate paths to determine quality of work life, positive experiences through morale and negative experiences through psychological distress.

In their paper on a new measure of quality of work life, Sirgy et al. (2001), defines quality of work life as “employee satisfaction with a variety of needs through resources, activities and outcomes stemming from participation in the work place.” They therefore, consider need satisfaction that result from workplace experiences, as an important contributing factor to not only job satisfaction, but also satisfaction with other life domains.

2.1 Given the large number of factors that influences the quality of work life, some of the aspects which are taken for this study are as follows:

a) **Pay Scale:** It is concerned with how well the payment and benefits cover the expenses and needs and how sufficient it is in relation to the skill set of the individual.
b) **Physical work conditions:** This includes the ambience, comfortable working conditions and convenience of transportation.
c) **Job security:** It is concerned with the certainty of career in the organization and certainty of career in future.
d) **Job Pressure:** The two parameters which comes under the pressure is the amount of work for the time and assistance available, and the amount of hard physical labor required by the job.
e) **Health and safety:** It deals with protection against injuries, exposure to pollution, exposure to dangers and risk of catching diseases.
f) **Fellow workers:** This says about the friendliness, respect and support obtained from the colleagues.
g) **Immediate superior:** It is concerned with politeness and respect from the superiors, feedback about performance, guidance and encouragement offered by their superiors at work.

h) **Responsibility:** It is concerned with the degree of being responsible for the consequences of executing the job.

i) **Job/role clarity:** The objectives and responsibilities of the job should be precisely defined and described and the amount of information regarding work is also an important dimension.

j) **Growth and Development:** It is concerned with the opportunities to develop special skills and abilities, to learn new things and to develop as an individual and similarly, the entire system as well.

k) **Meaningfulness:** It says about the feeling of accomplishment of something of personal value and the feeling of making a worthwhile contribution to the society.

3. **STATEMENT OF THE PROBLEM:**

Studying satisfaction with QWL encompasses benefit to the organization and its workforce. It is the concern of the management to establish and meet certain expectations, whether these be making profit or delivering a service efficiently and cost effectively.

It is being recognized that reaching organizational goals is not the only responsibility of the management; they also bear the responsibility of the well being of their employees, so that they have committed, involved, responsible and motivated subordinates. Studies find consistent positive relationship between satisfaction and performance, productivity, dedication, involvement and similarly, job dissatisfaction connected with health problems and life in general. Hence an attempt is made to provide an overview of research that demonstrates importance of satisfaction in relation to Quality of Work Life.

3.1 **Objective of the study**

- To study the relationship between demographic factors on employee satisfaction.
- To study and analyze the impact of various factors that influences the level of satisfaction of the individual at work.
- To know the overall quality of work life in the organization and its impact on work culture of the employees.
- To measure the level of satisfaction of employees towards the quality of work life.

3.2 **Hypothesis**

- \( H_0 \): The gender of the employee does not have any effect on the satisfaction of the employees towards quality of work life.
- \( H_1 \): The genders of the employee do have an effect on the satisfaction of the employees towards quality of work life.
- \( H_0 \): The age of the employee does not have any effect on the satisfaction of the employees towards quality of work life.
- \( H_2 \): The age of the employee do have an effect on the satisfaction of the employees towards quality of work life.

3.3 **Limitations of the study**

- The study was confined to limited number of respondents, taken the wide scope of the industry.
- The response of the respondents is instantaneous and may not disclose the facts as it exists.
- The time is also the major constraining factors for the conduction of 100% survey and for the comparative study with another industry.
- The study was restricted to Bangalore city only.

3.4 **Methodology**

3.4.1 **Sampling method and sample size:**

For a research study to be perfect the sample size selected should be optimal i.e. it should neither be excessively large nor too small. Here the sample size was bounded to 100. Simple random sampling method is employed for the process of sampling.

3.4.2 **Tools used for analysis:**

- **Percentage analysis:** One of the simplest methods of analysis is the percentage method. It is one of the traditional statistical tools. Through the use of percentage, the data are educed in the standard form with the base equal to 100, which facilitates comparison. The formula used to compute Percentage analysis is,
Factor ranking method.

Chi square test

The weighted average method can be calculated by the following formula. This tool is used to find the rank given by the respondents to the parameters which affects the level of satisfaction. It can be calculated as

\[ XW = \frac{\sum WX}{\sum X} \]

Here

\( XW \) represents the weighted average
\( X \) represents the value of variable
\( W \) represents the weight given to the variable.

Table 1: computation of chi-square

<table>
<thead>
<tr>
<th>OBSERVED</th>
<th>EXPECTED</th>
<th>(F0-Fe)^2</th>
<th>(F0-Fe)^2/Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>7.42</td>
<td>2.0164</td>
<td>0.272</td>
</tr>
<tr>
<td>9</td>
<td>10.07</td>
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</tr>
<tr>
<td>15</td>
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</tr>
<tr>
<td>10</td>
<td>10.07</td>
<td>0.0049</td>
<td>0.000</td>
</tr>
<tr>
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</tr>
<tr>
<td>9</td>
<td>8.93</td>
<td>0.0049</td>
<td>0.001</td>
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<tr>
<td>8</td>
<td>9.87</td>
<td>3.4969</td>
<td>0.354</td>
</tr>
</tbody>
</table>

Chi-square 1.560

The tabulated value of chi-square at D.F. = 4 and at 5% level of significance is 9.49. Since the calculated value is less than table value, the null hypothesis is rejected.

Table 2: Computation Chi-Square

<table>
<thead>
<tr>
<th>OBSERVED</th>
<th>EXPECTED</th>
<th>(F0-Fe)^2</th>
<th>(F0-Fe)^2/Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1.68</td>
<td>1.7424</td>
<td>1.037</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0.333</td>
</tr>
<tr>
<td>3</td>
<td>3.36</td>
<td>0.1296</td>
<td>0.059</td>
</tr>
<tr>
<td>2</td>
<td>2.64</td>
<td>0.4096</td>
<td>0.155</td>
</tr>
<tr>
<td>0</td>
<td>1.32</td>
<td>1.7424</td>
<td>1.520</td>
</tr>
<tr>
<td>7</td>
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<td>6.3504</td>
<td>0.667</td>
</tr>
<tr>
<td>14</td>
<td>17</td>
<td>9</td>
<td>0.529</td>
</tr>
<tr>
<td>19</td>
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<td>0.000</td>
</tr>
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</tr>
<tr>
<td>11</td>
<td>7.48</td>
<td>12.3904</td>
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<td>1.44</td>
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<td>7</td>
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<td>5.6</td>
<td>0.16</td>
<td>0.029</td>
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</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Chi-square 10.004
The tabulated value of chi-square at D.F.=12 and at 5% level of significance is 21.03. Since the calculated value is less than table value, the null hypothesis is rejected.

**Table: 3 showing the mean rankings of the factors influencing the satisfaction of employees towards quality of work life:**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Mean Rating (out of 5)</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Scale</td>
<td>2.65</td>
<td>2</td>
</tr>
<tr>
<td>Physical Comfort</td>
<td>2.70</td>
<td>3</td>
</tr>
<tr>
<td>Transportation</td>
<td>2.75</td>
<td>5</td>
</tr>
<tr>
<td>Promotion</td>
<td>3.30</td>
<td>13</td>
</tr>
<tr>
<td>Job security</td>
<td>3.00</td>
<td>7</td>
</tr>
<tr>
<td>Job Pressure</td>
<td>4.10</td>
<td>14</td>
</tr>
<tr>
<td>Health &amp; safety</td>
<td>2.30</td>
<td>1</td>
</tr>
<tr>
<td>Fellow workers</td>
<td>2.85</td>
<td>6</td>
</tr>
<tr>
<td>Patience &amp; friendliness</td>
<td>3.29</td>
<td>12</td>
</tr>
<tr>
<td>Feedback and support</td>
<td>3.20</td>
<td>10</td>
</tr>
<tr>
<td>Nature of the job</td>
<td>3.16</td>
<td>8</td>
</tr>
<tr>
<td>Job role clarity</td>
<td>3.17</td>
<td>9</td>
</tr>
<tr>
<td>Growth and Development</td>
<td>3.00</td>
<td>7</td>
</tr>
<tr>
<td>Meaningfulness</td>
<td>3.25</td>
<td>11</td>
</tr>
<tr>
<td>Challenge &amp; Creativity</td>
<td>2.74</td>
<td>4</td>
</tr>
</tbody>
</table>

**Interpretation:**

The following inferences can be drawn from table:-

a) The factors which causing higher level of satisfaction among all the factors considered are:
   1) Health and safety
   2) Pay scale
   3) Physical working conditions
   4) Challenge & Creativity
   5) Transportation facility

The factors which causing lower level of satisfaction among all the factors considered are:

1) Job pressure
2) Opportunity for promotion
3) Patience and politeness of superiors
4) Meaningfulness of the job
5) Feedback and support of the superiors

4. SUMMARY OF FINDINGS

The results drawn out of the study are as follows:

i. The pay scales offered by the IT and ITES organizations which are very lucrative and it has been a dream come true for many of the professionals to be employed by those companies.

ii. The physical working conditions are comfortable in terms of sparing the physical effort, as the job deals with the intellectual ability of the individual.

iii. The transportation facility provided for the employees, is a shared one which is arranged on the basis of the number of employees belonging to different parts of the city.

iv. The chances of promotion are not up to the expectations of the employees.

v. Most of the employees are not very sure whether their job is a secured and reliable, taken the dynamics of the IT industry.

vi. In case of the pressure associated with the job, it is found that most of the employees feel stressed out due to the time limitation for submitting their reports.

vii. The healthy and safety working environment in the IT industry has gained the pleasure of the employees where the risk of getting injured is minimum.
viii. The immediate superiors are courteous enough to interact with them, but when it comes to extending support and giving feedback to the employees, the response is unsatisfactory.
ix. The employee share only a professional relationship with the colleagues and are willing to remain neutral than to go in detail with their personal matters.
x. Most of the employees feel that the job is not very interesting and it is monotonous.
xi. The study reveals that employees are not clearly informed about the responsibilities of the job.
xii. The opportunities of improvement of the individual skills are provided by the employers to whomever it is necessary.
xiii. They found it challenging to perform the job as the skill set required to execute the tasks keeps changing from time to time.

5. CONCLUSION

One common research finding is that job satisfaction is correlated with Quality of work life. This correlation is reciprocal, meaning people who are satisfied with work life tend to be satisfied with their job and people who are satisfied with their job tend to be satisfied with work life. An important finding for organizations to note is that job satisfaction has a rather tenuous correlation to productivity on the job. This is a vital piece of information to researchers and businesses, as the idea that satisfaction and job performance are directly related to one another is often cited in the media and in some non-academic management literature.

The concern for the organization to give importance to bring out quality in the requirements at workplace is that the employer expects the employees to execute their tasks without failure. Hence the facilities offered should be carefully categorized according to the roles and responsibilities of the job. Also the opportunity of career development is another influential factor for the satisfaction/dissatisfaction among the employees. The purpose of offering attractive salary and other benefits is that the productivity of the employee increases if he/she is content with the compensation obtained in return to their contribution for the job. The motive of the organization behind giving all these benefits to their employees is to keep the employees remain for longer duration in the organization as the rate of attrition is more in this sector compared to other domains. And also it enables the employees to stay focused to their work and serve better without unnecessary tensions.

5.2 Suggestions

a) Taken the vast scope of aspects that influence the employee satisfaction, the crucial parameter is the recognition of the efforts of the employee. If their contributions are recognized, it develops a sense of pride within them which make them feel contented. Or else, they feel disinterested to work which in turn decreases productivity of the employees.
b) Some of the employees have an opinion that they are not communicated evidently regarding their tasks. This can be sorted out with an effective information system that updates them regarding their responsibilities.
c) The pressure encountered at workplace is more when it is the case of the time limit allotted for the completion. This can be avoided by conducting timely reviews with the team members involved for a certain task.
d) A well organized feedback system should be instituted within the organization through which superiors can give regular feedback by which the employees feel comfortable to approach in case of any issues.
e) The employees should be given the freedom of putting up their ideas. The best ones should be duly recognized and this encourages the other employees to put their constructive and value added suggestions.
f) Employee suggestion scheme needs to be operationalized effectively so as to utilize the creativity of employees.

6. REFERENCES

[12]. Taylor J C in Cooper, CL and Mumford, E (1979) The quality of working life in Western and Eastern Europe. ABP

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AN EMPIRICAL ANALYSIS OF IMPACT OF BONUS ISSUE ON SHARE PRICE WITH REFERENCE TO SELECTED COMPANIES IN INDIA

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ABSTRACT: This study examines the impact of bonus issue on share price of selected scrip’s during February 2010 to February 2011 listed on National Stock Exchange, India. When additional shares are allotted to existing shareholders without being paid any additional payment for them, it is known as bonus shares. Bonus shares are issued by a company when it intends to pay dividend by issuing shares. Companies giving bonus shares are regarded very highly by investor fraternity. Very few studies have observed bonus issue announcement and share prices in India and this study is an attempt to fill the gap. The present study is an empirical analysis to examine the impact of bonus announcement on share prices. Impact has been analyzed between ±7 days from the date of bonus announcement. The result divulges that there is no significant impact on bonus announcement between pre-post conditions considered for this study.

Key words: Share Price, Bonus Shares

1. INTRODUCTION

The term bonus means extra dividend paid to shareholders in a joint stock company from surplus profits. It is a free share of stock given to existing shareholders in a company, based upon the number of shares the shareholder already owns at the time of announcement of bonus. In other words, bonus shares are issued by a company when it intends to pay dividend by issuing shares. Bonus shares are declared when company has sufficient profit to declare dividend but either does not possess cash to pay it or does not want to part with it in order to implement some capital expenditure plans. Thus, bonus shares result in the capitalization of profits of the company. Advantage of bonus issue has classified into two patterns, one is described in company point of view and another one is described in share holders’ point of view. Especially in company point of view the following are considered as key points, such as the capital as per balance sheet will be more realistic than it would be otherwise. Profits remaining the same, the company cannot declare high dividend on expanded capital. By not declaring high dividend, it can avoid the tall claims of the employees and regulations by the government. Since there is no cash outgoing, liquidity of the company is not impaired. The capitalization of reserves increases substantially the credit worthiness of company. Similarly on the other side shareholder’s point view the advantages are respectively, the shareholders can dispose of these shares and realize cash. Sometimes they can be sold even at a premium, as only successful companies can issue bonus shares. The shareholders can receive dividend on the increase share holding. As it is very difficult to buy shares of successful companies from the market, the issue of bonus share will enable the shareholder to increase his holding. In due course he will also have capital appreciation and increased dividend. Understanding the behavior of share price with respect to bonus announcement is an interesting situation and to evaluate the existing works done in this space has been analyzed, which is presented in related works.

2. RELATED WORKS

Few researches have been conducted from time to time on this topic till now. Prominent amongst them is “Bonus Share Issues and Announcement Effect: Australian Evidence”, Balachandran Balasingham and Tanner Sally (October 2001), which ended with the conclusions that price reaction to bonus issue announcement from the day of the announcement to the day after the announcement statistically significant and positive of average 2.37% for un contaminated events and 2.11% for contaminated events employing the market model. Another recent study conducted on the topic, “Bonus Share Announcements and Market Efficiency: A Study of BSE Listed Companies” Kaur Karamjeet and Singh Balwinder(2010) taking BSE listed companies for the year 2005-2009 demonstrate that market reacts positively to these announcements. Positive reaction starts even before the announcements. About 77% events generate positive results on the day of announcement. Further post-announcement returns are tested for the presence of semi-strong form of efficiency in Indian stock markets. While size-wise results are discriminative, year wise results largely supports the notion of market being efficient in capitalizing the new information. These studies are concerned with the announcement date
of bonus issue and its impact and led us to do this research work that what will be the impact of bonus shares on market price and earnings per share after record date. The record date is the date on which the bonus takes effect, and shareholders on that date are entitled to the bonus. After the announcement of the bonus but before the record date, the shares are referred to as cum-bonus has been given effect; the shares become ex-bonus. This study examines the impact of bonus shares on EPS and Market price of shares after record date.

Barns and Ma (2002) investigate stock price reaction to the announcement of bonus issues for the emerging stock markets--China. The results show that the issues with a high bonus ratio (number of bonus shares in the issue/number of existing shares) usually attract positive returns for both Chinese and foreign residents. The hypothesis of semi-strong form market efficiency is rejected only for small-bonus issues. Finally, there appears to be additional informational content in the approvals of bonus issues above and beyond that of the proposals. Bechmann and Raaballe (2004) examined the effect of stock dividend and stock splits on Danish stock market. The two events are associated with a significantly positive announcement effect of approximately 2.5%. After controlling for the firm's payout policy, the results suggest that a stock split is a cosmetic event and that a stock dividend on its own is considered negative news.

Balachandran et al. (2004) examine share price reaction to the announcement of bonus share issues for a sample of Australian companies over the period 1992 to 2000. The risk-adjusted price reaction from day 0 to day 1 is positive and statistically significant, averaging 2.37%. However, abnormal price reaction to bonus issue announcements is statistically significantly stronger for industrial non-financial companies and mining companies than financial companies. Finally, they find a significant positive cash flow performance, which is taken to indicate that companies that announced bonus share issues provide strong signals regarding their future performance. Subsequently, Balachandran et al. (2005) apply the signaling model to the announcement of bonus share options for a sample of Australian companies (January 1991-August 2003). The risk adjusted price reaction to bonus share option announcements for the three-day announcement period is 2.93%. In contrast, no price reaction was found for in-the-money bonus share option announcements. Consistent with the Heinkel and Schwartz signaling model, the price reaction is found to be positively associated with the exercise price to current share price ratio and the size of the bonus share option issue.

3. STATEMENT OF THE PROBLEM

In fact a common thread an investor facing is return assurance on the stock market Investment. Each and every Investor coming in to the stock Market is nowhere in spotting out the cause of increase or decrease in the market price and which kind of financial event gives strong positive trigger in the Market price?

At this juncture, the felt need is that there should be a study presenting the positive and negative effect of each and every financial event on stock prices particularly Bonus share issues.

4. RESEARCH OBJECTIVES

The study has been undertaken with the following objectives:

 ✓ To critically examine the pattern of share price before and after bonus announcement.
 ✓ To find out the magnitude of bonus issue event effect on shareholder value.

5. DATA AND METHODOLOGY

The present study is empirical in nature and it is based on secondary data. The data used for this study are randomly selected 10 companies among different industries which are listed on National Stock Exchange and which satisfy the following criteria:

(i) The companies that were listed in National Stock Exchange, India
(ii) Availability of the dates of announcement of bonus issue and
(iii) Availability of Bonus issue announcement information.

The Selected companies have issued a bonus share during 2010-11. The selected companies are Bajaj Auto, Elgi Equipments, ITC, Karur Vysya Bank, ONGC, Parenteral Drug, Shiva Cement, South Indian Paper Mills, Wipro and Zodiac Clothing has been selected and data obtained from Prowess. The data used for the study are for the period from March 2010- March 2011. Closing Market Price of shares before seven days of date of bonus issue and after seven days of date of bonus issue has been taken for analysis. Summary Statistics, difference Paired t-test has been used for measuring the change in share price with bonus issue.

6. LIMITATIONS OF THE STUDY

 ✓ The present study is confined to only one event announcement.
 ✓ This study is restricted with only few companies.
 ✓ All the limitations of the tools used are applicable to this study.
7. EMPIRICAL RESULTS

Table 1: Companies Bonus Issue Dates and Bonus Ratio

<table>
<thead>
<tr>
<th>S.No.,</th>
<th>Company Name</th>
<th>Bonus share issue dates</th>
<th>Bonus Issue Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bajaj Auto</td>
<td>22-7-2010</td>
<td>1:1</td>
</tr>
<tr>
<td>2.</td>
<td>Elgi Equipments</td>
<td>28-10-2010</td>
<td>1:1</td>
</tr>
<tr>
<td>3.</td>
<td>ITC</td>
<td>18-6-2010</td>
<td>1:1</td>
</tr>
<tr>
<td>4.</td>
<td>Karur Vysya Bank</td>
<td>7-9-2010</td>
<td>2:5</td>
</tr>
<tr>
<td>5.</td>
<td>ONGC</td>
<td>16-12-2010</td>
<td>1:1</td>
</tr>
<tr>
<td>6.</td>
<td>Parenteral Drug</td>
<td>2-9-2010</td>
<td>1:3</td>
</tr>
<tr>
<td>7.</td>
<td>Shiva Cement</td>
<td>30-10-2010</td>
<td>1:10</td>
</tr>
<tr>
<td>8.</td>
<td>South Indian Paper Mills</td>
<td>29-7-2010</td>
<td>1:1</td>
</tr>
<tr>
<td>9.</td>
<td>Wipro</td>
<td>23-4-2010</td>
<td>2:3</td>
</tr>
<tr>
<td>10.</td>
<td>Zodiac Clothing</td>
<td>6-7-2010</td>
<td>1:2</td>
</tr>
</tbody>
</table>

The above table shows the date on which, the bonus share issue and its ratio was announced in the board of directors meeting for the selected companies under study. From these dates, daily adjusted prices for sample stocks for 7 days before and 7 days after the event date were taken and the event window were determined as $t = -7$ to $t = +7$ relative to the event day $t = 0$ (date of announcement of bonus). The study aim is to find out whether the events have any signaling impact on the share prices.

Table 2: Share Price Performance on Bonus Issues

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Pre-Bonus 7 days Average</th>
<th>Share Price on Bonus Announcement Date</th>
<th>Post-Bonus 7 days Average</th>
<th>% of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bajaj Auto</td>
<td>2636.41</td>
<td>2490.20</td>
<td>2413.26</td>
<td>-8.46</td>
</tr>
<tr>
<td>Elgi Equipments</td>
<td>195.09</td>
<td>184.60</td>
<td>157.01</td>
<td>-19.52</td>
</tr>
<tr>
<td>ITC</td>
<td>300.71</td>
<td>294.90</td>
<td>285.97</td>
<td>-4.90</td>
</tr>
<tr>
<td>Karur Vysya Bank</td>
<td>752.09</td>
<td>801.00</td>
<td>773.91</td>
<td>2.90</td>
</tr>
<tr>
<td>ONGC</td>
<td>1304.71</td>
<td>1329.10</td>
<td>1329.93</td>
<td>1.93</td>
</tr>
<tr>
<td>Parenteral Drug</td>
<td>281.11</td>
<td>281.15</td>
<td>265.84</td>
<td>-5.43</td>
</tr>
<tr>
<td>Shiva Cement</td>
<td>9.25</td>
<td>10.12</td>
<td>10.35</td>
<td>11.81</td>
</tr>
<tr>
<td>South Indian Paper Mills</td>
<td>62.43</td>
<td>64.58</td>
<td>60.95</td>
<td>-2.38</td>
</tr>
<tr>
<td>Wipro</td>
<td>683.47</td>
<td>691.90</td>
<td>710.43</td>
<td>3.94</td>
</tr>
<tr>
<td>Zodiac Clothing</td>
<td>522.18</td>
<td>536.15</td>
<td>526.89</td>
<td>0.90</td>
</tr>
</tbody>
</table>

From the above table it can be observed that out of 10 companies only 5 companies shown a positive change on the share prices. An average share price has been computed for 7 days prior from the date of bonus announcement and 7 days after the date of bonus announcement. It has been observed from the table that Shiva Cements has recorded an increase of 11.81% in share price which is the highest among the selected companies. On the other hand Elgi Equipments has lost around 19.52%. Hence it can be inferred that 50% of the companies has shown an impact on issue of bonus shares.
Table 3: Summary statistics of Event Announcement (Bonus) on Share Price Performance

<table>
<thead>
<tr>
<th></th>
<th>Bajaj Auto</th>
<th>Elgi Equipments</th>
<th>ITC</th>
<th>Karur Vysya Bank</th>
<th>ONGC</th>
<th>Parenteral Drug</th>
<th>Shiva Cement</th>
<th>South Indian Paper Mills</th>
<th>Wipro</th>
<th>Zodiac Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre</strong> Mean</td>
<td>2636.4</td>
<td>195.09</td>
<td>300.7</td>
<td>752.0</td>
<td>1304.7</td>
<td>281.11</td>
<td>9.25</td>
<td>62.43</td>
<td>683.4</td>
<td>522.18</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td><strong>Post</strong> Mean</td>
<td>2413.2</td>
<td>157.01</td>
<td>285.9</td>
<td>773.9</td>
<td>1329.9</td>
<td>265.84</td>
<td>10.35</td>
<td>60.95</td>
<td>710.4</td>
<td>526.89</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>2636.4</td>
<td>195.09</td>
<td>300.7</td>
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<td>281.11</td>
<td>9.25</td>
<td>62.43</td>
<td>683.4</td>
<td>522.18</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>98.66</td>
<td>1.42</td>
<td>3.23</td>
<td>114.8</td>
<td>11.27</td>
<td>38.89</td>
<td>0.26</td>
<td>0.87</td>
<td>14.91</td>
<td>2.32</td>
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<tr>
<td><strong>CV</strong></td>
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<td>0.73</td>
<td>1.07</td>
<td>15.28</td>
<td>0.86</td>
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<td>2.80</td>
<td>1.39</td>
<td>2.18</td>
<td>0.45</td>
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<td>0.17</td>
<td>-1.09</td>
<td>2.20</td>
<td>-0.91</td>
<td>-0.96</td>
<td>-0.22</td>
<td>-0.53</td>
<td>1.19</td>
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<tr>
<td><strong>Kurtosis</strong></td>
<td>2.66</td>
<td>1.66</td>
<td>2.41</td>
<td>2.12</td>
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<td>3.79</td>
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<td><strong>Post</strong> Mean</td>
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<td>0.87</td>
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</tr>
<tr>
<td><strong>CV</strong></td>
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<td>2.80</td>
<td>1.39</td>
<td>2.18</td>
<td>0.45</td>
</tr>
<tr>
<td><strong>Skewness</strong></td>
<td>-1.14</td>
<td>0.13</td>
<td>0.17</td>
<td>-1.09</td>
<td>2.20</td>
<td>-0.91</td>
<td>-0.96</td>
<td>-0.22</td>
<td>-0.53</td>
<td>1.19</td>
</tr>
<tr>
<td><strong>Kurtosis</strong></td>
<td>2.66</td>
<td>1.66</td>
<td>2.41</td>
<td>2.12</td>
<td>8.04</td>
<td>1.87</td>
<td>3.79</td>
<td>0.78</td>
<td>1.79</td>
<td>2.81</td>
</tr>
</tbody>
</table>

The above table shows mean, standard deviation, variance, skewness and Kurtosis for 10 listed companies. For both pre and post events, we find that there is typical price movement. On the announcement date, there are big upward jumps and after the run up is over, there is no further drift in stock price. It is found that on an average, sample stocks having bonus announcements, start showing positive impact around 3rd to 4th days before the announcement date. According to coefficient of variance, Zodiac Clothing share price was found more consistent in pre-event, whereas the same situation is not reflected in post-event. It is observed that ONGC and Bajaj Auto were found more consistent post-event. The skewness value represents that Bajaj Auto, Elgi Equipments, Karur Vysya Bank, Shiva Cement, South Indian Paper Mills and Wipro recorded the impact during the date closer to bonus announcement. It is also evident from kurtosis value that 30% of companies have recorded the peakness such as Bajaj Auto, Elgi Equipments and South Indian Paper Mills.

Table 4: Paired t-Test for Pre & Post Bonus Announcement

<table>
<thead>
<tr>
<th>Stock Performance</th>
<th>Pre-Bonus Date</th>
<th>Post-Bonus Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>674.74</td>
<td>653.45</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>790.01</td>
<td>736.71</td>
</tr>
<tr>
<td><strong>Paired Mean</strong></td>
<td>21.29</td>
<td>73.81</td>
</tr>
<tr>
<td><strong>Paired SD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>t-value</strong></td>
<td>0.912</td>
<td>9</td>
</tr>
<tr>
<td><strong>df</strong></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>p-value</strong></td>
<td>0.385</td>
<td></td>
</tr>
</tbody>
</table>

The Table-4 shows paired t-test analysis of share price behavior between pre-event and post-event. Ten companies average share price performance is measured to consider the effect of bonus issue. The result states that pre-event mean value is 674.74±790.01, post-event mean value is 653.45±736.71, paired mean & standard deviation value is 21.29±73.81, t-value is 0.912, degree of freedom is 9 and p-value is 0.385, which is greater than the level of significance 0.05. Thus the hypothesis declared as there is no significant difference found among pre-event and post-event. It can be conclude as there is no measurable impact found on bonus issue in pre-event and post-event condition.
8. CONCLUSION
This paper examines the announcement effects of bonus issues on the selected scrip’s during the period March 2010 to March 2011. An event study is conducted using a 15-day event window. The study finds no significant impact with respect to bonus issues. Bonus issues considered being cosmetic events and except accounting treatment, their impacts are likely to be the same. Interestingly, we found that bonus issues result in sharp spike on the announcement date. This phenomenon may need further exploration and scaled to reassure the effectiveness.

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AN EXPLORATION ON CUSTOMER RELATIONSHIP MANAGEMENT AND ITS PERSPECTIVES: AVIATION SECTOR

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ABSTRACT: The CRM approach has received increased attention as a marketing concept during the last decades (Sin et al. 2005; Osarenkhoe and Bennani 2007; Wilson et al. 2002). By combining the abilities to respond directly to customer requests and to provide the customer with a highly interactive, customized experience. Organizations today have greater scope for establish, cultivate, and maintain long-term customer relationships than ever before. The ultimate goal is to transform these relationships into greater profitability by increasing repeat purchase rates and reducing customer acquisition costs. Indeed, this revolution in customer relationship management or CRM as it is called has been referred to as the new “mantra” of marketing (Russell S. Winer 2001). The Indian aviation industry is identified as one of the fastest growing industry in the world with private airlines accounting for more than 75 per cent of the sector. It is noticed that the 9th largest position in the aviation market in the world is India. In the present study the effort has been made to examine and analyze the effects of CRM and its contribution towards airline industry and also to develop and clarify a conceptual framework integrating CRM constructs, and its implications on aviation industry.

