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     HYPOTHESES

     RESEARCH METHODOLOGY

     RESULTS & DISCUSSION

     FINDINGS

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     CONCLUSIONS

     SCOPE FOR FURTHER RESEARCH

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AN ANALYSIS OF THE DETERMINANTS OF MINING INVESTMENT IN ZIMBABWE: BASED ON THE FLEXIBLE ACCELERATOR MODEL

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ABSTRACT

Despite the existence of diverse and rich deposits of minerals, the mining sector in Zimbabwe remains underdeveloped. The problem apparently lies with low investment. This paper analyses the factors determining mining investment using a simple flexible accelerator model, which is complemented by a subsequent general discussion on other pertinent factors excluded from the model. From the model, the significances of the output variables (current and lagged) and the lagged investment variable as well as estimates of the coefficient of adjustment, the desired capital-output ratio and the annual rate of depreciation for the whole mining sector are determined. The study shows that the gap between the desired and the actual capital stock increases each year, with the desired capital-output ratio at 3.8 and the annual rate of depreciation at 7.3%. Investment is positively related to previous output level. A negative relationship between current investment and current output apparently reflects an inevitable trade-off that is linked to the predominant small-scale nature of the sector. The study confirms, as have other studies elsewhere, that lagged investment is a significant predictor of current investment, implying existence of investment adjustment costs and a budgetary process that uses the previous investment level as default. The whole accelerator model is found to be significant. Besides considerations related to capital intensity and long lead times, the paper discusses the following pertinent factors excluded from the accelerator model: risk and uncertainty, fiscal regime, cash flow, business operational conditions (affecting the marginal efficiency of capital), interest rate and credit availability.

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KEYWORDS
Flexible accelerator model, interest rate, mining investment, risk

1. INTRODUCTION

Zimbabwe is rich in a wide variety of minerals among other natural resources. Currently there are more than forty different types of minerals mined in the country. Major among them, in terms of production value, are gold, asbestos, nickel, coal, copper, chrome, tin, iron, silver and cobalt (Central Statistical Office, various issues of the Quaterly Digest of Statistics). The Ministry of Mines and Mining Development (2010) estimates that resources of metallurgical quality chrome in Zimbabwe as a percentage of world resources of chrome are 80%. It is also indicated that the country hosts some of the most productive greenstone belts in the world in terms of gold. Platinum group metal resources in the country are ranked second largest in the world. Black granite is abundant ("ubiquitous") in the northeastern part of the country. Besides the existence of kimberlites, the country boasts of extensive deposits of alluvial/placer diamonds in Chiadzwa, which are estimated to have a potential production of 25% of the world's diamond output. Exploration for coal bed methane gas has been carried out in recent years and there are huge estimates of reserves being given, going to billions of cubic metres of gas. But detailed explorations to prove these reserves are yet to be done.

Hawkins (2009) estimates that from 1968 to 2009 the (average) ratio of investment to gross-output in the mining sector was between 10 and 12 percent. Vigorous mining industry expansion was recorded for 1968-1971 period, the period during which nickel and ferrochrome experienced expansion. During this period, investment averaged 21.5% of gross output. From 1973-1996 mining investment averaged 25 percent of output (at current prices) with another period of vigorous expansion in the mid 1990s. During the period 1983-1993, there was negative net investment and a backlog in replacement investment. After 1997, except in the platinum and diamond sectors, exploration and new capacity investments have been minimal. According to the President of the Chamber of Mines at the Chamber of Mines Annual Congress in 2007, since 2003 no new (major) exploration licences had been issued. A lot of the equipment under use now has aged or become obsolete.

2. PROBLEM STATEMENT, RESEARCH OBJECTIVES, HYPOTHESIS AND SIGNIFICANCE OF THE STUDY

Despite the abundance of mineral resources in the country, Zimbabwe remains underdeveloped. The problem apparently lies in the inability of the country to attract investment and the apparent lack of significant transparency in the management of mining revenue, which may engender unmitigated corruption. This paper is concerned with the first issue – determinants of mining investment levels. The importance of investment has always received great emphasis in various mining fora in Zimbabwe. However, a proper modelling of the issue remains. Thus, investment policy making in the sector has not been properly guided. Soludo (2002) argues that policy requires some kind of model, especially an explicit model as opposed to some implicit model (in the head). While investment has been modelled in general, the author is not aware of any attempt to model mining investment in Zimbabwe.

This study seeks to estimate a flexible accelerator model for mining investment in Zimbabwe over the period 1976-1997. From this estimation, the significance of some quantitative factors is determined. The study hypothesizes (as null hypothesis) that the flexible accelerator model does not significantly explain mining investment behaviour in Zimbabwe, and the alternative hypothesis is that it does. Also determined are numerical estimates of the coefficient of (capital) adjustment, the desired capital-output ratio and the annual average rate of capital depreciation. The paper also discusses the importance of other pertinent factors (quantitative and qualitative) not included in the model, such as credit availability, risks and uncertainties related to fiscal and regulatory regime stability, political regime stability and the fundamental system of government (long-term national stability).

The importance of this study is in that, if factors significantly affecting mining investment decisions in Zimbabwe were known, policy would seek to influence these factors so that investment can be expanded. Net investment in any sector of the economy, mining included, creates employment, makes the economy grow and makes future consumption possible. Without mining investment, mineral resources remain sleeping resources, with their extent unknown and the country benefiting nothing from them. Following the perspective of the New Growth Theory that technology is embodied in new capital, investment, therefore, combines two important growths - capital growth and technical progress. This is especially the case in Zimbabwe mining sector, where both investment and technical progress significantly derive from the foreign sector.

3. LITERATURE REVIEW AND MODEL DEVELOPMENT

Mining investment is business fixed investment. Business fixed investment is expenditure on capital stock items such as factories, machines and other (man-made) products used in producing other goods (Dornbusch & Fischer, 1981, p.18). Investment is the purchase only of new assets, not those already existing (second hand) because the latter case represents a disinvestment by the one who sells even though the one who buys regards it as investment (Poindexter, 1976, p.143). Developed in the following sub-section is the accelerator model.

3.1 THE FLEXIBLE ACCELERATOR THEORY OF INVESTMENT

The flexible accelerator model assumes the existence of a desired or optimal stock of capital required to produce a given output for a given technology, rate of interest, and so forth (Gujarati 1988, p.519).

Assume:

$$K_t^* = \beta_1 Q_t \qquad (1)$$

where K_t^* is desired mining capital stock in period t, Q_t is mining output in period t, and β_1 is the desired capital-output ratio.

The capital adjustment process is defined by the following equation (Pentecost, 2000, p.124; Gujarati, 1988; and Dzawanda, 1994):

$$K_t - K_{t-1} = \delta\left(K_t^* - K_{t-1}\right), \quad 0 < \delta \leq 1 \qquad (2)$$

where δ is the coefficient of adjustment. Rearranging (2):

$$K_t = \delta K_t^* + \left(1 - \delta\right)K_{t-1} \qquad (3)$$

Substituting (1) into (3) and simplifying gives:

$$K_t = \delta\beta_1 Q_t + \left(1 - \delta\right)K_{t-1} \qquad (4)$$

From (2), net investment (I_t^n) is given by:

$$K_t - K_{t-1} = I_t^n = \delta\beta_1 Q_t - \delta K_{t-1} \qquad (5)$$

If we assume that replacement investment in period t is a positive proportion α of previous period's level of capital, gross investment is given by (See Dzawanda, 1994):

$$I_t^g = K_t - K_{t-1} + \alpha K_{t-1} = I_t^n + \alpha K_{t-1} \qquad (6)$$

Or

$$I_t^g = K_t - \left(1 - \alpha\right)K_{t-1} \qquad (7)$$

Substituting (5) into (6):

$$I_t^g = \delta\beta_1 Q_t + \left(\alpha - \delta\right)K_{t-1} \qquad (8)$$

Lagging (8) once and multiplying the result by $(1 - \alpha)$ we get:

$$(1 - \alpha)I_{t-1}^g = \delta\beta_1\left(1 - \alpha\right)Q_{t-1} + (1 - \alpha)(\alpha - \delta)K_{t-2} \qquad (9)$$

Subtracting (9) from (8) gives:

$$I_t^g - (1 - \alpha)I_{t-1}^g = \delta\beta_1 Q_t - \delta\beta_1(1 - \alpha)Q_{t-1} + (\alpha - \delta)K_{t-1} - (1 - \alpha)(\alpha - \delta)K_{t-2}$$

But from (7):

$$I_{t-1}^g = K_{t-1} - \left(1 - \alpha\right)K_{t-2}$$

Therefore:

$$I_t^g = \delta\beta_1 Q_t - \delta\beta_1(1 - \alpha)Q_{t-1} + (1 - \delta)I_{t-1}^g \qquad (10)$$

Adding a constant β_0 (for investment independent of output and lagged investment variables) and an error term u_t to the right hand side of (10), gross investment is finally specified as a function of current output, lagged output and lagged investment:

$$I_t^g = I_t^g\left(Q_t, Q_{t-1}, I_{t-1}^g\right) = \beta_0 + \delta\beta_1 Q_t - \delta\beta_1(1 - \alpha)Q_{t-1} + (1 - \delta)I_{t-1}^g + u_t \qquad (11)$$

Note that if model (11) can be estimated in full, we can find the values of the coefficient of adjustment (δ), the desired capital-output ratio (β_1) and the depreciation rate (α). However, depreciation rate would indicate depreciation in nominal capital stock values since investment is in nominal terms.

4. ESTIMATION OF THE FLEXIBLE ACCELERATOR MODEL FOR ZIMBABWE MINING INVESTMENT

4.1 MODEL

This study estimates equation (11) developed above.

$$I_t^g = I_t^g\left(Q_t, Q_{t-1}, I_{t-1}^g\right) = \beta_0 + \delta\beta_1 Q_t - \delta\beta_1(1 - \alpha)Q_{t-1} + (1 - \delta)I_{t-1}^g + u_t \qquad (11)$$

We may generalise equation (11) as:

$$I_t^g = \eta_0 + \eta_1 Q_t + \eta_2 Q_{t-1} + \eta_3 I_{t-1}^g + u_t \qquad (12)$$

where

$$\eta_0 = \beta_0, \quad \eta_1 = \delta\beta_1, \quad \eta_2 = -\delta\beta_1\left(1 - \alpha\right), \quad \eta_3 = 1 - \delta \qquad (13)$$

Thus:

Coefficient of adjustment, $\delta = 1 - \eta_3$, Desired capital-output ratio, $\beta_1 = \dfrac{\eta_1}{\delta}$, Capital depreciation rate, $\alpha = 1 + \dfrac{\eta_2}{\eta_1}$ (14)

4.2 ESTIMATION APPROACHES

The above model (equation 12) is both autoregressive and distributed lag. To take care of autoregressiveness we use the instrumental variable technique, while the *ad hoc method* (sequential regression) is used to deal with the problem of distributed lags. We resolve the problem of autoregressiveness first because the distributed lags are not expected to significantly affect the generation of the instrumental variable, which is only a proxy. Unresolved autoregressiveness is likely, instead, to significantly affect the coefficients of the output variables in sequential regression. First, we regress by Ordinary Least Squares (OLS) gross mining investment against the output variables, from which we get estimates of investment (equation 15).

$$Ies_t^g = \alpha_0 + \alpha_1 Q_t + \alpha_2 Q_{t-1}$$ (15)

These estimates are lagged to get an instrumental variable for the lagged investment variable (Ies^g_{t-1} in Table 1). By lagging, we loose one observation, hence one degree of freedom.

According to the *ad hoc method* of estimating a distributed lag model, we begin by regressing investment against current output and lagged investment (that is, its instrumental variable), and then regress with lagged output included. In this sequential regression, if the sign of any coefficient of the variable being lagged changes and/or at least one of the variables concerned becomes insignificant, one takes the last stable result.

4.3 DATA

The flexible accelerator model covers the period 1976 - 1997. Data from 1998 to the present could not be used because they are either not available or unreliable. It is assumed that the fundamental relationships between the variables in the model have remained largely the same, even though other factors have come into play recently. Thus, results from the model are discussed in the present tense. The sources of the data are detailed under Table 1.

TABLE 1: MINING GDP AND MINING INVESTMENT (Z$MILLION)

Year	Q_t	I^g_t	Q_{t-1}	I^g_{t-1}	Ies^g_t	Ies^g_{t-1}
1976	152	60	131	40	8	-
1977	149	66	152	60	29	8
1978	156	59	149	66	25	29
1979	226	83	156	59	20	25
1980	285	83	226	83	77	20
1981	250	133	285	83	139	77
1982	243	94	250	133	107	139
1983	393	86	243	94	76	107
1984	320	81	393	86	231	76
1985	335	30	320	81	159	231
1986	372	57	335	30	167	159
1987	434	123	372	57	192	167
1988	529	200	434	123	236	192
1989	602	144	529	200	315	236
1990	845	166	602	144	345	315
1991	1184	273	845	166	522	345
1992	1552	512	1184	273	786	522
1993	1625	518	1552	512	1126	786
1994	2531	785	1625	518	1046	1126
1995	1142	2000	2531	785	2143	1046
1996	1317	2370	1142	2000	784	2143
1997	1384	1552	1317	2370	941	784

Sources and notes:

Mining GDP figures (current prices, factor cost) are obtained from Central Statistical Office (CSO) (1984) (for 1975-1982), CSO (1989) (for 1983-1988), CSO (2000) (for 1989-1997). Figures are in Z$million. Mining Gross Investment (Gross Fixed Capital Formation, current prices) figures are obtained from CSO (1984) (for 1975-1981), CSO (1989) (for 1982-1985), CSO (2000) (for 1986-1996), CSO (2004) (for 1997). Figures are in Z$million. $Q_t, Q_{t-1}, I^g_t, I^g_{t-1}, Ies^g_t$ and Ies^g_{t-1} respectively denote mining output, lagged mining output, mining investment, lagged mining investment, estimated mining investment, and lagged estimated mining investment (instrumental variable for lagged dependent).

5. MODEL RESULTS, FINDINGS AND DISCUSSION

5.1 REGRESSION RESULTS

Using data in Table 1 equation (15) becomes:

$$Ies_t^g = -92.2409 - 0.1649 Q_t + 0.9576 Q_{t-1}$$ (15a)

Using equation (15a) investment estimates are obtained which are then lagged to give the instrumental variable for lagged dependent (Ies^g_{t-1}) (last column in Table 1).

Sequential OLS regression: without lagged output variable

$$I_t^g = 45.2540 - 0.1910 Q_t + 1.3472 I^g_{t-1}, \qquad R^2 = 0.84$$

$$\quad (99.1525) \quad (0.1470) \quad (0.1798) \qquad df = 18$$

$$t = \quad (0.456) \quad (-1.300) \quad (7.493) \qquad F_{2,18} = 46.33$$ (16)

Sequential OLS regression: with lagged output variable

$$I^g_t = -14.5536 \quad - 0.5260Q_t + 0.5715Q_{t-1} + 1.1370I^g_{t-1}, \qquad R^2 = 0.92$$

$$(127.5112)\,(0.2031) \quad (0.5299) \qquad (1.1746) \qquad df = 17$$

$$t = \quad (-5.225) \quad (-2.517) \quad (4.909) \qquad (-4.713) \qquad F_{3,17} = 68.44$$

(17)

We note in the above regressions that (17) is stable because the coefficient of current output does not change sign and becomes more significant, hence we select it.

5.2 COEFFICIENT OF ADJUSTMENT, DESIRED CAPITAL-OUTPUT RATIO AND CAPITAL DEPRECIATION RATE

From (17):

$$\beta_0 = \eta_0 = -14.5536, \quad \delta\beta_1 = \eta_1 = -0.5260, \quad -\delta\beta_1(1-\alpha) = \eta_2 = 0.5715, \quad 1-\delta = \eta_3 = 1.1370$$

Therefore:

Coefficient of adjustment, $\delta = -0.1370$

Desired capital-output ratio, $\beta_1 = 3.8394$

Annual capital depreciation rate, $\alpha = -0.0865$

The value of the coefficient of adjustment is negative but close to zero showing that in every period the gap between the desired stock of capital and the actual stock in the previous period increases slightly rather than reduce. This simply reflects lack of finance to undertake desired investment such that net investment becomes negative. This confirms Hawkins (2009)'s sentiments alluded to in the introduction.

The value of the desired capital-output ratio of approximately 4 shows that in every period, the mining sector desires to hold a capital stock that is 4 times the value of its current output. This result compares well with the result obtained in Investment (n.d., p.48) which is also approximately 4.

The rate of capital depreciation is negative, which would suggest that the value of capital stock appreciates rather than depreciate. However, the negative sign indicates the influence of using nominal investment figures in the estimation. This means that the current values of capital stocks were increasing over the period, even though a valuation based on historic prices would show that there is real depreciation. Thus, the bias is caused by price increases. Since inflation reduces nominal depreciation, in adjusting nominal depreciation to real we add the inflation rate. Annual average inflation over the period of study (1976-1997) was 15.91% (based on consumer price indices in Reserve Bank of Zimbabwe, 1991 and 1998). This gives a real depreciation rate of 7.26% (= 0.0726).

5.3 CONSTANT OF INVESTMENT FUNCTION

Model (17) shows that the constant is negative at –Z$14.5536 million. This coefficient is, however, insignificant at 0.05 with a computed t value of magnitude -0.204 against a critical t value of -2.110. This indicates that with no previous investment, and zero production in the current and previous period, there will be disinvestment (negative investment) in the current period. Consecutive periods of zero production are very costly given the very high fixed costs associated with mining; hence, some mines will be winding up operations.

5.4 CURRENT AND LAGGED OUTPUTS

The results also show that investment in the current period is negatively affected by current output and positively affected by lagged output. Both coefficients are significant. The positive lagged output coefficient apparently indicates that miners, in deciding on investment next period, consider their current production levels. However, the negative current output coefficient is surprising. It may probably reflect the trade-off between scale expansion and expanded variable inputs associated with current (short-run) output expansion in a small-scale operation. Zimbabwe mining industry, in general, is characteristically small-scale.

5.5 LAGGED DEPENDENT VARIABLE

The coefficient of the lagged dependent variable is positive (1.1370) and significant at 0.05. This coefficient shows that every dollar in lagged investment results in $1.14 in current investment, which is almost a one-to-one correspondence. This could be because of a number of factors either in isolation or in combination. It may reflect lack of adequate finance to undertake investment as a lump, given the capital intensity of mining operations, so that it is spread out to take advantage of annual receipts. Kehrig and Vincent (2012) conclude that investment is lumpy at the level of the plant while it is smooth at the firm level; hence, by extension it must be smoother with higher aggregations. They argue, like Eberly *et al* (2012), that lagged investment better explains current investment levels than cash flow and that this reflects the existence of adjustment costs. Eberly *et al* (2012) also allude to Bloom, Van Reenen and Sadun (2009) who find that, in making investment budgets for plant managers, senior managers use previous budgets as the default and the plant manager must argue for any increase. Both adjustment costs and the budgetary process just explained are plausible assumptions in Zimbabwe mining sector.

5.6 WHOLE MODEL

The explanatory power of the model is high at 92%, which means 92% of the variations in mining investment are explained by current output, lagged output and lagged investment. The model as a whole is significant at 5% (level of significance) since computed F (=68.44) > critical F (=3.20). Thus, the study rejects the null hypothesis and accepts that the flexible accelerator model significantly explains mining investment behaviour in Zimbabwe. This is hinged on positive and significant coefficients of lagged variables, indicating that current investment is based on previous year's output and investment levels.

6. GENERAL DISCUSSION ON FACTORS NOT INCLUDED IN THE ACCELERATOR MODEL

The flexible accelerator model is limited in that it does not take explicit account of many other factors, which at least theoretically, affect mining investment. It is the purpose of this section to briefly discuss these factors as they relate to Zimbabwe. Note that, while the flexible accelerator model estimated above is restricted to 1976-1997 period for reasons already given, the discussion in this section extends to the current period.

6.1 IRREVERSIBILITY, CAPITAL INTENSITY AND LEAD TIME CONSIDERATIONS

Investment irreversibility, capital intensity, long lead times and consequently long payback periods associated with mining have made the stability of regulations and security of titles critical factors to investment decisions (Gentry & O'Neil, 1984, p.5; and United Nations Conference on Trade and Development, 2010, p.39). As a result many Zimbabwean local mining enterprises have remained small-scale in order to reduce lead times, payback period and minimise resultant loss of investment in case of loss of titles.

6.2 RISK AND UNCERTAINTY

Mining is, from a market point of view, naturally high-risk business (See Gentry & O'Neil, 1984; and Gocht *et al*, 1988), and in Zimbabwe, it has recently been beset by uncertainty[1]. While export earnings *per se* can theoretically be projected based on international prices and planned output, there is uncertainty on these projections being actually realized where dynamics on property rights are prevalent. Many unfinished issues emanating from the country's land reform programme, for example, outstanding compensations and unending court disputes over farmland, have created perceptions of uncertainty, which have resulted in sustained caution as well as postponement of large-scale investment in exploration and mining. A case in point is the Lupane gas exploration and development project, which has been held back by lack of clarity on shareholding (Mushawevato, 2011, p.B5). The long time it took to get the Indigenization and Empowerment laws finalized has had negative effect on investment along the way. The Mines and Minerals Act amendments are still to be finalized. This whole

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[1] Risk is a situation in which the size (or various sizes) of an event occurs with some (known) probability (probabilities) so that we have a probability distribution of occurrences (Pearce, 1986). When the probability of occurrence is unknown we have an uncertainty.

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period of waiting has been characterized, at times, by highly inconsistent policy statements and pure political rhetoric, resulting in uncertainty in policy and policy stability.

The question of political regime stability (see definition in Otto, 1992) has also been a significant factor affecting mining investment in Zimbabwe for the past decade. Before 2007/2008 elections the country was in a mode of a '50-50' anticipated government change. After the elections, the resultant temporary inclusive government (including three main political parties) has only served to perpetuate perceptions of uncertainty regarding regime stability. In a situation where the ruling party may change there are questions regarding whether or not the new regime would respect bilateral mining agreements that would have been made by the previous regime. However, on a positive note, the fundamental system of government (see definition in Otto, 1992) has been stable in Zimbabwe for a long time. Zimbabwe has regularly held elections since independence in 1980, and most of these have been successful by average African standards.

6.3 FISCAL REGIME

Minerals are non-renewable and this gives rise to critical issues in the use of these resources (Gentry & O'Neil, 1984, p.6). The 'natural heritage theory' argues that mineral exploitation should benefit all people in the society (country). This, in practice results in a broad fiscal regime comprising not only corporate taxes and government fees for the ground surface rentals (Government of Zimbabwe, n.d.) and for the various mining-related activities (prospecting, registration, mining and inspections), but also royalties and resource rent taxes on private mining companies. Recently most rates on the above various charges were hiked which resulted in intense and protracted engagement between Government, the Chamber of Mines and representatives of small miners. Royalties on some minerals, for example, copper and chrome,are far higher than objectively measured mineral depletion/depreciation levels (Mlambo, 2012).

In the past, there has been significant scope for determining tax obligations in advance of investment because of the availability of such information and its long-term nature (until it was changed recently). Among some of the fiscal incentives that have significantly promoted mining investment are: (a) the right to market directly subject to reporting requirements to the Minerals Marketing Corporation of Zimbabwe; (b) import duty exemption on capital goods imported for purposes of mining in the first five years; (c) tax deductibility at 100% of all capital expenditure; and (d) the right to have offshore accounts for major mining projects (Government of Zimbabwe, n.d.).

6.4 INTERNAL RATE OF RETURN AND INTEREST RATE

Keynes' theory of investment suggests that the rate of interest (r) relative to the internal rate of return (i) is an important decision variable on whether or not a piece of capital equipment should be purchased (Pentecost, 2000; Shapiro, 1974). It would be profitable to purchase the equipment if $r < i$. Thus a change in either r or i affects net investment (Shapiro, 1974). The downward movement in i reflects increasing operational costs and constraints bearing upon the particular activity (mining, in this case).

Until recently, a number of factors have affected the internal rate of return adversely, at a time when the rate of interest was rising. Lack of foreign currency especially for non-exporting mines severely restricted their capacity to import new investment capital. Before the multi-currency regime (2002- early 2009), companies have had to apply for foreign currency at the Reserve Bank of Zimbabwe (RBZ) and most of the times would not get it. Rising cost of imported spares due to the high parallel market exchange rates and general domestic inflation caused an escalation of operating costs, including rises in the wage bill. The National Railways of Zimbabwe failed and still fails to adequately meet the needs of mining due to old equipment. Electricity tariffs rose and continue to rise steeply while at the same time power outages have become a frequent phenomenon. The recent economic difficulties in the country have also resulted in the flight of skilled labour in all categories, including geologists, engineers, technicians and managers (This paragraph is based on Chamber of Mines, 2010; Roussos, 1988; Mining in Zimbabwe Magazine, 2002/2003; and Hawkins, 2009)

Interest rates have not had significant effect on mining investment in Zimbabwe partly because there have not been any significant lines of credit to the mining sector for fixed capital investment from the local credit market due to low savings. For example, in December 2009, total deposits in the local banking sector amounted to US$1.3 billion, an insignificant figure considering the country's requirements (Chamber of Mines, 2010). Studies have also concluded that a negative relationship between investment and interest cannot be supported in Zimbabwe (Mlambo, 2010; and Dzawanda, 1994), while others, which have obtained results consistent with classical theory, have found them to be insignificant (Dailami & Walton, 1989). However, the local banking sector is sometimes an important source of working capital. In this case, interest rate becomes an important factor that affects the operation of mines hence affects the general business outlook (Chamber of Mines, 2010).

6.5 CASH FLOW

The Chamber of Mines (2010) identifies two sources of cash flow problems for the mining sector in Zimbabwe. The first is stiff surrender requirements. For the gold sector mines were required to surrender 100% of their proceeds since 1997 (up to 2009 at the advent of the multi-currency regime) by being forced to sell their produce to the Reserve Bank of Zimbabwe (RBZ) in return for Zimbabwe Dollars. Miners surrendered at rates that were tremendously lower (especially over 2002-2009) than those obtaining in the parallel market where they sourced a significant share of foreign currency for imports. Secondly, the Reserve Bank of Zimbabwe owed mining companies substantial amounts of money in foreign currency - this debt emanating either from the unauthorized use by the Bank of funds in private accounts of mines to fund critical areas of need during the economic crisis, or unpaid mineral deliveries. With such restrained cash flows it was very difficult for mines to meet operational requirements let alone to achieve net investments. This actually led to many mines closing down and most placed on care-and-maintenance at the peak of the economic crisis in the country.

7. CONCLUSIONS AND RECOMMENDATIONS

The study shows that current investment is positively related to previous output level. The negative relationship between current investment and current output apparently reflects an inevitable trade-off that is linked to the small-scale nature of a significant section of the mining sector in Zimbabwe. The study confirms that lagged investment is a significant predictor of current investment, exhibiting an almost one-to-one correspondence. This has been linked in other studies to the existence of investment adjustment costs and a budgetary process that uses the previous investment level as default. The whole accelerator model is found to be significant.

The paper, however, notes that the estimated flexible accelerator model is limited in that it does not take into account other factors that are generally known to have affected investment in Zimbabwe in recent years. Besides considerations related to capital intensity and long lead times, these include political risk and uncertainty, fiscal regime, cash flow, credit availability, business operational conditions and interest rate. Risk and uncertainty are related to the current empowerment drive, outstanding amendments on the Mines and Minerals Act and perceived political regime instability. The direct influence of interest rate on mining investment in Zimbabwe is however insignificant because of limited credit availability, although it has affected the cost of working capital and, consequently, the marginal efficiency of capital.

Promotion of mining production through enhancing availability and affordability of mining sector services such as geo-surveys and analytical services, would maximize the positive effect of lagged output while minimizing the trade-off between current output and investment. Risks and uncertainties in the sector may be reduced through creation of an accessible economic database, and promotion of finality and clarity of pertinent legislation and its orderly implementation. There is need to espouse macroeconomic policies that further stabilize the economy (Driver and Moreton, 1992), and to review the mining fiscal regime in order to have a long-term rather than short-term view of mining development.

8. LIMITATIONS OF THE STUDY AND SCOPE FOR FURTHER RESEARCH

The flexible accelerator model estimated in this paper is very simplified. The desired level of capital is not only a function of the output variable but also of rental cost of capital which, in turn, is affected by several variables including the nominal rate of interest, the expected rate of inflation, depreciation costs, corporate taxes and so forth. As Chan and Williams (1999, p.2) confirm, the most common version of the accelerator model ignores factor prices. The relevant output variable in the desired capital equation (equation 1) is actually the expected output, which is not observable (Investment, n.d., p.47). The desired capital-output ratio is dependent on the relative prices of labour and capital, and is not a constant, though in the current study it is assumed to be a constant (See also Parker,

2010, and Chan and Williams, 1999). A major component of mining investment in Zimbabwe is Foreign Direct Investment (FDI). Thus, factors related to foreign capital markets as well as the exchange rate become important in the modelling of mining investment. All these issues mean that the flexible accelerator model in this study is limited by its narrowness. Further studies on this topic would do well to allow for a variable desired-capital output ratio, incorporate some expectation formation processes on output and inflation, and find a way of incorporating the fiscal regime and FDI into the modelling of investment.

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FINANCIAL PERFORMANCE OF INDIAN GENERAL INSURANCE COMPANIES IN PRE RECESSION PERIOD

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ABSTRACT

Liberalization and globalization in Indian economy has changed the scenario to a large extent. With growing wealth and savings, behavior of investors and savers has changed and become more futuristic with aggressive risk taking appetite. India with more than 200 million middle class household has a great untapped potential in this sector. With drastic reforms and relaxed policies and regulation it become more competitive and unpredictable like other financial markets and have attracted several national international players competing with different insurance products and growing at rapid rates. In the light of these recent developments, a systematic analysis of the profitability and overall performance of general insurance is inevitable. The present study attempts to analyze the performance, growth and awareness of selected Indian general insurance companies 'like Bajaj Allianz General Insurance BAGI, Iffco-Tokio General Insurance ITGI, The New India Assurance Company ltd. , TNIA, Industrial Credit and Investment Corporation of India Lombard General Insurance (ICICI), The Oriental Insurance Company ltd. TOI, during the period of 2003-2007. For the purpose, ratios have been calculated and statistical tool ANOVA been implemented. At last concluding remarks and suggestions been given

JEL CODES

G20, G22, G28, G29

KEYWORDS

CR, PR, NPM, GPM, GPMR, SR, ANOVA, BAGI, ITGI, TNIA, ILGI, TOI.

INTRODUCTION

Survival of nation depends on growth which requires overall resources and finance is among the most important resources on which economical growth rotate. Insurance industry plays multiple significant roles in promoting economy of the nation. On one end it provides risk cover to individual or to projects and on other end it contribute long term funds generated from insurance products and policies which ultimately strengthen the economy. Insurance sector has made remarkable progress in mobilizing the resources and later in channelizing them. It has created big reservoir which is being utilized to fund socio- economic activities of national importance on socio- commercial base. It is direct descendent of the economic order and its growth and development has direct relationship with the levels of growth and sustainability of the nation's economy. Importance of insurance business covering wide variety of risk optimizes and increases with degree of changes in the environment. Everything has its life cycle and the journey of success and growth moves on the vehicles of various economic orders, from nomadic to agriculture, to information-economy to bio- economy. But due to high competition and technological up gradation and innovation, life of business and economies are becoming shorter and shorter and it has become a herculean task to predict the velocity of change. Therefore, befogging of business and emergence and reemergence of new economic models promoted law of increasing return in insurance sector to a great extent.

Indian insurance sector has created circular path, beginning from competitive liberalized market to nationalization and coming back again to a liberalized market. The organized business of insurance sector in India started without any regulations with the establishment of the Oriental Life Insurance Company in 1818. Due to British control the entire insurance industry was in the hand of overseas companies till 19th century. To regulate the insurance sector Life Insurance Companies Act was passed in 1912 but the first comprehensive legislation was introduced in 1938 as an Insurance Act. With growth and diversification it attracted innumerable operators but still far away to achieve maturity. The industry importance was recognized as a valuable assets and received due importance after independence. The need to cater the growing financial requirements and for better control in public interest after 1956 all the private insurance companies was nationalized to establish LIC. Further General Insurance Business Act was passed, and after 1972 all the non life insurance companies were nationalized and GIC got formed. In order to develop more effective reforms IRDA bill was initiated in the Parliament in December 1999 and later on 19th April 2000 Insurance Regulatory Development Authority (IRDA) was established and was entrusted with the power to regulate and register the private sector insurance companies along with protection of the interest of policyholders.

Indian Insurance Industry came a long way after independence in terms of innovative insurance product and policies, quality of services rendered and committed growth in penetration which has rose from 2.15% (2001-02) to 4.0% (2009-10) and achieved growth of insurance sector at the rate of 35%-40% year to year. After liberalization of Indian economy there was a remarkable improvement in Indian insurance sector, which is broadly characterized as Liberalization, privatization and globalization. The need of liberalizing the insurance sector was to free it from bureaucratic controls, to induce healthy competition and to provide multiple choices to the consumers through major structural transformations, by enhancing the efficiency of operation, reaching out to untouched areas and ultimately mobilizing long term financial reserves for socio- economic development. At early stage after independence LIC was the only company enjoying the monopoly. After liberalization and globalization of the economy the demand for financial resources increases, in order to support economic growth the door was opened for private insurance companies in 1999 under the strict supervision of IRDA and the journey of domestic and international private insurers started. Privatization infused the competition and witnessed dynamic changes (*Wide range of products, Insurance awareness, Insurance penetration, Increase contribution in GDP*) and phenomenal growth and ultimately forced the state players to adopt more attractive approach for their successful and smooth survival. By the end of 2007-08 in India there were 15 life insurance companies including 1 public sector companies and in General Insurance 5 public sector and 9 private sector companies were operating. Most of the private insurance companies are foreign multinational companies, either having their independent presence or operating indirectly through joint venture with reputed Indian business houses.

In India after privatization and liberalization there has been tremendous growth in insurance sector, "According to Business Line" that insurance industry grew to the size of 50, thousand crore in 2007, with compound annual growth of 175 percent and is likely to grow by over 200 percent and is expected to cross Rs 2 Lakh crore marks in business by 2010. It is expected that state owned insurance companies which was having monopoly with 99 percent insurance market in his hand till (2000) now have 64.34 % market share in 2009-10 will grow around 35-40 percent and private insurance companies with better communication, customer services, after sales services, product innovation and flexibility will grow by 140 percent. According to McKinsey, India's life insurance industry will double in the

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next five years from $40 billion to $ 80-100 billion in 2012. This growth would improve the level of insurance penetration from 5.1 % of GDP to 6.2% in 2010-2012.

Due to aggressive awareness and distribution approach of private sector insurers, the perception of customers considering insurance as a savings instruments or a tax saving tool has changed to risk cover and resulted phenomenal growth. Floating on the wave of growth the Life insurance sector, based on first year premium, has transformed itself from annual growth rates of 16-17 % in 2004-05 to 95% in 2006-07 and is expected stupendous growth in future. The general insurance industry has registered the growth of 11.6 percent till 2007-08. Consequently, private sectors participation in the non life insurance market rose from 26% in 2005-06 to around 40% in 2007-08 and public sector non life insurance grew by 8.6% in 2006-07. The market share of state owned companies recorded decline from 73% to 60%. The largest state owned company, New India Assurance recorded steepest declined from around 20% it came to 3%. By the mid 2007 market share of state owned companies came to 35% and on contrary private sector insurers market share surged to 40% in 2007 from 4% in 2001.

REVIEW OF LITERATURE

In the field of Insurance Industry large numbers of extensive research have been carried out worldwide in order to reveal the strength and opportunity along with its limitations. Through systematic and scientific approach the academicians and financial economist explored the obscure truth which became center of gravity and also set new parameters for others. However most of the studies are carried out in developed countries having sound earning and awareness and very few studies have been carried out in developing and underdeveloped countries. The studies carried out in India sub continent also lag behind in justifying the authenticity and validity of performance in insurance sector and thus invite study time to time. Keeping futuristic development, changes and consumer behavior in mind this study is conducted which is a humble initiative in these respects.

Kundu (2003) in his study discussed the impact of private participation in insurance industry. During his study he found that privatization have power to explore the potential of this sector to a extreme level by using latest technology and will penetrate deeply into the area which are untouched by the social sector insurance companies and this will provide opportunity to the mass who prefer regular and safe return with minimum risk, *Kpse.S and Kodwani d.g (2003)* in their study tried to explain the impact of the reforms. He suggested that for the purpose to attract all class of investors there is need to develop short term policies which have attractive features, safety of return, minimum risk and high liquidity, *Krishnamurthy. S, MonyS. V, Jhaveri. N, Bakhshi. S, Bhat. S and Dixit M R (2005)* in their paper tried to explain the status, growth and impact of insurance sector after liberalization and reforms. They revealed that growth of insurance sector depends on penetration which depends on awareness and quality services of insurance companies. Satisfaction of customer and increased saving will give pace to growth. Though reform has fueled the competition and created multiple choices to the customers' along with competitive efficiency, *Rastogi S and Sarkar R (2006)* in their research work identified and analyzed the causes and objectives which were instrumental for sector reforms. They found that India being second highly populated country in the world have least insurance. They compared present insurance industry status with pre liberalized era and augmented that this negativity can be converted into opportunity with proper reforms, *Murthy, R Babu and Ansari (2009)* in their study analyzed the performance of LIC in order to rationalize the impact of globalization and growing competitions which have been arises due to sector reforms. The study revealed that after reform LIC is facing direct competition from private players and has declined gradually with passing time. It is found that the growing competition became advantage to the customers and revolutionized the product range, efficient services in order to retain the policy holders and satisfying their expectations. Further they found that impact of competition is positive and have generated awareness and penetrated deeply and resulted in accumulated growth, *Pratima Chatterjee (2009)* in her study revealed that private insurer are improvising their growth rate year to year and on contrary LIC has declined to a great extent though it have still highest share in the market. Further she also found that with all problems industry is having upward trend, *C. Bharti, C. D. Balaji and Ch Ibohal Meithei (2011)* in their study examined the impact factor of reforms on the world fastest growing insurance market. They found that due to private participation entire industry has changed in all regards. The finding of the study suggests that insurance companies may not only focus on developing and improving the verity of products but explore new segments and develop effective strategies to achieve profitable growth.

OBJECTIVE OF THE STUDY

The core objective of the study is to understand and analyze their qualitative and quantitative performance and comparatively analyze their efficiency and profitability position. Another objective is to assess the best and worst performing among selected general insurance companies in India on the basis of their performance. The study is carried out to gain a practical exposure of financial analysis of general insurance companies in India.

HYPOTHESIS OF THE STUDY

The study tests whether the selected variables of sample companies vary significantly during the study period. This specific hypothesis is tested at appropriate time while analyzing and interpreting the results. Thus in orders to reveal authentic result following hypotheses have been taken to put on test:

H_1: The current ratio (CR) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

H_2: The proprietory ratio (PR) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

H_3: The solvency Ratio (SR) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

H_4: The return on investment (ROI) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

H_5: The fixed asset to net worth Ratio (FANWR) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

H_6: The gross profit margin Ratio (GPMR) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

H_7: The net profit margin Ratio (NPMR) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

H_8: The fixed asset (FA) position of bajaj allianz, iffco-tokio, the new India assurance, icici Lombard, and the oriental insurance company differ significantly.

RESEARCH METHODOLOGY

The study is carried out to make comprehensive evaluation of five most trusted and preferred General Insurance Companies in India for the period of five year from 2003 to 2007. For the purpose, selection of companies listed on the Insurance Regulatory and Development Authority (IRDA) is done by using simple convenience sampling and the research design adopted for the study is analytical and descriptive which is based on the secondary data and the secondary sources of data were the various websites, published annual reports and balance sheet of the companies. The selected companies for the study are Bajaj Allianz General Insurance, Iffco-Tokio General Insurance, The New India Assurance Company Ltd., Industrial Credit and Investment Corporation of India Lombard General Insurance (ICICI), The Oriental Insurance Company Ltd.

TOOLS USED FOR DATA ANALYSIS

The outcome of the study depends on the selected time period, implemented statistical and financial tools by the researchers which may differ from other analysis. For interpreting the results and to analyze the data variables used are: Current ratio (CR), Proprietary ratio (PR), Solvency Ratio (SR), Returns on Investment (ROI), Fixed Asset to Net worth Ratio (FANWR), Gross Profit Margin Ratio (GPMR), Net Profit Margin Ratio (NPMR), and Fixed Asset (FA). Further statistical tool used for interpreting the results are One-Way Analysis of Variance (ANOVA).

FUNDAMENTAL ANALYSIS

Fundamental analysis is a scientific approach to analyze the performance of the company as it tries to estimate the intrinsic worth of the company. It effectively, qualitatively and quantitatively analyzes the basic fundamental criteria like sales, revenue and balance sheet studies and all other fundamental aspects of the company. It critically, strategically and minutely focuses on a company's debt-equity ratio, earning per share, dividend payout, profit margins, interest, asset and dividend coverage, sales penetration, market share, product and market innovation and the promoter's track record. It is a distinct conservative, non-speculative approach of evaluating equity shares on value based method and constitute three phases: economic analysis, industry analysis and company analysis. In this study we have analyzed five companies in the field of General Insurance Sector on the basis of Fundamental analysis. In fundamental analysis we find out the comparative balance sheet, profit & loss account of each company.

DATA ANALYSIS ITS INTERPRETATION AND TESTING OF HYPOTHESIS

This section of paper embodies the calculation and scientific analysis of selected variables taken for the study. The ratios are being calculated by the aid of raw data revealed by the researchers which encompasses yearly results and Balance Sheet of the sample general insurance companies, after calculation of ratios the individual ratios are analyzed. The statistical tool used for analysis is One-way Analysis of Variance (ANOVA). It is performed by using software known as SPSS and the analysis and interpretation of study is carried out on chronological order of the parameters mentioned above

CURRENT RATIO

The current ratio is an indicator of the firm's commitment to meet its short-term obligations. This ratio measure the solvency of the company in short term. Ratio of 2:1 is considered as an ideal as it indicates a highly solvent position. Above all, this ratio will have adverse impact on the profitability of the organization. It is an index of the organizations financial stability since it shows the extent of the working capital, which is the amount by which the current assets exceed the current liabilities and is calculated as follows:

Current ratio = Current Assets, Loans& Advances / Current Liabilities & Provisions

The Current Ratio position of the sample companies is summarized in Table No. 1, and discussed below.

TABLE 1: CURRENT RATIO (CR IN %) OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	0.2605	0.8418	0.2961	0.4334	0
2004	0.2398	0.7332	0.3204	0.6292	0.2933
2005	0.207	0.6903	0.4645	0.522	0.3237
2006	0.3364	0.7788	0.5287	0.5561	0.3333
2007	0.2615	0.6745	0.5162	0.5654	0.4204
Average	0.26104	0.74372	0.42518	0.54122	0.27414

Source: Computed from the data available in annual reports of the concerned companies

It has been revealed from the above Table No. 1, that during the study period the Current Ratio (CR) of all the selected companies are having increasing trend accept BAGI. On an average ITGI generated CR of (0.74372), which is highest among all, followed by ICICI Lombard (0.54122), TNIA (0.42518), TOI (0.27414) and Bajaj Allianz generated lowest CR among all selected companies of (0.26104). Thus analysis reveals that ITGI was the most efficient general insurance company in the terms of generating current ratio among all the selected sample companies in the study and Bajaj Allianz least performer.

The Current Ratio position of the sample General Insurance Companies is compared and tested using the following hypotheses. The details are shown in Table 2.

HYPOTHESIS TESTING

Ho: CR position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly**.**

Ha: CR position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly**.**

TABLE NO. 2: ONE-WAY ANOVA FOR CURRENT RATIO (CR)

Source of variation	Sum of Squares	Df	Mean Square	F-ratio	5% F Limit
Between Groups	.809	4	0.202	20.305	F(4,21)=2.87
Within Groups	.199	20	9.963E-03		
Total	1.008	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is 20.305 which is greater than the table value of 2.87 (CV > TV at 5% significance level), the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, it is concluded that the CR position of BAGI, ITGI, ILGI, TNIA, TOI differ significantly.

PROPRIETARY RATIO

This ratio expresses the relationship between shareholders net worth and total assets and it also explains the established relationship between proprietors fund and total assets. Proprietors' fund means share capital plus reserves and surpluses, both of capital and revenue nature. While in calculating the ratio losses should be deducted and funds payable to others should not be added. Higher preparatory ratio is considered good for the health of an organization which indicates sound financial position of the business. It can be found by using following formula,

Proprietary Ratio = Owner's Equity / Shareholders Net Worth / Total Asset

The Proprietary Ratio position of the sample General Insurance Companies is summarized in Table 3, and discussed below.

TABLE 3: PROPRIETARY RATIO (PR IN %) OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	0.3788	0.4975	0.4405	0.3545	0
2004	0.2889	0.4049	0.559	0.4132	0.1279
2005	0.2449	0.3164	2.2036	0.3244	0.1437
2006	0.2524	0.371	1.7899	0.2275	0.1215
2007	0.2393	0.3318	2.2006	0.2684	0.1455
Average	0.28086	0.38432	1.43872	0.3176	0.10772

Source: Computed from the data available in annual reports of the companies concerned

From the above Table No 3 it is been found that during study period BAGI, ITGI and ILGI were having decreasing trend while TNIA and TOI were having increasing trend. On and average among all the selected companies for the study The New India Assurance (TNIA) have substantially higher proprietary ratio than others which is (1.43872) followed by ITGI (0.38432), ICICI Lombard (0.3176), Bajaj Allianz (0.28086) and TOI have the lowest of (0.10772). Thus after analysis it has been found that TNIA was the most efficient general insurance company in the terms of generating proprietary ratio and TOI in spite of having increasing trend was the worst performer with lowest proprietary ratio among all.

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The Proprietary Ratio (PR) position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 4.

HYPOTHESIS TESTING

Ho: PR position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly.

Ha: PR position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly.

TABLE 4: ONE-WAY ANOVA FOR PROPRIETARY RATIO

Source of variation	Sum of Squares	Df	Mean Square	F-ratio	5% F Limit
Between Groups	5.648	4	1.412	9.024	F(4,20)=2.87
Within Groups	3.129	20	0.156		
Total	8.777	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is 9.024 which is greater than the table value of 2.87 (CV > TV at 5% significance level), the null hypothesis is rejected and hence it is concluded that the Proprietary ratio position of BAGI, ITGI, ILGI, TNIA, TOI differ significantly.

NET PROFIT MARGIN (NPM)

The net profit margin is designed to focus attention on the net profit arising from business operations before interest and tax is deducted. This ratio reflects its ability to earn on the total sales after deducting all expenses but before deducting interest and taxation. Thus, we use EBIT for the purpose. The convention is to express profit after tax and interest as a percentage of sales and can be found by using the following formula.

$$\frac{\text{Net Profit}}{\text{Total Revenues}} \times 100$$

The Net Profit Margin position of the sample companies is summarized in Table 5, and discussed below.

TABLE 5: NET PROFIT MARGIN (NPM IN%) OF OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	0.42537	0.0323	0.0727	0.2254	0
2004	0.09409	0.02949	0.1624	0.0115	0.1461
2005	0.1855	0.0387	3.8527	0.8131	0.1396
2006	0.2053	0.0279	-3.0339	1.5287	1.4186
2007	0.2334	0.0347	4.4798	0.9762	2.34
Average	1.14366	0.03262	1.10674	0.71098	0.80886

Source: Computed from the data available in annual reports of the companies concerned

From the above Table No. 5 it has been found that on an average BAGI has outperformed others selected samples companies and aggregated the highest average NPM of (1.14366) and followed by TNIA (1.10674), TOI (0.80886), ILGI (0.71098), and ITGI (0.03262) respectively. Thus after analysis it has been found that BAGI was the most efficient company in controlling indirect expenses when compared to others and ITGI with lowest NPA was the worst in controlling indirect expenses.

The NPM position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 6.

HYPOTHESIS TESTING

Ho: NPM position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly**.**

Ha: NPM position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly.

TABLE 6: ONE-WAY ANOVA FOR NET PROFIT MARGIN (NPM)

Source of variation	Sum of Squares	Df	Mean Square	F-ratio	5% F Limit
Between Groups	4.006	4	1.002	0.321	F(4,20) = 2.87
Within Groups	62.356	20	3.118		
Total	66.362	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is .321 which is less than the table value of 2.87 (CV < TV at 5% significance level), the null hypothesis is accepted and hence it is concluded that the NPM position of BAGI, ITGI, ILGI, TNIA, TOI does not differ significantly.

GROSS PROFIT MARGIN RATIO (GPMR)

This ratio measures the GPM on the total net sales made by the company. It expresses the relationship between Gross Profit (Gross Margin) and Sales (net). It represents the excess of sales proceeds during the period under observation over the cost. Before taking into account administrative, selling and distribution and financing charges. To assess the efficiency of the company and its operations it is used as an effective tool and the outcome of it can be compared with previous year's results to find out the efficiency of the concern. It can be found by using formula as under:

Gross Profit Margin Ratio = $\dfrac{\text{Gross Profit}}{\text{Sales}}$ X 100

The Gross Profit Margin position of the sample companies is summarized in Table 7, and discussed below.

TABLE 7: GROSS PROFIT MARGIN RATIO (GPM IN %) OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	0.1129	0.0449	-0.0194	0.1738	0
2004	0.1153	0.0406	0.0154	0.0843	0.2438
2005	0.2091	0.0367	7.8666	1.4966	0.2255
2006	0.1429	0.0229	-3.7181	1.5769	0.1888
2007	0.1422	0.0322	4.9543	1.155	0.2344
Average	0.14448	0.03546	1.81976	0.89732	0.1785

Source: Computed from the data available in annual reports of the companies concerned

From the above Table No. 7 it has been found that during the study period among all the sample companies, TNIA sustained the highest average GPR of (1.81976) and followed by ILGI (0.89732), TOI (0.1785), BAGI (0.14448), and ITGI (0.03546) respectively. Thus, it has been found that TNIA is the most efficient and successful company in making Gross Profit among all the selected companies and ITGI is found to be worst performing companies in making Gross Profit.

The GPR position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 8.

HYPOTHESIS TESTING

Ho: GPR position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly.

Ha: GPR position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly.

TABLE 8: ONE-WAY ANOVA FOR GROSS PROFIT MARGIN RATIO (GPMR)

Source of variation	Sum of Squares	Df	Mean Square	F-ratio	5% F Limit
Between Groups	11.395	4	2.849	0.664	F (4,20) = 2.87
Within Groups	85.815	20	4.291		
Total	97.210	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is .664 which is lower than the table value of 2.87 (CV <TV at 5% significance level), the null hypothesis is accepted and hence it is concluded that the GPR position of BAGI, ITGI, ILGI, TNIA, TOI does not differ significantly.

SOLVENCY RATIO

Solvency ratio is computed to measure the financial position of a business. It measures the capacity and ability of a company meeting out its short term obligation which may also include those liabilities which are not currently payable. It establishes relationship between total liabilities and total assets and measures the size of a company's after tax income; excluding non cash depreciation expenses, as compared to a firms total debt obligations. The ratio varies from industry to industry; in general solvency ratio of 20% is considered normal. Company's lower solvency ratio indicates the greater chances of default on its debt obligations. It can be computed by using following formula as under

Solvency ratio = $\dfrac{\text{Total liability}}{\text{Total assets}}$

The SR position of the sample companies is summarized in Table 9, and discussed below.

TABLE 9: SOLVENCY RATIO (%) OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	0.6425	0.5009	0.5595	0.6643	0
2004	0.7069	0.592	0.4409	0.5809	0.5264
2005	0.7614	0.6937	4.4229	0.6669	0.4983
2006	0.7435	0.6388	3.7249	0.7457	0.391
2007	0.7618	0.67	3.8294	0.6851	0.4391
Average	0.72322	0.61908	2.59552	0.66858	0.37096

Source: Computed from the data available in annual reports of the companies concerned.

From the above Table No. 9 it has been found that during the study period among all the sample companies ITGI has performed better in handling total liability with higher total assets in every year. The study found that TOI have lowest average solvency ratio of (0.37096 %) followed by ITGI (0.61908 %), ILGI which have (0.66858), BAGI (0.72322) and TNIA has the highest among all that is (2.59552 %). Thus, it is been found that during study period TOI handled its liabilities efficiently and maintained it to lowest level and TNAI could not managed its liabilities efficiently and was found with highest percentage when compared to other selected companies.

The Solvency Ratio position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 10.

HYPOTHESIS TESTING

Ho: SR position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly.

Ha: SR position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly.

TABLE 10: ONE-WAY ANOVA FOR SOLVENCY RATIO (SR)

Source of variation	Sum of Squares	Df	Mean Square	F-ratio	5% F Limit
Between Groups	16.364	4	4.091	5.399	F (4,20) = 2.87
Within Groups	15.155	20	0.758		
Total	31.519	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is 5.399 which is higher than the table value of 2.87 (CV > TV at 5% significance level), the null hypothesis is rejected and hence it is concluded that the SR ratio position of BAGI, ITGI, ILGI, TNIA, TOI differ significantly

RETURNS ON INVESTMENT (ROI)

The fundamental objective of a business entity is to earn a return on capital invested. This ratio of a company measures the ability of the management of the company who takes the decision of investment in order to generate adequate returns for the capital invested. It judges the overall performance of the concern. It measures how efficiently the sources entrusted to the business are being used. ROI analysis provides strong incentive for optimal utilization of the assets of the company in achieving the profits and its productivity. It provides judicious measures for assessing the profitability among different alternatives. It is consisting of two components (a) Profit Margin and (b) Investment Turnover. The rate of ROI can be determined by dividing net profit or income by capital employed or investment made to achieve the profit. The formula used to compute the ROI is as under

Return on investment $= \dfrac{\text{Net profit}}{\text{Net Investment}} \times 100$

The ROI position of the sample companies is summarized in Table 11, and discussed below.