Key Words: Consumer Behaviour, Customer, Marketing

1. INTRODUCTION:

In the era of Liberalization, Privatization and Globalisation (LPG) marketing becomes a challenging task. The role of MNC’s in Indian (domestic/local) market rise competition for local market. Players in terms of quality of the product and customer care. In this revolutionary age concept CRM becomes a business strategy. CRM is emerging in every field and functional area of management. It provides satisfactory service to the customer. This strategy is hardly a decade ago and it was its deep roots in Indian market. CRM is the extended concept of Relationship Management. Relationship management is basically the process of attracting, maintaining, and building relationships with key parties like customers, suppliers and distributors in order to earn and retain their business and honour their long term preferences. In other way, it is an integrated effort to identify, build and maintain a network with individual customers for mutual benefit. The purpose of relationship marketing is to build a unique process of building “Marketing Network”. Over the period when it is practiced with customers it becomes CRM. Berry first coined the term CRM in 1983 Bob Thompson 2005, defined CRM, “Customer Relationship Management as a business strategy to acquire grow and retain profitable customer relationships with the goal of creating a sustainable competitive advantage. Initially it was recognized as database management activity only. Later, it was defined as building, maintaining, and retaining profitable customer by delivering superior customer value and satisfaction. Many organizations find a difficulty in producing loyal customers. Retaining customers, results in building long term mutually satisfying relations to retain the business by providing quality products and services at reasonable prices within a time.

The purpose of Customer Relationship Management (CRM) is to enable various organizations serve customers better through introducing them to a series of processes and procedures that better the buying experience for customers. This is done through implementing a successful CRM strategy through a software package that has been specifically designed to support these business processes and procedures.

Customer Relationship Management is a customer-focused business strategy designed to optimize revenue, profitability, and customer loyalty. By implementing a CRM strategy, an organization can improve the business processes and technology solutions around selling, marketing and servicing functions across all customer touch-points (for example: Web, e-mail, phone, fax, inperson). Customer relationship management (CRM) covers methods and technologies used by companies to manage their relationships with clients. Information stored on existing customers (and potential customers) is analyzed and used to this end. Automated CRM processes are often used to generate automatic personalized marketing based on the customer information stored in the systems. CRM aims at focusing all the organizational activities towards creating and maintaining a customer.
2. SCOPE OF THE STUDY:

The Indian aviation industry is identified as one of the fastest growing industry in the world with private airlines accounting for more than 75 per cent of the sector. It is noticed that the 9th largest position in the aviation market in the world is India. According to the Ministry of Civil Aviation, approximately 29.8 million passengers traveled to/from India in 2008, showing a surge of 30% from 2007. The prediction stated that international passengers will touch 50 million by 2015. More opportunities in the aviation industry in India are likely to make way for about 69 foreign airlines from 49 countries. The civil aviation sector in India is witnessing a boom. Indian skies are more open than ever before.

2.1 TOTAL TRAFFIC HANDLED IN APRIL 2011 VS APRIL 2010

During the month of April 2011, all operational airports (taken together) handled 122.87 thousand aircraft movements (excluding General Aviation Movements), 12.57 million passengers and 192.13 thousand tons of freight. Data in table reveals that the aircraft movements, passengers and freight traffic have increased by 10.2 per cent, 14.1 per cent and 6.7 per cent respectively during April 2011 over traffic handled during April 2010.

Table: 1

<table>
<thead>
<tr>
<th>Category</th>
<th>April 2011</th>
<th>April 2010</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft movement (in’000)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>26.06</td>
<td>23.17</td>
<td>8.2</td>
</tr>
<tr>
<td>Domestic</td>
<td>97.81</td>
<td>88.28</td>
<td>10.8</td>
</tr>
<tr>
<td>Total</td>
<td>122.87</td>
<td>111.45</td>
<td>10.2</td>
</tr>
<tr>
<td>General Aviation</td>
<td>20.36</td>
<td>24.72</td>
<td>-17.7</td>
</tr>
<tr>
<td>Passengers (in millions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>3.22</td>
<td>2.82</td>
<td>14.0</td>
</tr>
<tr>
<td>Domestic</td>
<td>9.35</td>
<td>8.20</td>
<td>14.1</td>
</tr>
<tr>
<td>Total</td>
<td>12.57</td>
<td>11.02</td>
<td>14.1</td>
</tr>
<tr>
<td>Freight (in ‘000 tonnes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>127.46</td>
<td>115.60</td>
<td>10.3</td>
</tr>
<tr>
<td>Domestic</td>
<td>64.67</td>
<td>64.42</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>192.13</td>
<td>180.02</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Source: Aviation Outlook report, 2009

2.2 CONTRIBUTION OF AVIATION INDUSTRY IN INDIAN ECONOMY IN TERMS OF GROSS DOMESTIC PRODUCT

In the past few years Role of Aviation Industry in India GDP had shown phenomenal growth in all respects. The Aviation Industry in India is the most rapidly growing aviation sector of the world. With the rise in the economy of the country and followed by the liberalization in the aviation sector, the Aviation Industry in India went through a complete transformation in the recent period.

Table: 2: Trend of Growth Rate of India's GDP

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5%</td>
<td>5.4%</td>
<td>4.4%</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

Source: Aviation Outlook report, 2009

3. OBJECTIVES OF THE STUDY

The present paper pursues the following objectives:

- To examine and analyze the effects of CRM and its contribution towards airline industry.
- To develop and clarify a conceptual framework integrating CRM constructs, and its implications on airline industry.
The airline industry has reached a turning point. The effects of the worldwide economic slump and the aftermath of September 11th attacks have severely impacted airline economics and viability. While the U.S. and certain European markets were most severely impacted, airlines worldwide are striving to both regain and improve profitability. Many have focused on operational improvements to reduce costs, but the customer cannot be ignored. Customer relationships must be fostered for airlines to maintain competitive advantage and profitability in the long term. Airlines’ immediate focus is on cost reductions in driving to more efficient operations. However, many airlines are turning to customer relationship management (CRM) as a tool for managing customer relationships. In order to manage the customer more effectively across all lines of service, airlines must change their approach to CRM in a number of ways:

- By identifying customer success factors
- Create a value based customers.
- Follow the customer need based strategy.
- Develop an end-to-end process to serve customers by CRM initiatives.
- Track all aspects of selling to customers and prospects as well as customer support.

Applying truly consumer-centric approach to relationship management, an airline will be better positioned to acquire, develop and retain high-value customers. Through the development and implementation of customer analytics and decision-support technologies, airlines can begin to use customer information not only to differentiate service levels based on customer value, but also to drive crucial operational decisions. In the end, an airline’s CRM program becomes a platform for achieving both near-term operational efficiency and long-term relationship management and growth.

4. CONTRIBUTIONS OF CRM IN AVIATION INDUSTRY:

4.1 Service Differentiation based on customer and business value
Gaining a deeper understanding of the profitability and the key satisfaction drivers of each segment will help airlines better assess the business value of potential customer-facing programs. Using a wide variety of direct and indirect customer input airlines can map feedback they receive against individual customer segments. Then, in combination with advanced customer analytics, they can develop unique insights into the habits and needs of each customer segment. Thus, customer value segmentation becomes a valuable tool in serving and satisfying the customer.

CRM program execution in Airline industry:

Further understanding what its customers want and need, an airline must determine what initiatives best drive shareholder value. Executives must prioritize or reject potential investments based on the expected return to the company and the degree of implementation cost and risk. Some initiatives, such as frequent flyer programs, offer high return to the airline, not only in terms of increased customer loyalty, but also in the ability to sell miles or points to third parties, which extends the loyalty program and creates a new revenue stream. Other initiatives, such as online baggage tracing, may offer minimal benefit to the airline, only improving customer satisfaction slightly.

4.2 IMPLICATIONS

5. OPERATING MECHANISM IN AVIATION SECTOR THROUGH CRM:
Customer value analysis is also central to improved operating efficiency—a key goal in the current economic climate. By using CRM understand the habits of different customer groups, to improve the customer service and the airlines started to make
operating decisions that help increase the profitability of specific routes. The following diagram depicts the CRM and its mechanism in aviation sector.

Inspite of having the diverse advantages of CRM to influence and provide well-organized service in its operations in aviation sector there are two primary areas where this approach should influence airline operations (Declan Boland, Doug Morrison and Sean O’Neill, IBM Institute for Business Value). They are:

5.1 Route and schedule planning—Airlines need to implement customer analytics to help make more informed and effective decisions on route and schedule planning. There are four key opportunities in this area:

- Loss making routes can also be planned for acquiring high value customers by providing extended services.
- Capturing customers from the competition and driving incremental profitability through CRM on routes served by multiple airlines with similar schedules, customer service and relationship building
- To retain high-value passengers, an airline must be able to consistently provide customers with a seat in their desired fare class on each route they fly.
- Airlines must use customer analytics and predictive modeling to help evaluate route and schedule profitability for potential expansions.

5.2 Yield management and pricing—Airlines can also use customer analytics to improve yield management and pricing; determine which customer segments view price as a low priority when choosing an airline; and calculate the highest price that each individual customer segment is willing to pay for a given route. Advanced analytics can help drive pricing strategies, simplifying fare classes and improving yields. By using value-based customer segmentation to help make decisions regarding these basic operational issues, airlines can find opportunities to reduce costs associated with specific routes, while increasing customer revenues.

6. CONCLUSION
Airlines must adopt an integrated CRM strategy to practice competitive differentiation and profitability effectively in the future. There is a need to need to invest in developing fundamental CRM capabilities to optimize the efficiency of customer-facing operations. By creating a truly customer-centric organization, value based services based on a firm understanding of customer value and needs, and empowering employees with the tools and knowledge to respond to the customer, airlines need to develop and establish a mechanism to meet the customer demand by providing quick and unique services to meet the demand and attain economic success.

REFERENCES:

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FACTORS INFLUENCING THE CHOICE OF ORGANIZED RETAIL OUTLETS AND THE BEHAVIOR OF THE CONSUMERS IN COIMBATORE CITY

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2Professor, Govt. College for Men, Krishnagiri, TamilNadu, India

ABSTRACT: “Factors influencing the choice of organized retail outlets and the behavior of the consumers in Coimbatore city” of Tamil Nadu reveals the factors which influence the consumers to change their preference towards organized retailing. The objective of the study is formulated to analyse the most prioritized attributes of organized formats which attracts the consumers towards organized retailers in Coimbatore City. The Stratified random sampling (Two stage sampling) was adapted in the study and the primary data is collected through survey. Percentage analysis, Weighted Average method and ANOVA are used to interpret the findings. It is found that the customers prefer organized retailers to unorganized retailers because of the store attributes such as quality, Convenience, Variety, Consistency, Price, Hygiene etc offered by the former. Income of the customers had a major influence on their choice of organized retail outlet especially when it comes to the availability of different varieties of products and display of information in the store.

Keywords: Organized retail; Store Attributes; Store Image; Prioritized Attributes.

INTRODUCTION
Retailing by its very nature, is a dynamic industry. Over the years, the increasing literacy in our country and the exposure to developed nations by way of the overseas work experiences, the consumer awareness has increased on the quality and the price of the products/services that is expected. Today more and more consumers are vocal on the quality of the products/services that they expect from the market. This awareness has made the consumer seek more and more reliable sources for purchases and hence the logical shift to purchases from the organized retail chains that has a corporate background and where the accountability is more pronounced. The consumer also seeks to purchase from a place where his/her feedback is more valued.

The retail environment today is changing more rapidly than before. It is characterized by intensifying competition and more sophisticated and demanding customers who have greater expectations related to their consumption and shopping experiences. The physical environments of retail stores and the attributes of the stores create a tangible representation or image of a store. The attractive physical dimensions of the stores such as lighting, air-conditioning, washrooms, store layout, aisle placement etc., contributes to the store’s personality which ultimately draws the maximum number of customers in the current retail scenario.

1. REVIEW OF LITERATURE
Hemraj Verma and Pankaj Madan2 (2011) in their study on the “Factors Analysing The Store Attributes To Identify Key Components Of Store Image (A Study On Some Selected Apparel Stores In India)” have attempted to find out the key factors that are perceived as important to Indian consumer. As the Indian retail environment is going through a sea change due to the introduction of new formats and opening up of retail industry, the investigators found the imperative to analyse the importance of different store image perception attributes in the India Context. The five factors extracted through Factor analysis are Store's Product and Operational Quality, Store's Overall Visual Appeal, Customer Convenience, Perceived Price and Past Satisfaction and Store's Promotional Effectiveness.

Mathew Joseph and Manisha Gupta4 (2008) in their study on “Impact of organized retailing on unorganized sector” said that the Indian retail sector is booming and modernizing rapidly in line with India’s economic growth. This study, the second undertaken by ICRIER on the retail industry, attempts to rigorously analyse the impact of organized retailing on different segments of the economy. With the increase in number of formats for shopping like malls, departmental stores, hypermarkets etc the Indian consumer’s preferences are changing towards organized retailing. One of the surprising findings of the study is that low-income consumers save more than others through shopping at organized retail outlets.

Arpita Khare1 (2011) in his study on “Mall shopping behaviour of Indian small town consumers “has carried out a research in small cities to understand the mall shopping behavior of the people and specifically focused on exploring the
differences across age and gender groups with regard to the familiarity with the concept of malls and their exposure to the organized retail. ANOVA test was used for the analyses. The results showed that consumers’ gender and age play an important role in determining their attitude towards shopping in malls.

S. Ramesh Kumar et al. (2011) in their study on “Exploring Consumer Retail Shopping Experience,” explored the consumer retail shopping experience in modern retail formats. He also examined the factors that affect the consumer’s shopping experience in the Indian cultural milieu. The author felt a need for studying motivations and behaviour with respect to actual retail store attributes as there were significant literature on consumer motivations, expectations and shopping orientations in the Indian context. The article provided an insight about various factors influencing consumers in the modern retail context and the preference order for the same.

Though there are a number of studies done to measure the influence of store attributes on customer satisfaction and store patronage behaviour, this study is an attempt to study the behavior of the consumer towards organized retail store attributes.

2. METHODOLOGY

The objective of the study is formulated to analyse the most prioritized attributes of organized formats which attracts the consumers towards organized retailers in Coimbatore City. The Stratified random sampling (Two stage sampling) was adapted in the study and the primary data from 150 customers was collected through survey. Percentage analysis, Weighted Average method and ANOVA are used to interpret the findings. A hypothesis was set to find out the difference in the opinion of the customers on the organized retail store attributes under different income levels.

3. RESULTS AND DISCUSSIONS

3.1 Age of the respondents

Table 1. Age of the respondents

<table>
<thead>
<tr>
<th>AGE</th>
<th>NO. OF RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20</td>
<td>35</td>
<td>23</td>
</tr>
<tr>
<td>21-30</td>
<td>70</td>
<td>47</td>
</tr>
<tr>
<td>31-40</td>
<td>29</td>
<td>19</td>
</tr>
<tr>
<td>41 and Above</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table shows that 23 percentage of the respondents are less than 20 years of age, 47 of the respondents belong to the age category between 20 to 30 years and 19 percentage of the respondents are between the age group of 31 to 40 years and 11 percentage are above 40 years. It is clear that the maximum numbers of respondents are of young age.

3.2 Gender of the respondents

The table 2 indicates that 46 percentage of the respondents are male and 54 percentage of the respondents to the organized formats are female. It means that maximum numbers of respondents are female who visit the store.

Table 2. Gender of the respondents

<table>
<thead>
<tr>
<th>GENDER</th>
<th>NO. OF RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>69</td>
<td>46</td>
</tr>
<tr>
<td>Female</td>
<td>81</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>
3.4 Educational qualification of the respondents

Table 3. Educational qualification of the respondents

<table>
<thead>
<tr>
<th>QUALIFICATION</th>
<th>NO. OF RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSLC</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>H. Sc.</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>U.G.</td>
<td>74</td>
<td>50</td>
</tr>
<tr>
<td>P.G.</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table states that 17 percentage of the respondents have completed SSLC and 13 percentage of the respondents have done their higher secondary, 50 percentage of the respondents have done their Under Graduation and 20 percentage of the respondents are Post Graduates. It means that maximum numbers of customers are Under Graduates. It indirectly shows that maximum numbers of respondents to organized formats are well educated.

3.5 Income of the respondents

Table 4. Income of the respondents per month

<table>
<thead>
<tr>
<th>INCOME IN RS</th>
<th>NO. OF RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 25000</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>25001-50000</td>
<td>38</td>
<td>32</td>
</tr>
<tr>
<td>50001-75000</td>
<td>31</td>
<td>27</td>
</tr>
<tr>
<td>Above 75000</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>100</td>
</tr>
</tbody>
</table>

The table 4 shows that 29 percentage of the respondents are earning an income below Rs. 25000, 32 percentage of the respondents earn Rs. 36000 to 60000, 27 percentage of the respondents earn Rs. 61000 to 100000 and 12 percentage of the respondents earn above 1Lakh. It can be inferred that maximum numbers of respondents who visit organized retail outlets belong to the income category of Rs. 25001 to 50000.

3.6 Marital status of the respondents

The table 5 indicates that 73 percentage of the respondents are unmarried and 77 percentage of the respondents are married. This is relatively equal and it means both the category of people are equally visiting the organized formats.

Table 5. Marital status of respondents

<table>
<thead>
<tr>
<th>MARITAL STATUS</th>
<th>NO. OF RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmarried</td>
<td>73</td>
<td>49</td>
</tr>
<tr>
<td>Married</td>
<td>77</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>
3.7 Factors influencing buying decisions in organized retail stores

Table 6. Factors influencing buying decisions in organized retail stores

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>NO. OF RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of range of products</td>
<td>33</td>
<td>22</td>
</tr>
<tr>
<td>Reasonable price</td>
<td>34</td>
<td>22.7</td>
</tr>
<tr>
<td>Displays and signage</td>
<td>11</td>
<td>7.3</td>
</tr>
<tr>
<td>Personal service</td>
<td>10</td>
<td>6.7</td>
</tr>
<tr>
<td>Lighting in the store</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Food court</td>
<td>26</td>
<td>17.3</td>
</tr>
<tr>
<td>Parking space</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

The table 6 shows that 22 percentage of the respondents opined availability of range, 23 percentage of the respondents opined reasonable price, 7 percentage of the respondents opined availability of required size, 14 percentage of the respondents opined customer service, 6.7 percentage of the respondents opined that it is the lighting of the store, 17.3 percentage feels that it is the availability of food court and remaining 10 % feel that it is the availability of the parking facilities which attracts them to the organized retailer. It indicates that reasonable price gets highest priority next to the availability of range (variety) of products in the organized shop.

3.8 Rank assigned to attributes of organized formats

Table 7. Attributes of organized formats

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>PREFERENCE</th>
<th>WEIGHTED AVERAGE</th>
<th>RANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Quality</td>
<td>4.51</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>Choice/Variety</td>
<td>4.27</td>
<td>II</td>
</tr>
<tr>
<td>3</td>
<td>Display of Information</td>
<td>3.86</td>
<td>III</td>
</tr>
<tr>
<td>4</td>
<td>Convenience</td>
<td>3.83</td>
<td>IV</td>
</tr>
<tr>
<td>5</td>
<td>Service</td>
<td>3.72</td>
<td>VI</td>
</tr>
<tr>
<td>6</td>
<td>Price</td>
<td>3.36</td>
<td>VII</td>
</tr>
<tr>
<td>7</td>
<td>Hygiene</td>
<td>3.76</td>
<td>V</td>
</tr>
</tbody>
</table>

From the above table, we can infer that quality is ranked first based on the weighted average obtained, Choice/Variety is ranked second, Display of information is ranked third, convenience is ranked fourth, hygiene is ranked fifth, service is ranked sixth, and price is ranked seventh by the customers of organized retailers. It is evident that quality and Variety are given much importance while making the purchase decision in organized retail outlets.

3.9 Extent of variation in the opinion about attributes of organized retail formats based on the income level of the customers

Ho: There is no significant difference between income of the customers and their perception on attributes of organized stores.
H1: There is significant difference between income of the customers and their perception on attributes of organized stores.
Table 8. ANOVA

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.165</td>
<td>3</td>
<td>.388</td>
<td>.882</td>
<td>.452</td>
</tr>
<tr>
<td>Within Groups</td>
<td>64.308</td>
<td>146</td>
<td>.440</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>65.473</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice/ Variety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>8.215</td>
<td>3</td>
<td>2.738</td>
<td>2.752</td>
<td>.045 *</td>
</tr>
<tr>
<td>Within Groups</td>
<td>145.259</td>
<td>146</td>
<td>.995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>153.473</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display of Info</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>10.108</td>
<td>3</td>
<td>3.369</td>
<td>4.638</td>
<td>.004 *</td>
</tr>
<tr>
<td>Within Groups</td>
<td>106.052</td>
<td>146</td>
<td>.726</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>116.160</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.269</td>
<td>3</td>
<td>.423</td>
<td>.406</td>
<td>.749</td>
</tr>
<tr>
<td>Within Groups</td>
<td>152.204</td>
<td>146</td>
<td>1.042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>153.473</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>8.037</td>
<td>3</td>
<td>2.679</td>
<td>1.828</td>
<td>.145</td>
</tr>
<tr>
<td>Within Groups</td>
<td>213.963</td>
<td>146</td>
<td>1.465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>222.000</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2.895</td>
<td>3</td>
<td>.965</td>
<td>.736</td>
<td>.532</td>
</tr>
<tr>
<td>Within Groups</td>
<td>191.299</td>
<td>146</td>
<td>1.310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194.193</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hygiene</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.113</td>
<td>3</td>
<td>.038</td>
<td>.029</td>
<td>.993</td>
</tr>
<tr>
<td>Within Groups</td>
<td>190.260</td>
<td>146</td>
<td>1.303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>190.373</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 5% Level

Table 8 shows the difference of opinion on the attributes of organized retailers based on the income level of the customers. Since the sig value is less than 0.05 for the variables display of information and the available choice/variety, we reject H₀ and accept H₁. We may conclude that the customers under different income categories and their opinion on the display of information and the available choice/variety, in the organized retail outlets differs significantly. With regard to the other attributes of the store considered for the study such as quality, convenience, service, price and hygiene, the sig values are higher than 0.05 the H₀ is accepted. It shows that the customers from different income categories do not differ in their opinion on the preferences of the attributes other than display and the variety of products offered in the organized retail outlets where they purchase.

4. CONCLUSION

The customers in Coimbatore prefer organized retailers to unorganized retailers because of the store attributes such as quality, Convenience, Variety, Consistency, Price, Hygiene etc offered by the former. Reasonable price gets highest priority next to the availability of range (variety) of products among the features of the organized retail shop, while the customer purchase from organized retail outlets. Based on the weighted average of the ranks assigned to the attributes of the store by the customers, quality is ranked as the most (first) preferred attribute. Income of the customers had a major influence on their choice of organized retail outlet especially when it comes to the availability of different varieties of products and display of information in the organized store.
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ABSTRACT: The term liquidity probably brings to mind the relationship of current assets to current liabilities. However, the concept of liquidity should encompass much more than simply these two balance sheet accounts. This study is based on previous ten years Annual Reports of the top performing manufacturing companies in India. In this study, liquidity is taken to mean the short term liquidity which refers to the ability of the firms to pay off the current liabilities. This study relates to the management of short term assets and liabilities and finding the relationship between liquidity, profitability and leverage measures of a firm. Short term liquidity has been considered crucial to the very existence of an enterprise. This will further lead to financial distress and finally corporate can go bankrupt. The conflict arises because the maximization of firm’s returns could seriously threaten the liquidity and on the other hand, the pursuit of liquidity has a tendency to dilute returns. The result can determine the risk postulate to that future customer. Additionally, this result can be utilized as a yearly appraisal of financial situation in making decisions to invest in the corporate. The result can contribute in advance an indication of the financial situation to aid the investor’s selection of companies.

Keywords: liquidity, profitability, leverages, financial distress, manufacturing companies

1. INTRODUCTION:

Liquidity means the debt repaying capacity of the firm. It refers to the firm’s ability to meet the claims of suppliers of goods, services and capital. According to Archer and D’Amboise, liquidity means cash and cash availability, and it is from current operations and previous accumulations that cash is available, to take care of the claims of both the short term suppliers of capital and the long term ones. It has two dimensions: The short term and the long term liquidity.

Analysis of the firm’s long term position has for its rationale the delineation of the ability of a firm to meet its long term financial obligations such as interest and dividend payment and repayment of principal. Long term liquidity refers to the ability of the firm to retire long term debt and interest and other long run obligations. When relationships are established along these lines, it is assumed that in the long run assets could be liquidated to meet the financial claims of the firm. Quite often the expression liquidity is used to mean short term liquidity of the companies.

Liquidity of a firm can be studied in two ways, namely, Technical liquidity and Operational liquidity. The difference between the two methods of liquidity management depends up on whether one assumes the liquidation concept of business as in case of the technical liquidity or the going concern concept of the business as in case of the operational liquidity.

Technical liquidity is normally evaluated on the basis of the following ratios in a manufacturing firm.

- Current Ratio
- Quick or Acid Test Ratio
- Absolute Liquidity Ratio
- Operational Liquidity

The measurement of liquidity was accomplished by comparing current assets with the current liabilities. But focus has not been thrown on the factors that determine the liquidity.

2. OBJECTIVES OF THE STUDY:

1. To make the sector wise analysis of liquidity.
2. To determine the relationship between Liquidity and Profitability.
3. To determine the relationship between Liquidity and Leverages.
3. REVIEW OF LITERATURE

Sagan (1955) the first theoretical paper on the theory of working capital management emphasized the need for management of working capital accounts and warned that it could vitally affect the liquidity of the company. He realized the need to build up a theory of working capital management. He discussed mainly the role and functions of money managers operations were primarily in the area of cash flows generated in the course of business transactions. Money manager must be familiar with what is being done with the control of inventories, receivables and payables because all these accounts affect cash position. Thus, Sagan concentrated mainly on cash component of working capital.

Warren and Shelton (1971) applied financial stimulation to stimulate future financial statements of a firm, based on set of simultaneous equations. Financial simulation approach makes possible to incorporate both the uncertainty of the future and many interrelationships between current assets, current liabilities and other Balance sheet accounts. Warren and Shelton presented the model in which twenty simultaneous equations were used to forecast the future balance sheet of the firm including the forecasted current assets and current liabilities. They were forecasted in aggregate by directly relating to firm sales.

Sanger (2001) emphasized that working capital has increasingly been looked at as a restraint on financial performance, since these assets do not contribute to Return on Equity.

Reddy Y.V. and Patkar S.B. (2004) stated that sundry debtors and amount due to creditors are the major components of current assets and current liabilities respectively in determining the size of the working capital.

N.Murugan (2010) stated that there was a stable position in regard to liquidity. The liquidity management in Sarvodaya Sanghams was good. The debt service capacity of the Sanghams was good in terms of interest coverage ratio. Profitability of Sanghams in terms of Return on capital employed, return on capital fund and return on total assets has shown a fluctuating trend in last five years.

4. RESEARCH METHODOLOGY

The research adopted for study is analytical and descriptive type of research. The data were collected from the secondary sources through journals, magazines and websites.

The researcher used strata sampling for the study. Firstly, the top performing manufacturing companies were selected from the National Stock Exchange (NSE). Then the companies were separated based on the sectors. Hence five sectors were selected and under each sector four companies have been chosen.

<table>
<thead>
<tr>
<th>TABLE: I List of companies selected for the study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automobiles Industry</strong></td>
</tr>
<tr>
<td>Hero Honda</td>
</tr>
<tr>
<td>Mahindra</td>
</tr>
<tr>
<td>Maruthi</td>
</tr>
<tr>
<td>Tata Motors</td>
</tr>
</tbody>
</table>

Tools used

The following statistical tools were used to analyze and interpret the data.
- Ratio Analysis
- One Way ANOVA
- Two Way ANOVA
5. RESULTS AND DISCUSSION:

5.1 Sector wise analysis of the liquidity: To achieve this objective ANOVA has been used within the companies of different sectors with reference to all relevant variables. An attempt has been made to understand the variation of liquidity position of companies within the sector and between the sectors.

Hypothesis: The Ratios do not differ significantly among the companies.

### TABLE II ANOVA for Automobile Industry with the reference to Current Ratio

<table>
<thead>
<tr>
<th>Name of the Company</th>
<th>Current Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Honda</td>
<td>.46</td>
</tr>
<tr>
<td>Mahindra</td>
<td>.87</td>
</tr>
<tr>
<td>Maruthi</td>
<td>.91</td>
</tr>
<tr>
<td>Tata</td>
<td>.55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Table Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Companies</td>
<td>1.501</td>
<td>3</td>
<td>.500</td>
<td>8.542</td>
<td>4.377</td>
</tr>
<tr>
<td>Residual</td>
<td>2.108</td>
<td>36</td>
<td>0.05856</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.609</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One way ANOVA was applied to find whether the mean Current Ratios vary significantly among the automobile companies. The ANOVA result shows that the calculated F-ratio value is 8.542 which are higher than the table value of 4.377 at 1% level of significance. Since the calculated value is higher than the table value it is inferred that the mean Current Ratios vary significantly among the automobile companies. Hence the Hypothesis is not accepted. This implies that there is significant variation in current liquidity position among the automobile sector. Similarly, it is found that there is no significant variation in acid test ratio, inventory to net working capital position among the automobile sector. Also, there is significant variation in cash flow position, average collection periods among the automobile sector. In capital goods sector, it is found that acid test ratio, current liquidity position, average collection period are significant to the capital goods sector and inventory to net working capital position. In steel industries, it is found that, that there is no significant variation in acid test ratio, inventory to net working capital ratio, average collection period among the steel sector. There is significant variation in current liquidity position, cash flow ratio among the steel sector. In oil and gas sector, there is significant variation in current liquidity position, acid test ratio, cash flow position, average collection period among the oil and gas sector. And there is no significant variation in inventory net working capital position among the oil and gas sector. In pharmaceutical sector, it is found that, there is significant variation in current liquidity position, acid test ratio among the pharmaceutical sector. And inventory to net working capital position, cash flow position, average collection period are not significant to the pharmaceutical sector.

### TABLE III Two way ANOVA with reference to Current ratio

<table>
<thead>
<tr>
<th>Years</th>
<th>Current Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Automobiles</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>2001</td>
<td>.83</td>
</tr>
<tr>
<td>2002</td>
<td>.96</td>
</tr>
<tr>
<td>2003</td>
<td>.74</td>
</tr>
<tr>
<td>2004</td>
<td>.59</td>
</tr>
<tr>
<td>2005</td>
<td>.66</td>
</tr>
<tr>
<td>2006</td>
<td>.69</td>
</tr>
</tbody>
</table>
Two way ANOVA was conducted to examine whether the Current Ratio varies significantly across industries and also between years. The ANOVA results given above show that the F-ratio for ‘Between industries’ is 72.706 which is found to be significant at 1% level. This shows that the Current Ratios vary significantly between industries during the study period. The F-ratio testing for significant difference between years was found to be 3.835 which is found to be significant at 1% level and hence it can be inferred that the Current Ratios vary significantly between years. It implies that Current Ratios vary significantly between industries and between years.