TABLE 11: RETURN ON INVESTMENT (%) OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	0.0672	0.0494	0.0309	0.018	0
2004	0.0537	0.0582	0.0514	0.1022	0.0487
2005	0.13	0.0707	0.0815	0.0817	0.0506
2006	0.0596	0.0292	0.6369	0.0453	0.1652
2007	0.0853	0.0515	1.1799	0.0349	0.2769
Average	0.07916	0.0518	0.39612	0.05642	0.10828

Source: Computed from the data available in annual reports of the companies Concerned

From the above Table No. 11 it has been found that during the study period TNIA outperformed all the sample companies in study with highest ROI of (0.39612) followed by TOI (0.10828), BAGI (0.07916), ILGI (0.05642), ITGI (0.0518) respectively. Thus analysis reveals that TNIA was the most efficient company in the terms to meet its long term obligations and ITGI found to be most inefficient company in order to meet its long term obligations.

The ROI position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 12.

HYPOTHESIS TESTING

Ho: ROI position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly.

Ha: ROI position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly.

TABLE 12: ONE-WAY ANOVA FOR RETURNS ON INVESTMENT

Source of variation	Sum of Squares	Df	Mean Square	F-Ratio	5% F Limit
Between Groups	0.425	4	0.106	1.963	F (4,20) =2.87
Within Groups	1.083	20	5.416E-02		
Total	1.509	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is 1.963 which is less than the table value of 2.87 (CV < TV at 5% significance level), the null hypothesis is accepted and hence it is concluded that the ROI position of BAGI, ITGI, ILGI, TNIA, TOI does not differ significantly.

FIXED ASSET TO NET WORTH

This ratio reflects the relationship between total fixed assets and the net worth of the concern. Total fixed assets are taken at the value shown at the end of the year as a whole. It can be computed by using following formula as under

Fixed Asset to Net Worth = $\dfrac{\text{Total Fixed Asset}}{\text{Net worth}}$

The FANW position of the sample companies is summarized in Table 13, and discussed below.

TABLE 13: FIXED ASSET TO NET WORTH (%) OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	2.1979	1.1625	1.8206	2.0089	0
2004	2.8745	1.3977	1.4611	1.5359	6.6099
2005	3.4389	1.6469	3.6057	2.0096	5.8363
2006	2.9704	1.3545	4.4868	2.5726	7.1578
2007	3.3469	1.6521	3.6458	2.2829	5.6045
Average	2.96572	1.44274	3.004	2.08198	5.0417

Source: Computed from the data available in annual reports of the companies concerned

The data from the above Table No. 13 reveal that on aggregate basis, TOI (5.0417) had the highest Fixed Asset to Net worth Ratio among all the selected companies during the period of study and followed by TNIA (3.004), BAGI (2.96572), ILGI (2.08198), and ITGI (1.44274) respectively. Thus, from the above data it can be concluded that TOI has managed highest proportion of Total fixed Assets in its total net worth and hence is the most efficient company among all other sample companies and ITGI in comparison found to be most inefficient with least ratio.

The FANW position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 14.

HYPOTHESIS TESTING

Ho: FANW position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly.
Ha: FANW position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly.

TABLE 14: ONE-WAY ANOVA FOR FIXED ASSET TO NET WORTH

Source of variation	Sum of Squares	Df	Mean Square	F-Ratio	5% F Limit
Between Groups	36.973	4	9.243	4.424	F (4,20) =2.87
Within Groups	41.788	20	2.089		
Total	78.761	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is 4.424 which is higher than the table value of 2.87 (CV > TV at 5% significance level), the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, it is concluded that the FANW position of BAGI, ITGI, ILGI, TNIA, TOI differ significantly.

FIXED ASSETS

This ratio is important for the company's long term policy and is computed to determine the efficiency of utilizing the fixed assets. It measures the relationship between net sales and Net total Fixed Assets. It is difficult to interpret as asset values are based on historic cost and produce variation in valuation of fixed assets by sale or purchase of any assets. This ratio indicates the number of times total assets are being turned over in a year. Higher ratio indicates the overtrading of total assets and low ratio indicates idle capacity. This ratio can be computed by using following formula as under:

Fixed Asset = $\dfrac{\text{Sales}}{\text{Fixed Asset-Depreciation}}$

The FA position of the sample companies is summarized in Table 15, and discussed below:

TABLE15: FIXED ASSETS (%) OF SAMPLE COMPANIES

Year	BAGI	ITGI	TNIA	ILGI	TOI
2003	9.0389	15.965	16.0935	59.1713	0
2004	7.9748	27.6256	17.4438	48.6021	34.2813
2005	12.0867	50.9015	0.9125	1.0743	36.3594
2006	16.6126	66.2845	-1.9504	0.7358	0.2
2007	16.8432	81.8364	0.2457	0.8032	0.237
Average	12.5112	48.5226	6.54902	22.0773	14.2155

Source: Computed from the data available in annual reports of the companies concerned.

The data from the above Table No. 15 reveal that during the study period on aggregate basis, ITGI had achieved the highest sales and has managed highest Fixed Asset Ratio that is (48.5226) followed by ILGI (22.0773), TOI (14.2155), BAGI (12.5112), and TNIA (6.54902) respectively. From the study it has been found that ITGI managed its resources efficiently and utilized its assets to optimal level and TNIA was found to be most inefficient in handling its assets and have lowest ratio among all the selected companies.

The FA Ratio position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 16.

HYPOTHESIS TESTING

Ho: FAR position of BAGI, ITGI, ILGI, TNIA and TOI does not differ significantly.
Ha: FAR position of BAGI, ITGI, ILGI, TNIA and TOI differ significantly.

TABLE 16: ONE-WAY ANOVA FOR FIXED ASSET RATIO

Source of Variation	Sum of Squares	Df	Mean Square	F-Ratio	5% F Limit
Between Groups	5426.601	4	1356.650	3.283	F (4,20) =2.87
Within Groups	8265.179	20	413.259		
Total	13691.780	24			
Source: One-way ANOVA has been calculated by SPSS					

Inference: Since the calculated value of F is 3.283 which is greater than the table value of 2.87 (CV < TV at 5% significance level), the null hypothesis is rejected and hence it is concluded that the FA ratio position of BAGI, ITGI, ILGI, TNIA, TOI differ significantly.

TABLE NO. 17 RANKING AFTER AGGREGATING SECURED POSITION IN FUNDAMENTAL RATIO

Ratio	BAGI	ITGI	ILGI	TNIA	TOI,
Current Ratio (CR)	5th	**1st**	2nd	3rd	4th
Proprietary Ratio (PR)	4th	2nd	3rd	**1st**	5th
Net Profit Margin Ratio (NPM)	**1st**	5th	4th	2nd	3rd
Gross Profit Margin Ratio (GPMR)	4th	5th	2nd	**1st**	3rd
Solvency Ratio (SR)	4th	3rd	3rd	5th	**1st**
Returns on Investment (ROI)	3rd	5th	4th	**1st**	2nd
Fixed Asset to Net Worth (FANW)	3rd	5th	4th	2nd	**1st**
Fixed Assets (FA)	4th	**1st**	2nd	5th	3rd
Ranked after Aggregating	**28**	**27**	**24**	**20**	**22**

From the above Table No.17 it has been found that with three first positions (PR, GPMR, and ROI) and aggregate of 20, TNIA has secured the top rank among all the competing companies followed by TOI on second rank with two first positions in SR and FANW and aggregate of 22, ILGI third rank with aggregate of 24, ITGI forth rank with aggregate of 27 and BAGI fifth rank with aggregate of 28 respectively

FINDINGS OF THE STUDY

- From the study it has been found that among all the selected companies ITGI has outperformed other competing companies and generated highest CR of (0.74372) and BAGI generated lowest CR of (0.26104).
- From the study it has been found that among all the selected companies TNIA had performed fairly better in proprietary ratio and had managed the higher of (1.43872) and TOI is found to be the most inefficient company in managing the ratio and has the lowest proprietary ratio of (0.10772).
- From the study it has been found that BAGI has aggregated the highest average NPM of (1.14366) and outperformed other competing companies in controlling the indirect expenses and ITGI with lowest NPA of (0.03262) was the worst in controlling indirect expenses.
- From the study it has been found that among all the selected companies TNIA is found to be the most efficient company and maintained the highest average GPR of (1.81976) and ITGI is found to be worst performing companies in making Gross Profit with lowest GPR (0.03546).
- From the study it has been found that among all the selected companies TOI handled its liabilities efficiently and maintained it to lowest level of (0.37096) and TNAI found to be the most inefficient company in managing its liabilities and have highest percentage of ratio that is (2.59552).
- From the study it has been found that among all the selected companies TNIA is the most efficient company in the terms to meet its long term obligations and has the highest ROI of (0.39612) and ITGI with the lowest ROI of (0.0518) is found to be the most inefficient companies in meeting its long term obligations.
- From the study it has been found that among all the selected companies TOI proven to be the most efficient company and had maintained the highest Fixed Asset to Net worth Ratio of (5.0417) and ITGI with lowest ratio of (1.44274) found to be most inefficient company.
- From the study it has been found that among all the selected companies ITGI managed its resources efficiently and utilized its assets to optimal level and have highest average Fixed Asset Ratio of (48.5226) and TNIA was found to be most inefficient in handling its assets and have lowest ratio of (6.54902).
- The New India Assurance Company ltd. (TNIA) has secured third position in CR with (0.42518), first position in PR with (1.43872), second position in NPM with (1.10674), and first position in GPMR with (1.81976), fifth position in SR with (2.59552), first position in ROI with (0.39612), second position in FANW with (3.004), fifth position in FA with (6.54902).
- The Oriental Insurance Company ltd (TOI) has secured fourth position in CR with (0.27414), fifth position in PR with (0.10772), third position in NPM with (1.14366), third position in GPMR with (0.1785), first position in SR with (0.37096), second position in ROI with (0.10828), first position in FANW with (5.0417), third position in FA with (14.2155).
- Industrial Credit and Investment Corporation of India Lombard General Insurance (ILGI) has secured second position in CR with (0.54122), third position in PR with (0.3176), fourth position in NPM with (0.71098), second position in GPMR with (0.89732), third position in SR with (0.66858), forth position in ROI with (0.05642), forth position in FANW with (2.08198), second position in FA with (22.0773).
- Iffco-Tokio General Insurance (ITGI) has secured first position in CR with (0.74372), second position in PR with (0.38432), fifth position in NPM with (0.03262), fifth position in GPMR with (0.03546), third position in SR with (0.61908), fifth position in ROI with (0.0518), fifth position in FANW with (1.44274), first position in FA with (48.5226).
- Bajaj Allianz General Insurance (BAGI) has secured fifth position in CR with (0.26104); fourth position on PR with (.28086), first position in NPM with (1.14366), fourth position in GPMR with (0.14448), fourth position in SR with (0.72322), third position in ROI with (0.07916), and third position in FANW with (2.96572), and fourth position in FA with (12.5112),
- From the study of all fundamental ratios of five companies it has been found that TNIA is better general insurance company and has secured the top rank among all the selected companies in the study. It had performed fairly better in proprietary ratio and has utilized its resources to optimal level and has earned return on its capital invested. It has positively maintained its GPR and ROI and has ability to meet out its long term obligations efficiently and BAGI is found to be the worst performer in all the fundamental parameter and have been ranked to lowest level among all the selected companies in the study.

CONCLUSION & SUGGESTIONS

Philosophy of Insurance is a futuristic approach relay on present economic structure and invites overall analysis of the general insurance industry and consumer financial capacity. From investment decisions point of view fundamental analysis is important as it aims at developing an insight into the performance of the insurance business and reveals the hidden truth for over all betterment. It is also important due to growing competition which has direct impact on consumer market. Despite of astonishing growth, Indian insurance sector have to face many unpredictable challenges like, regulatory challenges, corporate governance, stakeholders conflicts management, low market penetration, inefficient work force, capital adequacy and fund management, customer relationship and risk management, multi channel distribution network management, knowledge management, convergence management. In order to minimize if cannot control these challenges government and insurers have to formulate suitable strategies so that the insurance industry may become able to achieve its objective. To avail the advantage of untapped market company will fuel the competition to an extreme level with new and multi breed insurance product, with excellent and confused features with extensive services and price options. Sector success largely depends upon effective and efficient implementation of IRDA regulations which have existence with confused implementation. The study found that awareness about the insurance product to mass is very low which should be

improvised and mass should be informed about its merits and demerits and its documentations. After sale services of the insurance companies were found at minimum which should be made efficient and policies holders must be kept informed about their each and every things related to their policies. In order to achieve the target and monetary reward companies employs provide wrong information to the policy holder and even at the time of maturity they repeat the same activity and this act has created difference and mistrust. IRDA have to take stiff action on the companies in order to develop trust among the interested parties. Companies have to launch good tax saving and flaxy schemes along with proper guidance to the investor to invest their ideal money. Further, futuristic and concrete effort is required from all players including government as a parent body along with consolidating the development of the sector, common code of conduct, development of reserves funds, effective claim and settlement procedure etc which are presently very weak and need justified coordination and implementation. With vast untapped potential supported by domestic saving has attracted multinational insurance giant and they are exited enough and are ready to establish their competitive presence in emerging market. GOI have to take care about the multinational companies limit in Indian market keeping public interest in mind. Companies with fair and attractive product with pan India presence will rip the advantage and will establish their business for long run. Thus the present study has been conducted to examine the economic sustainability of the five major General Insurance Companies in Indian insurance sector "BAGI, ITGI, ILGI, TNIA and TOI". The outcome of the study produced that The New India Assurance Company Ltd (TNIA) had performed better than other selected companies in the study and topped the rank and followed by TOI second rank, ILGI third rank, ITGI forth rank and BAGI fifth rank respectively.

The fundamental analysis is done by calculating ratios, which are tools of qualitative analysis and may override the quantitative aspects. Companies follow different accounting policies which impact the result. All the analysis is carried out on published financial report of the companies which are window dress presentation and the produced result cannot be judicious. Interpretation of analysis can be used by the expert person not by the common policy holder so periodical reports should be in such a manner in which common citizen can understand the growth, risk and return of the sector. In last, success depends upon trust which is to be developed by reducing the shortcoming discussed above.

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POSTAL SAVINGS IN INDIA – A COMPARATIVE ANALYSIS USING REGRESSION AND ARIMA MODELS

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ABSTRACT

This paper analyses the receipts and outstandings of postal savings in India during the period 1970-71 to 2008-09 and forecast the receipts and out standings for the succeeding years. This analysis is made with reference to seven types of regression models and the Autoregressive Integrated Moving Average (ARIMA) model. In regression analysis, the choice of the best model will be on the basis of maximum R^2 and the principal of minimum mean square error used for best time series models. In ARIMA, the model which has minimum value of AIC (Akaike Information Criterion) and BIC (Bayesian Information Criterion) is selected.

KEYWORDS

Regression model, R^2 value, Principal of minimum mean square error, ACF, PACF, ARIMA, Receipts, Outstanding, AIC and BIC.

INTRODUCTION

aving is the difference between income and expenditure. Savings help the economy to grow significantly through proper investment. Developing countries could encourage domestic savings through postal departments. Before the advent of private financial services, postal savings had played crucial role in both developing and developed countries by providing financial assistance to all segments of the people. Postal departments involved the public in the savings with the development objectives towards meeting the national infrastructure requirements such as electric power, railroads, highways and the like. When the nation was reeling under acute financial crisis, such savings were timely and they boosted the morale of a nation.

During the early stages, postal banking and other state owned banks had been complementary to each other rather than competing. The distinct features of postal savings which have their sway both in rural and urban areas have been caught by the adverse political influence.

The financial liberalization initiated in the 80's gathered momentum only after 1991. Presently, all interest rates, except on all small savings schemes of post office, provident fund, Government bonds and schemes for senior citizens are market determined. Yet, the overall household savings increased from 17 % of GDP in 1980's to 25.5 % of GDP in 2003-04. The paradigm shift from an inefficient and sheltered economy to an efficient and a market determined economy made the public feel insecure and prompted them to accumulate savings unmindful of less interest to face any eventuality like loss of job. Pensioners also started increasing their savings to the optimum level.

Several countries face major challenges of regulating and managing the government backed financial institutions competently keeping in pace with the changing business scenario. Such regulatory treatment helps the depositors to repose their confidence in the savings in the context of market volatility elsewhere in the financial sector. If a strong private financial sector develops the need for Government backed savings and banking institutions shall decline. However, the process of privatizing such institutions is fraught with political conflict. Under the guys of financial crisis, the financial sector of any country poses a threat of uncertainty in the minds of people. In this juncture the postal savings method shall be a morale booster   and will create confidence among the investing public. Hence a strong political consensus must be evolved to give more support to postal savings which is a protectionist form of banking institution in India.

THE STUDY

India possesses the largest postal network in the world with 155000 post offices spread all over the country as on March 31, 2001, of which 89 per cent in the rural sector. Post offices in India play a vital role in the rural areas. They connect these rural areas with the rest of the country and also provide banking facilities in the absence of banks in the rural areas. Post office saving is the best form of savings schemes which provide substantially higher rates of interest and pose relatively lesser risks of suffering losses.

Post offices offer various types of accounts. They are:

a.   Savings Account
b.   Recurring Deposit Account
c.   Monthly Income account
d.   Time Deposit Account

Post offices also offer various saving and tax saving instruments such as:

a. National Savings Certificates
b. Public Provident Fund
c .Kisan Vikas Patra

The post office savings are easily accessible and people friendly. Therefore, the post office savings has been widely accepted by different sections of Indian society and the people of different age groups. Estimation of postal receipts and outstanding shall help government to plan the development of infrastructure and to implement different welfare schemes in India. However, postal saving systems have received little attention in the academic literature and are even excluded from the research studies. Hence an attempt is being made to forecast the values of postal receipts and postal outstanding which has a bearing on the exchequer of the Central Government. An attempt is also proposed to check the adaptability of the statistical models of regression and ARIMA in forecasting the values of postal receipts and outstanding.

METHODOLOGY AND TOOLS

Forecasting can be done in many ways. There are many models available for forecasting a time series data. Exponential smoothing method and Regression methods are some of the methods used for forecasting. Auto Regressive Integrated Moving Average (ARIMA) model is also another popular method and is widely used to forecast the time series data in the recent days.

This paper is dealt with the analysis of two aspects of postal savings namely receipts and outstanding, using Regression and ARIMA methods. For the study, the total postal receipts and outstanding during the period 1970-71 to 2008-09 has been taken.

MODEL DESCRIPTION

The following tentative regression models have been set out to forecast the postal receipts and outstanding.

1.   Linear (LIN)

$$y_t = a + bt$$

2.   Quadratic (QUA)

$$y_t = a + bt + ct^2$$

3.   Power (POW)

$$y_t = at^b$$

4.   Exponential Growth (EPG)

$$y_t = ae^{bt}$$

5.   Logarithm (LOG)

$$y_t = a + b\log t$$

6.   Cubic (CUB)

$$y_t = a + bt + ct^2 + dt^3$$

7.   Inverse   (INV)

$$y_t = a + \frac{b}{t}$$

where a,b,c,d are the constants and t the time.

A time series is said to be stationary if its underlying generating process is based on constant mean and constant variance with its Autocorrelation Function (ACF).The Autocorrelation function refers the simple correlation between the current observation (Y_t) and the previous observation (Y_{t-p}). The ACF is defined by,

$$r_p = \frac{\sum_{t=p+1}^{n}\left(Y_t - \overline{Y}\right)\left(Y_{t-p} - \overline{Y}\right)}{\sum_{t=1}^{n}\left(Y_t - \overline{Y}\right)^2}$$

It ranges from $-1 < r_p < 1$. Box-Jenkins [1] has suggested that the maximum of useful r_p are roughly N/4, where N is the number of periods upon which information on Y_t is available. The Partial Autocorrelation Function (PACF) is used to measure the degree of association between Y_t and Y_{t-p}. when the Y effects at other time lags 1…p-1 are removed.

The general model is ARIMA(p,d,q) :

AR: p   = order of the Regression part

I : d   = degree of difference

MA: q   = order of the moving average part

ARIMA (p,d,q) is defined by $\phi_p(B)\, \Delta^d\, Y_t = \theta_q(B)\, \varepsilon_t$ where $\phi_p(B) = 1 - \phi_1 B - \ldots - \phi_p B^p$, $\theta_q(B) = 1 - \theta_1 B - \ldots - \theta_q B^q$, B is the backshift operator, Δ is the difference operator, ε_t is residual follows normal distribution with mean 0 and variance σ^2. ϕ_p, p and θ_q, q are respectively autoregressive and moving average parameters. d denotes differences.

The different models can be obtained for various combinations of autoregressive and moving average individually and collectively. The best model is obtained with the following diagnostics Law.

Akaike's Information Criteria (AIC) is defined by

AIC = −2 log L + 2m,

where m = p + q and L is the likelihood function.

However, a useful approximation to the AIC is obtained via the approximation $-2 \log L \approx n\,[1 + \log(2\pi)] + n \log \sigma^2$, where σ^2 is the variance of the residuals and n is the number of observations in the series. Also AIC can be written as, $AIC \approx n[1 + \log(2\pi)] + n \log \sigma^2 + 2m$.

Schwartz Bayesian Criteria (SBC or BIC) is defined by,

SBC = log σ^2 + (m log n)/n.

Forecasting the future periods using the parameters of the tentative model has been selected. We entertain six tentative ARIMA models and choose the model which has minimum AIC (Akaike Information Criterion) and BIC (Bayesian Information Criterion).

MODEL IDENTIFICATION FOR RECEIPTS

The values of the tentative regression and ARIMA models have been calculated for postal receipts [see Table 3] by using the SPSS package are given in Table1.

Since R^2 value of EPG is maximum, it is the best regression model to forecast the receipts and since the ARIMA (2,1,1) has the smallest AIC and SBC vales this model has been selected.

ACTUAL AND ESTIMATED VALUES FOR RECEIPTS

The actual receipts of postal savings and the values of forecast through regression and ARIMA models are given in Table 3.

It is inferred from Table 3 that the actual receipts of postal savings which stood at Rs.785 crore in the year 1970-71 has increased to Rs.1,54,836 crore in the year 2006-07, bearing a marginal decrease during the years 1986-87, 1991-92, 1992-93, 1995-96 and 1996-97. But it could be observed that there was a decrease of considerable amount of Rs.31,184 crore during the year 2007-08. The reduction in interest rates by banking sector to face the financial crisis had some positive impact on postal savings and has been witnessed by the increase in receipts by Rs.20,004 crore during the year 2008-09.

The amount of decrease during the years 2006-07 and 2007-08 had its influence on estimated values of receipts of postal savings for the future periods. The forecast values under regression model seem to be continuously increasing from Rs.785 crore to Rs.5,65,888 crore during the period 1970-71 to 2014-15. Whereas the values of forecast under ARIMA model fluctuated according to the trends in actual receipts of postal savings during the period 1970-71 to 2014-15. The increase in estimated values under ARIMA model did not correlate with the forecast values of regression. The value of Rs.5,65,888 crore estimated under regression for the year 2014-15 seems to be abnormal and which cannot be realised in the present financial situation. The forecast value of Rs.98,368 crore for the year 2014-15 under ARIMA model could be reasonable and justified. The graphical presentation given below also proves the results.

MODEL IDENTIFICATION (FOR OUTSTANDING)

The values of the tentative regression and ARIMA models have been calculated for postal outstanding by using the package is given Table 2:

Since R^2 value of EPG is maximum, it is the best regression model to forecast the postal outstanding and since ARIMA (1,1,1) has the smallest AIC and SBC values, ARIMA (1,1,1) is the most suitable model to forecast.

ACTUAL AND ESTIMATED VALUES FOR OUTSTANDING:

The actual postal outstanding and the values of forecast through regression and ARIMA models have been given in Table 3.

It could be observed from table 2 that the actual postal outstanding has increased from Rs.1,281 crore in the year 1970-71 to Rs.56,4372 crore in the year 2006-07. But the actual outstanding was Rs.5,09,411 crore in the year 2007-08 resulting to a decrease by Rs.54,961 crore. Whereas the year 2008-09 marked with an increase in outstanding and it amounts to Rs.5,44,340 crore with an increase of Rs.34929 crore. The fluctuating trend in postal receipts from the year 1970-71 to 2007-08 was the reason for decrease in postal outstanding in the year 2007-08.

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The estimated value of postal outstanding under regression was steadily increasing from Rs.1,591 crore in the year 1970-71 to Rs.21,52,656 crore in the year 2014-15. It is evident from the table that the postal outstanding estimated under ARIMA is Rs.5,94,816 crore in the year 2014-15. The forecast value worked out under ARIMA model is quite reasonable because it nearer to actual postal outstanding. But the amount worked out under regression is assumed to be over estimation.

MODEL ESTIMATION AND TESTING

The parameters of the receipts model ARIMA (2,1,1) are estimated using SPSS package. They are reported as $AR_1 = 0.24476$; $AR2 = -0.50115$ and $MA_1 = -0.99006$. Although our selected model may appear to be the best among those models considered, it is also necessary to do diagnostic checking to verify the model is adequate. After finding out the ACF and PACF for residuals, it is checked whether there is any significant autocorrelation and significant partial autocorrelation. Since there is no significant autocorrelations and partial autocorrelations (Fig 3 and Fig 4) the selected ARIMA model is an appropriate one.

The fitted model for the postal receipt is

$$(1 - \Phi_1 B - \Phi_2 B^2)(1 - B)Y_t = {}_{(1 - \Theta_1 B)e_t.}$$

i.e $Y_t {}_{-1.24476} Y_{t-1} {}_{+0.74591} Y_{t-2} {}_{-0.50115} Y_{t-3}$

$= e_t {}_{+0.99006} e_{t-1}$.

The parameters of the outstanding model ARIMA (1,1,1) are estimated using SPSS package. They are reported as $AR_1 = 0.72386$; and $MA_1 = -0.26141$. As above we have the selected ARIMA model is an appropriate one.

The fitted model for the postal outstanding is

$$(1 - \Phi_1 B)(1 - B)Y_t = {}_{(1 - \Theta_1 B)e_t.}$$

i.e $Y_t {}_{-1.72386} Y_{t-1} {}_{+0.72386} Y_{t-2} = {}_{0.26141} e_{t-1} {}_+ e_t$.

It is proved with the help of the graph (Fig 1 & Fig 2) that the regression curve shows a steep increase in postal receipts as well as outstanding whereas the curve of ARIMA is normal and represents the real increase in postal receipts and outstanding.

TABLE 1

Model	Estimated Model Equation	R^2
LIN	$y_t = -38981.71 + 4004.76t$	0.73576
QUA	$y_t = 17178.61 - 4213.82t + 205.46t^2$	0.93162
POW	$y_t = 98.54 + t^{1.798}$	0.83772
EPG	$y_t = 6.515886e^{0.149561}$	**0.99187**
LOG	$y_t = -67326.45 + 39661.37 \log t$	0.42160
CUB	$y_t = 5508.34 - 919.44t + 2.149t^2 + 3.388t^3$	0.93680
INV	$y_t = 52482.07 - \dfrac{104235.63}{t}$	0.11661

ARIMA (p,d,q)	AIC	SBC
111	797.41086	802.32362
211	**792.5842**	**799.13454**
212	801.10628	809.29421
213	796.46595	806.29147
312	796.9906	806.81612
313	800.86801	812.32111

TABLE 2

Model	Estimated Model Equation	R^2
LIN	$y_t = -133716.39 + 13132.757t$	0.71218
QUA	$y_t = 73928.55 - 17254.32t + 759.68t^2$	0.95058
POW	$y_t = 156.31 + t^{1.99}$	0.86415
EPG	$y_t = 7.23e^{0.16}$	**0.99554**
LOG	$y_t = -221286.76 + 128093.05 \log t$	0.39583
CUB	$y_t = -11475.30 + 6854.17t - 728.20t^2 + 24.80t^3$	0.97815
INV	$y_t = 165173.57 - \dfrac{332232.51}{t}$	0.10663

ARIMA(p,d,q)	AIC	SBC
111	**865.44**	**868.71**
112	866.95	871.86
113	868.63	875.18
211	867.13	872.05
212	869.29	875.84
213	869.04	877.23

ERROR ANALYSIS

Mean square error (M.S.E) =
$$\frac{\sum_{i=1}^{n}[\text{Forecasted value of year i - Actual value of year i}]^{2}}{n}$$
where n is the number of years.

Forecasting error = $\dfrac{|\text{forecasted value - actual value}|}{\text{actual value}} \times 100$

Average forecasting error (A.F.E) = $\dfrac{\text{sum of forecasting error}}{\text{number of errors}}$

TABLE 3: VALUES OF M.S.E AND A.F.E

	Receipts		Outstanding	
	Regression	ARIMA	Regression	ARIMA
M.S.E	106405044.2	41783102.82	2673381523	402545307.8
A.F.E	13.35 %	11.29%	8.75%	7.32%

TABLE 4: SHOWS THAT THE VALUES OF M.S.E AND A.F.E ARE LESS IN ARIMA FOR BOTH RECEIPTS AND OUTSTANDING

Year	Actual Receipt Values	Forecast Through Regress.	Forecast Through ARIMA	Actual Outstan-ding	Forecast Through Regress.	Forecast Through ARIMA
1970-1971	785	785	--	1281	1624	--
1971-1972	914	911	785	1604	1913	1281
1972-1973	1047	1058	1006	2035	2252	1811
1973-1974	1290	1229	1127	2608	2652	2322
1974-1975	1325	1428	1486	2969	3122	2989
1975-1976	1553	1658	1253	3664	3677	3284
1976-1977	1716	1925	1800	4190	4330	4112
1977-1978	2033	2236	1734	4824	5098	4609
1978-1979	2563	2597	2428	5764	6003	5282
1979-1980	2918	3015	2867	6978	7068	6382
1980-1981	3119	3502	3161	8244	8323	7786
1981-1982	4006	4067	3098	9774	9800	9149
1982-1983	4362	4723	5002	11507	11540	10840
1983-1984	5558	5485	4283	14321	13588	12730
1984-1985	7123	6370	6904	17953	16000	16114
1985-1986	8594	7397	7877	22365	18840	20348
1986-1987	8302	8591	10198	25820	22184	25358
1987-1988	9591	9977	6452	29613	26122	28589
1988-1989	12619	11586	11870	34954	30758	32456
1989-1990	16875	13455	15157	44329	36218	38555
1990-1991	18016	15626	21360	52874	42647	50121
1991-1992	17238	18147	14948	58595	50217	59109
1992-1993	17735	21074	17249	60948	59130	63667
1993-1994	24077	24474	18557	67696	69626	63989
1994-1995	34667	28422	33158	83337	81985	72036
1995-1996	32748	33077	40967	93728	96537	92365
1996-1997	33612	38332	25543	106111	113673	102066
1997-1998	46935	44516	35603	126755	133850	115125
1998-1999	55820	51698	63249	155296	157609	139922
1999-2000	69965	60038	32697	187510	185586	173768
2000-2001	79311	69723	75379	225087	218527	209735
2001-2002	81753	80971	81473	262856	257317	251270
2002-2003	105602	94034	90313	313793	302991	290637
2003-2004	135970	109204	126571	375737	356773	348391
2004-2005	158519	126822	157813	457732	420101	418122
2005-2006	173283	147281	173686	527629	494671	512537
2006-2007	154836	171041	173569	564372	582476	581460
2007-2008	123652	198634	127254	**509411**	685865	602199
2008-2009	143668	230679	103193	544340	807611	497905
2009-2010	--	**267893**	**93189**	--	**950965**	**556427**
2010-2011	--	**311111**	**97389**	--	**1119764**	**566729**
2011-2012	--	**361301**	**100063**	--	**1318525**	**575511**
2012-2013	--	**419588**	**98446**	--	**1552568**	**582996**
2013-2014	--	**487278**	**97787**	--	**1828153**	**589377**
2014-2015	--	**565888**	**98368**	--	**2152656**	**594816**

FIG. 1: COMPARISON OF ACTUAL, REGRESSION AND ARIMA VALUES (FOR RECEIPTS)
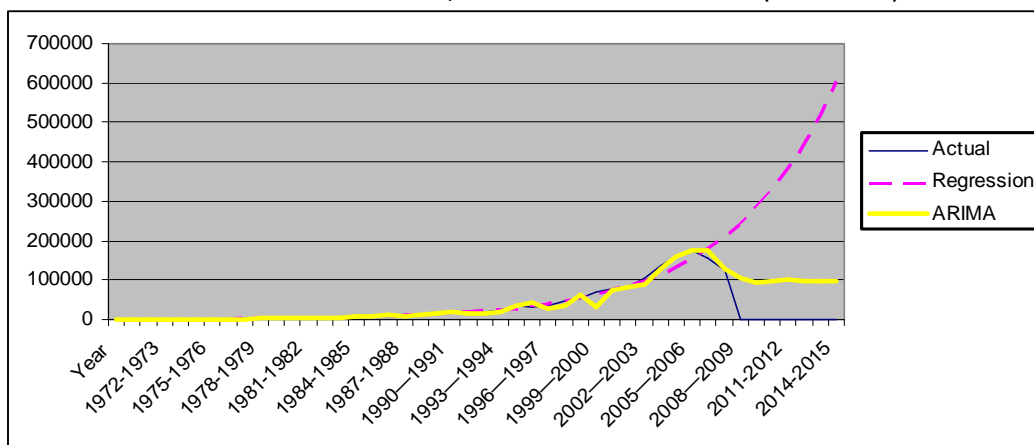
FIG. 2: COMPARISON OF ACTUAL, REGRESSION AND ARIMA VALUES (FOR OUTSTANDING)
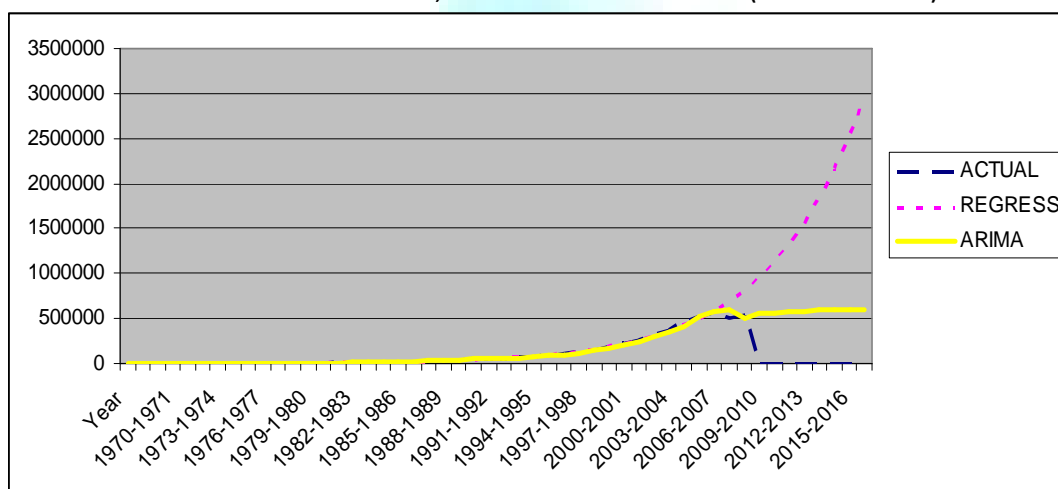
FIGURE 3: ACF OF RESIDUALS (RECEIPTS) OF FITTED ARIMA MODEL
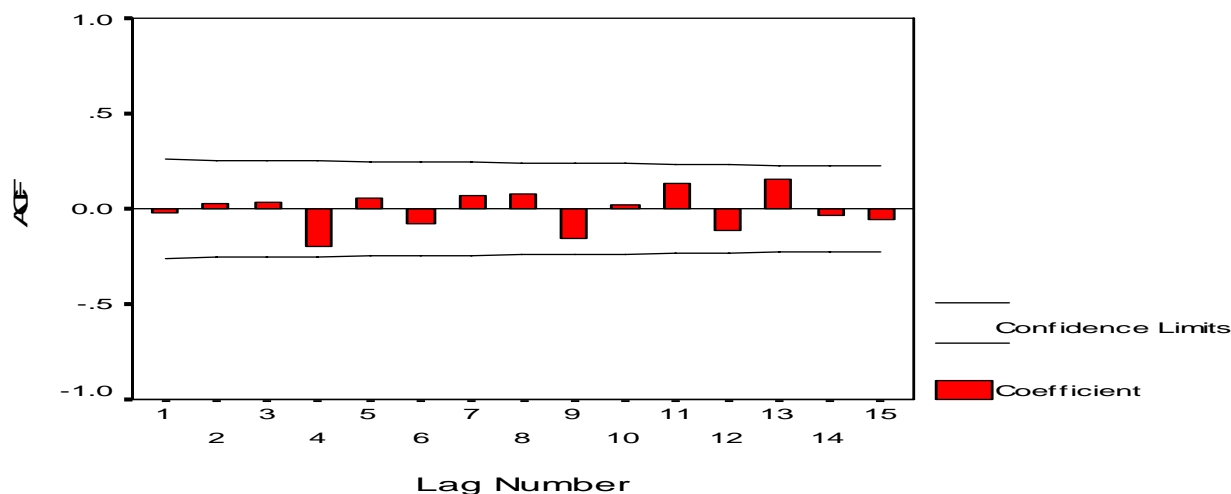
FIGURE 4: PACF OF RESIDUALS (RECEIPTS) OF FITTED ARIMA MODEL
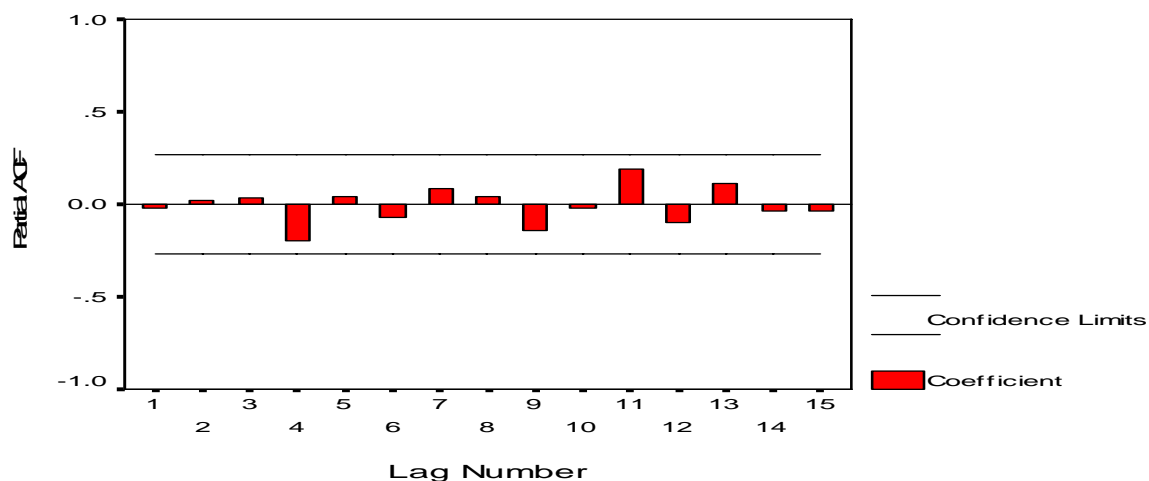
CONCLUSION

ARIMA model offers a good technique for predicting the magnitude of any variable. Its strength lies in the fact that the method is suitable for any time series with any pattern of change and it does not require the forecaster to choose a priori, the value of any parameter. It can be successfully used for forecasting long time series data. Predicted values of postal receipts and out standings for the years 1970-1971 to 2014-2015 are shown in table 3. The inflow of postal savings is not encouraging in the study period. But the outstanding seems to be a over burden on the part of the government. The study acknowledges that the values of forecast under ARIMA model are realistic and accurate.

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FDI IN RETAILING: BOOST EMPLOYMENT OPPORTUNITIES FOR INDIA'S YOUTH

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ABSTRACT

Organized retailing in India is still at a nascent state, but offers tremendous opportunities for growth. Not surprisingly, leading Indian business groups, including the Tatas, the Aditya Birla Groups, Reliance and Future, continue to invest large sums in establishing an extensive network of retail outlets. It was disheartening to see the government put on hold the decision to open multi-brand retail sector to foreign direct investment (FDI) following bitter opposition from several political parties and other stakeholders. This has really come as a big surprise to India watchers across the world, especially after two decades of very successful economic liberalization in the country. This progressive piece of economic reforms that has potential to transform the nation has because it obviously fallen victim to imaginary fears and general lack of awareness about the positive aspects of such a decision. According to Government estimates, opening the sector to FDI can easily create nearly 10 million additional employment opportunities in the country by next three years. Four million new jobs can be created in the front-end stores alone. The back-end warehousing and logistics systems will be able to create another 5-6 million opportunities. Therefore this paper investigates the FDI in retailing and the employment opportunities for India's educated youth, in Vellore District, Tamil Nadu, India. Primary data using convenient sampling through questionnaire and interview method and secondary data from wide range of literature and various journal publications have been utilized. Frequency distribution and one way ANOVA were used to test the objectives of the study. In order to test the reliability of the scale, the researcher applied Cronbach Alpha (CFA) to measure the internal consistency of the variables. The findings of the study emphasize the FDI in retailing and the employment opportunities for India's youth. A study on FDI in retailing: Boost employment opportunities for India's youth are the original work of the authors.

KEYWORDS
FDI, Retailing, Employment opportunities.

INTRODUCTION

The luxury myth in India is today a reality. Fancy a French luxury brand introducing premium designer saris priced between Rs.3,00,000 and Rs.4,00,000 in India? In addition to the French, there have been prominent European and American Brands, including a few from Italy, rolling out India-inspired products ranging from clutches and watches to shoes and jackets. This not only symbolizes an audacious spurt of creativity, innovation and experimentation, but also mirrors the ongoing revolution in India retail, in general, and in the clothing and apparel sectors, in particulars, over the past five years. This was adequately endorsed recently by the Prime Minister Dr. Manmohan Singh's cabinet by giving the green signal to 51% FDI in multi-brand retail and 100% in single brand. Although the government's move stumbled over political compulsions, the fact remains that the retail sector is stated to be worth around $50 billion, it contributions about 14% to India's gross domestic product (GDP) and is growing at dizzying rate of 15%. Based on this background, this research paper highlights the FDI in retailing that will boost employment opportunities for India's educated youth by conducting a survey among commerce graduates in Vellore District, Tamil Nadu in India.

ORGANISED RETAILING IN INDIA – PRESENT SCENARIO

The organized retailing began in the 1990s, it consolidated over the next decade and is now poised for rapid growth. However, it still constitutes an insignificant share of the total retail trade in the country. McKinsey and Company, in its report on the great Indian bazaar; organized retail comes an age in India – notes that these are exciting times for Indian retail. By 2015, India is set to become a $450 billion retail market, comparable in size to Italy ($462 billion) and much larger than Brazil ($258 billion). The report estimates that organized retailing accounts for less than 5% of today's market, but is expected to expand to anywhere between 14% and 18% by 2015. Especially, in just about four years, 6.5 million households – adding up to 300 million individuals, almost equaling the U.S. population, would patronize organized retailing.

FOREIGN DIRECT INVESTMENT (FDI)
FDI is the investment in a foreign country through the acquisition of a local company or the establishment there of an operation on a new (Greenfield) site. To put in simple words, FDI refers to capital inflows from abroad that is invested in or to enhance the production capacity of the economy.

FDI IN RETAILING – HERCULEAN ACHIEVEMENT
If a pronouncement by the commerce minister is reported that four million jobs will be created in three years by opening up FDI in retailing. Even assuming FDI in retail will immediately lead to mega investments, the current reality tells a different story. A review of existing organized retailers show a turnover in the range of $15 billion to $18 billion, leading to the creation of about one million direct and indirect jobs. This implies that FDI retailers need to generate $60 billion of turnover in India by then. That could be 40 to 50% of the total retail market in 53 cities with over one million population they will be allowed to operate in, sounds preposterous does it not? Even if my estimates are 50% off the mark something will hopelessly aims in the government's projections. I would guess that in three years it would be a Herculean achievement if FDI leads to the creation of even 0.3 to 0.4 million net additional jobs.

PAY BONANZA IN ORGANIZED RETAIL
It is inferred from table 1 that Pay scales for organized retail shopping mall employees are getting nearly a monthly salary of Rs.5,750 to Rs.6250 compared to others unorganized retail shopping mall employees, they get a monthly salary of Rs.4,000 to Rs.4,500. This shows that the organized retail shops are giving more salary compared to other unorganized kirana shops.

TABLE 1: PAY SCALES

Nature of job	Salary per month (in Rs.)
BPO/back office	7,000 to 7,500
Driver	6,500 to 7,000
Organized manufacturing	6,000 to 6,500
Organized retail	**5,750 to 6,250**
Unorganized retail	4,000 to 4,500
Shop floor at unorganized factory	4,000 to 4,500
Peon / delivery boy	3,100 to 3,400
Security	2,800 to 3,000
Community services	2,600 to 2,800

Source: Business Standard, December 3, 2011.

FDI POLICY AT GLOBAL LEVEL

It is very interesting to note that the multi-brand retail FDI policy in other countries like China approved 100% limit that reflects employment opportunities rose from 28 million to 54 million from 1992 to 2001. Where as in Thailand 100% FDI in multi-brand had adverse effect on the local retailers are given in table 2.

TABLE 2: FDI POLICY AT GLOBAL LEVEL

Country	FDI limit (in %)	Benefits
China	100	1. First permitted in 1952 and foreign ownership limited to 49%, now no restrictions 2. 600 plus hypermarkets between 1996 and 2001 3. Number of small outlets (equivalent to kiranas) increased from 1.9million to over 2.5 million. 4. Employment in retail and wholesale sectors rose from 28 million to 54 million from 1992 to 2001
Thailand	100	1. Referred to as country where FDI had adverse effect on the local retailers 2. Has limited capital need for retail and wholesale outlets. Growth in agro processing industry
Russia	100	1. Supermarket revolution took place in 2000s. 2. Heavy growth registered
Indonesia	100	1. Modern retail took off in 1990s 2. No limit on number of outlets

Source: Sunday Times of India, December 4, 2011.

REVIEW OF LITERATURE

Jayadev (2012), studied that retail sector has emerged as one of the most appealing investment areas for domestic as well as foreign investors. And this high growth curve owes some credit to a booming economy and liberalized FDI. **Pranab Barua (2012),** expressed that the opposition to organized retailing has mainly been on the basis of a fear psychosis about the threat to the existence and livelihood of unorganized players. **Rajan Bharti Mittal (2012)**, pointed out that the dynamics of front-end retailing have often been misunderstood, generating too many irrational fears among key stakeholders. The unorganized supply chain, with numerous middlemen in between the source of production and the retailers, results in enormous wastage of food products. **Rajesh (2012)**, stated that when we consider the case of the chain stores, the value offering of wider range, better service and better shopping experience, is not constant across stores. Given our population, one would assume that there would be an abundance of such focused stores, which is not the case. **Dilip James (2011),** reviewed that it would be a herculean achievement if FDI leads to the creation of even 0.3 to 0.4 million net additional jobs. At the same time, contrary to the view of those opposing FDI, it is also unlikely that there will be large-scale extinction of the kiranas or small stores. **Joeanna Rebello Fernandes (2011)**, studied that why the kiranawala has a charm of his own? The local grocer runs his business with a heart, his ties with neighbourhood customers run deep. **Sainath (2011)**, stated that here is the wonderful thing about the FDI in retail debate; never have struggling Indian farmers found so many champions. They have been crawling out of the woodwork. **Faizur Rahman (2011)**, pointed out that the FDI is an instrument of corporatocracy through which it seeks to enslave us. **Chandrasekhar (2011)**, expressed that with deep pockets and international sourcing capabilities, global retail chains will out compete domestic players, displace jobs, and undermine livelihoods. **Rawat (2011)**, said that, "It will send a very negative message to foreign investors". FDI in multi-brand retail could have created over 10 million jobs in three years, curbed wastage of farm products and benefited farmers.

STATEMENT OF PROBLEMS

Based on the above literature, the researcher identified the various problems of the study are that the current fragmented retailing structure is inefficient both in terms of cost economics, quality control and protection of consumer interest. The unorganized supply chain, wit numerous middlemen in between the source of production and the retailers, results in enormous wastage of food products in the country. Final retail prices also get inflated as a result of this. Lack of an efficient back-end infrastructure (could storage and related supply chain linkages) today results in wastage of 30-35% of fruit and vegetables produced in the country. That is to say for every 100 kg of fruits and vegetables produced in the country, only 60-70% kg are actually consumed. Earnings of farmers also go down as a consequence of this massive wastage. Lack of an efficient sourcing and storage infrastructure results in wastage of 5-7% of food grain. Both these combined translates into losses of over Rs.1 trillion annually. At the same time, contrary to the view of those opposing FDI, it is also unlikely that there will be large-scale extinction of the kiranas or small stores. The truth is that there is little clarity, since global experience with opening retail FDI in different countries has been mixed and the degree of future impact extremely difficult to assess. The logic that multinational retailers will not invade the turf of the local kirana is also misplaced since significant consumer spend takes place in the neighbourhood stores. Over time, the multinational retailer will want to capture this by setting up neighbourhood stores and not be confined to suburban hypermarkets. Based on the above various problems and constrains it is very clear that there is some fear psychosis among kiranas because they would not find a place to sell their products in local market and there by the workers who work in kiranas will lose their jobs.

RESEARCH QUESTION AND HYPOTHESES

In this study, the researcher is seeking to answer the following question:

Is it FDI in retailing will really boost employment opportunities for India's youth or not?

In order to conduct this investigation and to answer the proposed question and considering the results achieved by the previous studies, the following hypotheses are formulated:

Ho: (Null hypotheses) There is no significant relationship between native and FDI in retailing will boost employment opportunities for India's youth

H1: (Alternative hypotheses) There is significant relationship between native and FDI in retailing will boost employment opportunities for India's youth

OBJECTIVES OF THE STUDY

1. To study the demographic profile of the respondents
2. To identify that FDI in retailing boost employment opportunities for India's youth.

METHODOLOGY OF THE STUDY

The study is based on the primary sources of data which are collected through questionnaire from final year commerce graduates in Vellore District, Tamil Nadu, India, to identify the FDI in retailing will boost employment opportunities for India's youth.. A convenience sample was used for this study. A total of 121 questionnaires were distributed and collected form the respondents. The sample population for the research is defined as all persons including males and females of 18 years and above. The questionnaire consisted of 10 questions (Appendix 1). Section A consists of demographic questions while section B contains five point Likert's scale questions to measure the FDI in retailing will boost employment opportunities for India's youth among the commerce graduates. The respondents were required to rate the various statements ranging from 5 (strongly agree) to 1 (strongly disagree). The statistical techniques of percentage analysis and variance of analysis (ANOVA) is used to determine the variables, which determine their behaviour of FDI in retailing will boost employment opportunities for India's youth. To analyze data the SPSS 11.5 for windows was used.

RELIABILITY TEST

The researcher commonly used the Cronbach Alpha (CFA) coefficient in order to indicate the internal consistency of the scale. A high value of the CFA coefficient suggests that the items that make up the scale "hang together" and measure the same underlying construct. In this paper the value of CFA obtained 0**.781** shows good internal consistency among the variables.

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LIMITATIONS OF THE STUDY

The study pertaining to FDI in retailing covers only in Vellore district, Tamil Nadu. It does not cover the whole Tamil Nadu. The data collected for the study is limited to only 121 samples. The results of the study will not reflect the same when it was conducted in other districts. The study period is limited to six months only i.e, from 1st November, 2011 to 31st April, 2012.

ANALYSIS AND INTERPRETATION
1. PERCENTAGE ANALYSIS
The data pertaining to demographic factor of the respondents were given in table 1.

TABLE 3 DEMOGRAPHIC FACTOR

Demographic factor		No. of respondents	Percentage
Gender	Male	72	58
	Female	49	42
	Total	**121**	**100**
Native	Rural	38	31
	Urban	83	69
	Total	**121**	**100**

Source: Primary data

INFERENCE
From table 1 it is inferred that, 72 respondents out of 121 belong to male category and 49 respondents out of 121 belongs to female category. With regard to native 38 out of 121 respondents belongs to rural area and 83 respondents out of 121 belongs to urban area. Therefore, it is very clear to say that majority of respondents belongs to male and they are from urban area.

II. ONE WAY ANOVA
TESTING OF HYPTHOSIS

TABLE 4: CROSS TABULATION BETWEEN NATIVE AND BOOST EMPLOYMENT OPPORTUNITIES

Variable	Boost employment opportunities					
Native	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Total
Rural	0	0	0	18	20	38
Urban	7	13	32	31	0	83
Total	**7**	**13**	**32**	**49**	**20**	**121**

Source: Primary data

TABLE 5: ONE WAY ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	14.586	4	3.646	36.869	.000
Within Groups	11.769	116	.099		
Total	**26.355**	**120**			

Source: Primary data

FINDINGS

1. It is inferred from table 5, the calculated value of ANOVA is 0.000, which is less than the hypothetical value ($\alpha = 0.05$) at 5% level of significance. Therefore, null hypothesis is rejected and accepted alternative hypothesis. Hence, it can be assumed that there is statistically significant relationship between nativity and FDI in retailing helps boosting employment opportunities for India's youth.

2. It revealed that the urban commerce students (83 out of 121 respondents) are more positive in approaching towards welcoming FDI in retailing because they get more employment opportunities in marketing field in India.

3. It shows that 58% of the male commerce student respondents are willing to work under retailing sector especially in marketing sector.

CONCLUSION

Based on the above research study it is concluded that, India has all ingredients for retail-led growth. It shows that this is the right time for action. The fact that millions of young educated Indians, including from rural and semi-urban areas, are entering the job market and earning substantially requirements that the retail trade will have to cater the basic needs of all Indians. Today, a modern retail chain has to have access to huge funds, experienced and qualified staff members and expertise of the institution to predict the consumer trends and its tastes. The gains from organized retailing are numerous, covering both consumers and producers. And among the biggest beneficiaries are governments and local authorities, who are able to gain substantial direct and indirect tax revenues.