Similarly, Two-way ANOVA with reference to other ratios shows that Acid-test ratios vary significantly between industries and do not vary within the years. Inventory to Net Working Capital do not vary significantly between industries and within the years. Cash Flow Ratios do not vary significantly between industries and within years. Average Collection Period varies significantly between industries and do not vary within years.

5.2 To find the relationship between the Liquidity and Profitability:

The ratios namely Return on Equity, Return on Fixed Assets and Net Profit Margin are used as a dependent variables. The independent variables are Current Ratio (CR), Acid Test Ratio (ATR) and Inventory to Net Working Capital (NWC), Cash Flow Ratio (CFR) and Average Collection Period (ACP). In this study various regression models have been specified as follows:

Return on Equity $= \alpha + \beta_1 CR + \beta_2 ATR + \beta_3 NWC + \beta_4 CFR + \beta_5 ACP$

Return on Fixed Assets $= \alpha + \beta_1 CR + \beta_2 ATR + \beta_3 NWC + \beta_4 CFR + \beta_5 ACP$

Net Profit Margin $= \alpha + \beta_1 CR + \beta_2 ATR + \beta_3 NWC + \beta_4 CFR + \beta_5 ACP$

Multiple Linear Regression was applied to find whether various Liquidity Ratios significantly affect the Profitability Ratios namely Return On Equity. The Regression results show that the Liquidity Ratios - Current Ratio and Acid Test Ratio significantly affect the Return On Equity at 1% level. The other ratios namely Cash Flow Ratio, Net Working capital and Average Collection Period do not significantly affect the Return On Equity. Further it is seen from the Regression Coefficients that Current Ratio has negative effect on Profitability whereas Acid Test Ratio has positive effect on Profitability i.e. for a percent increase in Current Ratio reduces the Profitability by .051%, whereas a percent increase in Acid Test Ratio increase Profitability by 0.48% when Return On Equity is taken as Profitability measure.
Overall the Multiple Correlation Coefficient is .249 which is found to be significant at 5% level. The $R^2$ value shows that Return on Equity is influenced by all the five Liquidity Ratios taken together by 6.2% only. Regression analysis between liquidity and Return on Fixed Assets shows that the Multiple Correlation Coefficient is .196 which do not significantly affect the Return On Fixed Assets. The $R^2$ value shows that Return On Fixed Assets is influenced by all the five Liquidity Ratios taken together by 3.8% only. Regression analysis between liquidity and Net Profit Margin shows that the Multiple Correlation Coefficient is .754 which is found to be significant at 1% level. The $R^2$ value shows that Net Profit Margin is influenced by all the five Liquidity Ratios taken together by 56.8% only.

From the above Regression results, it is seen that the contribution of Liquidity Ratios to various Profitability measures varies between 6.2% to 56.8%. So in all three Profitability measures Net Profit Margin is better predicted by all the five Liquidity Ratios since $R^2$ value is higher (0.568).

5.3 To find the relationship between the Liquidity and leverage:

The ratios namely Fixed Assets to Net Worth, Current Debt to Net Worth, Total Debt to total Assets and Total Debt to Total Net Worth are used as dependent variables. Current Ratio (CR), Acid Test Ratio (ATR), Inventory to Net Working Capital (NWC), Cash Flow Ratio (CFR) and Average Collection Period (ACP) are used as independent variables. In this study various regression models have been specified as follows:

\[
\begin{align*}
\text{Fixed Assets to Net Worth} & = \alpha + \beta_1 \text{CR} + \beta_2 \text{ATR} + \beta_3 \text{NWC} + \beta_4 \text{CFR} + \beta_5 \text{ACP} \\
\text{Current Debt to Net Worth} & = \alpha + \beta_1 \text{CR} + \beta_2 \text{ATR} + \beta_3 \text{NWC} + \beta_4 \text{CFR} + \beta_5 \text{ACP} \\
\text{Total Debt to Total Assets} & = \alpha + \beta_1 \text{CR} + \beta_2 \text{ATR} + \beta_3 \text{NWC} + \beta_4 \text{CFR} + \beta_5 \text{ACP} \\
\text{Total Debt to Net Worth} & = \alpha + \beta_1 \text{CR} + \beta_2 \text{ATR} + \beta_3 \text{NWC} + \beta_4 \text{CFR} + \beta_5 \text{ACP}
\end{align*}
\]

**TABLE VI Regression Analysis between Liquidity and Fixed Assets to Net worth (Leverage)**

<table>
<thead>
<tr>
<th>Regression Coefficients</th>
<th>Std. Error</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant) .727</td>
<td>.095</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Flow Ratio -.0001</td>
<td>.00015</td>
<td>-.591</td>
<td>Ns</td>
</tr>
<tr>
<td>Current Ratio .003</td>
<td>.081</td>
<td>.038</td>
<td>Ns</td>
</tr>
<tr>
<td>Net Working Capital .001</td>
<td>.001</td>
<td>.848</td>
<td>Ns</td>
</tr>
<tr>
<td>Acid Test Ratio -.174</td>
<td>.081</td>
<td>-2.137</td>
<td>*</td>
</tr>
<tr>
<td>Average Collection Period .0001</td>
<td>.0002</td>
<td>.346</td>
<td>Ns</td>
</tr>
</tbody>
</table>

**R** .192 **R Square** .037 **F** 1.486 **Sig.** Ns

Multiple Linear Regression was applied to find whether various Liquidity Ratios significantly affect the Leverage Ratios namely Fixed Assets to Net worth. The Regression results show that the Liquidity Ratio i.e. Acid Test Ratio significantly affect the Fixed Assets to Net worth at 5% level. The other ratios namely Cash Flow Ratio, Current Ratio, Net Working capital and Average Collection Period do not significantly affect the Fixed Assets to Net worth. Further it is seen from the Regression Coefficients that Acid Test Ratio has negative effect on Leverage i.e. for a percent increase in Acid Test Ratio reduces the Leverage by .174%, when Fixed Assets to net worth is taken as Leverage measure.

Overall the Multiple Correlation Coefficient is .192 which do not significantly affect the Fixed Assets to Net worth. The $R^2$ value shows that Fixed Assets to Net worth is influenced by all the five Liquidity Ratios taken together by 3.7% only. Regression analysis between Liquidity and Current Debt to Net worth shows that the Multiple Correlation Coefficient is .300 which significantly affect at 5% level. The $R^2$ value shows that Current Debt to Net worth is influenced by all the five Liquidity Ratios taken together by 9% only. Regression analysis between Liquidity and Total Debt to Total Assets shows that the Multiple Correlation Coefficient is .809 which is found to be significant at 1% level. The $R^2$ value shows that Total Debt to Total Assets is influenced by all the five Liquidity Ratios taken together by 65.5% only. Regression analysis between Liquidity and Total Debt to Net worth shows that the Multiple Correlation Coefficient is .319 which is found to be significant at 1% level. The $R^2$ value shows that Total Debt to Net worth is influenced by all the five Liquidity Ratios taken together by 10.2% only.

From the above Regression results it is seen that the contribution of Liquidity Ratios to various Leverage measures varies between 3.7% to 65.5%. So in all four Leverage measures Total Debt to Total Assets is better predicted by all the five Liquidity Ratios since $R^2$ value is higher (.655).
6. CONCLUSION:

The result can determine the risk postulate to that future customer. Additionally, this result can be utilized as a yearly appraisal of financial situation in making decisions to invest in the corporate. The result can contribute in advance an indication of the financial situation to aid the investor’s selection of companies. Text books of finance stress negative relationship between liquidity and profitability that low proportion of current assets results in high rate of return but many researchers have explored opposite to that statement in their studies. High liquidity reduces the risk of unavailability of funds to repay short term obligations, contributing positively to the firm profitability. Liquid firm are more profitable because they are in better position to capture growth opportunities and cope with unpredictable market changes. The efficient liquidity management refers to handling currents assets and current liabilities in such a way that it reduces the risk of default. The greater level of liquidity leads to decreased profitability because of the fact that high investment in current assets is not utilized efficiently, suggesting managers not to increase the liquidity to increase the profitability of the firm.

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CAPITAL STRUCTURE PRACTICES OF THE SELECTED PHARMACEUTICAL COMPANIES IN INDIA.

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**ABSTRACT:** The objective of this paper is to examine the capital structure practices of the selected pharmaceutical companies in India during 1991-92 to 2009-10. The econometric analysis shows that variables like Profitability, Size, Tangibility, Growth, Risk and Non-debt tax shield are the important determinants of capital structure of the selected pharmaceutical companies in India. The results indicate that most of the determinants of capital structure suggested by capital structure theories appear to be relevant for pharmaceutical firms. In this paper, Debt Equity Ratio has been used as the proxy for capital structure.

**Keywords:** Capital Structure; Debt-Equity Ratio.

**INTRODUCTION**

Capital Structure is the mix of debt and equity funds that are used to finance a company’s assets. Decisions on capital structure formulation are one of the important decisions made by firm managers. Questions related to the choice of financing have increasingly gained importance in the field of financial management. The study of capital structure has been carried out by researchers in the discipline of finance. Modigliani Miller (1958) was the first to raise the issue of capital structure relevance. They argued that, under certain conditions, the choice between debt and equity does not affect firm value, and hence, the decision is irrelevant. These conditions included, among others, assumption about the absence of taxes, of negligible transactions costs in the capital market, and of no information asymmetry between various market players. Subsequent work by financial theorists is driven towards relaxing these assumptions to provide several hypotheses for the capital structure decision. Firms do differ in their capital structure and the theories based on perfect market are unable to provide satisfactory explanations. Financial economics has made a significant progress in explaining the incentives that make companies to choose particular financing policies. Increasingly, profession is moving beyond an examination of the basic leverage choice to more detailed aspect of the financing decisions. This paper examines the capital structure practices of pharmaceutical companies in India.

**REVIEW OF LITERATURE**

Chudson (1945) provides direct evidence on the companies with high properties of fixed assets tending to use more long term debt. The research also indicated that there is no simple linear relationship between corporate size and debt ratio. Modigliani and Miller (1958, 1963) found that target debt ratio may vary from firm to firm depending on size, growth, risk and profitability. Gorden (1962) found that gearing increased with size, return on investment is related with debt ratio and size confirmed the negative association between risk and debt ratio. Bhat (1980) found out the contribution of each characteristics size, growth, capital was found to be significant determinants of the leverage ratio. Pandey (1984) studied about the corporate manager attitude towards use of borrowings in India revealed that the practicing managers generally preferred to borrow instead of using other sources of funds because of low cost of debt due to the interest tax deductibility and the complicated procedures for raising the equity capital.

Harris and Raviv (1999) observe that leverage increases with fixed assets. Non-debt tax shield, investment opportunities and firm size, while it decreases with volatility, advertising expenditure, profitability and uniqueness of the product. Kakani (1999) concludes that profitability and capital intensity are negatively associated with leverage, but observe no significance of firm’s diversification strategy and size in deciding the leverage level of the firm. Mahesh Chand garg & Chander (2002) in their study have selected cotton, chemical engineering and cement industries to analyze debt structure and their determinants, and they concluded that assets composition, collateral value, life corporate sizes are most significant factors in-deciding capital structure of those industries.

**NEED FOR THE STUDY:** In order to run and manage a company, funds are needed. Right from the promotional stage up to end, finances play an important role in a company’s life. If funds are inadequate, the business suffers and if the funds are not properly managed, the entire organization suffers. So, the management of funds is necessary to all the business enterprises. But every organization facing the problem of selecting the various sources of finance, whether to raise debt or equity. There has been an inconclusive debate on the issue of the association between financing decision and the firm’s valuation. Both theories and empirical studies conducted so far gave contrary results. The theories suggest that firms select capital structures depending on characteristics that determine various costs and benefits associated with debt and equity financing. The empirical work in this area has lagged behind the theoretical work, as the relevant firms characteristics are expressed in fairly abstract concept and are rarely directly observable. Moreover, the theories made in the developed countries need to be tested for their adoptability in developing countries like India. With this background, an attempt has been made in this study to examine various factors influencing capital structure decisions.
OBJECTIVES OF THE STUDY
The study is undertaken to study the following objectives:

 To analyze the trends in capital structure of the Selected Pharmaceutical Companies in India.
 To examine the factors determining the capital structure practices of the sample companies.

HYPOTHESIS

Keeping in view of the results of various related research studies on capital structure the following hypothesis is framed and tested.

 There is no significant relationship between debt equity ratio and select independent variable viz., Profitability, Sales, Tangibility, Growth, Liquidity and Non-debt tax shield.

METHODOLOGY

This study covers a period of ten years from 2000-2001 to 2009-2010. The study is based mainly on secondary data. The data relating to the study was obtained from CAPITALINE database. In addition, the annual report of the sample companies was also scanned to collect data. Various journals, magazine, newspaper, also have been used to collect the relevant information. There are 239 companies (both Indian and multinational companies) operating in India of which ten Indian listed companies in the pharmaceutical sector which were making profit consistently during last 10 years from 2000-2001 to 2009-2010 were selected as sample unit. The companies selected for the present study are:

1. Aurobindo Pharma Limited (APL)
2. Cipla Limited (CL)
3. DIL LIMITED (DIL)
4. FDC Limited (FDCL)
5. Glenmark Pharmaceuticals Limited (GPL)
6. IPCA Laboratories Limited (IPCAL)
7. Neuland Laboratories Limited (NLL)
8. Dr. Reddy’s Laboratories Limited (DRRL)
9. Sun Pharmaceutical Industries Limited (SPIIL)
10. Zandu Pharmaceutical Works Limited (ZPWL)

For analyzing the data in addition to financial ratios simple statistical technique mean, median standard deviation, coefficient of variation Skewness, Kurtosis and Annual Compound Growth Rate were used. Multiple regressions technique is also used to determine the factors influencing capital structure decisions.

CAPITAL STRUCTURE ANALYSIS

A company can finance its investment projects either from debt or from equity. It is the means of financing which represent the Capital Structure of a company. Financial Leverage refers to the use of debt along with the equity of the owners, in the firm’s Capital Structure. A business enterprise should have an efficient capital structure which can provide a definite rate of return on the marginal capital employed. In this present study, the following leverage ratios were used to analyze the capital structure decision of the selected pharmaceutical companies in India.

1. Debt-Equity Ratio
2. Total Debt Ratio

1. Debt-Equity Ratio

Debt Equity Ratio is an important tool to ascertain the soundness of the long-term financial policies of the company. The ratio indicates the proportion of owner’s stake in the business. Excessive liabilities tend to cause insolvency. The ratio indicates the extent to which the firm depends upon outsiders for its existence. The ratio provides a margin of safety to the creditors. It tells the owners the extent to which they can gain the benefits or maintain control with a limited investment.

\[
\text{Debt Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Share Holders Fund}}
\]

Debt Equity Ratio of Select Pharmaceutical Companies in India during 2000-2001 to 2009-2010 are presented in Table 1.

Table 1. Trends in Debt Equity Ratio of Select Pharmaceutical Companies in India

<table>
<thead>
<tr>
<th></th>
<th>APL</th>
<th>CL</th>
<th>DIL</th>
<th>FDCL</th>
<th>GPL</th>
<th>IPCAL</th>
<th>NLL</th>
<th>DRRL</th>
<th>SPIIL</th>
<th>ZPWL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.11</td>
<td>0.10</td>
<td>0.02</td>
<td>0.04</td>
<td>0.91</td>
<td>0.66</td>
<td>1.10</td>
<td>0.21</td>
<td>0.41</td>
<td>0.22</td>
</tr>
<tr>
<td>Median</td>
<td>0.97</td>
<td>0.08</td>
<td>0.00</td>
<td>0.03</td>
<td>0.60</td>
<td>0.63</td>
<td>0.93</td>
<td>0.11</td>
<td>0.17</td>
<td>0.03</td>
</tr>
</tbody>
</table>
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It is observed from the analysis that, among the sample companies Aurobindo Pharma and Newland has the optimum capital structure during the period under study. All other firms have equity based capital structure. The measures of dispersion showed that the variation in the Debt Equity Ratio was less consistent in the case of Aurobindo Pharma, Glenmark, Neuland Labs and Sun Pharmaceutical Industries and in all other cases the variation in the debt equity ratio was more consistent. The measures of skewness and kurtosis indicate an asymmetrical distribution of data in all the sample firms. Debt Equity Ratio showed a positive growth in the case of Aurobindo Pharma, CIPLA, Glenmark, Neuland and Zandu Pharmaceutical Works Limited.

2. Total Debt Ratio
The firm may be interested in knowing the proportion of the interest–bearing debt (also called funded debt) in the capital structure. Therefore, the total debt ratio may be computed by dividing total debt by capital employed or total net assets. It may be expressed as follows:

\[
\text{Total Debt Ratio} = \frac{\text{Total Debt}}{\text{Capital employed}}
\]

The Total Debt Ratio of select Pharmaceutical Companies for the period from 2000-2001 to 2009-2010 are given in Table 2.

Table 2. Trends in Total Debt Ratio of Select Pharmaceutical Companies in India

<table>
<thead>
<tr>
<th></th>
<th>APL</th>
<th>CL</th>
<th>DIL</th>
<th>FDCL</th>
<th>GPL</th>
<th>IPCAL</th>
<th>NLL</th>
<th>DRRL</th>
<th>SPI</th>
<th>ZPWL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (times)</td>
<td>0.51</td>
<td>0.12</td>
<td>0.08</td>
<td>0.03</td>
<td>0.41</td>
<td>0.39</td>
<td>0.51</td>
<td>0.15</td>
<td>0.21</td>
<td>0.14</td>
</tr>
<tr>
<td>Median (times)</td>
<td>0.49</td>
<td>0.10</td>
<td>0.00</td>
<td>0.03</td>
<td>0.38</td>
<td>0.39</td>
<td>0.48</td>
<td>0.10</td>
<td>0.15</td>
<td>0.03</td>
</tr>
<tr>
<td>SD</td>
<td>0.08</td>
<td>0.09</td>
<td>0.18</td>
<td>0.02</td>
<td>0.22</td>
<td>0.05</td>
<td>0.08</td>
<td>0.14</td>
<td>0.22</td>
<td>0.17</td>
</tr>
<tr>
<td>CV (%)</td>
<td>16.41</td>
<td>78.40</td>
<td>239.12</td>
<td>71.91</td>
<td>53.12</td>
<td>12.97</td>
<td>14.87</td>
<td>90.65</td>
<td>103.48</td>
<td>122.29</td>
</tr>
<tr>
<td>Skewness</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>0.72</td>
<td>2.86</td>
<td>9.23</td>
<td>0.08</td>
<td>-0.44</td>
<td>-0.19</td>
<td>0.11</td>
<td>-0.91</td>
<td>-0.20</td>
<td>-1.00</td>
</tr>
<tr>
<td>ACGR (%)</td>
<td>4.43</td>
<td>2.22</td>
<td>-100</td>
<td>-12.86</td>
<td>23.56</td>
<td>-2.72</td>
<td>1</td>
<td>-6.89</td>
<td>16.25</td>
<td>-48.67</td>
</tr>
</tbody>
</table>

Source: Compiled and Calculated from the annual reports of the companies

The sample companies have an equal mean Total Debt Ratio of 0.51 times in Aurobindo Pharma and Neuland Labs where as in all other sample companies the composition of debt in capital employed is less i.e, they are having equity dominated capital structure. The measures of distribution showed greater consistency with high degree of uniformity. The test of normality reveals that the distribution was positively skewed and the moment is less peaked than normal. Glenmark Pharmaceutical Limited and Sun Pharmaceutical Industries have a positive growth of 23.56 and 16.25 per cent followed by Aurobindo Pharma (4.43%) and Cipla Limited (2.22%). All other sample firms have negative growth in their capital structure.

DETERMINANTS OF CAPITAL STRUCTURE
Capital structure of a firm is determined by various internal and external factors. The macro variables of the economy of a country like tax policy of government, inflation rate and capital market condition are the major external factors that affect the capital structure of a firm. The characteristics of an individual firm, which are termed here as micro factors (internal), also affect the capital structure of the enterprises. The present study focused on Profitability, Size, Tangibility, Growth opportunities, Risk and Non-debt Tax Shield as the determinants of capital structure.
MEASUREMENT OF VARIABLES

Profitability
Capital structure decisions have a direct influence on the profitability of a business enterprise. Neither financial theory nor research has been able to provide satisfactory agreement as to how profitability affects the capital structure of the firm. In the context of capital structure, profitability is examined by Return on Capital Employed (EBIT / Capital Employed ratio).

Size
The relationship between firm size and leverage is also unclear. Weston and Brigham (1981) have suggested that management of large firms may choose to use equity financing, since sale of additional stock has little influence on the control of the large firm. Hence, small firms may be more leveraged than larger firms. Thus, an inverse relationship is expected between size and total debt; and between size and long-term debt. In this study the volume of sale has been taken as the proxy for size of the firm.

Tangibility
The forms of assets held by a company are important determinants of its capital structure. Tangible fixed assets serve as collateral to debt. In the event of financial distress, the lenders can access these assets and liquidate them to realize funds lent by them. Companies with higher tangible fixed assets will have less expected costs of financial distress and they can use more debt finance. In order to estimate the econometric model, the proportion of fixed assets to total assets has been taken as a measure of tangibility.

Growth
Growth in sales represents the changes similar to capacity utilization in a manufacturing enterprise. Growth in sales is likely to generate more revenue and hence a direct bearing on profitability of the organization.

Risk
Risk refers to a set of unique outcomes for a given event which can be assigned probabilities, while uncertainty refers to the outcomes of a given event which are too unsure to be assigned probabilities. The firm’s optimum level of debt is a decreasing function of the volatility in its earnings. The logic being, that, higher the earnings variation implies higher bankruptcy risk, especially to creditors. The standard deviation of return on capital employed has been considered as the measure of Risk.

Non-debt Tax shield
According to Modigliani and Miller (1958), interest tax shields create strong incentives for firms to increase leverage. But also the size of non-debt related corporate tax shields like tax deductions for depreciation and investment tax credits may affect leverage. Such non-debt tax shields are substitutes for the tax benefits of debt financing. Therefore, the tax advantage of leverage decreases when other tax deductions like depreciation increase. Hence, it is expected that an increase in non-debt tax shields will affect leverage negatively. In this present study the ratio of deprecation over total assets has been taken as a measure for non-debt tax shield.

SPECIFICATION OF THE MODEL
Following multiple regression models has been used to test the theoretical relation between the financial leverage and characteristics of the firm. The study employs debt equity ratio as the measures of financial leverage.

Debt Equity Ratio = f (Profitability, Size, Tangibility, Growth, Risk, Non-debt Tax Shield)

The econometric model of equation is specified as follows:

\[ Y = b_o + b_1x_1 + b_2x_2 + b_3x_3 + \ldots + b_nx_n + U \]

Where,
Y = dependent variable
X1, ..., Xn = independent variables
A = regression constant value
b1, ..., bn = regression co-efficient values of variables concerned

REGRESSION RESULTS
The above regression equation is run for all the sample companies and the regression results are presented in Table 3.
It discloses that the regression equations estimated for all the ten sample companies, of which the regression equation estimated for four sample firms viz, Glenmark, Neuland, Sun and Zandu Pharma seem to satisfy all the specifications. This is because the coefficient of determination adjusted for degree of freedom ($R^2$) is statistically significant for these four companies as is depicted from their $F$ values. The value of $R^2$ is found to be very high ranging in between 0.87 and 0.99.6 per cent. This very high value of $R^2$ shows the significance of the estimated regression Model that explains the capital structure behavior of the sample industries.

Out of the six explanatory variables, the profitability is negatively correlated with leverage ratio, which is line with the pecking-order hypothesis; firms prefer using surplus generated by profits to finance investments but profitability were considered as important determinants of capital structure decision in the case of Glenmark and Zandu Pharma Ltd.

Though the model with all selected variables fitted significantly, the explanatory variable size and non-debt tax shield does not have significant impact on the debt equity ratio except in case of Dr.Reddy’s and Zandu Pharma. However these variables are used to identify the model of best fit. The explanatory variable Tangibility has positive and significant relationship with debt equity ratio of SUN and Zandu Pharma.

Based on the regression results it can be concluded that all the selected variables Viz., Profitability, Size, Tangibility, Growth, Risk and Non-debt tax shield together explain the variations in the Debt Equity Ratio of the select Pharmaceutical companies in India.

**Testing of Hypothesis**

The regression results show that the calculated value of $F$ is greater than the table value at a given level of significance in the case of Glenmark, Neuland, Sun and Zandu Pharma. Hence, the null hypothesis that “there is no significant relationship between Debt Equity Ratio and selected independent variables viz., Profitability, Size, Tangibility, Growth, Risk and Non-debt Tax Shield” is rejected. Whereas, in all other cases the regression results are not significant and hence, the null hypothesis is accepted.

**FINDINGS**

- Among the sample firms, Aurobindo and Neuland have optimum level of debt in its capital structure but all other firms are having equity based capital structure.
- A positive correlation was inferred between debt usage and profitability. However, the finding of this study does not confirm statistically since the negative correlation between leverage and profitability was too weak to support this meaningful inference.
- Debt Equity Ratio positively related with Tangibility and Size and the size was statistically significant only in the case of SUN and ZANDU.
- The results indicated a unique but significantly positive correlation between debt financing and Growth of the firm.
- The results also indicated a significant negative correlation between debt financing and the business risk.

<table>
<thead>
<tr>
<th>Company</th>
<th>Constant</th>
<th>Profitability</th>
<th>Size</th>
<th>Tangibility</th>
<th>Growth</th>
<th>Risk</th>
<th>NDTS</th>
<th>$R^2$</th>
<th>ADJ $R^2$</th>
<th>Significance</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>AURBINDO</td>
<td>1.566</td>
<td>-0.936</td>
<td>0.221</td>
<td>0.906</td>
<td>2.864</td>
<td>-1.66</td>
<td>1.153</td>
<td>0.859</td>
<td>0.578</td>
<td>0.194</td>
<td></td>
</tr>
<tr>
<td>CIPLA</td>
<td>-479</td>
<td>-0.421</td>
<td>0.406</td>
<td>0.387</td>
<td>6.48</td>
<td>-0.291</td>
<td>0.535</td>
<td>0.558</td>
<td>-0.325</td>
<td>0.711</td>
<td></td>
</tr>
<tr>
<td>DIL</td>
<td>0.329</td>
<td>-4.147</td>
<td>1.09</td>
<td>4.45**</td>
<td>-1.51</td>
<td>-2.038</td>
<td>8.828</td>
<td>0.841</td>
<td>0.524</td>
<td>0.227</td>
<td></td>
</tr>
<tr>
<td>FDC</td>
<td>0.991</td>
<td>0.14</td>
<td>0.261</td>
<td>0.167</td>
<td>7.78</td>
<td>7.590</td>
<td>0.058</td>
<td>0.123</td>
<td>0.618</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLENMARK</td>
<td>5.804</td>
<td>-5.395**</td>
<td>0.228</td>
<td>1.754</td>
<td>1.37**</td>
<td>-0.181</td>
<td>1.468</td>
<td>0.957</td>
<td>0.870</td>
<td>0.038**</td>
<td></td>
</tr>
<tr>
<td>IPCA</td>
<td>2.596</td>
<td>-4.004</td>
<td>3.16</td>
<td>7.8</td>
<td>4.116</td>
<td>-0.122</td>
<td>1.739</td>
<td>0.834</td>
<td>0.503</td>
<td>0.240</td>
<td></td>
</tr>
<tr>
<td>NEULAND</td>
<td>5.620</td>
<td>-2.533</td>
<td>547</td>
<td>1.052</td>
<td>4.866</td>
<td>-1.282</td>
<td>-3.783</td>
<td>0.966</td>
<td>0.898</td>
<td>0.026**</td>
<td></td>
</tr>
<tr>
<td>Dr.REDDY’S</td>
<td>0.825</td>
<td>-0.584</td>
<td>495*</td>
<td>0.113</td>
<td>1.156</td>
<td>-0.138</td>
<td>1.587</td>
<td>0.812</td>
<td>0.436</td>
<td>0.282</td>
<td></td>
</tr>
<tr>
<td>SUN</td>
<td>-2.220</td>
<td>-0.824</td>
<td>10.08</td>
<td>0.915*</td>
<td>1.731</td>
<td>-0.290</td>
<td>-0.260</td>
<td>0.999</td>
<td>0.996</td>
<td>0.000*</td>
<td></td>
</tr>
<tr>
<td>ZANDU</td>
<td>2.250</td>
<td>-2.466**</td>
<td>1.694</td>
<td>2.605**</td>
<td>1.420**</td>
<td>-0.393**</td>
<td>-1.279**</td>
<td>0.991</td>
<td>0.972</td>
<td>0.004*</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3 - ESTIMATED REGRESSION FUNCTION FOR DER (2000-2001 to 2009-2010)**

*Significant at 5% level.* Significant at 1% level.
CONCLUSION

This paper has attempted to analyze the capital structure practices of Indian pharmaceutical companies and to find the determinants of capital structure as discussed in the financial literature. The Debt Equity Ratio results of the study revealed that Indian pharmaceutical companies are having equity based capital structure where as, Aurobindo and Neuland Pharma are employing optimum debt in their capital structure. The results of regression with six explanatory variables viz., Profitability, Size, Tangibility, Growth, Risk and Non-debt tax shield and a dependent variable Debt Equity Ratio revealed that there has been around 55.2 to 99.9 per cent of variation in financial leverage. It is also understood from the above results that these variables together play a major role in determination of the financial leverage in pharmaceutical companies in India. Hence it is suggested that the Indian pharmaceutical companies may go for debt financing as a cheaper source of finance at the same time the firms should consider all the explanatory variables used in this study while taking capital structure decision.

References


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ISSUES RELATING TO PURCHASE AND POST PURCHASE BEHAVIOUR

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ABSTRACT: Consumer is the king and it is the consumer who determines what a business is. The wealth of products and services produced in a country make our economy strong. Almost all the products have a number of alternative supplies and the consumer should make a decision to buy products of a particular brand. Consumers make two types of purchases. Trial purchase and repeat purchases. If a consumer is induced to purchase for the first time, a smaller quantity than usual and with certain degree of hesitancy, it is termed as a product trial. In any event, the trial is the base of purchase behavior where intention is to evaluate a product through trial. On the other hand repeat purchase indicates the commitment on the part of the consumer towards the product, company and others. The purchase process marks the recognition of actual purchasing environment and its effect on the process. This is the stage where mental evaluation is translated into purchase activity at the point of purchase. The act of purchase can be affected by many factors. Time, mood, shopping experience, sales persons effectiveness, etc. But the consumer satisfaction is determined by the person’s overall feeling toward the product after purchase. Satisfaction is often determined by the degree to which a product’s performance is consistent with the consumer’s prior expectations of how well it will function. Product may be introduced by consumers into secondary markets during a process of lateral cycling. The purchase and post purchase are the last two stages of consumer decision making. While the purchase stage is more crucial from the manufacturers or marketer’s perspective, the post purchase behavior indicates the ultimate satisfaction perceived by consumers and has implications for marketers as a determinant of future purchase decisions.