SCOPE FOR FURTHER RESEARCH

The study on FDI in retailing boost employment opportunities for India's youth conducted only in Vellore District, Tamil Nadu alone. This study can also be extended to whole Tamil Nadu or India by collecting more questionnaires from commerce graduates or from retail customers who purchase consumable goods from organized Indian retail companies like Pantaloon, Reliance, Tata Group and Aditya Birla or from foreign chains like Wal-Mart stores, Tesco, Metro AG and Carrefour.

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ANNEXURE

<div align="center">QUESTIONNARE</div>

I. Personal Information:

Name (Optional)   :

Gender   :   Male   ( )   Female   ( )

Native   :   Rural   ( )   Urban   ( )

II. FDI in retailing: Boost Employment Opportunities for India's Youth

Please read each statement carefully and decide to what extent it applies to you. Tick the appropriate number as per the table given below.

5. Strongly agree   4. Agree   3. Nither agree nor disagree   2. Disagree   1. Strongly disagree

----

1. Small and medium retail traders will lose their livelihood.	5	4	3	2	1
2. Benefits from supply chair tie-ups and technology	5	4	3	2	1
3. Increased competition for land manpower and market share.	5	4	3	2	1
4. Setting up efficient back end infrastructure best by road Blocks	5	4	3	2	1
5. 51% FDI in multiple brand would affect small stores and to job losses and affect farmer's earnings.	5	4	3	2	1
6. FDI a win-win for farmers, consumers and industry will lower prices and rain in inflation.	5	4	3	2	1
7. Traders fear giong out of business as they feel large foreign retailers have deeper pockets and longer staying power.	5	4	3	2	1
8. FDI gives potential for capital inflow, value unlocking and create 10 million jobs in three years	5	4	3	2	1

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KERALA BUILDING AND OTHER CONSTRUCTION WORKERS WELFARE FUND BOARD - A MACRO PICTURE

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ABSTRACT

Construction is one of the oldest activities of mankind. Construction workers are the founders of the national reconstruction process. The growth rate of workforce in the construction sector is much higher than in other sectors of the economy. Compared to other sectors the entire activity in the construction sector is seasonal, intermittent and mostly interconnected. The unique characteristic of the construction industry poses difficulties in the implementation of labour welfare measures as compared to other industries. Kerala was the first state in India which enacted and implemented a social security scheme to the workers in this sector- The Kerala Building and Other Construction Workers Welfare Fund Board. The Fund was created by collecting 1 percent of the cost of construction from the builders and a monthly contribution of Rs 20 from the members. This Board has already enrolled more than 16 lakh workers and accumulated funds to the extent of 450 crores. In every year Kerala collects Rs 35 crore as cess from the builders and owners. The present study helped to assess the general frame work of the Board and its impact on the conditions of construction workers in Kerala. The study revealed certain crucial factors relating to the frame work of the industry and functioning of the Welfare Fund Board.

KEYWORDS

Construction, Kerala, Labour welfare, Social Security Scheme, Unorganized.

INTRODUCTION

The Construction workers are one of the most numerous and vulnerable segments of the unorganized sector in India. The construction work is characterized by its casual nature, temporary relationship between employer and employee, uncertain working hours, lack of basic amenities and inadequacy of welfare facilities. These unique characteristics of the construction industry make it difficult to implement labour welfare measures in this sector compared to other industry. But compared to the welfare schemes in other sectors and types of workers in unorganized sector, the implementation of the scheme is easy; as the owners and builders who undertake the construction work has to approach the local authorities for getting their plans sanctioned. Although the provisions of various Labour Laws and Central Acts like Minimum Wages Act 1948, Contract Labour (Regulation & Abolition) Act 1970 and Inter-State Migrant Workmen (Regulation of Employment & Conditions of Services) Act 1979 *etc.*, are applicable to the building and other construction workers, a need was felt for a comprehensive and separate legislation for this category of workers. Consequently, Kerala Construction Workers' Welfare Fund Board, a Welfare Fund for the construction Workers for the first of its kind in India was formed in 1989, which came in to effect from 1.1.1990. Based on this the Central legislation; The Kerala Building and other construction workers (Regulation of Employment and conditions of Service) Act 1998 and The Kerala Building & Other Construction Workers' Welfare Cess Rules were enacted by the Government of Kerala in 1998.

STATEMENT OF THE PROBLEM

Kerala, when compared to other states in India, is in the forefront with regard to the indicators of social development and quality of life. It is a fact that the establishment of Welfare Fund Boards has been a major landmark in the Labour welfare legislations in Kerala and the institutions constituted under them seem to have had a major impact on the informal labour markets of the State. They are also supposed to have added a new dimension to the social security system of Kerala. Yet, several issues involved in providing social security to workers in informal labour markets appear to have not received the attention they deserve.

Realizing the need for Social Security Schemes for the unorganized sector workers Kerala Government has initiated several progressive measures to provide Social Security to workers in the unorganized sector such as agricultural workers, toddy workers, cashew workers, construction workers *etc.* Among these Kerala Building and Other Construction Workers Welfare Fund Board (KBOCWWFB) is unique in nature and worth emulating for other unorganized sector workers. Implemented in 1990, the Board has so far covered 14 lakhs employees out of 16 lakhs working in the construction sector. Even though the coverage is satisfactory to a certain extent, there is conflicting views regarding the impact of the scheme on the employees and the way the schemes are implemented. Hence an attempt to evaluate the working of the scheme and its impact on the socio economic fabric of construction workers in Kerala is in order. As the board has been functioning in the state for the last 18 years, a performance study at this stage will help to identify the inherent flaws of the scheme and inadequacies in its planning and design.

OBJECTIVES OF THE STUDY

Against this background, the following objectives are set for the purpose of the study
1.   To make an overview of the evolution and growth of social security schemes in Kerala.
2.   To expose the socio economic conditions of construction workers in Kerala.
3.   To analyse the structure and functioning of Kerala Building and Other construction Workers Welfare Fund Board (KBOCWWFB).

4. To analyse the consequences of the implementation of the scheme and evaluate the role of the Board in uplifting the socio economic conditions of its members.
5. To attempt an empirical investigation of the nature and trend of benefits to the registered members of the Board.
6. To analyse whether the members are satisfied with the service of the Board
7. To examine critically the role of trade unions and its leaders in enrolment and disbursement of the benefits of the Board.
8. To identify aberrations, if, any, in the working of the Board and to make suggestions in the light of findings to improve the work efficiency and services of the Board.

REVIEW OF LITERATURE

Many of the studies both in developed and developing countries relate to the social security schemes in the formal sector. Hardly any concerted attempt has so far been made to study the working of social security schemes in the unorganized sector.

Studies on Social Security measures in western developed countries show that Social Security measures are at a much-advanced stage in these countries. However, some studies in these countries also revealed that the major issues confronted by them center on relentless upsurge in the cost of social security schemes and its negative economic impact on labour supply, saving and investment.

Colin Gillion (2000) makes a critical examination of the approach of the ILO towards social security and values the reforms and the development of pension schemes in the social security sector.

Deborah Kasentein (2000) points out the efficiency and equity costs of ignoring gender and non-formal social security systems and proposes action for policymakers in Africa.

John Dixon (2000) rank social security systems in 172 countries using a comparative evaluation methodology that enables an assessment to be made of a country's statutory social security intention. The study found that while seven of the ten best-designed social security systems in the world can be found in Western Europe, Australia has the best-designed one.

Warren McGillivray (2001) while studying the Implications of Contribution Evasion of social security pension schemes looked into the nature of contribution evasion and identified the reasons of contributions evasion. He described the possible practical measures to promote compliance and also outlined the dangers of contribution evasion to participants and to the State as well.

Irudaya Rajan.S (2002) discusses the social security programmes for the disadvantaged elderly population in the unorganised sector in three South Asian countries, India, Sri Lanka and Bangladesh.

Roddy McKinnon (2004) in his study on the role of International Social Security Association (ISSA) argues that the ISSA should assume a more active and vocal position in promoting a central role for large-scale and compulsory social security within an emerging international-organization.

RESEARCH METHODOLOGY

To analyse the regional differences, a district wise comparison was made. To pinpoint the impact of KBOCWWFB on its members, a comparison of Tamil Nadu Construction Workers Welfare Fund Board (TNCWWFB) and Kerala Board on selected parameters were tried.

Both primary and secondary data were used for the present study. The present study is mainly based on primary data. A well-drafted interview schedule was used to collect data from the respondents. Pre-testing of the schedule was conducted by administering it on a small sample in Malappuram district. The interview schedule was modified in the light of the suggestions received.   The first part of the interview schedule evaluates the socio–cultural, educational and family background of the construction workers and the second part is entirely devoted to questions, which indirectly measure the impact of the Board on its members. Primary data for the study were collected from the construction workers; both members and non-members. The primary data were supplemented by collecting information through interviews with trade union leaders, contractors, architects and engineers who are associated with construction work. In addition, information was also gathered by holding discussions with members and Chairman of the Managing Committee of the Board and other Officials.

The performance and functioning of the Board was primarily analysed by collecting secondary data from the offices of Kerala Building and Other Construction Workers Welfare Fund Board, Tamil Nadu Construction Workers Welfare Fund Board, offices of other Welfare Fund Boards in Kerala, Labour department; Government of Kerala, the publications and records of various trade unions, Department of Economics and Statistics, Kerala Planning Board and other related agencies.

Four districts were selected for the purpose of the study. The districts selected were Thiruvananthapuram (Trivandrum) as the capital of the state, Ernakulam as the district in which construction activities take place on a mass scale, Malappuram as the district where the people spent a major portion of their earnings from gulf countries on construction activities and Wayanad as the district having least construction activities and lowest number of membership in the Welfare Fund Board. Stratified random sampling technique was used for the purpose of the sampling. The sample size is selected under proportional allocation method. As the districts having construction activities on a large scale, equal number of members and non members (300 each) were selected from the districts of Thiruvananthapuram, Ernakulam and Malappuram, and as a district having the least construction activity, only 100 members each were selected from Wayanad. Even though the Board classified the workers in 26 categories, for the purpose of this study, the sample workers, both members and non-members were categorised into 7 - Masons, Carpenters, R.C.C. workers, Wiremen, Painters, Helpers and Others.

The data collected from the sample workers were analysed on a member -non member basis. To pin point the regional differences a district wise analysis was also attempted. For the purpose of analysis of the collected data, simple mathematical and statistical techniques like percentages, averages, ANOVA, CAGR, Standard Deviations etc were used. For analytical purpose of primary data Microsoft Excel and *Statistica* software programme have been used. The statistical technique of Chi-square test was used to analyse the significant difference of various parameters between the members and non-members as well as among different districts.

The period of this study covers the whole life of the Board since its inception in 1990. However, the fieldwork for the study was conducted during 2005-2007.

DEFINITIONS OF THE TERMS USED

1. The Board: The Kerala Building and Other Construction Workers Welfare Fund Board, constituted as per The Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Kerala Rules[2] 1998.
2. Member: A construction worker who has enrolled to The Kerala Building And Other Construction Workers Welfare Fund Board
3. Non-member: A construction worker who has not enrolled to The Kerala Building and Other Construction Workers Welfare Fund Board.
4. Welfare Fund Schemes: Welfare Fund Schemes under the Kerala Building and Other Construction Workers Welfare Fund Board for the construction workers.
5. Construction Worker: Any person who is employed for wages to do any work in connection with a construction work and who gets his wages directly or indirectly from an employer or from a contractor including supply of materials for construction works.

DATA ANALYSIS AND INTERPRETATION

THE BUILDING AND OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT 1996

When the Government of Kerala enacted a welfare scheme in 1990, for the first time in India, for the welfare of construction workers; Government of India thought of enacting a comprehensive law for the entire country with the intention of regulating employment conditions and providing safety, social security and

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[2]. Published in Kerala Gazette Ex No-1366 dt 17-8-1998, as SRO No 720/93 & G O (P)No.53/98/LBR dt 14-8-1998.

welfare measures to construction workers. Accordingly, a Central law was enacted -The Building and Other Construction Workers' (Regulations of Employment and Conditions of Service) Act, 1996 and all the states were asked to frame rules as provided in section 62 of the Act. It laid down provisions to extend pension, insurance and other social security benefits to construction workers

The Act has provision for setting up a Welfare Board at the State level. There is provision for levy of cess at 1 to 2 per cent of the cost of the construction. The Fund has to be utilized for the purpose of welfare activities such as providing assistance to the families of the construction workers in case of accident and providing old age pension, housing loans, payment of insurance premium, medical and maternity benefits and for the education of children.

Though it is a very progressive piece of legislation providing social security to millions of construction workers, very few states have started its implementation. Concerted efforts are being made to persuade State Governments to implement the Act. A Central Government team under the Labour and Employment Secretary has been visiting various States in the country and holding special meetings and consultations with senior officers in the State Governments to impress upon them the need to implement such a progressive legislation in their States at the earliest. In spite of these best efforts of the Central Government, most of the State Governments have not been able to implement the Act properly. Only few states viz, Kerala, Madhya Pradesh, Tamil Nadu, Pondicherry, Orissa and Delhi have started implementation of the Act. This may be partly due to the practical difficulty of implementing these schemes in the unorganized sector.

Kerala was the first state in the country to implement the Act and has already enrolled about 14 lakh[3] construction workers and accumulated funds to the extent of Rs. 320 Crores. Every year Kerala collects around Rs. 35 Crores as cess from the builders and owners.

OBJECTIVES

The main objective of this Fund is to promote the welfare of the construction workers by providing pension, meeting medical expenses, marriage assistance, housing loan etc.

The preamble of the Kerala Construction Workers' Welfare Act 1990 describes its objective as *"to provide for the constitution of a fund, to grant relief, to promote the welfare of and to pay pension to the construction workers in the State"*. The definition of the construction workers, as given in the Act, is *"any person who is employed for wages to do any work in connection with a construction work and who gets his wages directly or indirectly from an employer or from a contractor including supply of materials for construction works"*.

This Fund was in operation in the state till 1998. In August 1996, Government of India enacted Building and Other Construction Workers' (Regulations of Employment and Conditions of Service) Act of 1996, the provisions of which are applicable to all states. Accordingly, the name of the Fund was changed to "Kerala Building and Other Construction Workers' Welfare Fund Board" with effect from 1st September 1998. As per the provisions of this Act the monthly contribution became uniform -Rs 20 per month and the employers or owners have to contribute 1 per cent of the cost of construction to this Fund; where the cost of construction exceeds Rs 10 Lakhs.

The important features of the KBOCWWFB are the following:

1. It provides a measure of social security and welfare assistance to the workers in the construction sector.
2. It is a tripartite body with representatives of the workers, employers and government, with veto powers for the government on policy matters.
3. It has an office with a Chief Executive (Secretary) appointed from Government departments.
4. There is a mandatory financial contribution from the workers and employers.
5. It enjoys minimal financial contribution from the Government; (at present there is no contribution from the Government).

FUNCTIONS

The main function of the Board is registration of construction workers as member of the Board and disbursements of various benefits and advances to the members. Since this Board is a virtual extension of the erstwhile Kerala Construction Workers' Welfare Fund Board, there was no difficulty in the implementation of the Act. Further, saving clause under section 63 of the Central Act ensures that the concerned state governments can continue all the benefits, enjoyed by the members under the existing state Acts; even if there is no provision for the same in the Central Act. Accordingly, the Board in Kerala till recently refunded the contribution made by the members with interest; even though there is no provision in the Central Act.

MANAGEMENT AND ADMINISTRATION OF THE BOARD

The Welfare Fund is administered by a Board called the "Kerala Building and other Construction Workers' Welfare Fund Board" consisting 17 members nominated by the government as follows:

A) Five members representing the construction workers/trade unions
B) Five members representing the contractors /employers
C) Five members representing the government
D) A member nominated by the government of India
E) Chairman appointed by the government

The Board has its Head Quarters at Thiruvananthapuram and has District Offices at all the Districts. The Chief Executive namely the Secretary is appointed by the Government not below the rank of joint Labour Commissioner, Labour Department of Government of Kerala. The other officers and staff are appointed by the Government on deputation from various Government departments; which is one of the main criticisms leveled   against the Board. Table 1 shows the administrative machinery of the board at the Head Quarters and   at District levels.

As given in Table 1, there are 32 employees at the Head Quarters and 158 employees in the 14 District offices. The pattern of staff except that of the Additional District Executive Officer are uniform, irrespective of the number of members enrolled or number of new applicants pending for registration or for getting benefits. However, through internal arrangement the Board shift and redeploy the staff to other District offices. Further, out of these 190 employees, 175 employees are on deputation from various departments of the Government; only 15 Part Time Sweepers are permanently employed.

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[3] As on 31st March 2008.

TABLE 1: ADMINISTRATIVE MACHINERY OF THE BOARD

Sl. No.	Name Of Post	Chief Office	District Offices
1	Secretary	1	Nil
2.	Executive Officer (Head Quarters)	1	Nil
3.	District Executive Officer	Nil	14
4.	Additional District Executive Officer	Nil	4
5.	Accounts Officer	1	Nil
6.	Senior Superintendent	2	Nil
7.	Junior Superintendent	2	Nil
8.	Head Clerk	Nil	14
5.	U.D. Clerk	1	14
6.	L.D. Clerk	15	56
7.	Confidential Assistant	1	Nil
8.	L.D. Typist	2	14
9.	Driver	2	Nil
10.	Peon	3	14
11	Peon –cum-Process Server	Nil	14
12.	Part time Sweeper	1	14
	Total	**32**	**158**

Source: *Annual Reports of the KBOCWWFB*

WORKING OF THE WELFARE FUND BOARD

Kerala Board has mobilised fund around Rs 320 crores (as on 31-03-2008) from workers and builders. The Fund has formulated several benefit schemes such as pensions, death benefit, accident/disease benefit, health and maternity benefit, housing assistance, family pension, and grants for marriage and education of the children. The number of workers enrolled to the Board and the members' receiving the benefits and the amounts involved has been increasing steadily as shown in Table 2.

TABLE 2. DETAILS OF MEMBERSHIP AND BENEFITS DISBURSED

Year	No of Members Enrolled	Cumulative No of Enrolment	No of Beneficiaries	Total Amount of Benefits Distributed Rs	Average Benefit Rs
1990-1991	97826	97826	Nil	Nil	Nil
1991-1992	112356	210182	118	597250	5061
1992-1993	45751	255933	1146	4350275	3796
1993-1994	29295	285228	2232	3788380	1697
1994-1995	37086	322314	4027	4903227	1217
1995-1996	39065	316379	10558	18004877	1700
1996-1997	92357	453736	19922	30968542	1554
1997-1998	108641	562377	26541	46960412	1769
1998-1999	75929	638306	30243	66563730	2201
1999-2000	193743	832049	46939	104960635	2236
2000-2001	107118	939167	56278	113664703	2019
2001-2002	60559	999726	50661	143101693	2825
2002-2003	34539	1034265	68808	200316943	2911
2003-2004	44182	1078447	83931	205842218	2453
2004-2005	81201	1159648	95860	265411363	2769
2005-2006	49020	1208668	118570	314941164	2656
2006-2007	181879	1390547	96733	269148664	2782

Source: *Computed from the Administrative Reports of the Board for the years 1990-1991 to 2006-2007*

FIGURE 3.1: SHOWS THE TREND OF THE MEMBERSHIP, BENEFITS AND AVERAGE AMOUNT OF BENEFITS DISBURSED BY THE BOARD

Figure 3.1
Details of membership and benefits disbursed
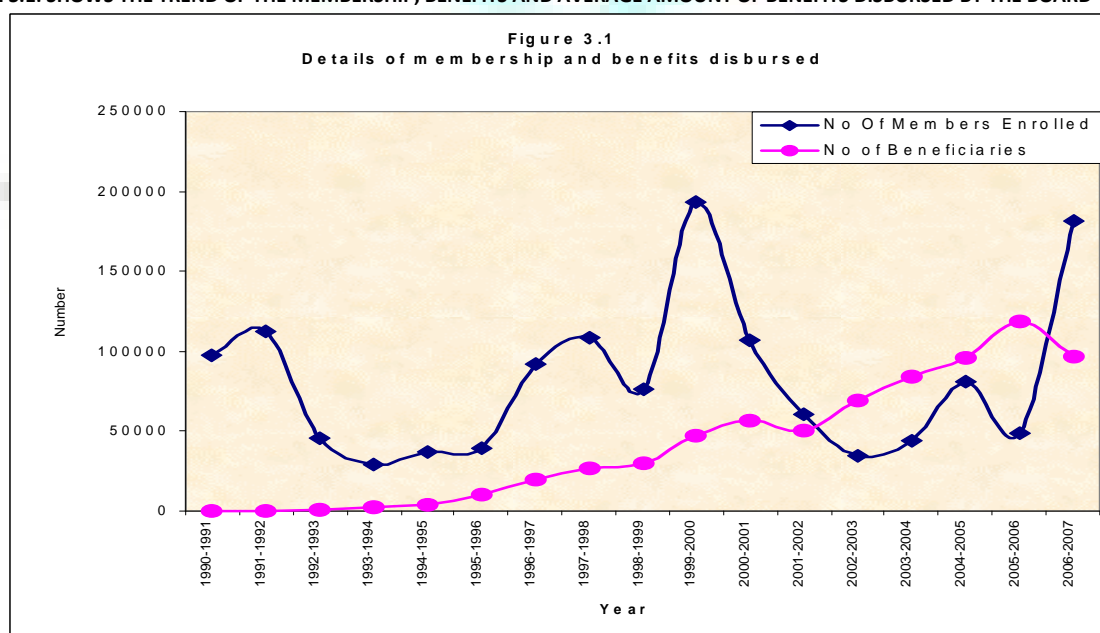
ELIGIBILITY FOR MEMBERSHIP

The Act provides for the registration of construction workers as members of the Fund. Every Building or construction Worker is entitled for registration provided he satisfies three conditions of eligibility; namely,

1. Completed 18 years of age but is not above 60 years of age and
2. Not a member in any other Welfare Fund, established under any law in force; and
3. Completed 90 days of service as a building worker in the immediately preceding year

Every building worker eligible to become a beneficiary of the Fund has to submit an application on Form No XXVI to the secretary or to an officer authorized to act on his behalf. Generally application for registration is submitted to the District Executive Officer. A certificate to prove age must accompany every application for registration.

A certificate from the employer or contractor to show that the applicant is a construction worker has also to be produced. Where a certificate is not available, a certificate issued by a registered construction workers' union or a certificate issued by Assistant Labour Officer of the concerned area is considered. Generally, the employers and contractors are reluctant to issue certificates and majority of the members are enrolled on the basis of certificate issued by registered construction workers union; hence it give chance to enroll bogus workers. Even some trade union leaders admit that more than 50 per cent of the workers enrolled to the Board are not actually engaged in the construction work. Realizing this, the Board has now given a chance to the members to voluntarily leave from the Board, if they are not doing the construction work. The Board has promised to give the contribution already made by them without any deduction. But even after six months of its declaration only less than 1000 bogus members left the Board as yet.

On registration, every registered construction worker shall be given an identity card with his photograph affixed. Every contractor is obliged to maintain a register showing the details of the employment, which may be inspected without prior notice by the Chief Executive Officer (CEO) or any other officer authorized by him. But there is no practice of keeping records in many of the construction sites by the contractors or employers.

GROWTH OF MEMBERSHIP AND BENEFITS

According to the official estimate of the Construction Workers' Welfare Fund Board based on the findings of a committee appointed by the state government, there are 16 lakh workers engaged in construction activities in the state. Out of this slightly more than 14 lakh workers were registered under this Board, giving coverage of around 90 per cent as of 2008. The District wise coverage of workers is given in Table 3.

TABLE 3: DISTRICT WISE MEMBERSHIP OF THE BOARD FROM 1990-2007

YEARS	TVPM	KLM	PTA	ALP	KTYM	IDK	ERKM	TSR	PKD	MPM	KKD	WYND	KNR	KSGD	TOTAL
1990-1991	20400	4567	292	8035	2809	877	22551	7502	2678	6000	2180	507	18261	1167	97826
1991-1992	12104	2511	1957	7352	5518	1746	15962	7740	7936	13108	9083	1112	19201	7026	112356
1992-1993	4793	1616	1159	3579	1999	1971	3767	3079	2391	4295	9903	1296	4289	1614	45751
1993-1994	3693	2135	679	1530	1195	491	2014	2670	2321	1512	7328	875	1733	1119	29295
1994-1995	5034	2305	1347	1883	3157	746	2917	3164	2958	2624	4395	971	3878	1707	37086
1995-1996	4777	1680	2878	1798	2960	1480	3645	4373	4679	1060	1632	1031	5662	1410	39065
1996-1997	10257	9043	6019	3538	2689	2593	8435	5629	10555	8715	8450	1005	12935	2494	92357
1997-1998	14347	10497	7994	4400	4089	3319	1053	12179	17425	9011	7710	1031	12394	3192	108641
1998-1999	12497	5509	3528	3213	4244	2846	3012	7799	11489	5737	8366	1078	4569	2042	75929
1999-2000	39242	13104	14072	7405	8439	9243	7222	23560	24656	15243	9495	1784	16655	3623	193743
2000-2001	19170	8370	3012	4829	3960	4630	9361	9091	11257	7840	10325	1082	10897	3294	107118
2001-2002	15577	6201	1207	2493	1343	1892	4484	1619	5307	5133	8122	434	5374	1373	60559
2002-2003	6671	2854	152	947	762	798	2900	671	2237	1554	6414	448	6770	1361	34539
2003-2004	7617	2266	951	1468	1221	2071	4173	3583	8938	5731	4553	413	0	1197	44182
2004-2005	22040	5139	3173	4518	2158	4346	6164	5130	9429	5212	4901	591	5269	3131	81201
2005-2006	5189	3096	3578	4203	2260	3590	1482	3528	5688	3947	3795	1879	4681	2104	49020
2006-2007	17005	5569	3956	3936	3120	6823	8555	12455	29406	3397	6301	1320	7066	2970	111879
Total	220413	86462	55954	65127	51923	49462	107697	113772	159350	100119	112953	16857	139634	40824	1320547
Percentage	**16.69**	**6.55**	**4.24**	**4.93**	**3.93**	**3.75**	**8.16**	**8.62**	**12.07**	**7.58**	**8.55**	**1.27**	**10.57**	**3.09**	**100**

Source: Annual Reports of the Board.

As shown in the Table 3 among the various districts highest percentage of the registered workers were from the district of Trivandrum (16.69 per cent) and the lowest number of registered workers is from Wayanad district (1.27 per cent). The percentage of members registered from districts of Ernakulam is 8.16 and that of Malappuram is 7.58. One of the indicators of the effectiveness in working of this Board is its coverage of members and in this respect the achievement of the Board is impressive.

CUMULATIVE GROWTH OF BOARD MEMBERSHIP

The total number of workers enrolled to the Board shows an increasing trend. On an average, 77669 members are enrolled to the Board every year. The cumulative growth of the membership of the Board is given in Table 4.