Keywords: Purchase process; Post-purchase process; Purchase environment;

1. INTRODUCTION
Consumer is the king and it is the consumer who determines what a business is. The wealth of products and services produced in a country make our economy strong. Almost all the products have a number of alternative supplies and the consumer should make a decision to buy products of a particular brand.

2. AN OVERVIEW OF PURCHASE PROCESS:
2.1 Consumers make two types of purchases. Trial purchase and repeat purchases. If a consumer is induced to purchase for the first time, a smaller quantity than usual and with certain degree of hesitancy, it is termed as a product trial. In any event, the trial is the base of purchase behavior where intention is to evaluate a product through trial. On the other hand repeat purchase indicates the commitment on the part of the consumer towards the product, company and others. The purchase process marks the recognition of actual purchasing environment and its effect on the process. This is the stage where mental evaluation is translated into purchase activity at the point of purchase.

2.2. From marketer’s perspective, purchase process is linked to marketing mix. If customer purchases the evaluated item, it confirms the marketing mix employed. On the other hand, non-selection indicates the need of a change in marketing mix. From customer’s perspective purchase action marks the end of their efforts. It also means that they must depend on it alone for expected benefits and satisfaction, at least until next purchase occasion.

3. ISSUES RELATED TO PURCHASE AND POST PURCHASE ACTIVITIES
3.1 ANTECEDENT STATES:
1. Situational factor: Situational effect can be behavioral (entertaining friends) or perceptual (being depressed/1981). Common sense tells that people tailor their purchases to specific occasions. One reason for this variability is that the role of a person plays at any time is partly determined by his situational self image.

2. Usage contexts: Market segmentation strategies can be developed to position products by identifying important usage situations. Consumer’s physical and social environment makes a big difference in motives of product usage. In some cases the sheer presence or absence of co-consumers in a setting can be a determinant attribute. Their presence increases their arousal levels which may be positive or negative. In addition, the type of consumers who patronize a store or service can serve as a store attribute.

3. Temporal factors: Time is one of the consumer’s most limiting resources. Their perspectives on time can affect many stages of decision making and consumption. Consumers try to maximize satisfaction by allocating time to the appropriate combinations of tasks. Of course individual’s priorities determine his time style. The psychological dimension of time is an important factor I queuing theory. Consumer’s perception of waiting can influence his perception of service quality. Some products and services are believed to
be appropriate for certain times and not for others. The consumer’s arousal levels are in the morning than in the evening, which effect their style and quality of information processing (1988).

4. Mood: A consumer’s mood can have a big impact on purchase decisions. Consumers like things better when they are in good mood. When they have positive mood, they pay less attention to the message and rely on heuristic processing. Moods can be effected by store design, the weather or other factors. When consumers are happy, they have more positive reactions.

5. Shopping motives: Shopping is a way to acquire needed products and services, but social motives for shopping are important. Many people go for shopping to spend their leisure time. The shopping malls have become a central hangout for teenagers. Some people pride themselves on their knowledge of the market place.

FIGURE: 3.1 - ISSUES RELATED TO PURCHASE AND POST PURCHASE ACTIVITIES

3.2 THE PURCHASE ENVIRONMENT

1. The shopping experience: Store loyal consumers are prized by retailers. They will routinely visit a small set of stores without considering others. Shopping malls have tried to gain the loyalty of shoppers by appealing to their social motives as well as providing access to desired goods. The mall is often a focal point in a community. Both shopping malls and individual stores must create environments that stimulate people and allow them to shop and be simultaneously entertained. (1987).

2. Point of purchase stimuli: A point of purchase stimuli can be an elaborate product display or demonstration, a coupon – dispensing machine, or even someone giving out free samples of a new cookie in the grocery sale. Now – a days retailers are beginning to pay more attention to the amount of information in their stores, as well as the way it is presented.

3. Sales interactions: The sales person attempts to influence the buying behavior of the customer. This influence can be understood in terms of exchange theory, which stresses that every interaction involves an exchange of value. Each participant gives something to the other and hopes to receive something in return. (1975). Buyer and seller situation is like a relationship where some agreement must be reached about the roles of each participant. In addition, more effective salespersons usually know their customers’ traits and preferences.

3.3 POST PURCHASE PROCESSES.

1. Consumer satisfaction: It is determined by the overall feelings or attitude, a person has about a product after it has been purchased. Consumers are engaged in a constant process of evaluating the things they buy as these products are integrated into their daily consumption activities. (1990). They want quality and value. Satisfaction or dissatisfaction is more than a reaction to the actual performance quality of a product or service. If it fails to live to expectations, negative effect may result. And, if performance happens to exceed their expectations, they are pleased and satisfied.

2. Product disposal: Because consumers often do form strong attachments to products, the decision to dispose of something may be painful one. Consumers often dispose of things either because they have fulfilled their designated functions, or possibly because they no longer fit with consumers’ view of themselves. When the product is no longer of use the person can either keep them, temporarily dispose of it or permanently dispose of it.

3. Alternative markets: Interesting consumer process occurs during lateral cycling where already purchased products are sold to others or exchanged for other things. Many purchases are made second hand rather than new. Classified advertisements, garage sales, back market, students market for used computers, text books represent important alternative marketing systems.

4. CONCLUSION:

It can be said that the act of purchase can be effected by many factors. Time, mood, shopping experience, sales persons effectiveness, etc. But the consumer satisfaction is determined by the person’s overall feeling toward the product after purchase. Satisfaction is often determined by the degree to which a product’s performance is consistent with the consumer’s prior expectations of how well it will function. Product may be introduced by consumers into secondary markets during a process of lateral cycling. The purchase and post purchase are the last two stages of consumer decision making. While the purchase stage is more crucial from the manufacturers or marketer’s perspective, the post purchase behavior indicates the ultimate satisfaction perceived by consumers and has implications for marketers as a determinant of future purchase decisions.
5. ACKNOWLEDGMENTS

The author wishes to thank Dr. M. Shakhthivelmurugan, Principal, D.B. Jain College, Thoraipakkam, Chennai for guidance and encouragement to complete this Article successfully.

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ABSTRACT: To discuss the changing scenario of the domestic tourism in India’s Northeast region, particularly Assam, this research note discovers the growing interest among the domestic tourist from and to Northeast India through the observation and opinion of the tour operators in this region. The study explores the socio-cultural transformation of the attitude of domestic tourists of and towards this region through the reflective discussion that shows the approximate number of domestic tourists from and to Northeast India, destinations frequently chosen by the people and the socio-economic background of the tourists.

Key word: Domestic tourism, Northeast India, Assam, Changing scenario

Introduction

Mark Twain comments, ‘Even heaven can be boring after a while’ (Sharma, 2006, p.3). Transferring this comment to a reality, tourism has become a popular global leisure activity and one of the largest industries in the world. Domestic tourism is one form of the three forms of tourism, classified by the United Nations in 1994 in its Recommendations on Tourism Statistics that identify those tourists who visit their own country, takes a great place now days in tourism business. Dependency on the international tourism has now shifted to domestic tourism, as domestic tourism market is more stable and growing very fast world over.

Through traveling their own country, the people can feel, taste and learn about their own culture and heritage and understand their own nation. With the increase in income levels and emergence of a powerful middle class, the potential for domestic tourism has grown substantially during the last few years. Domestic tourism plays a vital role in achieving the national objectives of promoting social and cultural cohesion and national integration.

Domestic Tourism and India

Tourism in India has growing substantially. The ministry of tourism’s vision is to achieve a level of 760 million domestic tourist visits by the year 2011, the end of the 11th Plan at an annual average growth of 12 per cent. For it, ministry of tourism is planning aggressively promote domestic tourism. However, the growth of domestic tourism is not equal everywhere in the country. It is highly flourishing in certain pockets like Goa, Rajasthan etc while some areas are lagging behind. Northeast India, particularly Assam is lagging far behind in domestic tourism. Prime reasons for it are that air and surface transport links are not good. Also as the area has been politically unstable for security reasons tourist refrain from visiting the area.

Of late, the tourism trend becomes slightly changed in this region. Now, the people of this region showing interest to travel outside and the number of travelers who had visited or want to visit other parts of India for various reasons like medical treatment, study etc is increasing every year. The people from other parts of India are also showing great interest to visit this region recently. This trend of visit from and to this region is growing fast. Therefore, the opportunities are opened for domestic tourism business in this area.

About The Research Note

The objective of this research note is to analyze the changing scenario of the domestic tourism and discuss the growing interest for it among the tourist from and to Northeast India, particularly Assam. This paper particularly deals with the outlooks of persons who are doing business in tourism in this region to analyze the scenario. The socio-cultural transformation of the attitude of domestic tourists is focused in this paper. Non-participant observation of the scenario and open-ended conversations with four important tour operators are the base of this study. The government enterprise, Assam Tourism, Govt. of Assam helps by giving some statistical data. The open-ended conversations with the tour operators reflect the approximate number of domestic tourists from and to Northeast India, particularly Assam; destinations frequently chosen
by the people and the socio-economic background of the travelers. This paper concludes with the outcomes of these discussions, although there are ample scopes to more discussion and detailed studies on this topic.

Changing Scenario in Domestic Tourism in Northeast India with Special Reference to Assam

The scenario of tourism in Northeast India, especially Assam is gradually changed from the last five or four decades. Tourism is now being recognized as a leisure and pleasure activity. In the 1950s, only educated and urban people visit places outside Assam and mainly for educational purpose. Gradually, in this region tourism has gained popularity, as people from rural areas now visit places outside Assam or Northeast for medical, religious purpose etc.

The people from other states of India also are now showing interest to visit Assam and other parts of Northeast India. With development of better communication facilities and infrastructure especially for changing attitude to this region, now the tourists, prefer northeast tourist spots.

Nevertheless, this is only a common observation. What is the condition of domestic tourism in Northeast, especially Assam, according to the tour operators based on this area? What is their observation? The interaction and conversation with the four important tour operator of this region and based in Guwahati, reveals their outlook and opinion towards domestic tourism in this region. Guwahati is the main city of Assam or even the Northeast that is also the gateway to the country’s land locked Northeastern region. In Guwahati, many tour agencies have started operation from past few years who offer services like accommodation booking, ticketing and package tours. I have visited four main tourist agencies based on their importance and brand name, along with the government tourism enterprise: Assam Tourism, Govt. of Assam. The agencies are:

1. Network Travels, Tour Division
2. Landmark Tours and Travels
3. Makemytrip.com
4. SOTC

Governments have different kinds of statistical data about tourism but the real players are the tour operators. So what the tour operators speaks besides the statistics of Government? This is the focused spot of this study and all these tour operators reveal business data and their outlook regarding this issue.

Network Travels

Network Travels, an IATA agency and one of the oldest and biggest travel agency of this region was started in 1992 in Guwahati. They offer everything related to tours, from package tours to booking tickets or accommodation etc. They prepared mostly tailor made packages including all service facilities: accommodation, food, transportation and sight seeing with guide. Network travels offer entire Northeast states including Darjeeling under their package tours. Their specialties in tours are on tribal culture, birding holidays, tea tourism etc. Now, they includes new tourism products like river journey, remembrance holidays (The Remembrance holiday is the tour of remembrance of British rule and period. The Europeans or Americans who were visiting this region in the time of World War II or working in tea, coal or oil industry in British time and want to visit this area once again or their children or grandchildren whose forefathers were working or died in this region, are attracted by this tour) etc.

In previous year, the agency gets nearly 500 foreign tourists and almost 2000 Indian visitors, whereas this year they get almost 2500 Indian visitors and 1000 foreign tourist. Therefore, the rate of tourist visit is increasing almost 10% in every year. The business growth of Network Travels is very good. From last years, it increases almost 20% in turnover. Northeast region is famous for its tribal culture, wildlife, nature and scenic beauty particularly. However, he observed that maximum Indian tourist does not prefer a particular tourism product like nature, tribal life, architecture, wildlife etc. They prefer a mix and match itinerary for their tour, which includes everything special of this region, from hill station to wildlife. Maximum domestic tourist want to visit easy destinations which are easily communicable without any hassles of accommodations, foods etc. Domestic visitors mainly prefer sold and popular destinations: Guwahati, Kaziranga National park and Shillong. The main target tourists of Network Travels in domestic tourism are coming from Maharastra, Gujarast and West Bengal.

According to the officials of Network Travels, the local people’s travel trend has undergone a tremendous change. Earlier the local people were not interested in holiday tours for various reasons like long rail journey, high cost of air travel or simply because of lack of attitude towards travel for pleasure etc. Now, better rail and air communication encouraged the local people to visit places or traveling for pleasure. The rate of travel for touring purpose among the local peoples of this region is increasing almost 10% in every year. The reasons for this are:

- Medical purpose,
- Educational purpose,
- Better and easier Connectivity: So many new trains to new destinations are introduced whereas the cost of air travels is much more low then earlier,

The people from other states of India also are now showing interest to visit Assam and other parts of Northeast India. With development of better communication facilities and infrastructure especially for changing attitude to this region, now the tourists, prefer northeast tourist spots.
The better financial condition among local middle class people is another reason. These new urban peoples believe in weekend entertainment and believe in spending, so they accept traveling for leisure and pleasure activity in weekends. Tour is their stress busters and marker of social status.

Public awareness is increased. So many NGOs, not only work on tourism promotion, but also AIDS prevention, wildlife conservation etc popularize Northeast in other states of India and abroad.

For job and interview purpose

However, they believe that tour for leisure or recreation or tour for tours is not a part of life among local peoples even now. The local peoples love to visit places with mixing medical or educational purpose. The locals prefer easy destinations to visit like Kolkata, Delhi, Chennai, Darjeeling Gangtok, Puri and Bhubaneswar etc. Among the incoming domestic tourist, the backpackers or walking customers are much more visited these areas now, because of good communication, low cost and the most importantly, no restriction in many areas which were restricted earlier for foreigners or even Indians. The next thing of growing domestic crowd in this region is publicity. The Northeast region is the in thing or new fashion in tourism business. They says that people are bored with old destinations and now wanted adventures and new things, which are possible only in NE region. Therefore, Indian crowd, specially Maharashtra, Gujarat and West Bengal’s people visit this region much more than earlier.

Network Travels highlighted about two problems in tourism industry in this region. Firstly, the growing trend of mass tourism is effecting the environment negatively. Shillong is a traditional hotspot among domestic tourists, which gradually lost its scenic beauty and calm nature and changed into a nasty and crowded city. However, it exists and receives the highest number of tourist even now only for the strong marketing policy and interest of Indians crowd. Lack of awareness and interest for preserving the nature and culture is the reason of it and he feels that government must to made some rules and regulations for visitors and tour operators to preserve and conserve this nature rich region. Secondly, the tour operators of this region are depended on the ground handling agents or sales agent, based on metros of India for foreign tourist or even domestic tourist and this thing create uncertainty and less profit in the business. The manager again mentions that the local tour operators are trying to create a base for tourism industry in this area by making brochure, planning new types of products etc. Although this is a slow process, he hopes that it start to work very soon,

**Landmark Tours**

The Landmark Tours was started in 2006. This new but important tour company is doing inbound tours and depend maximum on international tourists. However, they are also taking interest in domestic tourist from the last year. Last year they handle almost 350 tourists, among them almost 250 are domestic. The agency gets good response from TTF (Tourism trade fair). Agency observes that the flow of domestic tourist is growing in this region because of the new LTC rules of Indian govt. According to this rule, if the govt. officials take LTC for Northeast, they get airfare that is a great attraction for the Indian people to visit Northeast region.

According to Landmark Tours, now local peoples have also start to tour for leisure and pleasure. They get local tourist who visit Andaman in their package tour. Landmark tours have now realized the potentiality of domestic tourist market of Northeast India. They have started to design packages for tourists who visit different parts of India from Assam or Northeast India. For incoming domestic tourists, he feels that now there is no off-season in this region, as they prefer the popular and sold destinations and mix and match tour programmes. Shillong is summer destination; Kaziranga National Park and Kohima are the winter destination whereas Arunachal Pradesh is all time favorite. Even in Kaziranga National Park, there is no off-season actually, because in off-season even one can take elephant ride outside the park.

They think that developing the destinations and then the right marketing for it is very much important for whole region. The example is the Mawlynnong village nearby Jowai in Meghalaya, which is called as the cleanest village in Asia by Discover India magazine. The information in internet about this village creates a very good market for tourism and makes it as a new tourist destination. However, major bottleneck is the networking with other tour operators of outside Assam. For regular package tours, the tie up with the tour operators of outside Assam is needed which is still not stable precisely because the outbound domestic tourist market is still not stable.

**Makemytrip.com, Guwahati**

Makemytrip.com comes up with a branch office in Guwahati on the 22 April 2008, following an extensive market survey in Northeast India. From their market survey, they realize that no tour operator in this region offers domestic tour packages regularly or to make hassle free tours for Northeasten peoples. Realizing the great potentiality of domestic tourist market that is rarely touched by any company even now, they enter in the market and have been receiving encouraging response from the very first day.
Makemytrip reveals that they receive customers of every age and class, from businessperson to working peoples to retired persons. For the domestic circuit, people from all income groups, specifically middle to upper middle class are showing great interest. According to the officials, the peoples of this region prefer the places like Goa, Himachal Pradesh, Kerala, Rajasthan etc. Interestingly, their maximum customers are from small towns like Nagaon, Digboi, Sivasagar, Jorhat, Dibrugarh etc. In addition, maximum enquiries are coming for domestic circuits and less for international.

They rely on advertisements, especially in print media and through the leaflets for marketing of their products. They get good response from their ads in local paper and free distribution of leaflets with local paper and majority of the customers come in response to these advertisements. Their business growth is very good and they get almost 100% booking for their domestic package tours from the day of starting

SOTC
SOTC is a leading brand of Kuoni Travel Group India, one of the country's largest travel and Tourism Company. The Guwahati office is a Holiday world outlet of their main company. They were selling their tour packages through different sales agents in the city before, but now, the growing market reveal the high potentiality and encouraged them to establish their own outlet in Guwahati on franchise mode. Their market policy is based in niche marketing. He says that the peoples of Marwari and Bengali communities buy maximum packages of the domestic circuit of SOTC. Last year, they get almost 2000 tourists whereas in this year the number is increased to almost 2500. For domestic tours, peoples prefer Goa, Rajasthan, Shimla, Gujarat etc. The domestic packages are tailor made tours and made round the year.

The Concluding Outcomes
The analysis of the study clearly indicate that scenario of domestic tourism in the Northeast India, particularly Assam, has changed. The outcomes from this study are:

- The peoples are now showing great interest to visit Northeast India for leisure and pleasure and the growth of incoming domestic tourist inflow is increasing every year as indicate in the Assam tourism’s tourist flow chart.
- The new LTC rules of central govt., removal of the restricted area permit; good communications are the reasons of the increasing number of tourists to this region. The backpackers also visit this region in great numbers.
- Earlier, the local tour companies depend mostly on international incoming tourist, but now they have realized the importance of domestic tourism and have gradually shifted their business to this segment.
- The business growth of every tour operator of this discussion is very good and the number of tourists is increasing every year. So, there are many scopes for other tour operators also who can fill the vacuums of the domestic tourism market’s demand and supply
- The domestic tourist now attracts new destinations like Northeast and the Northeast region is in thing in domestic tourism market. New destination like Arunachal Pradesh is on high demand among the domestic tourists and this region becomes all season tourist destination.
- There is an impression that this region is maximum visited by Bengali travelers which is break by Government to preserve and conserve the natural heritage of this region. The tour operators demands for creating some rules and regulations for visitors and service providers by Government to preserve and conserve the natural heritage of this region.

The analysis of this study has cleared a picture about the high potentiality of domestic tourism in this region and the tours operators seem aware of this trend. Because the local operators basically emphasize on the international tourist and there are lots of problem for international tourist to visit this area from restricted area permit to unstable political condition to long GHA channel process, tourism industry never growing as a regular and full fledged profit making business in Northeast India.
India. Now Makemytrip.com have started emphasizing on the domestic tourism which was untouched earlier and their success reveals that to ensure the development of a stable and certain market for tourism in this region and to attract the international crowd, it must emphasize on domestic tourism first.

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WILLINGNESS TO PAY FOR IMPROVED WATER SUPPLY IN RURAL AREAS OF TAMILNADU: AN ECONOMETRIC ANALYSIS USING TOBIT MODEL

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ABSTRACT: Provision of high quality and sustainable drinking water services for all the citizens, particularly the rural poor, is critical to enhance the economic productivity of any nation. Supply of safe and quality drinking water to the rural community remains a significant issue in the governance in India. It has been estimated that to provide safe drinking water to all rural habitations in the country with minimum satisfactory level of service would require a further investment of about Rs.450 billion. In view of increasing constraints, it would be a difficult task for the Government alone to mobilize such huge investment single handedly. Therefore, a productive and pro-active involvement of user community and other stakeholders in resource mobilization and community participation in the implementation as well as the operation and maintenance of the system has become imperative. To translate the above strategy into practice, it requires massive efforts to transform the prevailing mindset of the major partners – the users, community, local Government, Government agencies, NGO’s etc. When users are involved in operation and maintenance of the systems, they are likely to be willing to pay for it.

The most important factor, in designing any policy framework, is to identify the level of services that people want and for which they are willing to pay. It is assumed that individual households are able to value changes in water supply services in the absence of an explicit market. If water supply improves and consumers believe they are better off in some way, then will be willingness to pay money for securing this improvement. Keeping in view these aspects, this study attempts to estimate the willingness to pay for the improved water supply in rural Tamil Nadu.

The study found that most of the respondents are willing to pay additionally for improved services than what they are paying now. The strong positive relation between the income of the household and the willingness to have private connection to the improved water service implies that there is a need to consider household’s income in designing policies related to supply of improved water services. The strong positive relationship between educational level and willingness to pay to the improved water service indicates that there is a need to educate people about the benefits associated with improved water services, in general, and having individual connection to the new improved water supply, in particular. It is also found that there is a positive relationship between willingness to pay and quantity of water consumed per day. This positive relationship implies that in fixing water tariff the quantity of water consumed by the household should also be taken into account. Policymakers should consider socio-economic characteristics and water use patterns of households in designing policies related to supply of improved water services.

Keywords: Willing To Pay; Tobit Model; Improved Water Supply

1. INTRODUCTION

India has a long tradition of managing water, but due to a large and increasing population, industrial growth and agricultural development there has been a tremendous pressure on both qualitative and quantitative dimensions of water resources. The quantity and quality of available water is decreasing over the years. The amount of utilisable water available per person per year is only 1250 cubic meters in 1999 and is likely to decrease further to 760 cum by 2050. The distribution and availability of water is not uniform across the country or through the year.

Table 1. Water Availability in India by 2050

<table>
<thead>
<tr>
<th>Year</th>
<th>Cum/person/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>3450</td>
</tr>
<tr>
<td>1991</td>
<td>1288</td>
</tr>
<tr>
<td>1999</td>
<td>1250</td>
</tr>
<tr>
<td>2050</td>
<td>760</td>
</tr>
</tbody>
</table>


Provision of drinking water is considered as fundamental to good governance to promote health and welfare of the people. In developing countries like India, bulk of the population lives in remote and rural areas cum no access to clean and safe drinking water.
Drinking water is defined as safe if it is free from bacteria contamination, chemical contamination viz. fluoride, iron, arsenic, nitrate, brackishness in excess or beyond permissible limits.

The quality of safe drinking water is possible only through tap, tube well or hand pump, which are not sufficiently available in rural areas. These sources are often not perennial and villages face severe water problems during summer months. It is true that these three sources are also not free from contamination, they are; however; reasonably better than other sources of drinking water, such as well, river, fountain, canal or lake. In addition to biological contamination, a variety of chemicals due to gioclimatic factors like fluorides, arsenic, nitrates and iron were present in drinking water beyond permissible limits recommended by World Health Organization (WHO) lead to serious health hazards. Moreover, in most case water available from these sources is not clean and causes frequently health hazards.

While India is currently meeting United Nations Millennium Development Goals in providing access to improved water sources, access to safe drinking water remain urgent, as 30 per cent of urban and 90 per cent of rural households still depend on completely untreated surface or ground water. A large number of habitations (2,16,794 habitations) are affected with water quality problems in India (Table. 2).

<table>
<thead>
<tr>
<th>Type of Water Quality Problem</th>
<th>Number of Affected Habitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess Fluoride</td>
<td>36,988</td>
</tr>
<tr>
<td>Excess Arsenic</td>
<td>3,136</td>
</tr>
<tr>
<td>Excess Salinity</td>
<td>32,597</td>
</tr>
<tr>
<td>Excess Iron</td>
<td>1,38,670</td>
</tr>
<tr>
<td>Excess Nitrate</td>
<td>4,003</td>
</tr>
<tr>
<td>Other Problems</td>
<td>1,400</td>
</tr>
<tr>
<td>Total</td>
<td>2,16,794</td>
</tr>
</tbody>
</table>

Source: Annual Report-2003-04, Ministry of Rural Development, Govt. of India

Inadequate access to safe drinking water causes infant mortality and intestinal diseases. The most common water-borne diseases in India are:
- Diarrhoea
- Hepatitis
- Round worm
- Hookworm infection
- Trachoma
- Intestinal worms, etc.

These diseases affect 37.7 million Indians annually and over 75% of the affected are children under five. According to Ministry of Rural Development, about 1.5 million children under 5 years die each year due to water related diseases and the country also loses over 200 million person days of work a year because of these diseases. Water related disease have caused a very heavy economic burden. The World Bank has estimated that the annual health costs of water and sanitation—borne diseases in India are between 3.1 to 8.3 billion US$.

Safe drinking water supply and basic sanitation are vital human needs for health and efficiency. There is no doubt, safe drinking water is the basic need of the people and any failure on the part of the Government to provide it will reduce the welfare of the people. A considerable portion of the total plan outlay of the Government expenditure should be set apart towards this purpose. United Nations population projections indicate that, India will be among the 34 countries of the world, which are likely to face severe water shortage problems by the year 2025. As per estimates, the countries annual fresh water requirements (i.e., about 1,050 billion cum) by that year will be almost at poor with its exploitable water resources against the current demand of approximately 600 billion cum. Thus, the additional supply of water would become necessary.

Problems associated with drinking water supply are numerous and complex. Major problems can be listed as, “Resource constraints, under estimation of project cost, lack of suitable low cost technology, poor maintenance of existing schemes, absence of suitable water pricing policy, organizational problems, identification of areas for execution of schemes and centralization of power at state level”. Traditionally, the rural areas have been depended on indigenous water harvesting systems for drinking water purpose. The traditional approach for implementing programmes for supply of drinking water in rural areas was top-driven, the result being that the community involvement was minimal and the problem of providing drinking water in all villages could not be addressed fully.

 Provision of high quality and sustainable drinking water services for all the citizens, particularly the rural poor, is critical to enhance the economic productivity of any nation. Supply of safe and quality drinking water to the rural community remains a significant issue in the governance in India. It has been estimated that to provide safe drinking water to all rural habitations in the country with minimum satisfactory level of service would require a further investment of about Rs.450 billion. In view of increasing constraints, it would be a difficult task for the Government alone to mobilize such huge investment single handedly. Therefore, a productive and pro-
active involvement of user community and other stakeholders in resource mobilization and community participation in the implementation as well as the operation and maintenance of the system has become imperative. To translate the above strategy into practice, it requires massive efforts to transform the prevailing mindset of the major partners – the users, community, local Government, Government agencies, NGO’s etc. When users are involved in operation and maintenance of the systems, they are likely to be willing to pay for it.

The most important factor, in designing any policy framework, is to identify the level of services that people want and for which they are willing to pay. It is assumed that individual households are able to value changes in water supply services in the absence of an explicit market. If water supply improves and consumers believe they are better off in some way, then will be willingness to pay money for securing this improvement. Keeping in view these aspects, this study attempts to estimate the willingness to pay for the improved water supply in rural Tamil Nadu.

2. OBJECTIVES AND METHODOLOGY

2.1 Objectives
The primary aim of the project is to estimate willingness to pay for the improved water supply at the household level. The specific objectives of the study are:
1. To estimate the willingness to pay for improved water supply among the rural households, and
2. To analyze the factors influencing the willingness to pay for improved water supply among the rural households.

2.2 Methodology
Tamil Nadu is dependent for its water supply mostly on rainfall. It has no perennial rivers and geologically too, the State is mostly covered by hard rock formations where the availability of ground water is uncertain. The population of the State as per 2001 census is 62.11 million with 27.24 million urban and 34.87 million rural. The decadal growth stands at 11.19 per cent. One of the important objectives of the Government of Tamil Nadu during the Tenth Five Year Plan Period is Water Security. Hence, provision of safe drinking water to the people of the State will be accorded the top most priority by the Government. Of the total 81,787 rural habitations in Tamil Nadu, about 48 percent of rural habitations (36,641) are affected by quality. Out of 10,301 no safe-sourced habitations 2,706 habitations are affected by single parameter like dissolved solids, alkalinity, hardness, nitrate, fluoride and iron. The balance 7595 habitations are affected by multiple quality parameters (Table 3).

Table 3: Type of Water Quality Problem and Number of Rural Habitations

<table>
<thead>
<tr>
<th>Type of Water Quality Problem</th>
<th>Number of Rural Habitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Problem</td>
<td>36,641</td>
</tr>
<tr>
<td>Affected by single parameter (like dissolved solids, alkalinity, hardness, nitrate, fluoride and iron.)</td>
<td>2,706</td>
</tr>
<tr>
<td>Affected by multiple quality parameters</td>
<td>7,595</td>
</tr>
<tr>
<td>Total</td>
<td>10,301</td>
</tr>
<tr>
<td>Total Number of Rural Habitations</td>
<td>81,787</td>
</tr>
</tbody>
</table>

The study was based on a random survey of 125 households in a sample panchayat of Erode district in Tamil Nadu. Primary data on willingness to pay for improved water services and factors influencing the households willingness to pay were collected through schedule.

The Contingent Valuation (CV) technique was employed to elicit information regarding Willingness to Pay (WTP) for improved water supply by creating hypothetical market situation. Evaluation of non-market goods or goods which are not currently on the market like the potential benefits of a particular change in policy is performed by CV. This method is based on the argument that ‘individual response to hypothetical markets is comparable to actual markets’. In order to get response for the WTP, the hypothetical situation was created. In the first step, households were asked to assume that there would be an improvement in quality and quantity of supply of water services. It was explained to the respondents that the new system would provide assured and adequate water services to meet their needs. Then each respondent was asked to place value on the object of valuation i.e. quantity and quality of water services. The following information on Socioeconomic and Demographic Factors and availability of water and attitudes and opinion towards water supply were collected with the help of questionnaire for the year 2006 – 2007.

1. Age
2. Education of the household head
3. Employment / Occupation
4. Annual income
5. Size of the household
6. Plot size
7. Households’ awareness about water supply and reliability
8. Quantity of water
9. Source of drinking water
10. Storage Capacity
11. Monthly bill
12. Increment to water bill, etc.

The data were collected and the collected data were analyzed using tabular, and percentage analyses and Tobit model.

The willingness to pay for an improved water supply can also be considered as continuous variable. Conceptually ordinary least square analysis is an appropriate model for the continual variable. In our case the dependent variable amount of willingness to pay stated by the respondent is a continual variable. But a large proportion of respondents were not willing to pay or contribute anything for improved water supply. They reported ‘zero’ willingness to pay in the survey. Thus, the dependent variable amount of the willingness to pay for improved water supply concerns a continual variable which includes a large number of zeroes. An empirical issue that needs to be considered is that large number of zeroes. In this case, OLS regression analysis is not an appropriate model for the econometric analysis, because the willingness to pay was limited by zero values. Because OLS estimation based on a censored sample would yield biased estimates. In OLS estimation the necessary condition is \( E(\varepsilon_i) = 0 \). This is violated due to the censored nature of dependent variable in our case.

Omitting the limit observations creates bias. Ignoring them would be throwing away information, but including them as though they were ordinary observations also creates bias. An appropriate alternative model for such situation is Tobit model (Tobin 1958). This is a very novel approach enunciated by James Tobin in 1958 for analyzing situations whenever dependent variable (under variable consideration to be analyzed) can take zero values.

The method of estimation of the regression model to be applied depends on the structure of elicitation technique employed in the CVM study. If the elicitation technique is of open-ended type, the relevant estimation method would be Tobit (Censored Regression) model. Since the Bidding Game was of the open-ended type a Tobit model was estimated. The Tobit model takes the following functional form:

The Tobit model assumes a latent variable \( Y^* \), determined by

\[ Y^*_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki} + \varepsilon_i \]  

where \( X_{1i}, X_{2i}, \ldots, X_{ki} \) are observable independent variables comprising personal and socio-economic characteristics, and \( \varepsilon_i \) is a normally distributed error term with mean 0 and variance \( \sigma^2 \). The observed variable \( Y \) is equal to \( Y^* \) if \( Y^* \) is greater than 0, and is equal to 0 if \( Y^* \) is less than 0. This is basically estimation with censored normal regression model.

In an attempt to test the relationship between willingness to pay and socio-economic factors, demographic factors, present water use behaviour of the sample households and perception of existing water supply, an econometric analysis (Logit and Tobit Model) was employed. In the regression model, WTP for improved rural water supply (both in terms of dichotomous and continual variables) was represented as a dependent variable. Willingness to pay was regressed on following variables:

\[ WTP = f(\text{Personal characteristics of the Respondent, Household level factors, Present water use behaviour of the household, etc.}) \]

where, WTP is the decision/amount willing to pay by the respondent for improved water supply,

Personal characteristics of the Respondent
1) Education
2) Gender

Household level factors
1) Annual family income
2) Family Size

Present water use behaviour of the household
1) Quantity of water consumed per day
2) Whether purification method adopted

---

2.3 Description, Rationale and Expected Sign of Explanatory of Variables
A short description of the independent variables included in the estimation, their expected sign and the rationale for their expected effect on willingness to pay for improved water supply is given in Table 4.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Description</th>
<th>Measurement</th>
<th>Variable Names</th>
<th>Expected Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Education of the respondent</td>
<td>Continuous variable in number of years of schooling</td>
<td>EDU</td>
<td>+</td>
</tr>
<tr>
<td>Gender</td>
<td>Gender of the Respondent</td>
<td>Dummy variable: 1-Male and 0-Female</td>
<td>GEND</td>
<td>+</td>
</tr>
<tr>
<td>Income</td>
<td>Annual Family Income</td>
<td>Continuous variable in thousand rupees</td>
<td>HHIINC</td>
<td>+</td>
</tr>
<tr>
<td>Family Size</td>
<td>Number of Family members</td>
<td>Continuous variable in No. of persons</td>
<td>HHSIZ</td>
<td>+</td>
</tr>
<tr>
<td>Water Consumption</td>
<td>Daily water consumption by the household</td>
<td>Continuous variable in liters</td>
<td>WQUAN</td>
<td>+</td>
</tr>
<tr>
<td>Purification method</td>
<td>Whether the household used any purification method</td>
<td>Dummy Variable: 1 = Purification technique adopted, 0 = otherwise</td>
<td>PURIF</td>
<td>+</td>
</tr>
</tbody>
</table>

3. RESULTS AND DISCUSSION
The ability to put a value on environmental resources is a core problem in environmentally sustainable development in industrial countries and developing countries alike. Estimation of water demand function by taking into account the economically relevant variable is not an easy task. Therefore, in the absence of carefully estimated water demand function, usually contingent valuation method is applied to estimate water demand. As such a large number of studies have been conducted on various aspects of demand for drinking water, willingness to pay for drinking water and community participation in drinking water supply programmes contingent valuation approach, etc. An attempt is made here to estimate willingness to pay for the improved water supply at the rural household level and the factors influencing willingness to pay for improved water supply in the selected panchayats.

3.1 Willingness to Pay for Improved Water Supply by Type of Connection
Table 5 presents the frequency distribution of the respondents who are willing to pay for improved water supply in the study area.

<table>
<thead>
<tr>
<th>Willing to Pay</th>
<th>Frequency</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willing to Pay</td>
<td>72</td>
<td>57.6</td>
</tr>
<tr>
<td>Not Willing to Pay</td>
<td>53</td>
<td>42.4</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Computed from primary data.

Among the 125 respondents in study area, 57.6 per cent of the households were willing to pay for improved water supply and the remaining 42.4 per cent households were not willing to pay for improved water supply.

3.2 Willingness to Pay in Amounts
The following table presents the amount revealed by survey respondents as their willing-to-pay for improvement in existing water supply system.

<table>
<thead>
<tr>
<th>Willing to Pay (in Rs.)</th>
<th>Individual Connection</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nos</td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>51 to 55</td>
<td>29</td>
<td>-40.27</td>
<td></td>
</tr>
<tr>
<td>56 to 60</td>
<td>17</td>
<td>23.61</td>
<td></td>
</tr>
<tr>
<td>61 to 65</td>
<td>4</td>
<td>5.56</td>
<td></td>
</tr>
<tr>
<td>66 to 70</td>
<td>8</td>
<td>11.11</td>
<td></td>
</tr>
<tr>
<td>Above 70</td>
<td>14</td>
<td>19.44</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Mean ( Rs)</td>
<td>64.93</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Maximum(Rs)</td>
<td>100</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
The mean WTP for individual connections was worked out to be Rs. 64.93. The findings reveal that the households in the study area were willing to pay as much as Rs. 64.93 on reliable and improved water supply. But they are not willing to pay more than Rs. 100.

### 3.3 Tobit Regression Estimates

The factors influencing willingness to pay for improved water supply is estimated using Tobit model and the results of model is reported in Table 7. The likelihood ratio chi-square of 57.26 with 6 degrees of freedom tells us that our model as a whole is a good fit.

#### Table 7: Results of Tobit Analysis of Factors Affecting Willingness to Pay for Improved Water Supply

| Explanatory Variables | Coef. | Std. Err | t    | P>|t| |
|-----------------------|-------|----------|------|-----|
| Education             | 1.863* | 0.913    | 2.04 | 0.044 |
| Gender                | -30.680* | 11.098  | -2.76 | 0.007 |
| Income                | 0.357* | 0.109    | 3.28 | 0.001 |
| Family size           | 2.314 | 3.719    | 0.62 | 0.535 |
| Water consumption     | 0.111** | 0.0524  | 2.11 | 0.037 |
| Purification method   | -11.595 | 8.194  | -1.42 | 0.160 |
| Constant              | 14.829 | 21.989   | 0.67 | 0.501 |
| _se                   | 40.200 | 3.754    | (Ancillary parameter) |

Number of observations = 125
LR chi²(6) = 57.26
Prob > chi² = 0.0000
Log likelihood = -406.63529
Pseudo R² = 0.0658

Source: Computed from Primary data.

Note: *, ** and *** indicate level of significance at 1, 5 and 10 per cent, respectively.

Income is the most important variable (significant at 1 per cent level) which determines the willingness to pay of the households for improved water supply with the usually expected positive relationship. This result is consistent with basic economic theory, which states that individual’s demand for most commodities or services depends on income. The result also indicates that the variable gender of the respondent is found to be significant at 1 per cent. This finding implies that, a respondent who is male is willing to pay lower amount for the improved water supply than the female respondent.

Among the explanatory variables, quantity of water consumed by the family per day has positive and significant (at 5 per cent level) effects on the amount that the households’ willingness to pay for improved water supply. The important variable consistent with a priori expectations is education of the respondent. It is significant at 5 per cent level and has the expected positive sign. This finding indicates that the willingness of educated member’s to pay for improved water supply is higher than the illiterates.

The practice of water purification has a significant positive impact on the willingness to pay for improved water services. Households that use purification methods are willing to pay more for improved water service as compared to those that do not practice it. Similarly, a respondent who is living in large family is willing to pay more amount than the respondent who living in smaller family.

### 4. CONCLUSION

The study found that most of the respondents are willing to pay additionally for improved services than what they are paying now. The strong positive relation between the income of the household and the willingness to have private connection to the improved water service implies that there is a need to consider household’s income in designing policies related to supply of improved water services. The strong positive relationship between educational level and willingness to pay to the improved water service indicates that there is a need to educate people about the benefits associated with improved water services, in general, and having individual connection to the new improved water supply, in particular. It is also found that there is a positive relationship between willingness to pay and quantity of water consumed per day. This positive relationship implies that in fixing water tariff the quantity of water consumed by the household should also be taken into account. Policymakers should consider socio-economic characteristics and water use patterns of households in designing policies related to supply of improved water services.

### 5. ACKNOWLEDGMENTS

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### 6. REFERENCES


*****
BEYOND THE BRAND, SOCIAL INTERACTION AS KEY DETERMINANT OF IMPRESSION MANAGEMENT FOR CUSTOMERS' SATISFACTION AND BETTER BUSINESS PROSPECT : A STUDY ON STREET TRADERS

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ABSTRACT: The present study examines how the street traders were operating their trade with their own style of impression management. The social interaction and hospitality had been the key tool of their impression management by which they had become their own brand. In present day marketing system with tremendous competition they were in their own prospect while they were in total uncertain position. Although they had no profession education they had learnt from their self strategies of their trade to reach the consumers. Their human action specially facial expression, methods of greeting had become the tools of customers and the consumers were dependent. So, only the brand establishment through media would not be the method of impression management. The social interaction and hospitality at personal level may be changing trade of successful marketing.

Key words: Impression management, social interaction, street traders, brand, marketing.

1. Introduction: Social interaction is a human action that can be nourished by an individual to impress other in multilayered relationship in the society. The rapport and relationship of an individual in family and outside the family depend on his/her impression. It is an idea, an effect or an image created or cultivated in mind. It includes the physical appearance- from clothes and make up, facial expression or posture, etc. Such actions of an individual are referred as ‘impression management’, a process whereby individuals seek to control the image others have of them(Rosenfeld et al, 1995). Goffman(1959) has pointed out that impression management involves attempts by individuals to establish the meaning or purpose of social interaction and those action are a sort of mutual ritual that helps to smooth and control social relations to avoid embarrassment because individuals as performers play different roles to construct their social identities.

The people have multiple selves that are strategically resented to gain favour with different audiences or situations (James, 1980). Goffman stated that impression management served as a social lubricant greasing the skid for smooth interaction while in terms of the social psychologists it as serving more specific, goal oriented purposes such as gaining power and influencing others.

In present context open global marketing system is dominating the business and the urbanization welcome its essence to the society. Here the “brand” is the key issue to the consumers/customers. The tele-media, print media and other types of media have played an important role to testify the consumers’ choice. Now a day the brands indicate the social, economic status as well as social identity of an individual and their family. To set an impression people’s irrespective of their status imitate others. The impression management is controlled the needs and demands of the consumers and they are arrested by the market. The people make them brand depended.

The changing demand of the consumers has given wide scope of marketing in various forms and the marketing centres are now also the entertainment as well as recreation centre. The urban life and social relation within the family and outside the family have given immense space of the changing trend. In urban or semi urban area the shopping malls, a market place for multi-purpose plays an important role in the life of consumers. The concept is ‘pass the leisure with joy and comfort’. Further in spite of outlet of brand items in shopping malls a chain of brand shops is located in the locality.

Beyond these common retailing shops in the locality the street trading is also meeting the daily needs of people in a particular area. It is mainly for the non-brand products. These fully temporary establishments under open sky have developed without any legal consignment on the roadside. Comparing with others establishment it has no possibility to provide comfort as desired the consumers. It is mainly dominated by the business of tea, snack, eateries, vegetables and so forth. With tremendous threat of eviction and uncertainty in street trading the social interaction with consumers as impression is their key pillar of prospect and existence side by side in new brand based marketing system.

The present study has been focused to determine how the social interaction is promoting the street trading comparing with other mode of marketing while it has no brand or not selling brand items and no provision of comfortability to the consumers.

For the purpose of the study the street traders of an area of South Kolkata aside by Eastern Metropolitan Bye pass(EM Bye Pass) had been targeted where a densely populated new urban housing colonies are located alongwith all others mode of markets. The street vendors were meeting the desired daily need of a mass regularly through supplying of tea, snacks, vegetables and others. The extensive observation and interaction with both traders and consumers were the source of information. The behavior of traders and consumers were recorded and the business prospect was assessed also.
2. Who are the Street Traders?
   Total 50 street traders were sampled purposively for the study. All of them were settled after migration from rural with different social and economic background. Among them 30% was under the age group of 18-30 years and 60% of the street traders was between the age group of 30-40 years. Rest of them was within the age bracket of 40 years and above. According their gender variation 70% was male and 30% was female. The educational level was recorded that only 2% was graduate and they were male. While altogether 80%, out of which 20% female had experienced with high school education and rest of them had primary education.

3. Nature of trades:
   Among these traders 60% was operating tea stalls, eateries and 10% of them were vegetable sellers. Other portion was the fish, meat, pan & cigar and flowers sellers, etc. They were very much ordinarily operating trades without any infrastructure and others. They had no provision of comfort to the customers.

4. Quality of trading & behavior of trades:
   The street traders were dealing with both categories of consumers- regular consumers and floating consumers. Eventually their pattern of social interaction with facial expression was so much impressive that had turned the floating to regular. Their nature greeting and personal interaction including familial happiness or unhappiness were reflected when the consumers reached to the place/shop. The style of service delivery was readily to the customers and the customers were adjudged about the products. In other words the hospitality is main focal point of their interaction.

5. Consumers’ behavior towards the traders:
   The consumers were generally busy and they maintained a time bound scheduled. But they were arrested by the weakness of the interaction of the traders and their hospitality. Their satisfaction level was high which was denoted when a consumer had to wait to get the service from the particular trader. Sometimes, the traders were kept closed the shop with out any information. The customers became annoyed towards the traders. The hospitality of the traders had been binding together and it was reflected when the particular traders enjoyed the support from the consumers.

6. Prospect of the trade:
   Uncertain and unauthorized trading is a threat to the street traders. But they did not afraid about their prosperity of business. The interaction as well as their impression had become the key capital. That’s why they did not think to get the customers. In any case they change their place the consumers would visit the new place to meet their needs. Their business in terms of profit is well running through which they maintain their daily needs for comfort living.

7. Conclusion:
   The street traders are not selling any bran item and they are very much poor in terms of their infrastructural facilities required at least for consumers comfort. But their social interaction has become their impression of their trade. They have unconsciously learnt how to cash the impression management in the trade. In their impression management social interaction and hospitality based on their verbal communication and facial expression are the key tools. They become their own brand and the consumers are dependent on them. So, in present day marketing system the establishment of brand through using varied media would not be the basis of impression management. The marketing personal may learn the methods of social interaction and hospitality which the street traders are following. This system would be a new way of sustainable marketing of a product.

Reference:
COMPUTER AIDED LEARNING (CAL) CENTERS UNDER SARVA SHIKSHA ABHIYAN: ESTABLISHMENT AND FUNCTIONING

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Introduction
Education is the process of modification of behaviors. In order to enhance the effectiveness of this process, several techniques, methods and approaches have been evolved, tried out and tested from time immemorial. Both Central and State Governments and NGOs have tried many innovations at all levels of education through several schemes. One such scheme is the Sarva Shiksha Abhiyan (SSA) which is Government of India’s flagship programme for achievement of Universalization of Elementary Education (UEE) in a time bound manner, as mandated by 86th amendment to the constitution of India making free and compulsory education to the children of 6 – 14 years age group as a fundamental right.

Computers in Education
The computer brings more enriched material to the classrooms and libraries for the teachers and students. They have provided opportunity for the learner to use maximum senses to get the information. It has broken the monotony and provided variety in the teaching-learning situation. Computers being the latest, can be used both at school and higher education levels in the following areas:
- Teaching
- Diagnosting testing
- Remedial teaching
- Evaluation
- Psychological testing
- Development of Virtual laboratory
- On-line tutoring
- Development of reasoning and thinking
- Instructional Material Development

Computer Aided Learning (CAL)
Computer Aided Learning (CAL) can be defined as learning or teaching subjects like Mathematics, Science, Geography and etc., through computers with subject-wise learning packages/materials. It may include all types of Technology-Enhanced learning where technology is used to support the learning process.

To improve the quality of teaching especially that of difficult subjects like mathematics, EVS, and English, Computer Aided Learning programme has been started in 282 schools in association with Azim Premji Foundation, Bangalore. Multimedia content CDs developed by the foundation have been mapped to the Tamilnadu Board syllabi and have been distributed in the schools free of cost. The CDs are interactive and enhance the grasping abilities of the children. The programme is implemented through subject teachers who are being provided training and guidelines for effective implementation.

The Objectives of Computer Aided Learning are:
- To improve academic learning levels of children.
- To build cognitive and creative thinking skill.
- To attract out-of school children and mainstream in formal schools, to provide child-centered, joyful, interactive, self-paced learning to facilitate improvement in the attendance of children.

Computer Aided Learning (CAL) Centers
The main objective of implementation of CAL centers in the school in Tamil Nadu is to ensure and enhance the students learning with the usage of Technology. Initially CAL centers were allotted to the Selected Primary and Upper Primary Schools based on the strength of the students and teachers and the interest among the teachers to the students through computer. It was implemented in the academic year 2005-2006 to the limited and selected school in Tamil Nadu by SSA by providing two computer and its accessories and UPS units along with the 64-CD’s to teach all subject to the students of Standard 1 to 8 developed by Azim Premji’s Foundations. It has been extended from the academic year 2006-07 to all the CRC Center Schools of the concerned BRC’s. The 64-CD’s was distributed to all
the CAL centers and the CAL coordinator of the concerned BRC was in charge of those CAL centers. The Head Master/Mistress and a few among the teachers working in those CAL Center schools were given basic training in computers, maintenance of records such as Time Table, Utilization of Record, Stock Register and maintenance of computers during Minor and Major repair work. A Fund of Rs. 1000/- has been provided for the further extension electrical wiring purpose.

**Significance of Computer Aided Learning (CAL)**

With the present infrastructure, class size, availability of teachers, quality of teachers, training of teachers, etc. it is difficult to achieve all the objectives. Further, most of the teachers use Lecture Method which does not have potentiality of achieving majority of above mentioned objectives. The objectives are multi-dimensional in nature, so for their achievement multiple methods should be used in an integrated fashion. At present computers may be of some use. It is a well known fact that not a single teacher is capable of giving up to date and complete information in his own subject. Computers can fill this gap because they can provide access to different sources of information. They will provide correct information as comprehensive as possible in different formats with different examples. Computers provide online interaction facility. Students and teachers can exchange their ideas and views, and get clarification on any topic from different experts, practitioners, etc. It helps learners to broaden the information base. Computers provide a variety in the presentation of content which helps learners in concentration, better understanding, and long retention of information which is not possible otherwise. The learners can get opportunity to work on any live project with learners and experts from other countries.

The super highway and cyber space also help in qualitative improvement of Teaching Learning Process. Computers provide flexibility to a learner, which is denied by the traditional process and method. Flexibility is a must for mastery learning and quality learning. On internet many websites are available freely which may be utilized by teachers and students for understanding different concepts, improving vocabulary, developing Reasoning and Thinking, etc.

**Techniques in CAL**

A great variety of branching techniques can be adopted in CAL programs which cannot be done in a teaching machine. The course is broken up into small elements of information, which the computer presents one by one followed by small questions. If the students give correct answer, the computer gives further information. If he gives a wrong answer, depending on the answer, the computer gives alternate supplementary information. If the students give the right answer, the computer advances on the main program and gives further information and puts questions. It records all the response of all the pupils with reliability. The computer also records the time taken by individual student in responding to a question and extent of corrections in the same. All this helps the educator in planning instruction and providing relevant materials.

**Involvement of IT industry in CAL**

Training has been imparted through Azim Premji Foundation, Intel, NIIT and Microsoft free of cost. The training have shown keen interest as it is a new area for them and they have learnt to use the computer creatively in the teaching learning process. As part of the training five computer training centres are being established at 5 DIETs and one IT Academy is being established at Chennai by Microsoft to teach teachers.

**MICROSOFT**

Training to teachers directly by its own faculty members through IT Academy.

*Project: Increasing Computer literacy in schools.*

**INTEL**

Ten days training is imparted to BRTs.

*Project: Empower students to become next generation of cutting edge professionals.*

**AZIM PREMJI FOUNDATION-APF**

Training to One DIET lecturer, district co-ordinator (CAL) and one BRTE as Master trainers for four days and the Master Trainers train the teachers for three days in their respective Blocks.

**NIIT**

Training to BRTEs, District Co Ordinators to acquire sufficient computer knowledge for ten days.

Curriculum training with the partners


### Table

<table>
<thead>
<tr>
<th>S. No</th>
<th>Partners for Training</th>
<th>Curriculum</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MICROSOFT</td>
<td>Getting started with Microsoft windows XP Technology to create Digital lessons for the classroom handling, technology to create lesson plans documentation and reporting create school reports, class performance reports, administrative reports and to explore the innovative research on the world wide web</td>
<td>10 DAYS</td>
</tr>
<tr>
<td>2</td>
<td>INTEL</td>
<td>Learn to prepare digital lesson plan, how to plan project based learning with the pedagogy within a curriculum framework, preparing to the best evaluation tool to assess the technology best projects that would be Submitted by the students</td>
<td>20 DAYS</td>
</tr>
<tr>
<td>3</td>
<td>NIIT</td>
<td>Computer knowledge on Microsoft office-MS office, MS excel, MS PowerPoint, MS access and the innovative resources the world wide web</td>
<td>10 DAYS</td>
</tr>
<tr>
<td>4</td>
<td>AZIM PREMJI FOUNDATION</td>
<td>Training on CD S preparation and usage in CAL centers</td>
<td>10 DAYS</td>
</tr>
</tbody>
</table>

### Teaching – Learning Material

Along with the provision of hardware, attention has also been given to content and related software. In collaboration with Azim premji Foundation, Bangalore, SSA has prepared 64 CDs. A team of experts from various districts has been selected and entrusted with the work preparing these children-friendly CDs. The CDs will enable the students to comprehend their lessons easily. CDs support self-learning and self-evaluation and that help in motivating the students.

### Conclusion

Computer Aided learning is emerging to be a significant component under SSA. The state of Tamilnadu has been proactive in utilizing Rs. 15 lakhs available under the innovations head for providing computer facilities to schools. Most of the government schools have been provided CAL facilities under SSA till date. The mission is very effective with public-private partnership in this area, both in terms of provision of software as well as teacher training. The mission, however, had concerns with the content being delivered under CAL and its impact on the teaching-learning process. The importance of computers and other forms of educational technologies are important in teaching-learning processes. CAL centers under SSA are proving to be a successful step in the process of ICT integration in education. Teaching-learning activities have been very much accelerated with the aid of CAL. To conclude with, CAL centers under SSA plays significant role in this knowledge based society.

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*****
AN ANALYSIS OF EQUITY SHARE PRICE MOVEMENT OF SELECTED COMPANIES LISTED IN NSE

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ABSTRACT: The stock market has an important role in the allocation of resources, both directly as a source of funds and as a determinant of firm’s value and borrowing capacity. This study we made a study and analysis on Equity share price behaviour of selected companies listed in NSE India. The Purpose of the study is, attempted to test the equity price movements of IT, Pharmaceuticals, Banking and Automobile sectors. These are taken as sample sectors. The objective of the study is to analyze the Equity share price movement of selected companies listed in NSE, India and to analyze the movements of the high priced equity shares of four sectors for the past 3 years. Data collections are to be used in the study is secondary data. The study uses tools such as Simple Moving Average, Rate of Change, Relative Strength Index, Stochastic oscillator and Trend analysis. The Monthly share prices of above mentioned companies were taken for a period of three years from January 2009 to Dec 2011. The closing prices of share prices were taken. All four sectors registered tremendous growth in the past 3 years, and as per the analysis all these sectors companies were predicted as best to invest for better rate of return for the investors.

Key Words: Equity share price, rate of change, relative strength index, rate of return.

Introduction

The stock exchange or secondary market is a highly organized market for the purchase and sale of second hand quoted of listed securities. Of all the modern service institutions, stock exchange plays a crucial agents and facilitators of entrepreneurial progress. The National Stock Exchange (NSE), located in Bombay, is India’s first debt market. It was set up in 1993 to encourage stock exchange reform through system modernization and competition. It opened for trading in mid-1994. It was recently accorded recognition as a stock exchange by the Department of Company Affairs. The instruments traded are, treasury bills, government security and bonds issued by public sector companies. The National Stock Exchange of India Limited has genesis in the report of the High Powered Study Group on Establishment of New Stock Exchanges, which recommended promotion of a National Stock Exchange by financial institutions to provide access to investors from all across the country on an equal footing. NSE is not owned by brokers. It is a limited liability company and brokers or franchisees. Therefore NSEs’ staff is free of pressures from brokers and is able to perform its regulatory and enforcement functions more effectively. equity is the residual claim or interest of the most junior class of investors in assets, after all liabilities are paid.

An equity investment generally refers to the buying and holding of shares of stock on a stock market by individuals and firms in anticipation of income from dividends and capital gains, as the value of the stock rises. Shares or stock is a document issued by a company, which entitles its holder to one of the owners of the company. By owning a share you can earn a portion and selling shares you get capital gain. So, your return is the dividend plus the capital gain. However, you also run a risk of making a capital loss if you have sold the share at a price below your buying price. The study on equity share price movement of selected companies listed in NSE based on Analytical sampling technique. It helps in understanding the upward and downward trends in the share price movements. It becomes essential to know the performance of the company so that the investment will be duly giving returns and ensure safety of the investment. Further it helps in understanding the price behavior of the shares, the signals given by them and the major turning points of the market price.

Review of Literature

[6] Eugene F. Fama (1965) has answered the questions to what extend can the past history of a common stock price can be used to make meaningful predictions concerning the future prices of the stock? The theory of random walk on stock prices is studied with two hypotheses. They are i) Successive price changes are independent and ii) The price changes conform to some probability distribution. The data for this study consists of daily prices for each of the thirty stocks of the Dow –Jones industrial average. This study concludes that there is strong and voluminous evidence in favour of random walk theory.

Ritter (1988) analyzed the buy/ sell details of NYSE stocks over a period of 15 years from Dec 17, 1970 to Dec 16, 1985. Ritter proposed the “parking- the –proceeds” hypothesis i.e., the individual investors who sell the stocks prior to the late December for tax loss selling and they buy the shares in early January, mostly small stocks. He concluded that the ratio of stock
purchases to sales by individual investor displays a seasonal pattern, with individuals having a below-normal and buy/sell ratio in late December and above normal ratio in early January.

Chan and Chen (1991) examined the difference in structural characteristics that lead firms of different size to react differently to the same economic news. By using time series analysis they found that return difference between small and large firms could be captured by the responses of high leverage firms and marginal firms to economic views. They have made the study using the time series analysis which gives the adequate results for their study on the return differences.

N.K.liu and K.K.Lee(1997) presents an intelligent system to assist small investors to determine stock trend signals for investment in stock business. A pilot system is built providing three main categories of technical analysis theories, namely momentum, moving average, support or resist line. For novice investors, the system is associated with tutoring features and it supports analysis study of the rationale behind some system recommendations. Skillful investors can explore the various theories for the prediction by means of adjusting the weightings, combinations and even some independent variables allocated by the intelligent system. General users can therefore formulate their investment strategies upon system recommendations under different investment criteria accordingly.

Debjiban Mukherjee(2007) captures the trends, similarities and patterns in the activities and movements of the Indian Stock Market in comparison to its international counterparts. The period has been divided into various eras to test the correlation between the various exchanges to prove that the Indian markets have become more integrated with its global counterparts and its reaction are in tandem with that are seen globally. They compare the various stock exchanges based on certain parameters in order to understand the impact of integration of the financial world on the various entities within it especially in the context of globalization and increased interest in the capital markets fuelled by surging growth. However, they have tried to use the comparison method to benchmark the performance of our stock market with that of a selection of global stock exchanges on the basis of their diversity.