In the first year of establishment of the Board itself about one-lakh members are enrolled to the Board. However, wide variation can be seen in the number of members enrolled during different years. In some years, the enrollment is less than 50,000; while in some other years it is more than 1 lakh. Maximum number of members enrolled during the year 1999-2000.

The Table 4 also shows a compound annual growth rate of 17.664 of the membership from 1990-1991 to 2006-2007.

TABLE 4: CUMULATIVE GROWTH OF MEMBERSHIP

Year	No of Members Enrolled	Cumulative No of Enrolment
1990-1991	97826	97826
1991-1992	112356	210182
1992-1993	45751	255933
1993-1994	29295	285228
1994-1995	37086	322314
1995-1996	39065	316379
1996-1997	92357	453736
1997-1998	108641	562377
1998-1999	75929	638306
1999-2000	193743	832049
2000-2001	107118	939167
2001-2002	60559	999726
2002-2003	34539	1034265
2003-2004	44182	1078447
2004-2005	81201	1159648
2005-2006	49020	1208668
2006-2007	111879	1320547

Source: _Annual Reports of KBOCWWFB_, Various years CAGR=17.664.

FIGURE 3.2: SHOWS THE GROWTH OF THE MEMBERSHIP GRAPHICALLY

Figure 3.2
Growth of Membership
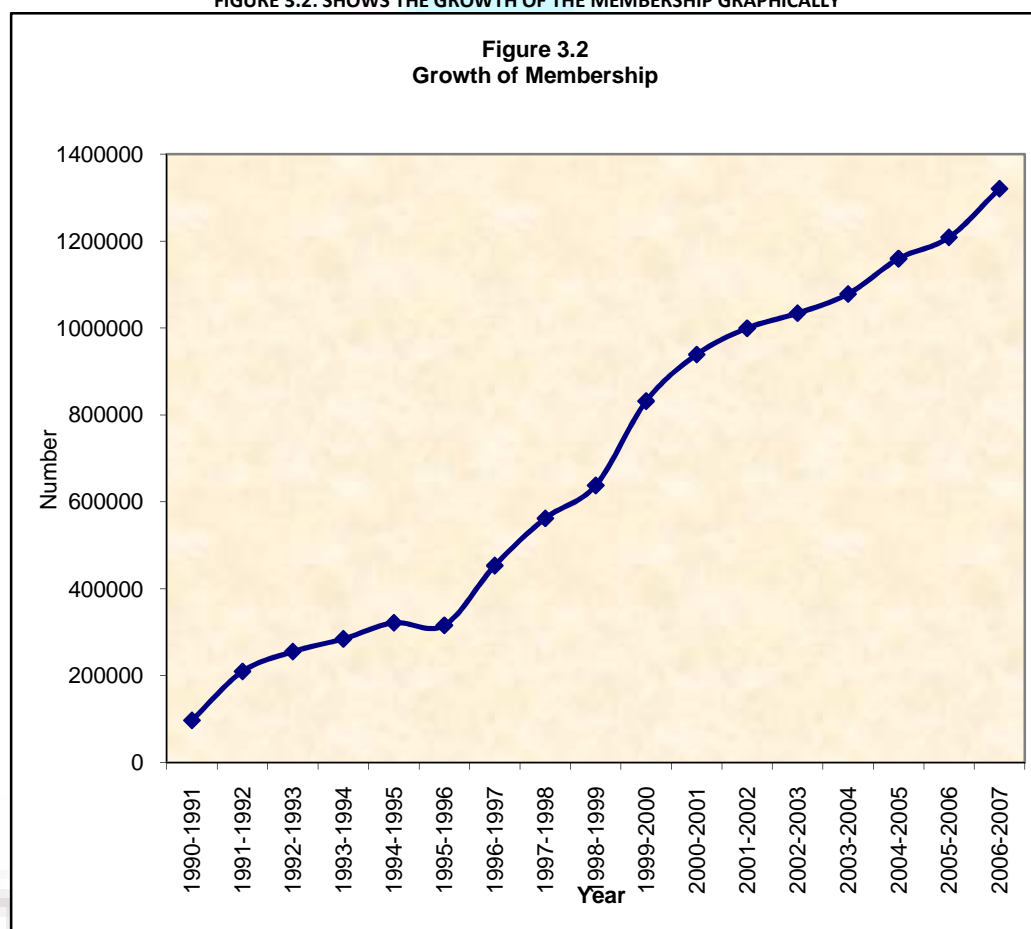
REVENUE OF THE BOARD

The major sources of finance to the Board are the following:

- Contribution from construction workers registered with the Fund at the rate of Rs 20 per month.
- Contribution in the form of a cess collected from contractors and builders and building owners at the rate of 1 per cent of the cost of construction. In the case of residential building it is levied only when the cost of construction exceeds Rs 10 lakhs.
- License fees levied on the contractors; now there is no provision in the Central Act to collect license fee.
- Other sources of income like interest from fixed deposits, etc.

A brief review of the income generated by the Welfare Board from each source during 1990-91 to 2005-06 is presented in Table 5.

TABLE 5: MAJOR SOURCE OF INCOME TO THE BOARD

Year	Worker's Contribution Rs	Employer Contribution Rs	Other Income Rs	Total Income Rs
1990-1991	3856888	325155	1082056	5264099
1991-1992	16639680	14771955	2010750	33422385
1992-1993	24172675	22460045	2410585	49043305
1993-1994	32897398	24204407	2653941	59755746
1994-1995	34055957	46900849	22159188	103115994
1995-1996	46978391	67897053	31056215	145931659
1996-1997	62055450	84116404	28879277	175051131
1997-1998	122161155	87903836	62174482	272239473
1998-1999	94307695	87166629	40361625	221835949
1999-2000	112463680	120728029	63328379	296520088
2000-2001	125936760	119827186	217608000	463371946
2001-2002	122164607	99497045	185343000	407004652
2002-2003	121332602	200156016	243197075	564685693
2003-2004	159499575	231595735	152703602	543798912
2004-2005	174759324	339290120	113347967	627397411
2005-2006	160087478	392867164	2739234	555693876
Total	1413369315	1939707628	1171055376	4524132319
CAGR (per cent)	28.1961	60.5007	6.3878	36.4271

Source: Computed from Administrative Reports of KBOCWWFB, various issues

Table 5 shows a compound annual growth rate (CAGR) of 36.42 per cent in the case of total income. The workers contribution shows a compound annual growth rate of 28.20 per cent; but the employer's contribution grows at 60.50 per cent on an average. Thus, it can be seen that the collection of cess from employers grows at a higher rate than that of the contribution of members, while the income from other sources, which mainly include interest grows only at 6.39 per cent. The income generated by the Board from the major sources is graphically in Figure 3.3.

Figure 3.3
Major Source of Income
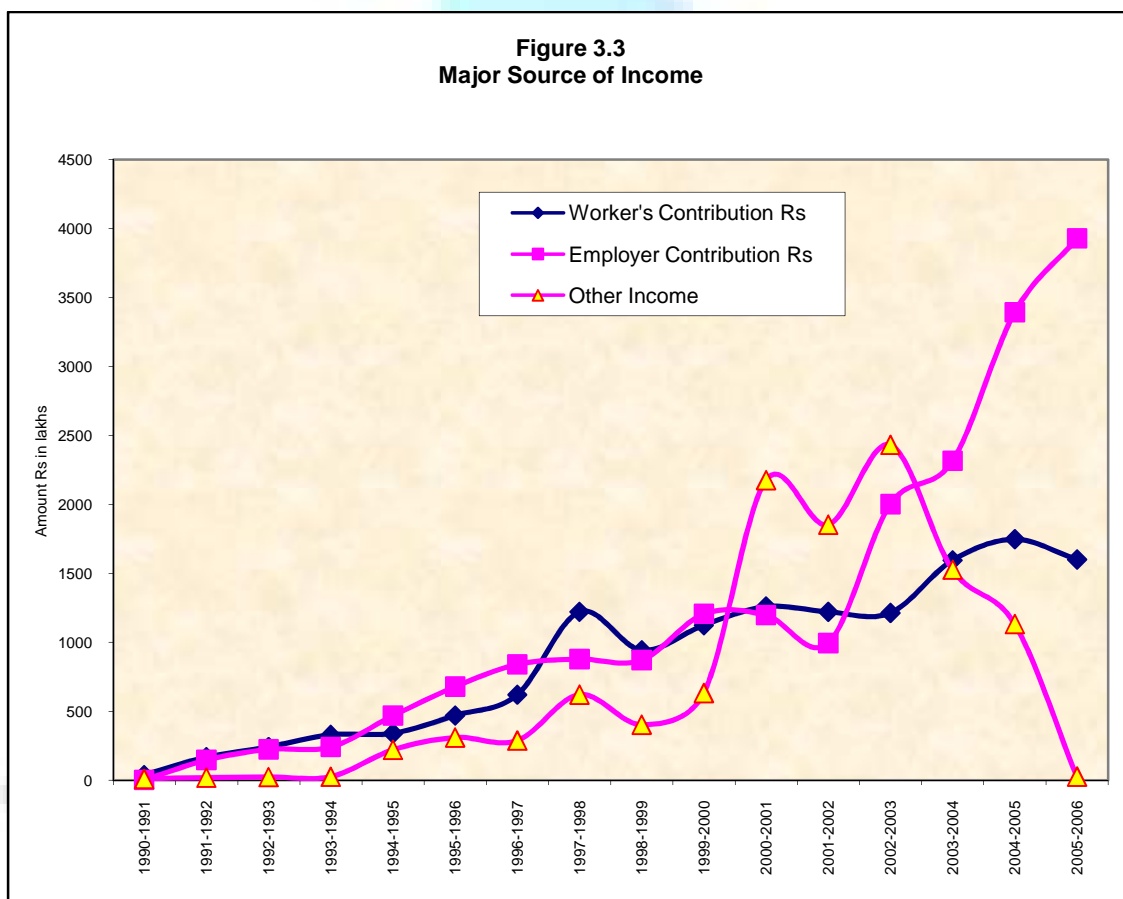
CONTRIBUTION FROM REGISTERED WORKERS

As noted earlier the workers' contribution to the Board is fixed at Rs. 20 per month. The first initial quarterly subscription together with registration fee of Rs.25/- is collected at the District Office while granting membership and the members remit the subsequent quarterly subscriptions in the notified Collection Banks of the Board all over the State.

Table 6 shows that the total contribution of workers amounted to Rs. 3.85 million in the starting year 1990-91, but rose to Rs. 171.38 million in 2006-07, an increase of more than 44 times. Thus liability also might have increased many times during this period. Earlier there was a practice of refunding contribution along with the interest and a contribution from the Board at the time of retirement (age of 60) of the workers. But now the board has stopped this since it has jeopardized the long-term survival of the scheme. The members and trade union leaders argue that this is against the saving clause in the Central Act, which ensures the continuation of all benefits under the existing law; even if there is no provision in the Central Act.

TABLE 6: CONTRIBUTION OF THE WORKERS AND TOTAL INCOME

Year	Worker's Contribution Rs	Total Income Rs
1990-1991	3856888	5264099
1991-1992	16639680	33422385
1992-1993	24172675	49043305
1993-1994	32897398	59755746
1994-1995	34055957	103115994
1995-1996	46978391	145931659
1996-1997	62055450	175051131
1997-1998	122161155	
1998-1999	94307695	221835949
1999-2000	112463680	296520088
2000-2001	125936760	463371946
2001-2002	122164607	407004652
2002-2003	121332602	564685693
2003-2004	159499575	543798912
2004-2005	174759324	627397411
2005-2006	160087478	555693876
2006-2007	171383937	N.A
Total	**1584753252**	**3968438443**

Source: Annual Reports of the KBOCWWFB

FIGURE 3.4: SHOWS THE CONTRIBUTION OF THE MEMBERS AND TOTAL INCOME OF THE BOARD SINCE ITS INCEPTION

Figure 3.4
Members contribution and Total Income of the Board
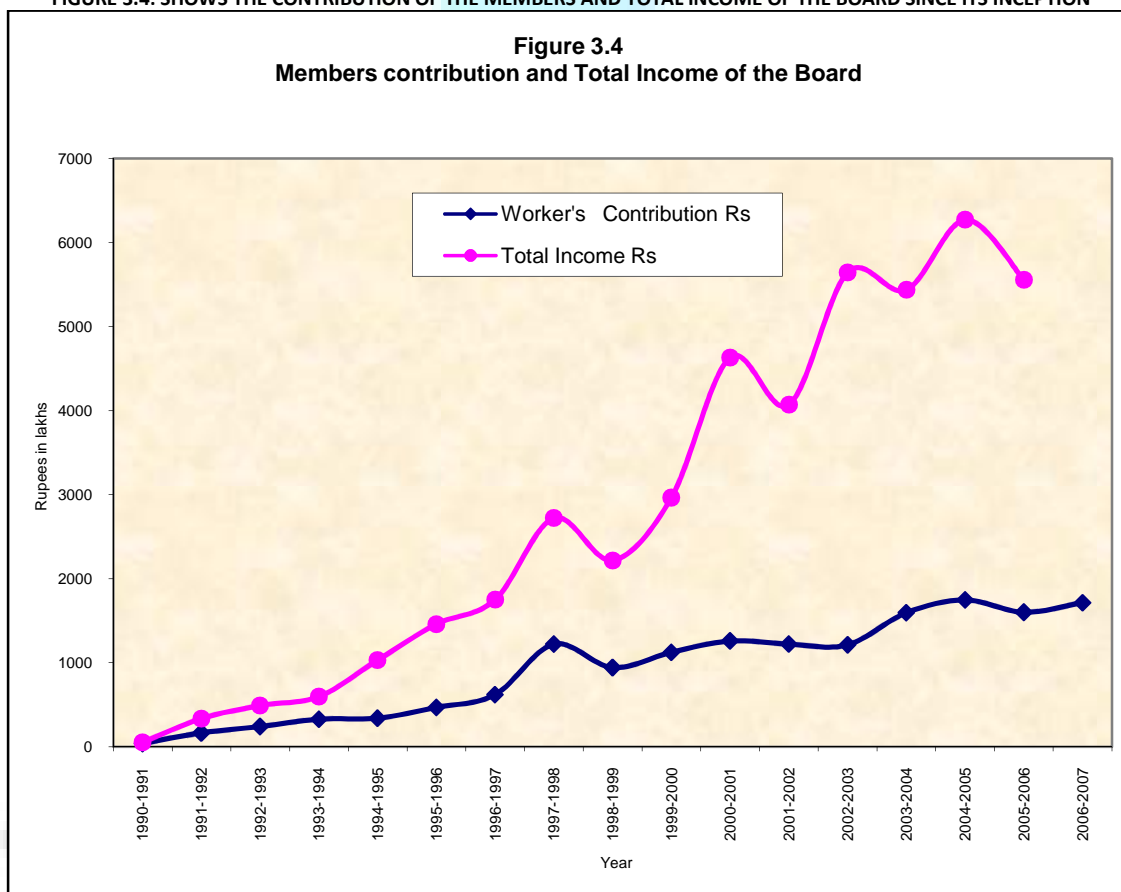
EMPLOYERS' CONTRIBUTION

Another source of income to the Board is the contribution made by the employers and owners. The Building and Other Construction Workers Welfare Cess Act 1996 provides for collection of a cess at 1 to 2 percentage of construction cost. The Assistant Labour Officers Grade I of the Labour Department was the notified Assessment Officers for assessment of Cess. In Kerala 1 per cent of the total construction is collected towards Cess from the Employers or Contractors for commercial constructions and 1 per cent Cess is collected from residential building owners constructions costing above Rs 10 lakhs.

The cess amount collected by the Board from builders and employers are given in Table 7. It shows that the Board has so far collected an amount of Rs 193.97[4] crores as cess from the employers. The income from this source rose from Rs.0.33 million in 1990-91 to Rs. 392.87 million in 2005-06. There was an increase of 1208 times in the cess collection; against 105 times increase in the Total Income of the Board. This increase in cess also shows the increase in construction activities.

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[4] As on 31st March 2006

TABLE 7: EMPLOYERS' CONTRIBUTION

Year	Employers' Contribution	Total Income
1990-1991	325155	5264099
1991-1992	14771955	33422385
1992-1993	22460045	49043305
1993-1994	24204407	59755746
1994-1995	46900849	103115994
1995-1996	67897053	145931659
1996-1997	84116404	175051131
1997-1998	87903836	272239473
1998-1999	87166629	221835949
1999-2000	120728029	296520088
2000-2001	119827186	463371946
2001-2002	99497045	407004652
2002-2003	200156016	564685693
2003-2004	231595735	543798912
2004-2005	339290120	627397411
2005-2006	392867164	555693876
Total	1939707628	4524132319

Source: *KBOCWWFB*

FIGURE 3.5: SHOWS THE TREND OF EMPLOYER'S CONTRIBUTION

Figure 3.5
Trend of employer's contribution
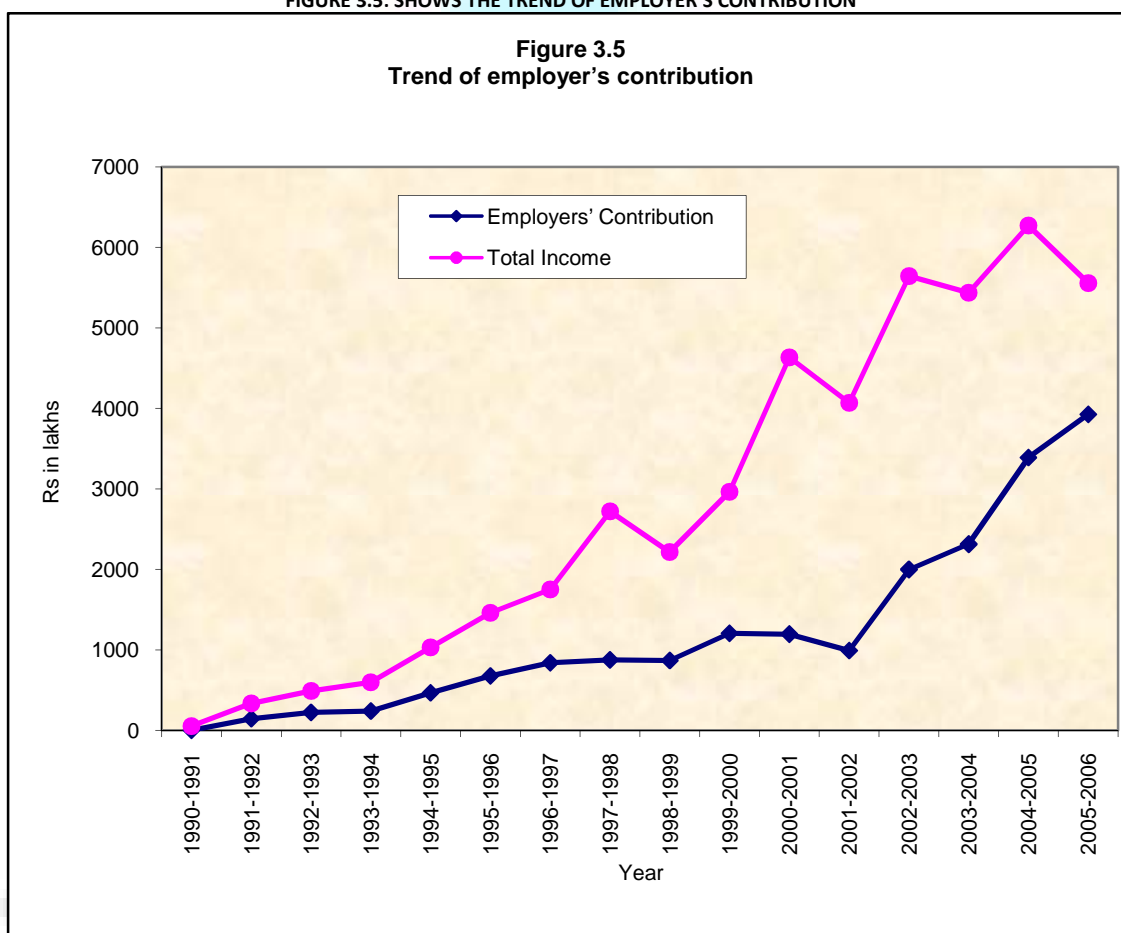
The Board experiences many difficulties in collecting the cess from builders and the annual loss in revenue on this account is estimated to be Rs. 500 million approximately. This difficulty mainly arise due to the fact that after implementing the Central Act, the collection is not done directly by the Welfare Board but is entrusted to the Labour Department of the state government; which is already overburdened with other works. Before implementing the Central Act the Board has collected cess from the employers and the State Governments, Public sector undertaking etc deducted cess for the construction work done at source either at the time of part payment of the bill or at the time of first and final settlement of payment. Both the employees and board officials are in favour of collecting the cess directly by the Welfare Fund Board.

Section 3(2) of the Building and Other Construction Worker's Welfare Cess Act, 1996 stipulates that the Cess levied under sub section (1) shall be collected from every employer in such manner and such time, including deduction at source in relation to a building or other construction work of a Government or a public sector undertaking or advance collection through a local authority where an approval for such or other construction work by local authority is required as may be prescribed. If the provisions are strictly followed Cess amount to certain extend can be collected from the very beginning itself.

LICENSE FEES FROM CONTRACTORS

Under the Kerala Construction Workers' Welfare Fund Board, there was provision to levy fees from contractors, an amount ranging from Rs. 100 to Rs. 1,000 per year depending on the grade of the contractors. Though this is a potential source of revenue, the Board has failed to tap it. However, under the Central Act there is no provision to collect the license fee from the contractors.

OTHER SOURCES OF INCOME

The surplus revenue of the welfare fund is invested, mostly in fixed deposits in nationalised banks and other government institutions, yielding a reasonable return, which is added to the accumulated revenues of the fund. As of 2005-06, the Board had a deposit of Rs. 2860 million. In the Indian situation, especially at the state level, there are very few investment options. Mutual funds and stocks, which are usual investment avenues in developed countries, are generally not considered safe or dependable in India, especially when the Welfare Fund handles contributions from poor workers.

Table 8 makes a comparison of the trend of fixed deposit and other income. The other income mainly consists of the interest on the deposits of the Board Fund. Even though the amount of fixed deposit increases continuously, the earnings of the deposits increases up to 2002-2003 but thereafter shows a declining trend. This proves that the Board is not efficient in the management of its Fund and has failed to earn a satisfactory return on its investments.

TABLE 8: FIXED DEPOSIT AND OTHER SOURCE OF INCOME

Year	Fixed Deposit	Other Income	Total Income
1998-99	727913965	40361625	221835949
1999-00	910801077	63328379	296520088
2000-01	1127129980	217608000	463371946
2001-02	1408296416	185343000	407004652
2002-03	1742443949	243197075	564685693
2003-04	1581093949	152703602	543798912
2004-05	2167517163	113347967	627397411
2005-06	2860000000	2739234	555693876
Total		1171055376	4524132319

Source: *KBOCWWFB*

FIGURE 3.6: SHOWS THE TREND OF OTHER INCOME OF THE BOARD FROM 1998-1999 TO 2005-2006

Figure 3.6
Trend of other income
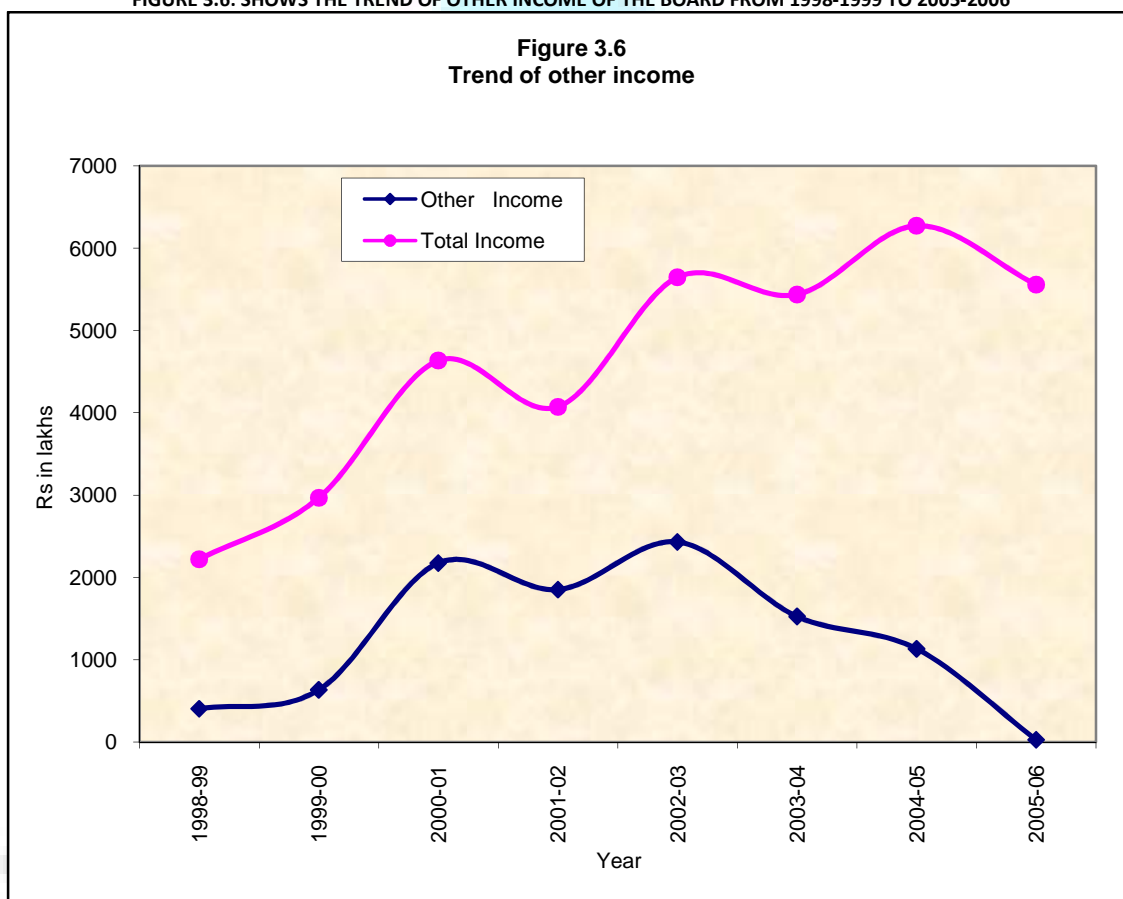
All moneys belonging to the Fund are invested in Nationalized Banks, Scheduled Banks and in Post Office Savings referred to in (a) to (d) of section 20 of the Indian Trust Act 1881 (Central Act of 1882) as well as per the guidelines of the Board and Government from time to time.

The Board has no investment policy or portfolio of investment. There are no experts in the Board for the management of the Funds. Thus, it requires immediate action on the part of the Board to frame an investment policy as well to constitute a team of experts for the management of finance. Other wise the Board has to seek the experts in the field while making Fund investment.

BENEFITS OFFERED UNDER THE BOARD

The basic objective of the KBOCWWFB is to provide a measure of social security for its members who are vulnerable to risks and uncertainties and do not have any other institutional protection based on their employment status.

The categories of benefits and the amounts provided by the Board to its members and their dependents are summarised in Table 9.