Objectives of the Study
 To analyze the equity share price movement of selected companies listed in nse, India.
 To analyze the movements of the high priced equity shares of four sectors for the past 3 years
 To predict the best equity share to invest among the 16 High priced company equity shares in 4 sectors(Auto, Banking, IT and pharmaceuticals)

Research Methodology
The study aims at analyzing the price movements of selected companies in nse. As the study describes the equity share price movements of the selected companies, the research design followed is analytical in nature. For equity share price movement, the monthly share price movements of the selected companies in NSE were absorbed for the 3 years i.e. 01-January-2009 to 31-December -2011. The closing prices of share prices were taken and the price movement was analyzed using various tools. For the purpose of relative strength index and rate of change calculations, closing prices of the companies in NSE and the closing value of NIFTY were taken. Data were collected from trading of equity market in NSE, various books, journals, magazines and websites. All the listed companies in the National Stock Exchange constitute the population for the study. 16 companies in four sectors (IT, Banking, Auto and Pharmaceuticals) which are high priced traded in NSE were taken on judgmental sampling basis for the study. The selected companies are
- Infosys Technologies limited
- Oracle financial services software limited
- Tata consultancy services limited
- CMC limited
- State bank of India(SBI)
- Punjab national bank(PNB)
- Axis bank limited
- HDFC bank limited
- Hero Honda limited
- Maruti Suzuki India limited
- Tata motors limited
- Eicher motors limited
- Dr Reddys labs
- Abbott India
Tools Used For the Analysis

A. Simple Moving Average
   Simple moving average that is calculated by adding the closing price of the security for a number of time periods and then dividing this total by the number of time periods
   \[ \text{Simple Moving Average} = \frac{\text{3 period sum}}{3} \]

B. Rate of Change (ROC)
   Rate of change (ROC) are simple technical analysis indicators showing the difference between today's closing price and the close N days ago.
   \[ \text{Roc} = \left( \frac{\text{Close price today} - \text{Close (periods ago)}}{\text{Close (periods ago)}} \right) \times 100 \]

C. Trend analysis
   Trend analysis is rooted in the idea that historical trading trends can give traders an idea of what may happen in the future. Forecasting technique that relies primarily on historical time series data to predict the future.

D. Relative Strength Index (RSI)
   For a 14-period RSI, the Average Gain equals the sum total all gains divided by 14. Even if there are only 5 gains (losses), the total of those 5 gains (losses) is divided by the total number of RSI periods in the calculation (14 in this case). The Average Loss is computed in a similar manner. When the Average Gain is greater than the Average Loss, the RSI rises because RS will be greater than 1.
   \[ \text{RSI} = 100 - \frac{100}{1 + \text{RS}} \]
   \[ \text{Average Gain} = \frac{\text{Total Gains/n}}{\text{Total Gains/n}} \]
   \[ \text{Average Loss} = \frac{\text{Total Losses/n}}{\text{Total Losses/n}} \]
   First RS = \( \frac{\text{Average Gain}}{\text{Average Loss}} \)

E. Stochastic Oscillator
   Stochastic Oscillator is a momentum indicator that shows the location of the close relative to the high-low range over a set number of periods. It doesn't follow price, it doesn't follow volume or anything like that.
   \[ \% K = \left( \frac{\text{Current Close} - \text{Lowest Low}}{\text{Highest High} - \text{Lowest Low}} \right) \times 100 \]

Analysis and Findings

1. Infosys Technologies Limited
   Momentum showed in negative and positive for 14 and 22 months respectively in the last 36 months (i.e., 3 years). Using 3 months Simple Moving Average, its movement for every quarter is calculated. The ROC of share price indicates that the fluctuations in the share price movements and the investor could buy the shares in the period which showed negative change, (for e.g.) in the months of February and March, etc., in 2009, and could sell the shares in the period which showed positive for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the shows sell signal.

2. Oracle financial services software limited
   Momentum fluctuates in negative and positive for 22 and 14 months respectively in the last 3 years. Using 3 months Simple Moving Average, its movement for every quarter is calculated. ROC of share price indicates the investor could buy the shares in the period which showed negative change, (for e.g) in the month of January, 2009, and could sell the shares in the period of positive change. The Trend value of the share shows it has been in the upward/positive for two years and heavy fluctuations in the third year. The RSI which shows the sell signal.
3. Tata Consultancy Services Limited
Momentum showed in negative and positive for 19 and 17 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated. The ROC of share price indicates that the investor could buy the shares in the period which showed negative change, (for e.g.) in the months of April, May, etc., in 2010 and could sell the shares in the period which showed positive change, (for e.g.) in the months of September, October, etc., in the same year for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the sell signal.

4. CMC Limited
Momentum showed in negative and positive for 11 and 25 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated. The ROC of share price pinpoints that the investor could buy the shares in the period which specifies negative change, (for e.g.) in the months of January, February, etc., in 2010, and could sell in the period which indicates the positive rate of change, (for e.g.) in the months of March, July, etc., in the same year for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 2 years and the downward trend for the last year. The RSI which shows the fluctuations in the value and shows the buy signal.

5. State Bank of India
Momentum showed in negative and positive for 27 and 9 months each in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated for analysis. The ROC of share price indicates the investor could buy the shares in the period which showed negative change, (for e.g.) in the months of January, February, etc., in 2010 and could sell the shares in the period which showed positive rate of change, (for e.g.) in the months of April, May in the same year for better rate of return on their investment. The Trend value of the share shows it has been in the down trend for the past 1 year. The RSI which shows the buy signal.

6. Punjab National Bank
Momentum has been in negative and positive for 15 and 21 months respectively in the last 3 years. Using 3 months Simple Moving Average, movement for every quarter is calculated for analysis. The ROC of share price states the investor could buy the shares in the period which showed negative change, (for e.g.) in the months of January, February, etc., in 2009 and could sell the shares in the period which showed positive change, (for e.g.) in the months of March, May, etc., in the same year for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend till July 2011. But the RSI which shows the buy signal.

7. Axis Bank Limited
Momentum fluctuates in negative and positive for 17 and 19 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement for every quarter is calculated. The ROC of share price denotes that the investor could buy the shares in the period which showed negative change, (for e.g.) in the months of January, February, etc., in 2009 and could sell the shares in the period which showed positive change, (for e.g.) in the months of April, May, etc., in the same year for better rate of return on their investment. The Trend value of the share shows the fluctuations in trend for the past 3 years. The RSI which shows the buy or hold signal.

8. HDFC Bank Limited
Momentum has been in negative and positive for 14 and 22 months respectively in the last 36 months. Using 3 months Simple Moving Average, movement of share price for every quarter is calculated. The ROC of share price denotes that the investor could buy the shares in the period which showed negative change, (for e.g.) in the months of January, February, etc., in 2009 and could sell the shares in the period which showed positive change, (for e.g.) in the months of April, May, etc., in the same year for better rate of return on their investment. The Trend value of the share shows it has been in the downtrend for the past 6 months. The RSI which shows the buy signal.

9. Hero Honda Motors Limited
Momentum reflects in negative and positive for 13 and 23 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share prices for every quarter is calculated for analysis. The ROC of share price denotes that the investor could buy the shares in the period which reflects negative change, (for e.g.) in the months of May, June, etc., in 2008 and could sell in the period which reflects positive change, (for e.g.) in the months of July, August and September in
the same year for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the sell signal.

10. Maruti Suzuki India Limited
Momentum has been in negative and positive for 17 and 19 months respectively in the last 3 years. Using 3 months Simple Moving Average, he movement of share prices for every quarter is calculated. The ROC of share price reveals that the investor could buy the shares in the period which showed negative change, (for e.g) in the months of October, November 2008 and could sell in the period which reflects positive change, (for e.g) in the months of February, March in the year 2009 for better rate of return on their investment. The Trend value of the share shows it has been in the down trend for the past 1 year. The RSI which shows the buy signal.

11. Tata Motors Limited
Momentum fluctuates in negative and positive for 13 and 23 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated for analysis. The ROC of share price denotes that the investor could buy the shares in the period which showed negative change, (for e.g) in the months of October, November, etc., in the year 2008 and could sell the shares in the period which reveals positive change, (for e.g) in the months of April, May, etc., in the year 2009 for better rate of return on their investment. The Trend value of the share shows it has been in the down trend for the past 1 year. The RSI which shows the buy signal.

12. Eicher Motors Limited
Momentum has been in negative and positive for 11 and 25 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated. The ROC of share price reflects that the investor could buy the shares in the period which showed negative change, (for e.g) in the months of October, November, etc., in the year 2009 and could sell the shares in the period which reflects positive change, (for e.g) in the months of April, May, etc., in the year 2011 for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the sell signal.

13. Dr Reddys Labs
Momentum has been in negative and positive for 13 and 23 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated. The ROC of share price reflects that the investor could buy the shares in the period which showed negative change, (for e.g) in the months of November, December, etc., in the year 2009 and could sell the shares in the period which reflects positive change, (for e.g) in the months of April, May in the year 2011 for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the sell signal.

14. Abbott India
Momentum has been in negative and positive for 16 and 20 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated. The ROC of share price reflects that the investor could buy the shares in the period which showed negative change, (for e.g) in the months of July, August, etc., in the year 2009 and could sell the shares in the period which reflects positive change, (for e.g) in the months of April, May in the year 2011 for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the investor can hold shares for the adequate period for the better returns.

15. Glaxo SmithKline
Momentum has been in negative and positive for 16 and 20 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated. The ROC of share price reflects that the investor could buy the shares in the period which showed negative change, (for e.g) in the month of March, April, etc., in the year 2009 and could sell the shares in the period which reflects positive change, (for e.g) in the months of June, July in the year 2011 for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the sell signal.

16. Sanofi India
Momentum has been in negative and positive for 14 and 22 months respectively in the last 3 years. Using 3 months Simple Moving Average, the movement of share price for every quarter is calculated. The ROC of share price reflects that the investor could buy the shares in the period which showed negative change, (for e.g) in the month of March, April, etc., in the
year 2009 and could sell the shares in the period which reflects positive change, (for e.g) in the months of November, December in the year 2011 for better rate of return on their investment. The Trend value of the share shows it has been in the upward/positive trend for the past 3 years. The RSI which shows the sell signal.

Limitations

- We cannot predict the price movements accurately but we can predict the price movements based on past data and assumptions.
- There is no guarantee that what has worked in the past may continue to work in the future.
- The study confined of only the last 3 years monthly performance of the equity shares and hence the changes taken place before the period have not been taken into considerations.
- The study considers only four sectors namely IT, Banking, Auto and pharmaceuticals.

Table Shows That Stochastic Oscillator of Top Companies in Each Sector

<table>
<thead>
<tr>
<th>Date</th>
<th>Infosys</th>
<th>P N Bank</th>
<th>Hero Honda</th>
<th>Glaxo Smith</th>
</tr>
</thead>
<tbody>
<tr>
<td>09-Feb</td>
<td>19.58035</td>
<td>6.33777</td>
<td>93.97172</td>
<td>92.21812</td>
</tr>
<tr>
<td>09-Mar</td>
<td>29.07881</td>
<td>28.67985</td>
<td>94.81378</td>
<td>66.41688</td>
</tr>
<tr>
<td>09-Apr</td>
<td>47.83009</td>
<td>44.13523</td>
<td>97.84144</td>
<td>86.2232</td>
</tr>
<tr>
<td>09-May</td>
<td>57.52303</td>
<td>88.43146</td>
<td>83.05644</td>
<td>83.7675</td>
</tr>
<tr>
<td>09-Jun</td>
<td>75.42477</td>
<td>90.0414</td>
<td>84.60722</td>
<td>78.998</td>
</tr>
<tr>
<td>09-Jul</td>
<td>98.7415</td>
<td>86.89863</td>
<td>85.68499</td>
<td>98.51754</td>
</tr>
<tr>
<td>09-Aug</td>
<td>93.94513</td>
<td>85.19115</td>
<td>77.96144</td>
<td>95.23308</td>
</tr>
<tr>
<td>09-Sep</td>
<td>92.2674</td>
<td>97.25086</td>
<td>90.9475</td>
<td>92.33209</td>
</tr>
<tr>
<td>09-Oct</td>
<td>84.77486</td>
<td>92.69388</td>
<td>82.42822</td>
<td>93.09890</td>
</tr>
<tr>
<td>09-Nov</td>
<td>94.78454</td>
<td>94.40469</td>
<td>93.78234</td>
<td>95.06523</td>
</tr>
<tr>
<td>09-Dec</td>
<td>99.38726</td>
<td>94.49604</td>
<td>93.42254</td>
<td>88.43823</td>
</tr>
<tr>
<td>10-Jan</td>
<td>86.02994</td>
<td>91.02107</td>
<td>80.66785</td>
<td>76.53029</td>
</tr>
<tr>
<td>10-Feb</td>
<td>93.50898</td>
<td>91.31048</td>
<td>97.9261</td>
<td>97.29012</td>
</tr>
<tr>
<td>10-Mar</td>
<td>88.41922</td>
<td>99.51423</td>
<td>91.08921</td>
<td>99.27411</td>
</tr>
<tr>
<td>10-Apr</td>
<td>95.08633</td>
<td>97.74974</td>
<td>87.66797</td>
<td>96.93421</td>
</tr>
<tr>
<td>10-May</td>
<td>88.15531</td>
<td>92.42424</td>
<td>89.81083</td>
<td>88.77974</td>
</tr>
<tr>
<td>10-Jun</td>
<td>95.28883</td>
<td>97.37533</td>
<td>96.92759</td>
<td>94.54453</td>
</tr>
<tr>
<td>10-Jul</td>
<td>93.44394</td>
<td>95.7495</td>
<td>81.82648</td>
<td>82.65126</td>
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<tr>
<td>10-Aug</td>
<td>89.0759</td>
<td>94.72933</td>
<td>80.28702</td>
<td>72.1414</td>
</tr>
<tr>
<td>10-Sep</td>
<td>98.32924</td>
<td>96.71571</td>
<td>84.20744</td>
<td>94.93569</td>
</tr>
<tr>
<td>10-Oct</td>
<td>87.35174</td>
<td>93.51024</td>
<td>85.11416</td>
<td>89.50974</td>
</tr>
<tr>
<td>10-Nov</td>
<td>90.9665</td>
<td>83.91955</td>
<td>92.13307</td>
<td>83.82464</td>
</tr>
<tr>
<td>10-Dec</td>
<td>99.62717</td>
<td>84.38402</td>
<td>92.96151</td>
<td>96.95789</td>
</tr>
<tr>
<td>11-Jan</td>
<td>84.61053</td>
<td>73.61111</td>
<td>69.76517</td>
<td>90.7337</td>
</tr>
<tr>
<td>11-Feb</td>
<td>79.99552</td>
<td>69.31367</td>
<td>58.96608</td>
<td>86.93945</td>
</tr>
<tr>
<td>11-Mar</td>
<td>89.51894</td>
<td>84.2307</td>
<td>66.89824</td>
<td>79.40924</td>
</tr>
<tr>
<td>11-Apr</td>
<td>76.03863</td>
<td>81.13727</td>
<td>74.92825</td>
<td>89.32888</td>
</tr>
<tr>
<td>11-May</td>
<td>71.38899</td>
<td>73.3676</td>
<td>84.28898</td>
<td>93.39918</td>
</tr>
</tbody>
</table>
Suggestions and Discussions
As far as the study is concerned, even though all 16 companies share prices are estimated to go in fluctuations in trend values, but Infosys, Oracle, Eicher and Hero Honda have registered its high price because Infosys has registered its high revenue of 8,696.00 with the net profit of 2,235.00 in dollars and Oracle Financial Services Software Ltd has allotted 3,900 equity shares of face value of Rs. 5/- each to the eligible employees of the Company. With this allotment, the paid up capital of the Company increased to Rs. 419,761,885/- divided into 83,952,377 equity shares of face value of Rs. 5/- each. TCS registered its revenue of 10,544.039 in dollars. Eicher motors and GlaxoSmithKline is predicted as the best share to invest the money for better rate of return which likely to grow upward in the upcoming financial year. It is better for the investors to hold the shares at least for the 2 years and they can able to make a better rate of returns. Hero MotoCorp Rides on Highest-Ever Quarterly Sales to Report its Best-Ever Turnover of Rs. 6031 Crore in financial year 2011. Eicher Motors Ltd have recommended 160% dividend on the equity share capital (Rupees 16/- per share). So that the dividend increased to 11%

Investors must also take into account various factors like government of India budget, company performance, political and social events, climatic conditions etc. before any decision is made. The scrip should also be fundamentally good. Therefore, it’s advisable for a trader or investor to make technical analysis of stocks for better return of investments

Conclusion
Today, the health of stock exchange is solely dependent on the pattern of investment by the investor. As the financial market goes through brisk changes, investors should look for right opportunities keeping in tune with the dynamics of market environment. Financial market reflects a country’s economic growth as they supply necessary financial inputs for the development of the country. Technical analysis gives investor a better understanding of the stocks and also gives them right direction to go on further to buy or sell the stocks. Therefore, the small investors and traders should not blindly make an investment rather they should analyze using the various tools to check if the scrip is technically strong.

References

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The problem of women’s development, therefore calls for sincere and dedicated efforts from the whole society, planners, administrators, philanthropists, social and educational workers. All the governmental and non-governmental organizations and developmental agencies need to work towards the development of women.

Development of women is directly and indirectly related to national development. The effective management and development of women such as abilities, skills and other potentialities are of paramount importance for the economic development of the country. According to World Bank Report, the development of women yields important inter-generational benefits and productivity gains in future. Raising better employment opportunities for women raises the status of the families and derives economic and social progress.

Unfortunately, women who constitute fifty percent of the population have long been neglected in their role as beneficiaries in the process of development. They are lagging behind socially, politically and economically in society. Women’s position in employment, earnings, education health status and decision making has not shown much remarkable improvement.

The involvement of women in the economic and social development process in the country which has remained comparatively neglected area attracted the attention of the planners and economists in a big way since the United Nation’s Declaration of Women’s Decade (1974-85) basically aimed to end the existing discrimination towards women practised in varying degrees throughout the World Meet discussing with the state government the safety of women tourists as a reaction from the fear that such incidents will tarnish India’s image. If one investigates the Prostitution houses, many women were cheated either forcefully pushed into brothels or deceived by their lovers.

Importance of women’s Education and Employment:-

The importance of Women’s education in the development of society is well known and widely accepted. It develops women’s personality, enriches them and adds to their awareness and self-esteem. It generates new and innovative ways of thinking. Education not only develops women’s personality and awareness but also their productive capacity. For women in the workforce, even a little education greatly increases their earnings. A study conducted by National Sample Survey Organisation reveals that technically trained literate women earn three times than those of literate women.

Attempts towards Development of women

In the nineteenth century, Raja Ram Mohan Roy was the first Indian who initiated Social Reform Movement and made people aware of the malpractices associated with ‘sati’ customs. With Lord William Bentick’s cooperation ‘Sati’ practice was declared illegal in 1929. Raja Ram Mohun Roy was also against the social evils like early marriage, polygamy and also supported the remarriage of widows and women’s property rights. In 1828, he founded Brahma Samaj for social reforms. Ishwar Chandra Vidyasagar was a great reformer. He attacked early marriage, polygamy and illiteracy among females. He was instrumental in passing Hindu Widow’s Remarriage Act on July 26, 1856. B.M. Malbari was against early marriage and widowhood. It was with his efforts that the Age of Consent Act 1881 was passed.

The names of Raja Ram Mohan Roy, Ishwarchandra Vidyasagar, B.M. Malbari and Swami Dyananda were ranked first and foremost for advocating the cause of uplifting of women in India. Other notable social reformers are P.C. Banerjee, M.G. Ranade, Mahatma Phulay, Lokhitwadi, Durgaram and others who raised their voices against unjust practices. Swami Dayananada, Vivekananda and Gopala Krishna Gokhale made great efforts for the upliftment of women. Wopal Krishna Gokhale made great efforts for the upliftment of women. Important reforms made with the great efforts of these social reformers during the nineteenth century included abolition of ‘Sati’ and ‘child marriage’, removal of restrictions on widows remarriage and provision of educational opportunities for women. During the years of freedom struggle, the process of emancipation of women gathered momentum under the leadership of Mahatma Gandhi.

Initiatives towards Women’s Development through National Plans:-

Realising the importance of development of women, Government of India after Independence enshrined the principles of gender equality and justice in the Preamble and number of other legislative gal measures that were initiated towards this end. In 1992, the National Commission for Women was set up to monitor the matters relating to constitutional and legal measures and safeguards provide for women. Further seventy third and seventy fourth Constitutional Amendments Act 1992 provided
reservation of one third of all seats and posts of Chairpersons of both rural and urban for women in institutions of local governance. Recently the United Progressive Alliance Government has progressive Alliance Government has promised one-third reservation for women, in Vidhan Sabha and Lok Sabha.

For improving the educational status of women, Government has adopted number of measures through its various Commissions, Committee on Women Education (1959), new schemes like Condensed Course for adult women and Bal Sevika Training Programmes were launched. Incentive schemes, such as providing free text-books and scholarships for girls, were started. Further, to promote enrolment and retention of girls in schools in backward areas, schemes like free uniforms and attendance ‘scholarships’ were introduced. Other policy initiatives in this regard include National Education Policy (1967-68) and National Committee on the Status of Women (1974). The National policy on Education Policy (1986) gave overriding priority to the removal of female illiteracy and laid emphasis on women’s participation in vocational, technical and professional education. The National Literacy Mission was set up in 1988 with the goal of attaining full literacy.

The Globalisation has the imminent danger of displacing a large number of self employed women also with the removal of all the quantitative restrictions on the imports of different commodities, the self employed women groups, especially in the formal sector, have started facing competition from the low priced imported consumer goods which are invading the Indian market. Thus Globalisation has opened up new challenges for the realization of the goal of women’s empowerment.

The Socio-economic and politico-legal changes that have taken place during the last three decades have definitely brought about perceptible changes in the status of women in the country. Some of these changes such as rapid increase in female life expectancy, literacy, employment, participation at grass root level democracy and increasing awareness about rights etc. have been strongly in the positive direction. These changes will definitely improve the status of women. For example the life expectancy of females at birth has increased to 62 years, the female infant mortality rate has come down to about seven per thousand live births and birth rate has fallen to about three children per woman.

The increase in literacy rates over the last decades indicated India’s progress in education. Female literary rate in India has increased from thirty nine percent in 1991 to fifty four percent in 2001. Now women’s enrolment at graduate, post graduate and professional degree level constitutes 39.8 percent, which was 33.2 percent during the last decade. This clearly indicates increasing women’s participation in higher education. Moreover, girls outperformed boys in most of the states in all the courses.

On the socio-economic front, the Central Social Welfare Board was set up in 1953 during First Five Year Plan period which was given the responsibility for promoting and developing welfare services for women and children. The subsequent five year plans continued to follow the same welfare approach and the Government for women welfare adopted umpteen measures. The sixth Plan document included a chapter on Women’s Development. In 1985, a separate Department for Women and Children was set up in the Ministry of Human Resource Development.

The seventh plan (1986-91) operationalised the concern for empowerment articulated by the International Decade for women. The Eighth Plan, regarded women as equal partners in development process, marks a progress from the goal of development to that of empowerment of women. The ninth Plan (1997 – 2002) identified the urgent need to review the existing policies and programmes designed for the empowerment of women. The Tenth Plan approved aims at empowering women through translating the recently adopted National Policy for Empowerment of Women into action and ensuring survival, protection and development of women and children. Keeping in view the role of women in National Development, the allocation to the Department of Women and Children had been enhanced to Rupees Thirteen thousand seven and eight crores during the Tenth Five Year Plan.

Women’s Participation in Personal Decision Making :-

National Family Health Survey II data on the degree of autonomy and independence enjoyed by women for certain variables or on matters pertaining to their daily lives revealed that every tenth (9.4 percent)women in India is not involved in any of these decisions.

It has been revealed that the State of Punjab scores highest in almost all variables except in case of the decision to visit friends and relatives. The percentage of women who do not need permission to visit friends and relatives is the highest in Kerala.
Women’s participation in Politics:

No doubt, women’s participation in public decision-making is gradually improving in India but in political decision-making, they still have very low space. In the last eight general elections, the percentage of women voters has been ranging from 51 to 59 percent. In the Thirteenth General Election, out of 296 million women electors, 56 percent participated as voters. Among contestants, female constitute a smaller number as compared to men. The Fourteenth General Election (2004) provides ample evidence of the same. Females constitute one hundred and forty seven, a very small number among all contestants.

Women’s representation in Rajya Sabha and in Lok Sabha is extremely low. In Rajya Sabha there has been a low representation of women. The number of women members of Rajya Sabha was 14 (5.8%) in 1970 which has reached up to 38 (15.5) in 1991, but in 1998, the number of women members were 18 (7.3) only. Similarly in Lok Sabha, the number of women members were thirty nine (7.2 percent) in 1991 which has reached up to forty eight (9.02 percent) in 1999. During 2010, National Ruling Congress party headed by Dr. Manmohan Singh introduced the women’s reservation bill at the Lok Sabha and it was passed amidst huge cry of men at the Parliament, whereas the same was defeated at the Rajya Sabha.

Men speaking about ‘Equality’ resist the society to give equality to women. The proposal of giving thirty three percent representation to women in the Parliament and in the State Assemblies is not put in force due to the resistance of male chauvinists. The women in power do not care to promote women. Today, In-laws are playing crucial part in dowry harassment and in breaking marital harmonies. If every woman vows not to receive dowry, the lives of women in our country will not end in dowry deaths. All these require women education from the root of the society. Women should be made aware of their freedom to live and their freedom to bring up themselves and their children. Woman as a loving daughter, but as a better half to a man, worshipped as a mother shall be treated with due regard to have a better society and thereby for a “BETTER INDIA”.

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WOMEN IN EDUCATIONAL ADMINISTRATION WITHIN DEVELOPING COUNTRIES-A GENDER PERSPECTIVE

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ABSTRACT: This paper seeks to set the stage for the exploration of female leadership in educational systems within developing countries by reviewing the current research on women in educational administration within developing countries and suggesting future directions for further research on this subject in non-western countries. The paper is based partially on a systematic review of 13 English-language papers that have been published in peer-reviewed journals in educational administration, gender studies in education, and comparative education. The review points to particular barriers to women’s career advancement in educational systems within developing countries (e.g. strong family obligations, low levels of girl education, majority of men in teaching positions), unique career experiences (e.g. the important role of the father), and to the adoption of “androgynous” leadership style by the few women administrators in these countries.

Future directions for further exploration of this area of study are suggested (e.g. adopting a different theoretical view, the policy influences). Originality/value – The paper is an initial attempt to accumulate knowledge about the life and work of women administrators and educators in developing countries, an issue that has received marginalized attention in the extended research on gender and educational administration. Likewise, the paper provides researchers with suggestions for new research directions of high importance to the understanding of women administrators’ lives and work in different cultural settings.

Introduction

The knowledge base in educational administration has developed, mainly, in Anglo-American countries, and studies conducted in educational systems within developing countries have usually been marginalized in the discourse of the field (Dimmock and Walker, 1998, 2005). A similar trend has characterized the research on women in educational administration. In this sense, we know very little about the lives and careers of women in educational administration within developing countries. Given the dissimilarities between developing and developed countries in terms of cultural and social contexts, the structure of educational systems and social perceptions of gender, the current paper sets the stage for the exploration of female leadership in educational systems within developing countries. Specifically, as cultural contexts impact principals’ and teachers’ sets of attitudes, values and norms for words Leadership, Women, Developing countries, Career development behavior (Dimmock and Walker, 1998; Heck, 1996), To this end, the paper commences by a brief outline of the research on women in educational administration within developing countries. Then, it reviews the very few papers written in the English language about women in educational administration within developing countries, most of them in developing countries that have been experiencing rapid modernization and “westernization” processes in recent years. The last part of the paper suggests future directions for research on female educational leadership in developing countries. This is not to say, however, that there is a coherent and clear definition of “developing countries.” In fact, even though these countries share some similarities, they have many differences in terms of culture, political system, economy and religion.

Before reviewing the current knowledge on female leadership both in developing and developed countries, there are two questions to post. First, are there enough women in educational administration or leadership positions within developing...
countries to justify the setting of a new research agenda? Second, assuming that the answer to the first question is positive, why is it important to study women in educational administration within developing countries, and to whom is such research likely to be useful?

Few women in leadership positions today, but more in the future Looking at the parts of the world referred to as “developing countries,” the picture we get seems to be very complex, manifold and heterogeneous. Broadly speaking and for the purpose of analysis, one can categorize the countries into two groups: those that are more economically developed and those that are the least developed. Rapid modernization processes appear to have much influence upon employment opportunities for women and their professional development that might increase the number of women in teaching and educational administration within many developing countries. In East Asia, for example, the industrial boom from the 1980s onwards opened up additional employment opportunities for women, even though most women are needed in the lowest paying occupations.

Modernization and industrialization historically have necessitated access of more women into education in many western countries, because of the high-technology society’s needs for professional employees. Indeed, in more economically developed countries there are high rates of females in primary, secondary and higher education (Handelman, 2000; Jayaweera, 1997; Sidani, 2005). It was argued that the higher the women’s levels of education, the relatively higher incidence exists at percentages of women in professional and technical occupations (Jayaweera, 1997). Even in the poorer developing countries (e.g. Cambodia, Bangladesh, Bhutan, Nepal, Uganda, Zambia), where many of the school buildings are in dire need of repair, the class sizes are large, there are no textbooks, and teachers are ill-trained (Postlethwaite, 1998), there are political and social processes that have some impact upon changing women’s situations at work. Contemporary women’s movements in India, Lebanon, Egypt and Kenya, for instance, have challenged the male-dominated structures in their countries and gender-inequalities. They strived for the introduction of gender-sensitive policies and programs so as to improve the lives of women in their countries (Mikell, 1997; Obanya, 1995; Patel, 1998; Sidani, 2005).

Concurrently, many countries like Nepal, Somalia, India, Yemen, Bangladesh, Morocco, the Gambia and Pakistan have developed large-scale programs for increasing the numbers of women teachers, with varying degrees of success (reported by Sales, 1999). A major aim in Pakistani education by 2005 is gender equality and the empowerment of women (Kirk, 2004), and Kenyan women have made measurable strides towards women’s equality in the political realm (Nzomo, 1997). Interestingly, despite the many cultural barriers in both groups of nations, women have managed to win seats in the Parliaments of some countries (for example, Uganda, Kenya, Philippines) (Brown and Ralph, 1996; Mikell, 1997). Women hold higher percentage of professional positions in Latin America (Handelman, 2000), and have access to management positions in many occupational sectors within developing countries in Africa and Asia (Jayaweera, 1997; Van der Boon, 2003). Similar feminization trends have been documented in some educational systems within developing countries. Women hold 14 percent of school administrator positions in Korea (Kim and Kim, 2005), 13 percent of the Chinese principalship positions (Suet al., 2000), half of the primary and secondary school principalship positions in Trinidad and Tobago (Morris, 1999), and the majority of senior school management roles in Singapore (Morris et al., 1999). Even in Muslim countries like Turkey (Celikten, 2005) and Pakistan (Kirk, 2004), there are reports of women in educational leadership positions, although in Pakistan, the power is in the hands of the school boards that are held by men only (Kirk, 2004). To sum up, economic, social and political processes in many developing countries reject a potential trend towards greater numbers of women gaining administrative positions in school.

First, given the different social, cultural and national contexts in which women educational leaders in developed and developing countries live and work, there is a need for further research that explores the particular context, career experiences
and leadership of women in educational administration within developing countries. Morriss et al. (1999). The environment and the processes leading to educational leadership positions are very different for Singaporean women and it may be that this affects their style of management. In addition, it is likely that there are cultural differences that affect the ways that both men and women operate.

Understanding the state of women in educational administration within developing countries may re-explore and challenge the epistemology and methodology of existing theories and concepts in the study of female leadership, as well as provide policymakers with greater insight into female leadership particular to developing countries. Too often we have evidence of unsuccessful efforts to transfer fashionable Anglo-American theory, policy and practice through the work of international development agencies and consultancies that are not compatible with the contexts and needs of the developing countries (Crossley, 2000). Recruiting and retaining women teachers have become priority strategies for improving girls’ education in many developing countries (Brown and Ralph, 1996; Fentiman et al., 1999; Kirk, 2004; Sales, 1999). This implies that understanding the particular barriers to women’s advancement or access into educational leadership positions in developing countries might contribute to the development of career strategies for career promotion that are compatible with the organizational and social contexts of women in these countries. Exploring the lives and careers of women principals in developing countries that “allow” women to be involved in leadership positions in school could, in addition, tell us a lot about the experiences these women undergo on their way to leadership positions.

The literature about women in educational administration

The research on women in educational administration within developed countries has become a significant field of study since the 1980s. Over time, researchers have addressed issues of external and internal barriers for women’s progress in school career structure (e.g. Acker, 1989; Blackmore, 1999; Evetts, 1994; Shakeshaft, 1989; Young, 2002), and the differentiation between the attitudes and behaviors of men and women in leadership (e.g. Dunlap, 1995; Fennell, 1999; Hall, 1996; Skrla and Young, 2003). Another category of questions, emerging mainly during the 1990s onwards, referred to the lives and careers of women principals (Blackmore, 1999; Coleman, 2002; Evetts, 1994; Hall, 1996; Lad, 2000; Oplatka et al., 2001).

Barriers to women’s career growth

A variety of studies have suggested various explanations to account for the low representation of women in leadership positions in educational systems of developed countries. Among these are cultural scripts that identify feminine attributes as contributing to ineffective leadership (Al-Khalifa and Migniuolo, 1990; Blackmore, 1999; Curry, 2000), latent discrimination (Coleman, 2002), and male dominance in educational administration, which, in turn, hinders the leadership opportunities of many women (Limerick and Lingard, 1995; Shakeshaft, 1989). For example, male dominance of key leadership positions is likely to lead to recruiting new principals who resemble their sponsors in attitude, philosophy, deed and appearance, hobbies, club membership, i.e. men (Hill and Ragland, 1995).

Women’s under-representation in leadership positions may be attributed also to women’s own decision not to apply for promotion in education for a variety of reasons, such as lack of necessary aspirations, lack of awareness of the promotion system and a lack of confidence that they will succeed, gender-based socialization, fear of failure, and lack of competitiveness (Acker, 1989; Coffey and Delamont, 2000; Limerick and Anderson, 1999). Mother support was found to help successful women principals overcome these kinds of barriers in England (Coleman, 2002).
Male and female leadership styles

As far as differences between men and women in leadership positions were concerned, two contradictory views appear in the literature. While some researchers found no substantial evidence for gender differences in educational leadership (Jirasinghe and Lyons, 1996; Mertz and McNeely, 1998), others argue ardently that men and women differ in the ways they manage people, although the differences are not considered to be innate, but, rather, the outcome of different socialization patterns (e.g. Evetts, 1994; Hall, 1996; Marshall, 1995; Oplatka and Atias, n.d.; Regan and Brooks, 1995; Shakeshaft, 1989).

Female principals commonly tend to adopt a democratic, participative style, to pay much attention to vision-building for the school, to spend much time in change initiation and implementation, and to be attuned to curriculum and teaching issues (Acker, 1989; Eagly et al., 1992; Fennell, 1999; Marshall, 1995; Oplatka, 2003; Shakeshaft, 1989).

Female administrators’ career and lives

While the debate about gender differences in leadership styles has been hotly contested, it is less difficult to show gender dissimilarities in the experiences of principals, simply because men and women are influenced differently by their gender during childhood, with family issues and throughout their professional adult lives. Women principals in many developed countries were found to attain their positions either “by chance” or following clear career planning and aspiration into principalship. Mertz and McNeely (1998) revealed that women in the second pattern tended to be more assertive in their behavior than those in the first one, were far less accepting of defeat and had more confidence in themselves and their abilities. Similar characteristics were found among women principals in Israel (Oplatka et al., 2001). It is likely that one of the major factors affecting the differences between male and female’s career experiences is family responsibilities (Coleman, 2002). Women educators career and leadership in developing countries. Four major themes have emerged following the review of the very few papers that focus on women in educational administration within developing countries: barriers to career advancement, strategies used by women to access leadership positions, female principals’ leadership style, and career experiences of women in educational administration.

Barriers to women’s career advancement

Six major barriers to women’s advancement to leadership positions in school are recurrently discussed by researchers in different developing countries. Some of the obstacles are well-known to researchers in developed countries (e.g. gender discrimination, women’s low self-confidence, or job-family conflicts). Others, however, seem to be particular to women in developing countries (e.g. cultural background, low girls’ participation in primary education, majority of men in teaching positions).

Gendered cultural and social values.

A major obstacle to women’s access to leadership positions in school refers to the cultural and social structure that bifurcates the society into male and female arenas. Entrenched norms inscribed in the culture of many developing countries (such as, Turkey, China, Islamic countries) attribute certain tasks and spheres of responsibility to each gender, assuming that one must behave in accordance with the social expectations of one’s gender (Celikten, 2005; Su et al., 2000; Sidani, 2005). Leadership positions, in this sense, “belong” to male members of the society and women should refrain from attempting to attain this kind of position. Otherwise they are susceptible to various social sanctions, such as reduced chances to marry (Cubillo and Brown, 2003). In the traditional Chinese culture, for illustration, women have always been in the submissive roles both at home and in society (Su et al., 2000). The cultural and social assumption that women are less strong than men and therefore cannot hold managerial positions is common in many developing countries (Calvert and Calvert, 1996). Schultz (1998) explains: In Nepalese...
society, women are in many cases still chained to the house, which is seen as the place where they may obtain ritual and spiritual purity. If a woman obtains this purity, which many still believe to a significant degree can only be achieved in the home, through domestic activities, then, she can evolve to the next spiritual plane, that is, can be reborn as a man.

The barriers to career advancement experienced by women in developing countries seem to be determined by specific cultural and religious beliefs and value that define femininity in terms of marriage, housekeeping and child-raising. Pakistani women principals’ lack of power illustrates this situation; in most of the non-government schools in this country the principals are women, but the power of the governing boards is predominantly in the hands of men (Kirk, 2004). Low women’s participation in secondary education. Very low girls’ participation in primary and secondary education in many developing countries makes it less plausible or many women to be able to acquire the skills, training and competencies necessary for professional and managerial positions in education. Education is seen as having little relevance to the future roles envisaged for daughters in developing countries, including South Asia (Jayaweera, 1997), Nepal (Schultz, 1998), Uganda (Brown and Ralph, 1996), Pakistan (Sales, 1999), and other countries (Dickenson et al., 1996). One woman student teacher in Nepal wrote that it is often heard that “we should not educate our daughters. They will be spoiled by education. They have to work inside home. They have to go in another’s house and do the same thing” (Schultz, 1998, p.166). In Uganda, parents’ insufficient finances to pay for their children’s education, poor physical environment (e.g. inadequate toilet facilities and dormitories), and few role-models provided by women staff contribute greatly to girls dropping out in the last year of the primary education (Brown and Ralph, 1996). In Kenya, Olser (1997) explicitly maintained that women’s career advancement is impeded due to discrimination experienced in families against girls’ education. Gender discrimination. Generally speaking, studies conducted in developing countries reveal a wide variety of discriminative behaviors towards women in educational administration. Male teachers are preferred by authorities to hold educational leadership positions in Pakistan (Sales, 1999), Uganda (Brown and Ralph, 1996), Turkey (Celikten, 2005), China (Su et al., 2000), and many Asian countries. Women and men with the same educational qualifications reach different levels in occupational status; the men having easier access to formal sector employment, managerial and technical jobs or entrepreneurship (Jayaweera, 1997). One reason for this discrimination relates to many men’s vested interest in holding onto power and authority rather than sharing it with women (Brown and Ralph, 1996), as well as men’s tendency to hire people who look, think and act like them, i.e. male teachers. Similar experiences are reported about minority women administrators in the US (Enomoto et al., 200). Women teachers in Nepal, though, are fully aware of female dehumanization on the path to development (Schultz, 1998).

Low confidence and self-esteem.

Women’s low confidence and self-esteem with respect to their management capabilities are likely to stunt women’s career advancement in school. For instance, Ugandan women who have been socialized to adopt family roles were indicated to have low self-esteem and low confidence in their abilities outside the domestic role (Brown and Ralph, 1996). Similarly, research conducted in Turkey showed that women do not apply to be principals, even when they are as well qualified as the male applicants, at least in part, because they have negative self-perceptions and lack confidence in their qualifications and experience (Turan and Ebicioglu, 2002). Jayaweera’s (1997) work was insightful in illuminating this aspect in Asian countries. He showed that gender role stereotypes in educational materials, in the curriculum and in the school environment transmit gendered attitudes towards the roles of girls and boys and engender negative self-perceptions in girls that could impede their personal development.

Too many tasks at home.

For some writers, the major barrier to women’s advancement refers to the family responsibilities that the majority of women in developing countries hold (Brown and Ralph, 1996; Celikten, 2005; Olser, 1997). In traditional societies, women are expected to be responsible for their families, including remaining close to their children, the husband, and the
extended family. In this sense, Turkish women do not desire administrative positions that mean long working hours and difficult conditions, while their husbands’ resistance obviated any career advancement (Celikten, 2005). Similarly, Kenyan women cannot take managerial posts because of the travel time involved. Likewise, heavy domestic responsibilities and husband’s resistances are identified by both male and female teachers in Kenya as barriers to career advancement (Olser, 1997).

**Female leaders’ strategies for career advancement**

The question raised in a few studies concerned the ways by which women in educational leadership positions managed to reach their position in spite of many obstacles they had to face. After all, despite the barriers women have to confront in school, some women in developing countries do secure administrative positions, as this article shows (e.g. Turkey, China, Singapore, Trinidad and Tobago and so forth). Generally speaking, the common denominator for the very few women administrators in developing nations is their strong belief in themselves, particularly their own voice, and their strong motivation to be path finders in their countries. Thus, Nepalese women teachers suggested that in order to lessen girls’ mental stress they should be taught to listen to them and not to be totally reliant on received archetypes (Schultz, 1998). Cubillo and Brown (2003) found that their women interviewees emerged as extremely self-reliant and self-motivated in spite of having faced unwelcoming, even hostile, male-dominated cultures in some of the developing countries they came from. For increasing women’s belief and confidence in their abilities, women were found to need moral support and a sense of trust from their families (Olser, 1997), as well as extensive mass educational programs coupled with conscious efforts to change traditional values (Handelman, 2000). These findings are consistent with reports on African-American women administrators indicating that family, culture and spiritual experiences in their childhood positively influenced their advancement (Bloom and Erlandson, 2003).

**The career experiences of women in educational administration**

Three major career experiences of women administrators are documented in there search on women in educational systems of developing countries. First, the family, and especially the father, has a key role in the career advancement and leadership of women in developing countries. Cubillo and Brown (2003) showed that parental support was paramount to all their respondents from nine different countries. All of the women in their study identified their fathers as a seminal influence in their early education and subsequent careers. Along the same lines, Kenyan teachers saw their own career success not exclusively as an individual achievement but as something achieved with the support of family and community on behalf of the wider community (Olser, 1997).

Second, female principals reported having difficulty facing their staff, sometimes even the female staff, as in Trinidad and Tobago (Morris, 1999) and in Turkey (Celikten, 2005). Some Turkish women principals believe that the male teachers found them threatening (Cubillo and Brown, 2003). Turkish female principals said that the most serious difficulty they faced in their jobs was the reluctance of women teachers to work for women principals (Celikten, 2005). Third, some career experiences of women principals refer to “normal” difficulties every manager is supposedly faced with. Research that examined the stress levels of female kindergarten principals in Macau, China, found that their work was moderately stressful. The areas of their work they found to be the most difficult to deal with were the recruiting of a sufficient number of students, and sustaining a balanced or surplus budget (Wong and Cheuk, 2005). These concerns were not related to their gender, but to the economic contexts of kindergarten teaching in that county.

To sum up, whereas women educators from both developed and developing countries share some common obstacles to advancement and similar leadership styles and career experiences, they differ a great deal in many respects. The cultural and social structure in which they live and work, coupled with many parents’ propensity not to send their daughters to secondary education, makes it almost impossible for women to access professional or managerial positions. Add to this women’s high level
of responsibilities for housekeeping in the patriarchal society, as well as their low representation in teaching positions, and one may gain insights into the particular barriers to career advancement confronting women educators from developing countries.

Under these conditions, it is likely that the leadership style of women principals in developing countries incorporates both “masculine” and “feminine” leadership orientation. Similar to their counterparts in developed countries, they attach great significance to their femininity and express an ethic of care, connectedness, and a sort of participative style. But, due to strong cultural scripts that glorify “masculine” ways of leading, they also adopt authoritative leadership styles and formal relations with staff and students. In addition, their career experiences (e.g. the important role of father’s support, lack of support from staff), which are strongly related to the male-dominated values in their countries, seem to be particular to this group of women principals.

Discussion and implications for future research

This paper has documented the common themes and characteristics that emerged from the research on women in educational administration within both developed and developing countries. The research to date has been concerned with documenting barriers to women’s career advancement, leadership styles and career experiences of women leaders in school. But, while there is extended research on women administrators in developed countries, the research on women administrators in developing countries is highly restricted to several areas. First, the scope and extent of research currently available, whose first purpose was to examine the lives, careers and leadership of women administrators in developed countries, is extremely limited in its quantity, methodology, location, aims and topics, even in developing countries where women do hold managerial positions in schools. Only a very few articles have been published (in English) about women’s leadership styles in developing countries, and even fewer about their lives and careers. In addition, part of the knowledge about women in educational administration was collected in studies whose first aim was not to explore women in educational administration, but rather focused on male and female principals, women teachers, or teaching as a whole.

Second, the review reveals the limitations of current knowledge about the strategies for career advancement used by the few female administrators in developing countries and their application to other developing countries. Although we know a little about the contextual features that are positively related to women’s career advancement in developing countries (e.g. family support, governmental intervention programs, self-motives), most of this knowledge has not been attained through systematic, large-scale studies. Our current data in this respect are unlikely to provide us with sufficient practical knowledge to develop programs for promoting careers for women in school that are based on empirical knowledge that has been collected in the particular context of developing countries.

Shortcomings of the current research on women in educational administration within developing countries, are “natural” characteristics of any field of study in its initial stages of development. In that sense, any attempt to move the field a stage forward needs to extend the topics, methodologies and theoretical lens with which an approach for future investigations of women educators in developing countries.

Five research agendas are suggested. One should bear in mind, though, that there are geographic differences among developing countries. Some future studies should focus, therefore, on countries with low economic development while others should focus on those developing countries that experience a rapid modernization process accompanied by growing rates of women in management in a wide variety of occupational sectors. Understanding the particular barriers/strategies to women’s advancement While the current paper pointed to three unique barriers to women’s advancement in schools of developing
countries, there are probably other barriers and obstacles that women in developing countries might face, with which we are not yet familiar.

The main research questions suggested are:

- Why are there so few women school administrators?
- How were gender inequalities created and structured within school administration, and how have they been maintained and perpetuated?

The study of these factors needs to be conducted within educational systems in developing countries as a whole, and in their contexts, otherwise, as Grant (2000) maintained, we are in danger of misunderstanding how these systems work. Thus, subsequent research on barriers to women’s career progress needs to focus both on barriers in the least economically developed countries and on developing countries that have been experiencing rapid modernization in recent years. It is likely that different barriers exist in each group of countries. Researchers may also want to consider the examination of the potential influences of climate, demographic patterns and economic circumstances on the shortage of women in principalship, as Addi-Raccah (2002) pointed to in her research on feminization processes in education. These kinds of features do not arise much in most of the systems of the developed world. In most developing countries, where there are insufficient means to guarantee even universal primary schooling, and where the growth in population can nullify every hard-won advance (Grant, 2000), such features seem to be of high relevance for the research on women in educational administration. In addition, among the possible research topics are the role of mentors in guidance, support, encouragement and facilitation of female leadership development, the influences of foreign professionals upon women’s progress in developing countries, forms of direct and latent gender discrimination in school, and the internalization of gender stereotypes and aspiration to principalship. To explore these and related areas, research could utilize wide variety of methodologies and sources, such as national surveys, census data, and literature review of contemporary conditions based on a discrete body of literature in the local language. Historical studies that focus on broad historical processes related to women and education may also be of benefit to unearth changes in women’s social position and career patterns in a wide variety of occupations.

For this reason, there is a need for research that focuses particularly on the lives, careers and leadership of female administrators and principals in developing countries. As evidence concerning women administrators in developing countries is extremely thin, suggestions for subsequent research on the way in which women administrators balance their femininity with the masculine world in which they work, the factors for their success or failure, and the profiles of women leaders seems warranted. Issues of women administrators’ decision making processes, controlling mechanisms, external relations, communicating and relationships with male teachers or supervisors are of great significance for our understanding of their unique world in developing countries.

The following questions might lead the emergent research on female leaders in developing countries:

- Do male and female principals differ in their behaviors and actions in school?
- What are the qualities and skills associated with female administrators in schools?
- How should women lead?
- How do teachers in developing countries perceive male and female in leadership positions?
- Do female leaders nurture teachers?
- How do men react to being managed by a woman?
Do female principals have to lead like men in order to be considered a good principal?

Do female leaders initiate new educational programs or do they maintain the status quo?

Career issues, like career entry and career aspirations (i.e., why women decide to enter the field of educational administration and how they come to this position) or commitment, may provide insight into the unique induction stage of women principals and administrators in developing countries. Researchers may be curious to understand what we really know about female administrators in schools of developing countries, and what we can say about their lives and career development. They may want to raise questions such as:

- What is a woman principal’s career story?
- What are the historical, demographic, psychological and family characteristics of women who are school administrators?
- How do female leaders balance family and work demands?
- Who is likely to offer help and support on the way?

In addition, future investigations need to highlight women’s leadership abilities and contribution to education in the developing countries where women have some representation in leadership posts. Personal profiles of women-pathfinders in educational administration should become models for other women in developing countries. Another emergent issue in research into women principals’ career lives concerns sexism in the workplace. For example, Coleman (2002) noted that almost half of the women secondary heads in her study reported having experienced sexism in their role, mainly from peers. Some women principals in Evetts’s (1994) career history study had kept a log of sexist comments, harassment and embarrassment that they had experienced. Researchers may want to explore the scope of these distressing phenomena in developing countries.

To explore the lived experiences and leadership of women administrators in cultures that are different from those of Anglo-American nations, it is recommended to underpin the study on a wide variety of perspectives (e.g., post-structuralism, post-feminism, post-modernism, or standpoint theory). For example, in a study that explored the careers of African-American female principals, the authors used standpoint theory that focuses on the production of knowledge that is emancipatory, anti-oppressive, non-hierarchical, negotiated and politically focused (Bloom and Erlandson, 2003). This view may shed light on many issues of women whose life experiences and careers are entirely different from those of many women in the western world. Similarly, the documentation of women teachers’ fantasies in developing countries might help explore their dispositions concerning stability and change in education, as Tubin (2004) showed.

Analyzing governmental policy towards women in administration

One factor affecting the representation of women in leadership positions in any country is the governmental policy toward gender equality and equity in the public sector. Using content analysis methods to analyze particular artifacts, including textbooks, reports, newspaper materials and policy drafts may yield some substantial knowledge regarding the various forms by which governments establish the position of women in the labor force. Researchers may be interested in examining the manner by which governments provide career opportunities for women, increase their chances to access leadership position in education, or in contrast, diminish their motivation and aspiration for career advancement and growth. Possible questions for future research are:
Do governments promote women’s career advancement in education?
How do they portray the ideal role of female teachers?
Are they aware of sexist behavior?

Conclusion

Future research on women in educational administration within developing countries should be directed at generating an international database that would help policy-makers to identify the “best” way to promote women in educational institutions. Only when we have sufficient and profound knowledge about women leaders in developing countries we will be able to develop as universal a model of female leadership as possible and argue for theoretical background that is underpinned by multi-national investigations and insights.

References


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PROBLEMS OF ELDERLY WOMEN: NEED FOR INTERVENTIONS

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ABSTRACT: Elderly problem is a major problem across the world, as the elderly population is growing due to increase in health facilities. Among the elderly people, elderly women are most vulnerable group of the society suffering from socio-economic and health problems. The extents of problems of elderly women are more if they are widows. The paper analyzed the statistics of the elderly population and discussed the problems faced by elderly women in India. It is found that there is no particular social welfare scheme available for the betterment of health problems of the elderly women. Hence, the paper concluded with the remarks that there is need for health scheme for the elderly women.

Key words: Elderly, health problems, Vulnerable, health schemes

INTRODUCTION:

Ageing of populations and extension of life are significant by-products of the demographic transition. Ageing of population is primarily the result of two factors—reductions in fertility and mortality. The reduction in mortality rates implies a longer life span for the individual and the reduction of fertility implies a decline in the proportion of the young in the total population. Thus an ‘ageing population’ means a population characterized by higher average life expectancy and increasing proportion of the elderly in the total population (Siva Raju, 2000). “Ageing” compasses all the biological changes that occur over a lifetime. “Getting old”, on the other hand, is a social concept and slightly related to the biological processes of ageing. The social context of ageing, according to the Dharmashastra, is when wrinkles and grey hair appear in a person and a grandson has also appeared in the house. Then it is considered time for the householder to retire. Thus, the Brahminic concept of old age emphasizes conclusion of and, therefore, disengagement from family life cycle responsibilities (Murli Desai, 2000).

Until the early 1980s, developing countries perceived that population ageing was an issue that concerned the developed countries only. But as a consequence of rapid decline in fertility, and a parallel trend of increasing life expectancy, the developing countries have become increasingly aware of a range of problems regarding ageing. In the developed countries, elderly accounted for 17 per cent of the total population as compared to 7 per cent in the developing countries. However, in terms of absolute figures, out of the total 490 million world’s elderly population, 282 million (i.e.57.6%) live in the developing region. According to the United Nations Projections, in 1980, the elderly population of the world (60 years and over) was approximately evenly distributed between developed and developing countries, but by 2025 about 71 per cent of the 1.200 million would reside in the latter (ESCAP, 1991). In the developing countries generally, while a general population will increase by 95 per cent between 1980 and the year 2000, a 60 plus population will rise by about 240 per cent (Sinha, 1991). Although the proportion of older persons in the developing countries is still generally quite modest, the overall number is large.

During the next decade, the world, as a whole, is expected to gain around 100 million elderly people. Three-quarters of this increment will be contributed by the Third World, with China and India contributing to over two-fifths (42 per cent) of this gain (Siva Raju, 2000). Much of the research studies were already conducted on ageism and elderly people, but majority of these studies were concentrated their studies only on the elderly men. Further, only a few of the studies were conducted on the elderly women. There are innumerable problems for the elderly women, that is loss of social status, economic insecurity, lack of respect in the society and family, and if widow, the worries, depression is more causing more health problems. Thus, the problems of older women are not so much a product of the ageing process per se as they are a product of the subordinate status of
women throughout their life cycle. It is also recognized that the problems of ageing are increasingly women's problems. Compared to old men, older women are likely to be more in number, widowed, care givers to other relatives, poor, ill, and, therefore, vulnerable to abuse and institutionalization.

Desai's (1997) case studies of institutionalized elderly women showed that the elderly women's status changed not just due to chronological ageing but when they lost their husband/men. Until their husband/men were alive they had a place to live. Even for women- who earned more than their husband, a house was not an inalienable resource, to call her own in old age. Thus widowhood leads to social, emotional and financial insecurity. The elderly women, who generally do not have the ownership right to family housing or property, and ill, now tend to continue the household duties in order to prove useful to their family. Increasing number of elderly women experience neglect and indifference from their children. High level of illiteracy, a lack of remunerative occupation as well as negligible awareness about legal and economic rights among elderly women, in comparison with their male counterparts, make elderly women more vulnerable than elderly men, to neglect and abuse by their sons and daughters-in-law (Shah, et al, 1995). Hence, it is generalized that the elderly women have pathetic situation in their family as well as in society. Further, majority of the elderly women living in slum areas are illiterate and depends on others for their basic needs as they have no economic security.

Elderly population refers to old aged people that are the people of above 60 years. Old age is a normal, inevitable and universal phenomenon. Literally, it refers to the effects of age. Commonly speaking, it means the various effects or manifestation of old age. In this sense it refers to various deteriorations in the organism. After attaining the age of 60 years, human being start losing his/her energy and as a result, health problems are started, both physical as well as mental problems makes the elderly people to get suffer in the life.

AGED PEOPLE: STATISTICAL ANALYSIS

In India life expectancy has gone up from 20 years in the beginning of the 20th century to 62 years today. Better medical care and low fertility have made the elderly the fastest growing section of society, whereas in France, it took 120 years for the grey population to double from 7 % to 14 %. But in India, the grey population has doubled in 25 years. Statistics revealed the estimated population of the elderly in India as under. 77 Million Elderly population (projected to 177 Million by 2025)90 % with no Social Security v 30% of older persons live below the poverty line 33% of older persons live just marginally over the poverty online 80% of older persons live in rural areas. 73% are illiterate, and can only be engaged in physical labor. 55% of elderly women are widows. There are nearly 200,000 centenarians in India (Age Care Forum, 2007).

- Elderly population is the fastest growing section of society in India due to:
  - Increased life expectancy
  - Advancements in medical / health technologies
  - Better nutrition
  - Gradual fall in mortality rate
  - Low fertility rates
  - Increased awareness

Solution to this ever-growing chasm lies with the society and the support groups. The support groups define the gaps, the needs and views for future responses to abuse, care and prevention.

From 1901 to 2025: 12 million to 177 million
- 1901 - 12 Million elderly
- 1951 - 19 Million elderly
- 2001 - 77 Million elderly
- 2025 - Projected 177 Million elderly

On the basis of Census of India 1991, Chaubey and Aarti (1999) provided the following characteristics of the Elderly population in India:
1. 78.1% of the elderly population lives in rural areas of India.
2. Percent decadal growth rate has increased from 5.75 in year 1901 to 31.31 in the year 1991.
3. There are 930 females per thousand elderly males in India.
4. 63.09% of elderly population (aged 60+) is married.
5. Percentage of widowed males is 15.47% and widowed females are 54.04% in India (population aged 60+).
6. Literacy rate for persons aged 60+ is 27.15. (Males Literacy rate is 40.62% and females 12.68%)
7. Work Participation rate for the elderly population aged 60+ is 39.1% (work participation rate is defined on the number of workers as percentage of population.
8. Expectation of life at birth is 60.3 years, at the age 60 year = 16.2, 65 = 13.2 and at 70 = 10.6.
9. Total old age dependency ratio in India is 12.19. (Old age dependency ratio is defined as the number of persons aged 60+ as a percentage of persons aged 15-59).

It is surprising to note from the above statistics that about the widows population that is female elderly population consists of 54.04% of the elderly population. Elderly Women, if widow faces several problems such as lack of status in the family as well as in society, loneliness, poor economic status, lack of social recognition, depression, severe health problems, lack of care from the family members, etc. Even though the widows' population is major in the elderly population, till now no considerable study was made to know about the socio-economic, health and psychological problems of the elderly women.

Of course, there are vast number of surveys and studies that have been already done on general ageing. It is also noted that during the old age the women rather men to a major extent faces the different problems. Such specific problems of the aged women are not being considered till now in the sociological studies. According to the National Human Development Report (2001), an aspect of the aging problem, on which some data is available relates to the widows among the elderly females. The number of widows among the elderly is about three and a half times more than the number of widowers. While the percentage of widowers among the elderly males was about 15 percent, the widows among the elderly females were as high as 54 percent as per the 1991 Census.

More importantly at present, on an average, women of age 60 years are expected to live 1.8 years longer than males. This, coupled with the average age difference between men and women at the time of marriage, results in a situation where women surviving their spouses are likely to live about 6.5 years as widows. This is about one-tenth of the prevalent female life expectancy at birth and, more importantly, about 40 per cent of life expectancy of an elderly woman in the country. Thus, the time spent by the elderly women as a widow is considerable. The women in the States of Karnataka, Kerala, Maharashtra and West Bengal are likely to spend more years as widows than in other States, as differences in the male-female marriage age in these States are much larger.

Aged women are called as 'wet leaves' in Japan, 'kankeri' (second childhood) in China and 'Shastipurthi' in Sanskrit (Gowry, 2003). In India older women are seldom part of the development agenda. Their contributions are slighted and discussions of their situations are usually afterthoughts. Their work is not considered as economically productive and their contribution throughout their lifespan is not quantified or valued (Ramachandran and Radhika, 2006).

**PROBLEMS OF ELDERLY WOMEN:**

Old age is a critical phase in life as much as childhood or adolescence and hence requires special consideration. Old age is considered as second childhood, because both the aged and the child have to depend on others for many of their personal requirements. The major problems of old age could be devaluation in status and income, deteriorating health, retirement, dependency, fear of death and shock of growing old. Old age should be tranquil as childhood should be playful. However, nobody prefers to have old age for a longer time, as aged people are looked upon as useless, non-productive, rigid and
burdensome. This leads to various problems like cultural rejection, self-rejection, anxiety and panic, psycho-physiological exhaustion, isolation and unrealistic pre-occupation (Shah and Joshi, 1996).

As revealed by medical science, human ageing is characterized by progressive decline (referred to as homoeostenosis) in the homoeostatic reserve of every organ system. This phenomenon is usually evident by the third decade although, the rate and extent of the decline may vary. The decline of each organ system appears to occur independently of the changes in the other organ systems and is influenced by diet, environment, personal habits and genetic factors. The elderly suffer from health problems due to the ageing process like - senile cataract, glaucoma, nerve deafness, musculo-skeletal changes affecting locomotion, failure of special senses and poor reflexes (resulting in accident proneness) and enlargement of prostate in males.