TABLE 9: BENEFITS PAID BY THE BOARD

Sl No	Type of benefit	Beneficiary	Eligibility	Amount In Rupees
1	Pension	Member	Completion of 60 years	Rs: 200+20 for every Additional year of 5 years Maximum Rs: 400
2	Family pension	Spouse	Death of the pensioner	Minimum Rs 100 Maximum Rs 200
3	Invalid pension	Invalid member	Invalidity due to accident/ Disease	Rs150/per month
4	Death relief	Dependant	Death of a member before the age of 60	15000 and if due to accident at the work site Rs 2,00,000/; permanent disability Rs 1,00,000/
5	Funeral assistance	Dependant	Death of a member	Rs: 2000/
6	Medical benefit	Member	Hospitalized due to accident/disease	Rs: 400 for 5 days + Rs 70/ for every additional days; Maximum Rs 5000/ Personal Disability –Rs 500 for 5 days + Rs 70 for every additional day Maximum Rs: 20000/
7	Maternity benefit	Women Members	Limited to 2 children	Rs 3000/
8	Marriage benefit	1.Women members and daughters of members	Marriage	Rs 3000
		2.male members and sons of members		Rs 2500
9	Cash award/scholarship	Children of members	Marks in qualifying exam	SSLC: Rs 250 +2/VHSE- 600 Degree: 840 P.G: 1200 PROF.DEG: 2400 Certificate: 600
10	House building advance	Members	House construction	Rs 50,000/ Maximum Rs1,00,000/
11	Tool advance	Members	To purchase tools for employment	10,000/
12	Entrance coaching fee	Children of members	Entrance coaching	5,000/
13	Nirmal bavan pathathi			Not implemented
14	Sneha sadan			18 old age people
15	Training institute			Introduced in January 2006 and already imparted training to 56 members and/or sons of members.
16	Refund of contribution	Member/Dependent	Attainment of 60 years/ retirement/death	Amount of subscription with interest.

Source: *KBOCWWFB*.

As is clear from Table 9 the Board provides more than a dozen of benefits. Out of these, the benefits like pension, scholarships/cash awards, maternity benefit, medical assistance and marriage assistance constitute a major portion of the benefits paid by the Board. The amounts as well as the number of benefits like House Building Advance, Tool advance, Entrance Coaching Fee etc are very meager.

Table 10 shows an over all view of the total benefits distributed by the board since its inception. The trend of the average benefit is also given.

TABLE 10: NUMBER AND AMOUNT OF BENEFITS GIVEN BY THE BOARD

Year	No of Beneficiaries	Amount of Benefits	Average Benefits
1990-1991	Nil	Nil	Nil
1991-1992	118	597250	5061
1992-1993	1146	4350275	3796
1993-1994	2232	3788380	1697
1994-1995	4027	4903227	1217
1995-1996	10558	18004877	1700
1996-1997	19922	30968542	1554
1997-1998	26541	46960412	1769
1998-1999	30243	66563730	2201
1999-2000	46939	104960635	2236
2000-2001	56278	113664703	2019
2001-2002	50661	143101693	2825
2002-2003	68808	200316943	2911
2003-2004	83931	205842218	2453
2004-2005	95860	265411363	2769
2005-2006	118570	314941164	2656
2006-2007	96733	269148664	2782

Source: *KBOCWWFB*

From Table 10 it can be seen that there was increase in the number of beneficiaries as well as the amount of benefits disbursed by the Board. In 1991, there were only 118 beneficiaries; which rose to 10558 during 1995-1996. The number of beneficiaries rose to 56278 during 2000-2001 and in 2005-2006 it reached to 118570. However, in the next year –2006-2007, there was a decline in the number of beneficiaries-reduced to 96733.

Similarly, the amount of benefit provided by the Board was only Rs 5,97,250/ in 1991-1992; which rose to Rs 10,49,60,635/ in 1999-2000. In 2006-2007, the Board has disbursed an amount of Rs 26, 91, 48,664/ as benefits among its members and dependents. The average amount of benefit was Rs 5061/ in 1991-1992; which reduced to Rs 1217/ in 1994-1995. The average amount of benefit was again raised to Rs 2201/ in 1998-1999 and to Rs 2782/ in 2006-2007.

There is no practice of either keeping or maintaining or publishing the district wise or gender wise details of the benefits paid to the members in the Board.

REFUND OF WORKER'S CONTRIBUTION

The amount contributed by registered workers over the years (Rs. 20 per month) is returned at the time of retirement (age of 60) together with interest and a contribution from the Board. Hence, in effect, the workers' contribution is a liability to the Board and exerts an additional burden on the resources of the fund. For example, a worker with 10 years of service will have contributed only Rs. 2,400 till the date of retirement. But as a refund he receives a total amount of Rs. 3158 from the Board. The amount payable to the worker on retirement for various years of service, as worked out by the Board, is shown in Table 11.

TABLE 11: AMOUNT PAID TO WORKERS ON RETIREMENT FOR DIFFERENT YEARS OF SERVICE (MONTHLY CONTRIBUTION RS 20)

Years	Remitted Amount	Interest	Gratuity	Refund Amount	Excess Amount paid
1	240	12	63	315	75
2	480	25	126	631	151
3	720	37	189	946	226
4	960	50	253	1263	303
5	1200	63	316	1579	379
6	1440	75	379	1894	454
7	1680	88	442	2210	530
8	1920	100	505	2525	605
9	2160	113	568	2841	681
10	2400	126	632	3158	758
11	2640	138	695	3473	833
12	2880	151	758	3789	909
13	3120	164	821	4105	985
14	3360	176	884	4420	1060
15	3600	189	947	4736	1136
16	3840	201	1010	5051	1211

Source: KBOCWWFB.

The amounts refunded by the Board in various years will depend on the number of workers reaching retirement age during that year. Table 12 shows the amount of contribution refunded by the Board on death or retirement for the years 1991-1992 to 2006-2007.

TABLE 12. REFUND OF WORKERS' CONTRIBUTION

Year	No of beneficiaries	Amount refunded	Total benefit paid	Expenditure as a per cent of total welfare benefits
1991-1992	Nil	Nil	597250	0.00
1992-1993	Nil	Nil	4350275	0.00
1993-1994	399	118345	3788380	3.10
1994-1995	528	260259	4903227	5.31
1995-1996	1632	2781267	18004877	15.44
1996-1997	4377	3273112	30968542	10.57
1997-1998	5121	3054607	46960412	6.5
1998-1999	1279	5570561	66563730	8.48
1999-2000	6103	1476779	104960635	1.43
2000-2001	8467	7970277	113664703	6.47
2001-2002	1374	6286549	143101693	4.23
2002-2003	NA	NA	200316943	NA
2003-2004	1408	NA	205842218	NA
2004-2005	2741	NA	265411363	NA
2005-2006	2744	NA	314941164	NA
2006-2007	1947	NA	269148664	NA

Source*: KBOCWWFB*

As stated earlier**,** after the reconstitution of the Board in accordance with the Central legislation, the Board has stopped the refund of contribution to new members. Now, only the members enrolled to the Board before the enactment of Central legislation are eligible for this benefit. There fore, there is criticism from the trade union leaders that this is against the promise given by the Central legislation under saving clause-protection of existing benefit to the members in the State Acts.

ENTRANCE COACHING FEES

The Board has decided to pay a maximum amount of Rs: 5000/ to the children of the workers to under go entrance coaching classes to make them ready to appear in the entrance examination and to get admission to the professional courses.

As shown by the Table 13, the Board has so far disbursed this benefit only to 31 members and the amount of assistance come to Rs 1,51,000/.

TABLE 13: ENTRANCE COACHING FEE

Year	No	Amount
1990-2002	NIL	NIL
2002-2003	20	100000
2003-2004	1	3000
2004-2005	1	3000
2005-2006	8	40000
2006-2007	1	5000
Total	**31**	**151000**

Source*: KBOCWWFB*

NEW DEVELOPMENTS

The Board has also set up an old age home in Thiruvanathapuram for construction workers above age 60. An institute to impart training in new construction technology to children of construction workers-Advanced Building Technology Institute -has also been set up. It would provide them skills to find employment in

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foreign countries also. The institute would enable Keralites to avail opportunities in foreign job markets which they are not able to do now. The institute has also made arrangements for placement of students passing out in the first five years.

TRAINING INSTITUTE

The Board has also started a training institute, Advanced Building Technology Training Institute at Thiruvanathapuram to equip the members and their sons to acquire knowledge of the latest developments in the construction sector. But this scheme failed to attract the members and their family. Due to the practical difficulty and the heavy investment required for starting this training institute; the Board has collaborated with Institute of Advanced Wood Working Training Centre, Bangalore. Under this scheme the Board bears the expenses of the members or their sons for getting training from this centre. Till now, the Board has sent about 56 persons to this institute and most of them were selected for foreign employment under campus recruitment.

ADMINISTRATIVE EXPENDITURE

Most of the welfare schemes include provision regarding the maximum amount that can be spent for the administration of the fund. The Kerala Building and Other Construction Workers Welfare Fund Board is silent in this regard. The Board so far not even formulated a budget for its expenditures. As all the employees are on deputation, they pay little attention to control administrative expenditure. Table 14 shows the amount of administrative expenditure incurred by the Board.

TABLE 14: ADMINISTRATIVE EXPENDITURE

Year	Amount in Rs
1997-1998	1,10,20,714
1998-1999	1,25,68,304
1999-2000	1,93,66,789
2000-2001	1,80,70,842
2001-2002	1,81,31,678
2002-2003	1,77,81,757
2003-2004	1,90,06,538
2004-2005	2,16,11,570
2005-2006	3,00,55,349

Source: *KBOCWWFB*

From Table 14, it can be seen that on an average the Board spent Rs 1, 86, 23,727/ as administrative expenditure in every year. From 1997-1998 to 2005-2006, there was a three-fold increase in the administrative expenditure. This strictly demands formulation of budgets for expenditures and control over it.

PROBLEMS

Though the Welfare Fund Board is a novel idea and is useful in improving the economic status of its members, it is faced with numerous problems. As per the provisions of the Central Act the collection of cess is entrusted to the   labour department, which is already overburdened with the administration of the demands of organised workers. There are only two inspectors in the Labour department to ensure the implementation of about 20 laws in around 250 institutions in a district. Due to this there are apprehensions among members and trade union leaders that the system of collecting cess, which is a major source of potential income to the board, is not effective or systematic. There for, it is better to think of a separate wing or section under the labour or social welfare department to deal with the welfare schemes of unorganized workers.

The problem also exists in the functioning of the Board constituted under this Act, which is mainly engaged in the enrolment of members, administration of fund and disbursement of benefits. Except the part time sweepers and a driver at the Head Quarters; all other employees working in the state office as well as district offices are on deputation. This affects the functioning efficiency of the board due to lack of continuity on the one hand and on the other hand increase in the administrative expense, as the employees have to pay deputation allowance. No effort is taken by any government to recruit and appoint permanent employees directly to the board; as they want to appoint their people as temporary or on deputation   employees in the board.

SUGGESTIONS

1.   Steps should be devised for the prevention of enrolment of bogus workers.
2.   The steps taken by the Board to expel the already enrolled bogus workers should be strengthened.
3.   Effective rules should be framed and implemented by the Government for the proper utilization and management of funds.
4.   Periodic monitoring and revision of various benefits disbursed by the Board should be made.

CONCLUSIONS

Kerala has made a considerable progress in extending Social Security coverage through the mechanism of tripartite welfare fund boards. Kerala is the first state in India which has enacted a law for constituting a Welfare Fund Board for the construction workers. The reports show a steady increase in the enrollment of membership and the benefit disbursed by the Kerala Board. Even the Central Law for Building and Other Construction Workers Welfare Fund Boards is enacted on the basis of the Kerala law. Even though there is a direction from the Central Government to constitute Social Security Schemes for unorganized workers, many states in India have not yet taken any steps for enacting and constituting Welfare Fund Boards for them including those in the Construction sector. Kerala model of the Welfare Fund for the collective care arrangements for the workers in the informal sector shows considerable innovation in its design and organization. Therefore the question of replicating the Kerala Model with suitable modifications to other States in India as well as to other countries is worth pursuing.

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GROWTH AND PERFORMANCE OF MICRO, SMALL AND MEDIUM ENTERPRISES IN INDIA IN POST GLOBALIZATION PERIOD

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ABSTRACT

Micro, Small and Medium enterprises play a key role in the development of economies with their effective, efficient, flexible and innovative entrepreneurial spirit. In terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 per cent of the total exports of India in 2010. A research study on 'Growth and performance of micro, small and medium enterprises in India in post globalization period' was undertaken with the objectives of studying the growth of number of micro, small and medium enterprises, capital invested, labour employed, output and exports in, finding out the instability in the growth of micro, small and medium enterprises in post globalization period. The study was related to 1992-93 to 2010-11. The data for the study were compiled from the Annual Report of Micro, Small and Medium enterprises published by the Ministry of micro, small and medium enterprises, Government of India. The study estimated compound growth rate, Coppock's instability index and Frontier production function. As per the study, in the post globalization period the compound growth rate of number of MSMEs, fixed investment, production, employment and exports was significant. There had been more instability in the number of MSMEs in the post globalization period as compared to fixed investment, production, employment, exports. To improve the performance of micro, small and medium enterprises the study recommends increasing the number of items to be reserved for exclusive manufacture in micro and small enterprise sector and providing support in the field of skill development, credit marketing, technology and infrastructure.

KEYWORDS
Growth, MSMEs, Globalization, Instability, Performance.

INTRODUCTION

Micro, small and medium enterprises are exclusively identified for promotion in the manufacturing sector of most of the national economies. Micro, Small and Medium Enterprises (MSMEs), including khadi and village/rural enterprises are credited with generating the highest rates of employment growth and account for a major share of industrial production and exports. They also play a key role in the development of economies with their effective, efficient, flexible and innovative entrepreneurial spirit.

The most important justification for the exclusive promotion of MSMEs is their potential for employment intensity. MSME generates more jobs per unit of capital investment than a large enterprise; it can be started with relatively less capital; it facilitates nurturing of entrepreneurship; and it can be used as an instrument for alleviating regional disparities in development.

It is estimated that in terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 per cent of the total exports of the country. The sector is estimated to employ about 595 lakh persons in over 261 lakh enterprises throughout the country (Annual Report of MSME 2011-12**).** Further, this sector has consistently registered a higher growth rate than the rest of the industrial sector. There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSMEs in India. It is well known that the MSMEs provide good opportunities for both self-employment and wage employment.

Globalization is seen as the conversion of the World into a single economic space one macro-economy, or perhaps mega-economy. Globalization the process of continuing integration of the countries in the World-is strongly underway in all parts of the globe. While the movement of goods, services, ideas, capital and technology across national borders is not a new phenomenon, its process since the past decade marks a qualitative break with the past. This process is characterized by national Governments across the World moving towards more open and market-oriented regimes, with greater reliance on private business and less direction of allocation of resources.

The globalization of economic activity affects the development of small and medium-sized enterprises (SMEs) mainly in two ways:

- It opens up new opportunities for outward expansion and growth. These fast-growing SMEs are important to the world economy; and they in fact play an important international role, directly productizing about 26 percent of OECD exports and about 35 percent of Asia's exports.
- Further, inward globalization poses new competitive challenges. Different SMEs are affected in different ways. The firms that are able to become, internationally competitive are likely to be advantaged; and they make up about 25 percent of manufacturing SMEs. Those less likely or unable to adapt are at risk as a result of globalization pressures and will probably not survive in their present form without significant changes to improve factors such as output quality, costs competitiveness and management practices.

Globalization offers an environment within which SMEs have to increasingly compete and perform. While some of their traditional markets have shrunk, the market opportunities in some other areas have increased. It is important that these rapid changes are quickly understood and corrective measures taken without delay. In this context a research study on **'Growth and performance of micro, small and medium enterprises in India in post globalization period'** was undertaken with the following **objectives.**

1. To study the growth of number of micro, small and medium enterprises, capital invested, labour employed, output and exports in post globalization period
2. To find out the instability in the growth of micro, small and medium enterprises in post globalization period and
3. To analyse the performance of micro, small and medium enterprises in post globalization period.

METHODOLOGY

The study was related to 1992-93 to 2010-11. The year 1992-1993 was chosen since globalization was introduced in 1991. The study was related to 2010-11 since it is the latest year for which the required data are available. The data for the study were compiled from the Annual Report of Micro, Small and Medium enterprises published by the Ministry of micro, small and medium enterprises, Government of India.

HYPOTHESIS FORMULATED

1. There is no significant growth in the number of MSMEs, capital invested, labour employed and output produced in India in the post globalization period and
2. There is no instability in the number of MSMEs, fixed investment, production, employment and exports in India in the post globalization period.

TOOLS USED

1. COMPOUND GROWTH RATE

To assess the growth of number of micro, small and medium enterprises, capital invested, labour employed, output produced and exports compound growth rate was calculated. The formula used was

$Y_t = Ab^t$

Y= Selected variable;

A= Constant;

t= Time period;

b= Co-efficient of time period.

Compound growth rate= Antilog(b-1)x100.

2. COPPOCK'S INSTABILITY INDEX

To find out the extent of instability in the number of MSMEs, capital invested, labour employed, output produced and exports, Coppock's instability index was calculated.

Coppock's instability index is

$$V \log = \frac{\sum [\frac{\log X_{t-1}}{X_t}] - m}{N}$$

The instability index = (antilog $\sqrt{V\log}$ -1) x 100.

where,

Xt= Number of micro, small and medium enterprises, capital invested, labour employed, output produced and exports.

3. FRONTIER PRODUCTION FUNCTION:

The frontier production function was estimated to analyse the contribution of labour and capital to total output.

$Ln\ Y = \hat{\beta}0 + \hat{\beta_1} LnX_1 + \hat{\beta_2} LnX_2$.

where,

y= Value of output (in Rupees);

X_1= Capital invested in rupees;

X_2= Number of labourers employed;

The frontier production function was estimated by using Front 4.1 version.

FINDINGS OF THE STUDY

A. GROWTH OF NUMBER OF MICRO, SMALL AND MEDIUM ENTERPRISES IN INDIA IN THE POST GLOBALIZATION PERIOD

Table-I provides the information on the number of micro, small and medium enterprises, investment, employment, production and exports in the reference period.

TABLE-I: TREND IN THE GROWTH OF MICRO, SMALL, MEDIUM AND ENTERPRISES IN INDIA IN THE POST GLOBALIZATION PERIOD - 1992-93 TO 2010-11

Year	MSMEs	Fixed Investment	Production (At current prices)	Employment	Exports
	(lakh numbers)	(Rs. crore)	(Rs. crore)	(lakh persons)	(Rs. crore)
1992-1993	73.51	109623	84413	174.84	17784
1993-1994	76.49	115795	98796	182.64	25307
1994-1995	79.6	123790	122154	191.4	29068
1995-1996	82.84	125750	147712	197.93	36470
1996-1997	86.21	130560	167805	205.85	39248
1997-1998	89.71	133242	187217	213.16	44442
1998-1999	93.36	135482	210454	220.55	48979
1999-2000	97.15	139982	233760	229.1	54200
2000-2001	101.1	146845	261297	238.73	69797
2001-2002	105.21	154349	282270	249.33	71244
2002-2003	109.49	162317	314850	260.21	86013
2003-2004	113.95	170219	364547	271.42	97644
2004-2005	118.59	178699	429796	282.57	124417
2005-2006	123.42	188113	497842	294.91	150242
2006-2007	261.01	500758	709398	594.61	182538
2007-2008	272.79	558190	790759	626.34	202017
2008-2009	285.16	621753	880805	659.35	N.S
2009-2010	298.08	693532	982919	695.35	N.S
2010-2011	311.52	773487	1095758	732.17	N.A

Source: Annual Report of MSME-Ministry of micro, small and medium enterprises, New Delhi.

In the reference period the number of MSMEs increased from 73.51 lakhs in 1992-1993 to 311.52 lakhs in 2010-11. There had been phenomenal growth in the number of MSMEs in 2006-07. Fixed investment in micro, small and medium enterprises had increased from Rs1,09,623 crores in 1992-93 to 7,73,487 crores in 2010-11. Similarly the number of labourers employed in MSMEs increased from 174.84 lakhs in 1992-93 to Rs732.17 lakhs in 2010-11. In the reference period production in MSMEs increased from Rs.84413 crores to Rs.10,95,758 crores. The value of exports increased from Rs.17,784 crores in 1992-93 to Rs. 2,02,017 crores in 2007-08.

B. ESTIMATED COMPOUND GROWTH RATE OF NUMBER OF MSMES, CAPITAL INVESTED, LABOUR EMPLOYED, PRODUCTION AND EXSPORTS IN POST GLOBALIZATION PERIOD:

Table-II represents estimated compound growth rate of number of MSMEs, capital invested, labour employed, production and exports in post globalization period.

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TABLE-II: ESTIMATED COMPOUND GROWTH RATE OF NUMBER OF MSMES, CAPITAL INVESTED, LABOUR EMPLOYED, PRODUCTION AND EXPORTS IN INDIA IN POST GLOBALIZATION PERIOD

S. No	Variable	Constant	Compound growth rate	T	R^2
1	Number of MSMEs	4.04	8.27	28.39**	0.98
2	Fixed Investment	11.21	10.69	6.43**	0.72
3	Production	11.26	14.83	32.16**	0.99
4	Employment	4.87	8.45	5.71**	0.67
5	Exports	9.83	15.35	7.24**	0.79

Source: Calculated figures based on the data compiled.
** Statistically significant at 1 percent level.

From Table-II it is evident that in India in the post globalization period the compound growth rate of number of MSMEs, fixed investment, production, employment and exports was significant as evident from the calculated t value.

C. ESTIMATED INSTABILITY INDEX IN THE NUMBER OF MSMES, FIXED INVESTMENT, PRODUCTION, EMPLOYMENT AND EXPORTS IN INDIA IN THE POST GLOBALIZATION PERIOD

Table-III represents the estimated Coppock's instability index in the number of MSMEs, fixed investment, production, employment and exports in India in the post globalization period.

TABLE-III: ESTIMATED INSTABILITY INDEX IN THE NUMBER OF MSMES, FIXED INVESTMENT, PRODUCTION, EMPLOYMENT AND EXPORTS IN INDIA IN THE POST GLOBALIZATION PERIOD.

S. No	Variable	Coppock Instability Index
1	MSMEs	53.28
2	Fixed Investment	12.47
3	Production	10.73
4	Employment	11.69
5	Exports	10.95

Source: calculated figures based on the data compiled.

From Table-III it is evident that there had been more instability in the number of MSMEs in India in the post globalization period as compared to fixed investment, production, employment, exports. The production seemed to be more stable since the estimated Coppock's instability index was lower for production.

D. ESTIMATED FRONTIER PRODUCTION FUNCTION

The current study tried to estimate the Frontier production function by using the software Frontier 4.1 version. The estimated production function was

$$\hat{Y}=4.2+0.68X1+0.41X2$$
$$(1.83) \quad (2.46)* \qquad\qquad R^2=0.72$$

The estimated production function indicated that there had been increasing returns to scale since the addition of capital co-efficient and labour co-efficient was greater than one. The estimated production function was statistically valid as indicated by R^2 value.

RECOMMENDATIONS

To improve the performance of micro, small and medium enterprises the study recommends the following measures:

1. MSMEs are to be encouraged to modernize to face the challenge arising out of globalization of the economy;
2. There is need for increasing the number of items to be reserved for exclusive manufacture in micro and small enterprise sector;
3. With a view to build the capacity of the Indian micro, small and medium manufacturing enterprises for overcoming competition in the global markets and facing challenges being posed by the entry of the multinationals in the domestic markets, the national manufacturing competitiveness programme needs to be implemented in all the States and
4. There is a need for providing support in the field of skill development, credit marketing, technology and infrastructure;

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MICRO-FINANCE: A CHANGING PARADIGM IN THE NEW ECONOMIC SCENARIO IN THE CONTEXT OF WOMEN EMPOWERMENT

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ABSTRACT

In India, the emergence of liberalization and globalization in early 1990's aggravated the problem of women workers in unorganized sectors from bad to worse, as most of the women who were engaged in various self employment activities have lost their livelihood. Despite the tremendous contribution of women to the agriculture sector, their work is considered just an extension of household domain and remains non-monetized. Microfinance is emerging as a powerful instrument for poverty alleviation in the new economy. Micro finance has the potential to have a powerful impact on women's empowerment. Empowerment tries to encompass self strength, control, self power, self reliance, own choice, life of dignity in accordance with ones values, capable of fighting for ones rights, independence, own decision making, being free, awakening and capacity building. Empowerment depicts expansion of freedom of choice and action. This new paradigm stresses on financial intermediation with self sustainability of institutions and qualitative and quantitative outreach to the poor. It marks a paradigm shift from induced development to initiated development highlighting the changing role of credit in addressing and adequately meeting the needs of the poor women. The focus of this paper in on reviewing the evidence of empowerment gained through access to microfinance services by women. It puts forward how micro finance institutions have received recognition as a strategy for economic empowerment of women. This paper also seeks to examine the impact of micro finance with respect to poverty alleviation and socioeconomic empowerment of women.

KEYWORDS

Micro finance, MFI, Gender Development, Empowerment, Domestic Violence, Sustainability, Poverty Alleviation

INTRODUCTION

Microfinance" is often defined as financial services for poor and low-income clients offered by different types of service providers. In practice, the term is often used more narrowly to refer to loans and other services from providers that identify themselves as "microfinance institutions" (MFIs). These institutions commonly tend to use new methods developed over the last thirty years to deliver very small loans to unsalaried borrowers, taking little or no collateral. These methods include group lending and liability, pre-loan savings requirements, gradually increasing loan sizes, and an implicit guarantee of ready access to future loans if present loans are repaid fully and promptly. It is a movement that envisions a world in which low-income households have permanent access to a range of high quality and affordable financial services offered by a range of retail providers to finance income-producing activities, build assets, stabilize consumption, and protect against risks. These services include savings, credit, insurance, remittances, and payments, and others.

MICROFINANCE INSTITUTIONS

A microfinance institution (MFI) is an organization that provides microfinance services. MFIs range from small non-profit organizations to large commercial banks. Between the 1950s and 1970s, governments and donors focused on providing subsidized agricultural credit to small and marginal farmers, in hopes of raising productivity and incomes. This particular form of lending has existed in the world for quite some time, though formalized by Mohammed Yunus in Bangladesh during the 1970's. During the 1980s, micro-enterprise credit concentrated on providing loans to poor women to invest in tiny businesses, enabling them to accumulate assets and raise household income and welfare. These experiments resulted in the emergence of nongovernmental organizations (NGOs) that provided financial services for the poor. In the 1990s, many of these institutions transformed themselves into formal financial institutions in order to access and on-lend client savings, thus enhancing their outreach. MFIs include Commercial banks, Local non-bank financial institutions, Cooperatives, A wide variety of microfinance institutions, including NGOs, foundations, savings and credit associations, and a range of government owned institutions. In addition, there are also informal sources of financial services, such as moneylenders, self-help groups, shopkeepers and traders, outside of these microfinance sub-sectors.

WHY MF IS DISCOURAGED?