The mental changes include impairment of memory, rigidity of outlook and dislike of changing trends (especially socio-cultural norms). The social problems have been caused by the break-up of the joint family system, the nuclearization of families, housing shortages in urban areas and the increasing participation of women in the workforce. Women continue to be the health care providers for the elderly at the household level.

According to the medical practitioners, old age depression is a very rampant problem today, and the sorrier thing is that the number of cases each year is only increasing. It is a myth that old age depression happens only in countries with poor old age plans; today it is also happening in the most advanced countries of the world with the best long term plans. The situation has become so grave that in most cases depression and elderly women have almost become synonymous. Most elderly women in the world suffer from some kind of depression or the other.

With depression among elderly women, it is necessary to give them as much time as possible to make them feel wanted. A careful analysis of old age depression shows that this condition occurs generally when elderly women feel that there is no one to look after them. If the depression continues, then it could take a toll on the heart or it could complicate into major mental problems. Depressed women might need someone to converse with. That is why care homes that care to them take the efforts to make depressed elderly women feel involved in all the activities that they undertake.

In case of elderly men, the problems may be lower, but in case of women, it is a double burden that older women have to bear. In addition to having to face the travails of being a senior citizen, there is an inbuilt disadvantage of being a woman in India. According to the latest statistics, around 18 million of the 70 million senior citizens in the country are widows. The widows have different psychological problems such as feeling of insecurity, loneliness, lack of adequate care from the family members, non-recognition in society, etc. The lack of adequate financial resources, the power to make decisions and a lifetime of living under the control of other members of the family have rendered many of them incapable of running their lives after 60 years. While the aged remain a largely neglected group, special care services for aged women are yet to occupy the attention of policymakers and voluntary organizations (Meena Gopal, 2006).

Societies have come to recognize women as a part of the deprived and vulnerable and have made them part of the forefront of all social security mechanisms. Although social security covers a gamut of needs, there is a gendering of the provision of welfare of the family where women are dependent on men who are the breadwinners (Gayathri, 2001). It does not recognize or understand the nuances and distinction of women’s unpaid work within the household and paid work outside, if any. In India, it is often tend to ignore or forget that a bulk of the productive work of women gets subsumed under the family labour and domestic tasks, which are unpaid.

Almost those state provisions that addressed women first were health care and welfare benefits in their maternal and child rearing roles. Outside the organized working sector, where women do receive social security benefits, they have not received specific social security inputs except as destitute, who are outside the ambit of the family or where they needed protection as mothers for children. A bulk of women in productive labour in the unorganized sectors or who are self-employed hardly have any protection.
Shelter homes, short-stay homes, measures for the rehabilitation of destitute women and prostitutes and the initiatives to set up Mahila Mandals were some of the welfare measures adopted (Government of India, 1995). From the Fifth Five-Year Plan, the state reluctantly began to recognize women’s contribution to economic development and sought to bring in equity considerations in various social security measures. However, these remain half-hearted and piece-meal efforts. For instance, in terms of property rights, political participation and other rights women still remain behind men. The state did not make an effort to dislodge traditionally entrenched patriarchal norms that pervaded every institution in society. In the 1990s, some improvement has occurred with Panchayati Raj introduced with the 73rd and 74th Amendments providing reservations for women in the local bodies in the village and urban areas.

Among the schemes for poor women, in addition to the programmes that were existent in the 1980s such as the Integrated Rural Development Programme (IRDP), which has now 40 percent beneficiaries to be women, the Training for Rural Youth for Self-Employment (TRYSEM), the Integrated Child Development Services (ICDS), were introductions such as the Development of Women and Children in Rural Areas (DWACRA) through which groups of women are formed to obtain subsidy and credit for income generation activities and adult literacy programmes under the National Literacy Mission. A significant number of the elderly participate in these programmes. There also continued to be schemes such as the Socio-Economic Programme (SEP) which provides training and employment to needy women such as widows, deserted wives, the economically backward and the handicapped in traditional, agro-based and non-traditional trades (Government of India, 1995; Dandekar, 1996; Gopalan, 1994). Among some of the central government provisions for the non-organized sector is the recent 20 percent tax rebate to senior citizens above the age of 65 of those paying taxes. The state continued to help women who had no familial support, while not disengaging from reinforcing the breadwinner and dependent relationship that exists within families.

Among the specific categories of women whom the state targeted for social security benefits were pregnant women and mothers, destitute women, widows and the aged women. Even though the state targets the family for the provision of social security, as far as women are concerned when their tie to the breadwinner is broken in case of divorce, desertion, separation or widowhood, it means destitution. The Bengal Famine of 1943 is an evidence of the fact that the largest number of destitute who were intentionally abandoned by their families were women of poor households who were seen to be less valuable (Agarwal, 1999).

Direct state provision of security in times of crisis such as drought or any other calamity would help poor households, but also protect the vulnerable amongst them such as women by providing them with direct entitlements. This adds to the argument that some amount of formal support for women would actually add to the informal support that they might receive from family and community. These is also the premise behind the campaign for land rights for women, including usufructuary rights in non-privatized land, that this resource will reduce their vulnerability and improves their bargaining power within household and strengthen the support they receive from relatives.

Numerous examples are found in the rural areas where women who are married into rich peasant households might find them economically vulnerable or are driven to work on the farms of their well-off brothers or brothers-in-law, or even beg for livelihood upon death of or desertion by their husbands. Of these the conditions of widows and older women is the most vulnerable (Chen, 1998). The dependency of widowhood is most vulnerable as it is the women who mostly outlive their spouses. Further the fragility of their existence is accentuated when compared to the dependency of older couples living with their spouses. Men who were widowed almost always obtained a companion compared to the destitution that faced widows. One of the studies showed that a greater proportion of female (widowed) dependents lived with their children. Widows were disadvantaged within families compared to their male counterparts. Thus socio-demographic explanations that lie behind the vulnerability of widows has to do with difference in patterns of remarriage of men and women who are widowed, differences in life expectation and differences in the age of marrying partners (Gulati, 1998).
Poverty of households headed by women or widows is often dependent on household size and expenditure. Further, if widowed women had land, they were not heads of households, but most widows who were landless were the heads of their households. While in aggregate, evidence does not always point to the absolute poverty of female-headed households compared to male-headed households, where households of a given size are seen, the ones headed by women or widows are poorer than those headed by men (Dreze and Srinivas, 1998). Apart from the several socio-economic insecurities that widows alone face, threat to life and injury to person is in particular always present when there are claims to property and land. Reports about abuse of elderly women by the family are frequently cited, especially in urban areas.

Apart from the livelihood inputs to old age social security, which includes food and shelter, the other major component is health or medical and disability care. In a society that has achieved some though not excellent levels of public health standards, with increasing life expectancy, the special health needs of the older populations have not merited attention. A comprehensive review of the health status of older people and the various measures adopted by the state and non-governmental agencies has indicated the enormity of the issue and the need for special attention to this group (Karkal, 1999). The worsening health condition of the elderly has also been documented sufficiently in research studies (Rama Rao and Townsend, 1998). The increasing risk of sickness in the older population has also been observed through various health surveys conducted by the National Sample Survey Organization and the National Council of Applied Economic Research (Alam and Anthony, 2001). It is indeed a severe shortcoming that hardly any of the available social security mechanisms for the elderly cover health care requirements, except some that have emerged in the organized public sector or in private concerns. The question confronting the state is the management of the fluidity of formal schemes along with the tenuousness of informal systems such as the family. It is really a matter of observing the viability of the former with the continuing support of the latter (Chowdhury and Nugent, 1996).

The old age people have their own problems. Such as ill health due to various old age ailments such as diabetes, rheumatics, feeling of insecurity, deafness, blindness, uncertain mental state, fear of being neglected in the society, etc.

SOCIAL SECURITY SCHEMES FOR ELDERLY WOMEN:

Latest in the line of policy documents, the first ever national policy on older persons of India, refers to the legal rights of parents who have no means to seek the support of their children having sufficient means. It was formulate by the Ministry of Social Justice and Empowerment and submitted for cabinet approval in January 1999. Some analysts have tried to see how far it is sensitive to the mandate for gender parity and the removal of gender discrimination. There is recognition of higher expectancy of life for women and the recognition of more number of women in the age group above 60, while the incidence of widowhood is also much higher compared to the situation for men above 60 years of age. Women who outlive men are greater in number as they tend to be married to men who are older, besides women also do not remarry and live longer. In 1991, there were four times as many widowed females as compared to widowed males.

By and large, there is not much emphasis to highlight the gender implications of such a policy despite evidence that women in this category suffer greater vulnerability. In the sections on health care, nutrition, shelter and education there is no specific reference to women's situation. What is interesting is there are pointed references to the changing nature of the family and the roles of younger women who are potential care-givers, and therefore, older persons tend to be seen as burdensome. The document exudes a tone of alarm while making these observations. However, at the implementation level it will be the Panchayat Raj Institutions who will take the initiative in implementation. There will be discussion forums set up at the Panchayat, Block and District level with adequate representation of older women, to review the concerns of older persons and activities that need to be undertaken. An issue on which the state needs to be interrogated is its intention to adopt private help in the implementation of its pronouncements. While there is no mention of financial support, for instance in providing geriatric health care, the government anticipates division of this responsibility between itself and the voluntary and private sector,
incentives for whom will be in the form of tax relief's and land at subsided rates to provide care for the poor elderly and charge reasonable user fees from those who can afford (Sujaya, 1999).

Among the categories of provisions, the largest segment of old age security, has a very limited outreach, is centred on organized sector employees, as pensions. Among pension schemes which are contributory in nature are the Employees State Insurance Scheme (ESIS), Provident Fund, Pension and deposit linked insurance scheme and so on, in which both workers/employees and employers contribute. Among non-contributory schemes are Workmen's Compensation Act (1923), Maternity Benefit Act (1962), National Social Assistance Programme (1995) and the Payment of Gratuity Act (1972). In the organized sector which is just 4 percent of the workers officially recognized in the country, women account for about 15 percent. Therefore the proportions from the above schemes going to the elderly retired women can be gauged.

As part of the larger net that is termed anti-poverty measures, almost all states in the country have Old Age Pension, for which all persons above 65 years who may also be old, poor and infirm are eligible. The Widow Pension Schemes have also been functional since the 1960s. All these eligible persons receive pensions ranging from Rs. 30 to Rs. 100. It is important to note that these old age pensions are not subject to the employment status of the old persons and hence, covers all the older people above that age provided they are able to satisfy the conditions and criteria. Elderly destitute widows alone are considered under the Old Age Pension, but in Kerala, even young widows are considered eligible under this scheme. Apart from this some states, such as Andhra Pradesh, Gujarat, Kerala and Tamil Nadu have special pension schemes for agricultural labour (Meena Gopal, 2006).

By the mid-1990s there is data which says that 32 states and union territories in India have been implementing old age pensions with many states implementing the scheme since the 1960s and some since the 1980s often with paltry amounts. Andhra Pradesh and Kerala have been implementing the scheme since 1960, while Tamil Nadu has been operating it since 1962, West Bengal since 1964 and Karnataka since 1965. Some of the later ones to introduce have been Pondicherry since 1987 and Arunachal Pradesh since 1988. Among states which pay the lowest are Andhra Pradesh and Bihar with Rs. 30 per month and Tamil Nadu with Rs. 35 per month and those paying Rs. 100 are Delhi, Haryana, Madhya Pradesh, Maharashtra, Mizoram, Nagaland, Rajasthan, Uttar Pradesh and Lakshwadeep. In terms of the coverage, while the national average was 9.1 percent of the population aged 60 and above, Bihar and Karnataka with 26 percent and 29 percent, respectively of population aged 60 and above had a large coverage. Among the smaller states, Goa and Haryana had coverage of 66.6 percent and 67.9 percent respectively. Others which stood above the national average were Himachal Pradesh (14.6), Maniput (10.5) and Tamil Nadu (9.9). For the welfare of the aged the Ministry of Social Justice, formerly social welfare, has set up an inter-ministerial committee on welfare of the aged to suggest programmes for care and protection of the elderly.

It is interesting to note that national efforts to provide for vulnerable groups often end up consolidating the state efforts begun many decades ago. In this line is the National Social Assistance Scheme introduced on August 15, 1995. Among its components are the National Old Age Pension Scheme (NOAPS), National Family Benefit Scheme (NFBS) and the National Maternity Benefit Scheme (NMBS). The old age pension scheme (NOAPS) is a 100 percent centrally sponsored scheme giving assistance to the states for the poor elderly, with the norms, guidelines and conditions laid down by the central government and managed by the union ministry of rural development. The administration is through the state governments even though the assistance is centrally provided (Rajan, 2001). Those eligible for this combined scheme are male or female destitute above 65 years of age, with the state government reserving the right to determine the criteria for eligibility. The amount of assistance was Rs. 75 with a ceiling on the number of claimants. Some states such as Tamil Nadu and Gujarat have also destitute widows and destitute deserted widows pension schemes for those in the age group of 40 to 64. Orissa has the scheme for destitute widows aged 50 and above. Kerala and Orissa have also pension scheme for destitute widows, whether old or young, and physically disabled.
In 1999, the Government of India announced Annapurna, a national social assistance scheme for elderly destitutes. Under this scheme the destitute old person would be provided 10 Kg of rice or wheat per month free through Public Distribution System (PDS). It is implemented by the Ministry of Rural Development with the assistance of the Ministry of Food and Civil Supplies. It includes those destitutes who are eligible under the NOAPS, but have no one to look after them. In the initial year of implementation, Rs. 100 crore was allotted which was estimated to benefit 6.6 lakh elderly destitute persons. As of October 2000, only 15 states and two union territories have been covered by the programme to which the allocated amount has been released. Both the above schemes as well as the state pension schemes together cover 25 percent of India's elderly population (Rajan, 2001).

Some experience of Self-Employed widows provide an example of NGO efforts to provide social security to elderly, for instance, the comprehensive group insurance scheme, widowhood insurance and so on. The Self-Employed Women's Association (SEWA) based in Ahmedabad, Gujarat is one of the largest unions of the women workers in the unorganized sector (Jhabwala, 1998). Fourteen percent of SEWA membership is widowed. For the widows, the most important aspects of SEWA membership have been the ease of entry, the access to creation of assets, labour sharing and group support. The various cooperatives for the economic activities function in the village or 'mohalla' where the women live and they do not have to go far. Similarly, the SEWA Bank reaches its member-clients through the extension workers, through village level savings groups, or through group leaders.

Significantly, healthcare as social security does not seem to exist in any state. This is alarming given the fact that other age groups. Older people's health care needs are of much concern given the inadequate provisions in the public sector and the prohibitive costs for private health care. Surveys have estimated the susceptibility of older people, with susceptibility increasing with higher age, to five specific diseases: partial and complete blindness, tuberculosis, leprosy, malaria and limbs impairment. While the demand for care is pressing, there is an escalation in the cost of medical services, particularly diagnostics and drug prices (Alam and Anthony, 2001). Women particularly among the elderly suffer gender biases and discrimination with respect to health care access and definitely suffer from health problems much more but there does not exist any special state provision for geriatric health care for women (Karkal, 1999).

Apart from suggesting improvements in social security schemes, governments have to move beyond pensions and employment for widows to providing immovable assets and properties rights. For those who do have property, the Sector 498 A and other related ones do provide protection against domestic violence in case there is harassment of older women and men trying to usurp their property (Agarwal, 1998). Under the national policy, the government wishes to promote and assist voluntary organizations for providing non-institutional services, construction and maintenance of old age homes, organizing day care services, multi-service citizen centres, reach out services, supply of disability related aids and appliances, short-term stay services and friendly home visits by social workers. Other services which are forthcoming are rehabilitation of destitute widows, mobile geriatric services, adoption of the elderly, marginal subsidies on purchase of plane or train tickets and tax rebates.

CONCLUSION:

Elderly problem is major social problem, which increased due to increased health facilities. Further, due to globalization, there is increase in nuclear families and as a result, elderly people are left alone. As such, the extent of the problems of elderly in different aspects such as socio-economic, health, etc are more. In case of elderly women, the problems are manifold. That is, due to inequality of women in the society, the elderly women are neglected by youth. Further, if the elderly women are widows, then they find it difficult to face challenges in their lives. Due to loneliness, there are also many of the mental health problems such as feeling of insecurity, loneliness, depression, etc. Further, due to ageing, there are also physical health problems such as bronchitis, asthma, arthritis, etc. Of course, many of the social security schemes are proved to be
beneficial for elderly women, still there is need of health schemes to look after the health of elderly women. Hence, the Government and the NGOs have to intervene the problems of elderly women for their better.

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REVERSE MORTGAGE – A TOOL OF PROTRACT THE ECONOMIC INDEPENDENCE OF SENIOR CITIZEN

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Introduction

India, the seventh largest country in size, continues to occupy the second largest populated country after China. The aged population in India (i.e. over 60 years) that stood at 84.7 million (7.5 per cent) in 2005 is expected to rise to 141 million (10.2 per cent) by 2020 and thereafter reach 194 million (13 per cent) in 2030. Even though income levels are going up and poverty declining, it can be reasonably expected that a significant number among the aged population would be in the low income category. The aged population requires additional attention both from the society and from the Government. More funds need to be allocated for pension, health and other social benefits of the aged people, while declining savings of the aged population could pose a threat in meeting such additional expenditure.

It is recognised that senior citizens need a regular cash flow for supplementing their pension/other income. For most senior citizens, the house is often the largest component of their wealth and the secular increase in residential house prices has created considerable ‘home equity’ wealth.

Reverse Mortgage Loans

A mortgage is the transfer of an interest in specific immovable property for the purpose of securing the payment of money advanced or to be advanced by way of loan, an existing or future debt, or the performance of an engagement which may give rise to a pecuniary liability.

Reverse mortgage is a financial product that allows the senior citizen to unlock the value of their most valuable asset, their home, by mortgaging it to a credit intermediary, thereby, enjoying the use of an assured cash flow during their lifetime while continuing to live in the house for as long as they wish. It is called Reverse-Annuity Mortgage or Home Equity Conversion Mortgage (HECM). The reverse mortgage loan (RML) was introduced in the Indian financial market, by the announcement in the Union Budget for 2007-08.

The union Budget 2007-2008 announced that the National Housing Bank would shortly introduce a novel product for senior citizens, viz., a ‘reverse mortgage’ under which a senior citizen who is the owner of a house can avail of a monthly stream of income against the mortgage of his/her house, while remaining the owner and occupying the house throughout his/her lifetime, without repayment or servicing of the loan. It assured that regulations would be put in place to allow the creation of mortgage guarantee companies whereby the mortgage can be guaranteed through a three way contract among the borrower, the lender and the guarantor, thereby allowing greater comfort to the lending banks and housing finance companies.

Reverse mortgage provides an opportunity to house owners to avail of a monthly stream of income against the mortgage of his/her house, while remaining the owner and occupying the house throughout his/her lifetime, without repayment or servicing of the loan. Realising the potential benefits, the Union Budget 2007-08 announced the introduction of ‘reverse mortgage’ by NHB. NHB issued the final operational guidelines for reverse mortgage loans (RMLs) on May 31, 2007. Many banks have already
introduced RMLs. For tax purposes it have been clarified that reverse mortgage would not amount to “transfer”, and stream of revenue received by the senior citizen would not be income”.

According to demographic projections, reverse mortgage loan products could be a hit among the metros and also in areas like Kerala, Tamil Nadu, Goa and Chandigarh in India. With hardly any old age social security schemes and financial helplines, reverse mortgages have a potential market. Loans are available in the form of reverse mortgage without any income criteria at an age where normal loans are not available. Reverse mortgage for senior citizens is a social assurance post-retirement.

Genesis of RML

Reverse Mortgage in India still at an infancy stage. The reverse mortgage came into existence in the UK during the crash of 1929. Having evolved genetically from the developed countries and mainly the USA, reverse mortgage is a scheme formulated to benefit the senior citizens the most. Although applicable for the younger people also, ‘reverse mortgage loan products for senior citizens’ is the basic that every bank of financial institution follows.

RML History started in 1980s in USA as “reverse mortgage” known as Home Equity Conversion Mortgage; Providers were Banks and specialist reverse mortgage finance companies; In UK, it is known as “Equity Release or Home Income Plans” mainly provided by Insurance Companies; In Canada, both banks and insurance companies are involved.

In order to provide proper Social Security, Regular flow Income, residential house RML Scheme was introduced for Senior Citizens to face Old Age Dependency which Increases the Longevity and Low Mortality Rising Cost of Good Health Care.

Reverse mortgage as a product is fairly new to India. Dewan Housing Finance was the first institution in the country to come up with its reverse mortgage product-Saksham. Since then, most leading lending institutions have come up with their own reverse mortgage products. Some of these are State Bank of India, Punjab National Bank, Bank of Baroda, Central Bank of India, Union Bank of India, LIC Housing Finance, Indian Bank, Andhra Bank, Corporation Bank and Canara Bank.

HOW IT WORKS

In the case of home loan, every EMI payment towards the loan increases the equity in the house and once payoff the loan in full, the equity in the house is 100 per cent. It is vice versa in case of reverse mortgage, when the home is pledged under reverse mortgage with a lending institution, the equity in the own house decreases with every disbursal that the lending institution makes to the borrower.

In a typical mortgage, the money borrowed in lump-sum right at the beginning of the purchase or construction of the house. The repayment of borrowed money towards the home loan with interest will be made over a period of time by Equated Monthly Installments (EMIs).

In reverse mortgage, the owners of the home pledge their home with bank in which no outstanding loan against it. The bank in turn gives a lump sum or a series of cash-flows for a fixed tenure. These can be considered as reverse EMIs. Simply put, any senior citizen, opting for reverse mortgage will get annuity (the reverse EMI) from the bank for 15 years. After that, the annuity payments stop. However, they can continue to live in the house. The maximum tenure is 15 years or the owner of the house and his/her spouse can continue to live in the house till their death — which can occur later than the tenure of the reverse mortgage.
## REVERSE MORTGAGE LOAN - ESSENTIALS

The scheme of reverse mortgage has been introduced recently for the benefit of senior citizens owning a house but having inadequate income to meet their needs. Some important features of reverse mortgage are:

- A homeowner who is above 60 years of age is eligible for reverse mortgage loan. It allows him to turn the equity in his home into one lump sum or periodic payments mutually agreed by the borrower and the banker.
- The property should be clear from encumbrances and should have clear title of the borrower.
- No Repayment is required as long as the borrower lives. Borrower should pay all taxes relating to the house and maintain the property as his primary residence.
- The amount of loan is based on several factors: borrower’s age, value of the property, current interest rates and the specific plan chosen. Generally speaking, the higher the age, higher the value of the home, the more money is available.
- The valuation of the residential property is done at periodic intervals and it shall be clearly specified to the borrowers upfront. The banks shall have the option to revise the periodic / lump sum amount at such frequency or intervals based on revaluation of property.
- Married couples will be eligible as joint borrowers for financial assistance. In such a case, the age criteria for the couple would be at the discretion of the lending institution, subject to at least one of them being above 60 years of age.
- The loan shall become due and payable only when the last surviving borrower dies or would like to sell the home, or permanently moves out.
- On death of the home owner, the legal heirs have the choice of keeping or selling the house. If they decide to sell the house, the proceeds of the sale would be used to repay the mortgage, with the remainder going to the heirs.

### TABLE

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of an Senior Citizen Borrower</td>
<td>65 years</td>
</tr>
<tr>
<td>Value of House Property Assessed:</td>
<td>Rs 40 Lacs</td>
</tr>
<tr>
<td>Eligible Period of loan</td>
<td>15Years -180 months</td>
</tr>
<tr>
<td>Eligible Amount of Loan — 40% of Market Value Reverse Mortgage Loan:</td>
<td>Rs. 16 Lacs</td>
</tr>
<tr>
<td>Mode of payment</td>
<td>Rs. 8,000 every month</td>
</tr>
<tr>
<td>Rate of Interest: (Fixed or Floating)</td>
<td>10 % pa</td>
</tr>
<tr>
<td>Total Principal amount received in 15 years</td>
<td>Rs. 14.40 Lacs</td>
</tr>
<tr>
<td>Gross Interest on Rs. 14.40 Lacs – compounded annually</td>
<td>Rs. 21.38 Lacs</td>
</tr>
<tr>
<td>Total amount due to Bank</td>
<td>Rs. 35.78 Lacs</td>
</tr>
</tbody>
</table>

Note- Reverse mortgage is a fixed interest discounted product in reverse. It does not take into account the changes in interest rates as yet.

From the above it is clear that the total amount due at the end of 15th year is 35.78 Lacs and it is assumed that No effect of changes in value of property during pendency of the loan (15 years) If RML borrower dies at the end of 15 years, bank sells house property, realises the dues and releases the balance, if any, to legal heirs If Legal Heirs want to retain the property, entire dues of Rs. 35.78 Lacs may be paid to the bank and complete legal formalities. When the market value of the mortgaged property is taken as 50 lac. at the end of the loan period. The banker will realize it and the balance may be given to the legal hairs or to the borrower.
As per the scheme formulated by National Housing Bank (NHB), the maximum period of the loan period is 15 years. The residual life of the property should be at least 20 years. Where the borrower lives longer than 15 years, periodic payments will not be made by lender. However, the borrower can continue to occupy. From time to time, the value of the property is re-visited by both parties. If the valuation has increased, the applicants are given the option of increasing the quantum of the loan, and should they do so, are given the incremental amount in lump-sum. From FY 2008-09, the lump sum amount or periodic payments received on reverse mortgage loan will not attract income tax or capital gains tax.

RMLs provide an opportunity to house owners to avail of a monthly stream of income against the mortgage of their house, while remaining the owner and occupying the house throughout their lifetimes, without repayment or servicing of the loan. Realising the potential benefits, the Union Budget for 2007-08 announced the proposed introduction of RMLs in India by the NHB. The NHB issued the final operational guidelines for RMLs on May 31, 2007.

Various public and private sector banks are currently offering RML in Indian markets. Typically, banks in India charge interest on the RML in the range of 10-12 per cent per annum. The loan (including the interest cost) to value ratio varies from 60-90 per cent and the maximum tenure of the loan ranges from 15-20 years. Thus, in the Indian context, if the borrower outlives the loan tenure, he can continue to stay in the house but he will no longer be eligible for any payments from the lender. Internationally, however, the period of such payments is not for a specified number of years, but for the remaining life time of the owner of the property (and his/her spouse), and therefore, reverse mortgage effectively is a life annuity in other countries.

The Benefits of a Reverse Mortgage include:

- Tax-free funds for as long as you live in your home
- No loan repayment for as long as you live in your home
- No income, medical or credit requirements
- Retain ownership of your home for life; this is guaranteed as long as you maintain your home, and pay insurance and real estate taxes
- Choose a cash flow plan tailored to your needs
- No restrictions on how you may use the funds
- A tax-advantaged way to pass on part of your estate today Funds from a reverse mortgage are tax-free; it’s not an additional income.
- Even seniors with an outstanding first mortgage or some other debt on their home may qualify for a reverse mortgage. The proceeds of the reverse mortgage may be used to pay off such debts.

Tax benefits on reverse mortgage.

An arrangement in which a homeowner borrows against the equity in his/her home and receives regular monthly tax-free payments from the lender. Under income tax Act any amount received by an individual as a loan, either in lump-sum or in installment in a transaction of reverse mortgage referred in xvi of section 47 which is not regarded as transfer hence any gain arising from such transactions is also not taxable under the head capital gains. Reverse mortgage loan received either in lump sum or in installments is a capital receipt and shall be exempted U/S10(43)
Constrains and drawback of RML

Which 60-year-old couple would wish to put themselves in a position to have to redeem the principal plus interest amount when they are 75 or more, at which age they are unlikely to have the stamina to sell out and move to a new home, which would inevitably be their only option. Inadequate clarity and inappropriate terms have led the reverse mortgage loan facility in India to have limited takers.

Recent reports seem to indicate that a very small percentage of senior citizens only seem to have taken advantage of the facility since its inception. This could be perhaps a better awareness had not been created about the product. Secondly, the Indian banking industry caps the available loan amount at Rs. 50 L, instead of providing for an equitable percentage of the property’s value, and limits the loan period to a tenure of 15 years.

The product is still evolving and may take on new dimensions depending on how the banks wish to present its consumer appeal. The borrowers have to maintain the home in good condition and are responsible for repairs, insurance and property taxes, etc.

The Indians sentiments and value are lacuna to RML. It is possible that most Indians will not sell the family home, and would prefer passing it on to the next generation, even if they have to live in relative penury during their waning years because of the small income. However, many Indian traditions and values have to be changed on RML by proper propaganda of the RML.

One of the conditions laid by the banks is that the home must be debt-free to qualify for a reverse mortgage. It is incorrect on the part of the needy borrower.

Recommendations

As The reverse mortgage an important financial option for senior homeowners, educating consumers and lenders about the varied applications of this type of loan and its importance

Due to the cumbersome and hidden procedure, the reverse mortgage has not reached the senior citizen with its original object that to offer social security. The banks should assure fair, ethical, and respectful practices in reverse mortgage. This creates confidence and hope to make use of reverse mortgages as a real scheme to the seniors.

Originally the reverse mortgage helps people to address their retirement needs. But the most common fear of the borrowers due to misconception is that in a reverse mortgage the bank gives some money and then takes the house. To Counterfeit this fear banks should create awareness among the seniors.

Conclusion

21 Demographic Trends In 2030, 9% of India’s population, or nearly 130 million people, will be over 65 years of age. The population over 60 years of age will approach 200 million in that period. By 2030, 237 million people, or 16% of China’s population will be over 65 years of age. The vast numbers of elderly adds a human dimension and imposes a significant responsibility on the part of those who are involved in managing retirement funds and systems. How Asia addresses the challenge will largely determine how the world will cope with ageing. Implications for India.

The product is still evolving and may take on new dimensions depending on how the banks wish to present its consumer appeal.

So while the reverse mortgage idea may not take off in India as it has in the West, where social and parent-child behaviour usually dictates that the old folk live off their very last penny before they die, there are sufficient demographic and psychographic data to indicate that in India there are takers in the millions who, for one reason or another, are likely candidates for the reverse mortgage idea. In any event, the proposal should be given the opportunity to fail for the right reasons. And that means it should be packaged and marketed in a way that makes sense to the likely customer.
Taking the usual mortgage loans in lieu of your home as a security will not be feasible in the age above 50 as the repayment of the loan is not feasible. The Banks and Financial Institutions also won't be of any help in case of no income source. This is where the house property proves as an asset and brings in reverse mortgage that allows you to be the home owner as long as you live. Home ownership is an area most Indians are sensitive about and reverse mortgage entitles you your house throughout your remaining life. The reverse mortgage pros and cons should be measured carefully before subscribing to it.

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