"Credit is available from informal commercial and non-commercial money-lenders but usually at a very high cost to borrowers. Savings services are available through a variety of informal relationships like savings clubs, rotating savings and credit associations, and mutual insurance societies that have a tendency to be erratic and insecure." .The nature of microcredit - small loans - is such that interest rates need to be high to return the cost of the loan. "There are three kinds of costs the MFI has to cover when it makes microloans. The first two, the cost of the money that it lends and the cost of loan defaults, are proportional to the amount lent. "The third type of cost, transaction costs, is not proportional to the amount lent. Loans require roughly the same amount of staff time for meeting with the borrower to appraise the loan, processing the loan disbursement and repayments, and follow-up monitoring. When loan sizes get very small, transaction costs loom larger because these costs can't be cut below certain minimums." For three decades, microfinance institutions have given out small loans to the world's poor — mostly women — and amassed hundreds if not thousands of case studies showing that the loans help alleviate poverty, improve health, increase education and promote women's empowerment.

PROFITABILITY AND SUSTAINABILITY OF MFIs

Some worry that an excessive concern for profit in microfinance will lead MFIs away from poor clients to serve better-off clients who want larger loans. It is true that programs serving very poor clients are somewhat less profitable than those reaching better-off clients. MFIs serving the very poor are showing rapid financial improvement. Microfinance programs like Bangladesh Rural Advancement Committee and ASA in Bangladesh have already demonstrated that very poor people, with access to savings, credit, insurance, and other financial services, are more resilient and better able to cope with the everyday crises they face. Even the most rigorous econometric studies have proven that microfinance can smooth consumption levels and significantly reduce the need to sell assets to

meet basic needs. With access to micro insurance, poor people can cope with sudden increased expenses associated with death, serious illness, and loss of assets.

Access to credit allows poor people to take advantage of economic opportunities. While increased earnings are by no means automatic, clients have overwhelmingly demonstrated that reliable sources of credit provide a fundamental basis for planning and expanding business activities. Many studies show that clients who join and stay in programs have better economic conditions than non-clients, suggesting that programs contribute to these improvements. A few studies have also shown that over a long period of time many clients do actually graduate out of poverty.

"By reducing vulnerability and increasing earnings and savings, financial services allow poor households to make the transformation from "every-day survival" to "planning for the future." Households are able to send more children to school for longer periods and to make greater investments in their children's education. Increased earnings from financial services lead to better nutrition and better living conditions, which translates into a lower incidence of illness. Increased earnings also mean that clients may seek out and pay for health care services when needed, rather than go without or wait until their health seriously deteriorates."

"Empirical evidence shows that, among the poor, those participating in microfinance programs that had access to financial services were able to improve their well-being-both at the individual and household level-much more than those who did not have access to financial services.

- Microfinance helps very poor households meet basic needs and protect against risks
- The use of financial services by low-income households is associated with improvements in household economic welfare and enterprise stability or growth;
- By supporting women's economic participation, microfinance helps to empower women, thus promoting gender-equity and improving household well-being;
- For almost all significant impacts, the magnitude of impact is positively related to the length of time that clients have been in the program.

REVIEW OF LITERATURE

The review of literature provides a researcher an insight into the chosen field. A brief survey of the studies conducted in this area has been presented in the following paragraphs.

Copestake et al (2001) analyze the impacts of microfinance on firms and individual wellbeing. Copestake focuses on business performance and household income to establish a link between the availability of microfinance and overall wellbeing of the poor. Evans et al (1999) approach the microfinance question at a slightly different angle however. They seek to explain nonparticipation in the microfinance revolution, stating that while microfinance is used as a viable tool in fighting poverty, more than 75% of the poor individuals choose not to participate for various reasons. Kabeer (2001) provides a meta-analysis of microfinance and focuses on women empowerment, intending to show why various studies conflict in their conclusions as to the impact of microfinance on women empowerment. Finally, Park (2001) evaluates the actual microfinance programs in China using three key measures (targeting, sustainability and overall impact).

State of the Campaign Report: Two major studies strongly suggest that microfinance works better for the poorest than the less poor. Second, there is strong evidence that female clients are empowered, though the data on increased adoption of family planning is less clear. Third, society-wide benefits that go beyond clients' families are apparently significant – Fourth, even in cases when women take but do not use the loan themselves, they and their families benefit more than if the loan had gone directly to their husbands.

One of the first comprehensive microfinance impact assessments was "Credit for the Alleviation of Rural Poverty: The Grameen Bank in Bangladesh," (1988) by Mahabub Hossain. He warned that it was likely that his impact findings would be overstated, however, because Grameen members were found to be younger and better educated than nonmembers who were more likely to be landless. This type of difference between participants and comparison households is prevalent among microfinance impact evaluations and limits the conclusions.

Mayoux (2002) explains that the micro finance programmes have assumed to bring out vitreous spirals by assisting poor women to access credit. Women's access to credit and savings will help them, take a bigger role in decision making, which further help them to optimize their own as well as their family's welfare. Investment in women's activities is also likely to enhance employment opportunities of women and increase the income at the household level. Access to savings and credit results in improving skills, mobility, knowledge and the support network. Group formation also leads to wider social and political movement and help women up grade their status at home as well as in their community.

MACRO ECONOMIC CRISIS -1991

The macroeconomic crisis of 1991 forced India to address problems of non viability and inefficiency across a number of sectors of the economy, including the financial sector. In India, the government owns the majority of the formal banking sector which consists of Commercial Banks, Co-operative Banks (both rural and urban) and Regional rural Banks. The existence of large number of loss-making units with the extensive state rural banking system gave cause for particular concern. The study by Thankom Arun with Paul Mosley (Sheffield University) and Samuel Maimbo (World Bank) examines the ability of the Indian rural financial sector to meet the credit needs of lower income groups, and, in future, those who are currently financially excluded. The Problems associated with Micro Finance are:

- Lack of financial viability across much of the Indian rural credit system
- Continuing financial exclusion of many poor people and
- The need of poor people for flexible, easy to access financial services which protect against risk.

MICRO FINANCE AND NUTRITION

"Credit Programs for the Poor and the Health Status of Children in Rural Bangladesh" (2003) by Pitt, Khandker, Chowdhury, and Millimet, found substantial impact on children's health (as measured by height and arm circumference) from women's borrowing, but not from male borrowing, which had an insignificant or even negative effect.

MICRO FINANCE PROGRAMMES & THE PRESENT SCENARIO

Microfinance programs have the potential to transform power relations and empower the poor—both men and women. In well-run microfinance programs, there is a relationship of respect between the provider and the client that is inherently empowering. This is true regardless of the methodology or approach. As a consequence, microfinance has become a central component of many donor agencies and national governments gender, poverty alleviation, and community development. According to the State of the Microcredit Summit Campaign 2001 Report, 14.2 million of the world's poorest women now have access to financial services through specialized microfinance institutions (MFIs), banks, NGOs, and other nonbank financial institutions. These women account for nearly 74 percent of the 19.3 million of the world's poorest people now being served by microfinance institutions. Most of these Women have access to credit to invest in businesses that they own and operate by themselves. The vast majority of them have excellent repayment records, in spite of the daily hardships they face. Contrary to conventional wisdom, they have shown that it is a very good idea to lend to the poor and to women

Although women's access to financial services has increased substantially in the past ten years, their ability to benefit from this access is often still limited by the disadvantages they experience because of their gender. Some MFIs are providing a decreasing percentage of loans to women, even as these institutions grow and offer new loan products. Others have found that on average women's loan sizes are smaller than those of men, even when they are in the same credit program, the same community, and the same lending group. Some differences in loan sizes may be a result of women's greater poverty or the limited capacity of women's businesses to absorb capital. But they can also indicate broader social discrimination against women which limits the opportunities open to them, raising the question of, whether micro enterprise development programs should do more to address these issues?

MICRO FINANCE - DEVELOPMENT STRATEGIES

Several studies and the experiences of a number of MFIs have shown, however, that simply putting financial resources in the hands of poor women is not enough to bring about empowerment and improved welfare. Microfinance institutions around the world have been quite creative in developing products and services that avoid barriers that have traditionally kept women from accessing formal financial services such as collateral requirements, male or salaried guarantor requirements, documentation requirements, cultural barriers, limited mobility, and literacy. Nevertheless, in a number of countries and areas few or

no institutions offer financial services under terms and conditions that are favorable to women. Together, these findings confirm that the type of products offered, their conditions of access, and the distribution of an institution's portfolio among different products and services affect.

MICRO FINANCE AND GENDER DEVELOPMENT

Research done by UNDP, UNIFEM, and the World Bank, among others, indicates that gender inequalities in developing societies inhibit economic growth and development. For example, as per recent World Bank report which confirms that, societies that discriminate on the basis of gender pay the cost of greater poverty, slower economic growth, weaker governance, and a lower living standard of their people. The UNDP found a very strong correlation between its gender empowerment measure and gender-related development indices and its Human Development Index. Microfinance has come to play a major role in many of these donors' gender and development strategies because of its direct relationship to both poverty alleviation and women. By giving women access to working capital and training, microfinance helps mobilize women's productive capacity to alleviate poverty and maximize economic output. In this case, women's entitlement to financial services, development aid, and equal rights rests primarily on their potential contribution to society rather than on their intrinsic rights as human beings and members of that society. Women who are empowered will have the power to make the life choices that are best for them, and although many empowered women will choose to invest in their families, they do not have access to easy finance.

MICROFINANCE AND EMPOWERING WOMEN

"Microfinance programs have generally targeted poor women. By providing access to financial services only through women-making women responsible for loans, ensuring repayment through women, maintaining savings accounts for women, providing insurance coverage through women-microfinance programs send a strong message to households as well as to communities.

Many qualitative and quantitative studies have documented how access to financial services has improved the status of women within the family and the community. Women have become more assertive and confident. In regions where women's mobility is strictly regulated, women have become more visible and are better able to negotiate the public sphere. Women own assets, including land and housing, and play a stronger role in decision making. In some programs that have been active over many years, there are even While non-financial services should be provided by separate institutional providers, there are clear, complementary links with the demand for and impact of microcredit. For example, improved access to market opportunities stimulates - and depends on - securing credit to cover the costs (product design, transport, etc.) of taking advantage of those opportunities. Legal and institutional reforms can create incentives for microfinance by improving the operating environment for both microfinance providers and their clients.

FIG. 1
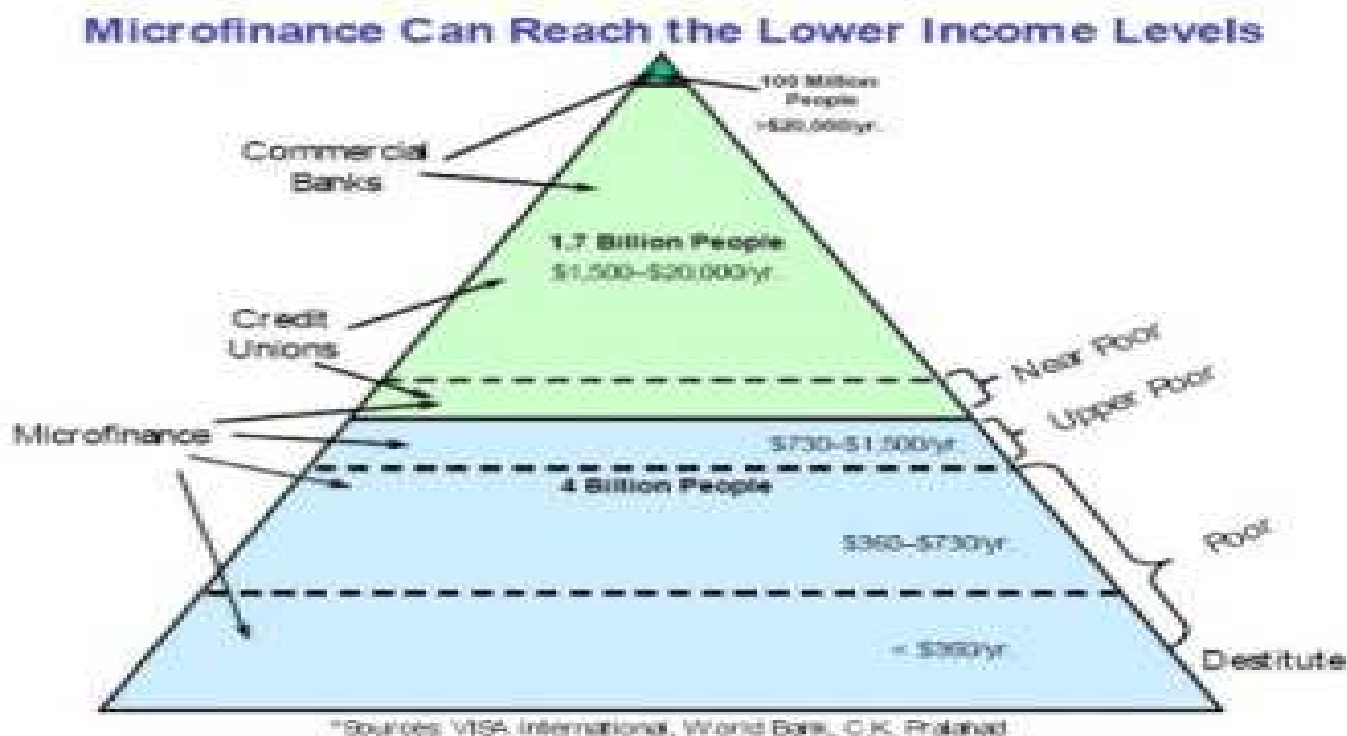
Last, but not least, one of the often articulated rationales for supporting microfinance and the targeting of women by microfinance programs is an effective means or entry point for empowering women. By putting financial resources in the hands of women, microfinance institutions help the level playing field and promote gender equality. Empowerment is about change, choice, and power. It is a process of change by which individuals or groups with little or no power gain the power and ability to make choices that affect their lives. The structures of power—who has it, what its sources are, and how it is exercised—directly affect the choices that women are able to make in their lives. Microfinance programs can have tremendous impact on the empowerment process if their products and services take these structures into account. To make woman to be empowered, she needs access to the material, human, and social resources necessary to make strategic choices in her life. Not only have women been historically disadvantaged in access to material resources like credit, property, and money, but they have also been excluded from social resources like education or insider knowledge of some businesses. Access to resources alone does not automatically translate into empowerment or equality, however, because women must also have the ability to use the resources to meet their goals. Naila Kabeer uses the term agency to describe the processes of decision making, negotiation, and manipulation required for women to use resources effectively. Women who have been excluded from decision making for most of their lives often lack this sense of agency that allows them to define goals and act effectively to achieve them. However, these goals also can be heavily influenced by the values of the society in which women live and so may sometimes replicate rather than challenge the very existence of women.

Many microfinance institutions focus their attention on women's use of the loan and ability to make decisions about her business as the most direct impact of their program. Nirdhan Utthan Bank, Ltd. in Nepal found that most of their women clients were making decisions about business investments jointly with their husband, which represents a step forward because previously these women's husbands would have made such decisions alone.

IMPACT ON SELF-CONFIDENCE

Self-confidence is one of the most crucial areas of change for empowerment, yet it is also one of the most difficult to measure or assess. Self-confidence is a complex concept relating to both women's perception of their capabilities and their actual level of skills and capabilities. It is related to Kabeer's concept of

agency that allows women to define and achieve goals as well as the sense of power women have within themselves. Jeffrey Ashe and Lisa Parrott's study of the Women's Empowerment Project in Nepal showed that an increase in self-confidence and enlarged spheres of influence were the top two changes reported by 200 sampled groups.

URWEGO in Rwanda found that the greatest impact of its program on empowerment had been on self-esteem, with sixty nine percent of clients reporting increased self-esteem. Self-esteem and self-confidence are closely linked with knowledge as well. Fifty-four percent of URWEGO clients reported an increase in their level of knowledge about issues that affect themselves and their families, and thirty eight percent of clients reported an increase in business knowledge.

MICRO FINANCE AND SUSTAINABILITY

Arguments have been made for and against targeting women on the grounds of efficiency and sustainability. Proponents of targeting women on the grounds of sustainability cite women's repayment records and cooperativeness. A collective wisdom has emerged that women's repayment rates are typically far superior to those of men. Lower arrears and loan loss rates have an important effect on the efficiency and sustainability of the institution. Many programs have also found women to be more cooperative and prefer to work with them for that reason as well. In spite of the large number of institutions serving exclusively or predominantly for women while maintaining high levels of financial sustainability, some people argue that institutions that place a priority on serving women also have a tendency to place social goals ahead of efficiency, leading to poorer financial performance.

WOMEN'S RIGHTS PERSPECTIVE

Women's equal access to financial resources is a human rights issue. Because access to credit is an important mechanism for reducing women's poverty, it has been an explicit focus of a variety of human rights instruments. Both the Convention on the Elimination of Discrimination Against Women (CEDAW) and the Beijing Platform for Action (BPFA) address women's access to financial resources. International and national instruments that establish women's rights to credit promote government responsibility and accountability in meeting commitments to women's rights.

MICRO FINANCE AND DOMESTIC VIOLENCE

Although there are many good reasons for MFIs to be watchful for potential rises in domestic violence, the bulk of the evidence and experience thus far seems to point to the conclusion that participation in microfinance strengthens and improves family relationships rather than destroying them. Poverty, scarcity, and feelings of helplessness take an undeniable toll on personal relationships. Many practitioners have found that family relationships can be strengthened when the home becomes a more comfortable place to be, and when each member of the family feels secure in his or her ability to contribute productively to the family.

IMPACT ON WOMEN'S INVOLVEMENT AND STATUS IN THE COMMUNITY

Several microfinance and microenterprise support programs have observed improvements in women's status in their communities. Contributing financial resources to the family or community confers greater legitimacy and value to women's views and gives them more entitlements than, they would otherwise have. Studies of microfinance clients from various institutions around the world show that the women themselves very often perceive that they receive more respect from their families and their communities—particularly from the male members—than they did before joining a microfinance program. Where women have the freedom to move about publicly, their success in business is often highly visible in the community. Their success can pave the way for them to become respected and valued members of society. Although time is precious and scarce for many poor women, it is one resource that most women can utilize to gain access to financial services. It is a key factor in facilitating cost-efficient delivery of services.

There are concerns, however, that MFIs are increasing women's work burden by involving them in time-consuming meetings and income-generating activities without taking any action to reduce their traditional responsibilities. Many women report an increased workload and responsibilities as a result of their loans. Several cases of women suffering ill health and exhaustion as a result of overwork have been reported. In other cases, though, women report that they are more than happy to assume the extra burden because of the respect, personal satisfaction, and improved standard of living they experienced as a result of their income-generating activities.

MICRO FINANCE AND BUSINESS IMPACT

Running a successful business not only contributes to women's improved welfare, it contributes both directly and indirectly to their empowerment. The studies showed that through program, women's businesses became more successful in the following ways: an increase in working capital, improved relationships with suppliers and customers, more strategic planning and pricing, and diversification and expansion into more profitable product lines. The increase in working capital is particularly important for women's empowerment. Adequate credit by banks and MFI would facilitate the women to purchase stock of raw materials for their uninterrupted operations..

MICRO FINANCE AND LITERACY LEVELS

Women's general education and literacy are important if they are to reach their full potential and become empowered. Illiteracy creates a situation of dependency on others that can limit an individual's prospects for empowerment. Many MFIs have found illiteracy to be a major stumbling block for their clients. Many MFIs use participatory training techniques that do not require literacy to educate clients, but very few are able to offer literacy training since most methods for providing it are relatively expensive and time-intensive for both staff and clients. Although many illiterate entrepreneurs are able to keep accounts in their heads, their ability to interact with the formal sector will always be limited. Some NGOs such as World Education and Women's Empowerment Project in Nepal have come up with innovative and low-cost methods of training women in literacy that have significantly enhanced the empowerment benefits of the savings and credit groups to which the women belong. By using existing lending groups and providing materials for women to train themselves, the literacy programs have grown rapidly for a relatively low cost in contrast to many literacy initiatives. These programs have shown that literacy and education contribute powerfully to empowerment and complement the financial independence that microfinance provides.

BALANCING FAMILY AND WORK RESPONSIBILITIES THROUGH MICRO-FINANCE

In addition to educational disadvantages, one of the most difficult challenges that many women face as they start or expand businesses is the balancing of their increasing business responsibilities with their household responsibilities. Although the ultimate goal may be for household responsibilities to be shared between the men and women in the household, this sharing never happens overnight. In many cases, women's businesses remain small and concentrated in less profitable sectors in large part because of the time constraints that women's domestic responsibilities create. Not only do women have limited time to spend on their business activities, but often they also must be able to abandon them altogether for periods to deal with family crises or children's illnesses. As a result, many women's employment opportunities are limited to those that can be done on a part-time and often irregular basis. The experiences of Opportunity International's partners have demonstrated that women often need help to develop strategies for managing and meeting the expectations of family and community members while still having the time and energy to run their businesses well. Women also need support in negotiating the complex changes in gender roles that must ultimately take place in order to succeed as micro entrepreneurs.

MANAGING THE CHALLENGES OF RAPID GROWTH

As the industry grows and matures, women may be adversely affected by institutional changes resulting from rapid expansion, consolidation, and commercialization. Opportunity's experience is that several partners have provided a lower percentage of loans to women as they have grown. This is, of course,

not all bad news: in the context of aggressive growth, the absolute number of women receiving services grows, even if the percentage of women clients decreases. Yet there are some trends that should be monitored, such as the tendency to drop group loans in favor of individual loans. Again, this is not all bad-- as long as the individual loan product is thoughtfully designed with women's needs in mind and as long as the poorest and most marginalized women are not left behind.

The consolidation issue likewise has pro's and con's. Opportunity's recent experience with a few consolidations shows that, as with any consolidation, it is a delicate matter to bring together different systems, policies and products. The blended organizational culture may be stronger in gender sensitivity and gender equity--or it may be weaker. And, as MFIs transform into regulated financial institutions, they must meet the demands of the supervising authority, creditors, and investors. Pressure to select the most financially profitable products and delivery systems may reduce the accessibility and benefits for women. Part of the pressure is to increase loan sizes and women, who are disproportionately among the poorest, have a greater need for smaller entry level loans. Therefore, in the midst of this growth, it is important to develop client-centered products that acknowledge not only women's economic needs but their potential for empowerment as well.

MICRO FINANCE AND DESIGNING OF PRODUCTS TO MEET WOMEN'S NEEDS

Through impact assessments, monitoring, market research, and client feedback, many MFIs have begun to develop and adapt new products to address the shortcomings of their traditional products and keep pace with clients' changing needs. Women's businesses was not improving dramatically, nor were women able to access larger individual loans, which often require assets as collateral or a guarantor. In some cases, this hindrance was due to policies requiring loans to be used for working capital only, but in others, it was due to loan terms, amounts, and repayment schedules that did not allow for the purchase of a long-term asset. What is required is combining a longer repayment period, group guarantee, and flexible disbursement schedule.

CONCLUSIONS

Microfinance has the potential to have a powerful impact on women's empowerment. Although microfinance is not always empowering for all women, most women do experience some degree of empowerment as a result. Empowerment is a complex process of change that is experienced by all individuals somewhat differently. Women need, want, and profit from credit and other financial services. Strengthening women's financial base and economic contribution to their families and communities plays a role in empowering them. In some cases, access to credit may be the only input needed for empowerment. But power is deeply rooted in our social systems and values. Women often value the non-economic benefits of a group-lending program as much as or more than the credit. Some of the most valued benefits include expanded business and social networks, improved self-esteem, increased household decision-making power, and increased respect and prestige from both male and female relatives and community members. Targeting women continues to be important in the design of products and services, both because women by default have less access to credit and because they face constraints unique to their gender. By building an awareness of the potential impacts of their programs, MFIs can design products, services, and service delivery to the benefit of women under micro finance programs.

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BAMBOO CULTIVATION IN DIMAPUR, NAGALAND – GROWERS PERCEPTION

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ABSTRACT

To understand the potential of bamboo cultivation in Dimapur district, Nagaland a study was carried out in six major bamboo cultivating villages in the month May-July 2012 with objectives to identify the reason for cultivating bamboo and to identify the problems faced in the bamboo cultivation. Though there are 22 species of bamboo available in Nagaland, three species of bamboo namely Kako (Dendrocalamus damiltonii), Dolo (Teinostachyum dulla) and Jati (Bambusa tulda) were cultivated by most of the villagers. The main reasons for preferring cultivation of bamboo are high profit making opportunity, suitability of soil and favorable climatic condition. Though insects like beetles and termites were found the most commonly occurred insects attacking bamboo, the harvest of bamboo per hectare was 15 tons in an average. Another problem faced by the farmers in bamboo cultivation is lack of scientific knowledge in plantation. Scientific plantation of bamboo with specified spacing between saplings should be adopted and cultivated while management of clump forming bamboo should be utilizing while cultivation bamboo. Bamboo, initially being regarded as a poor man's timber has now been transformed into "green gold" because of its potential to provide ecological and economic benefits to the people. It continues to play a predominant role in the life of the rural people even today in every walk of life that ranges from agricultural tools and implements to shelter, food and livelihood. This prompted the researcher to write this paper by echoing horse mouth.

KEYWORDS
M00 Bamboo cultivation, growers, Nagaland, problems, reasons.

1.   INTRODUCTION
Bamboo is a woody grass belonging to the sub family Bambusoideae of the family Poaceae. Bamboo is fast growing species and therefore, known as "**Green Gold**". This green gold is sufficiently cheap and plentiful to meet the vast needs of human populace from the "*child cradle to the dead man's bier*" that is why sometimes known as "*poor man's timber*". India is very rich in bamboo diversity. There are 124 indigenous and exotic species under 23 genera found naturally and under cultivation in India. An estimated 8.6 million ha forest area of the country contains bamboo (**Ram, et al, 2010**). India is the second largest producer of bamboo in the world next to China and also has the rich diversity of bamboos. Out of 78 species of bamboos distributed in the North East India (**AJ Nath, et al, 2009**), 22 major species are found in Nagaland. Two-thirds of the bamboo in the country is restricted to theNorth-Eastern Region (NER) while the remaining one-third is spread across the country. Bamboo is found extensively in Nagaland. It occurs as a predominant grass in parts of the districts of Dimapur, Peren, Mon and Mokokchung; it is found mixed with other forest species in all other districts. This paper gives a vivid account of bamboo cultivation process and problems relating to it.

USES OF BAMBOO
It is mostly used in pulp and paper industries, domestic and cottage industries etc. Bamboo is considered to be multipurpose plant with varieties of different uses such as medicine, food and fodder, construction, handicraft and furniture, paper and pulp, preventing soil erosion etc. and is one of the world's best engineering materials because of its high tensile strength (**Arvin Kumar Goyal, et al, 2012**). The rural people of Nagaland in particular are dependent on bamboo for their construction and agricultural implements. The plant has a fast growing rate, a high strength and stiffness, can easily be used in many manufacturing process and is available on many locations (**Zhi-Ming Liu, 2011**). Bamboostands maturity within 3 years in controlled forests. The plant is considered as a short-term renewable resources, which has environmental advantages over long-cycle renewable resources extraction (**Scurlock, 2000**).Bamboo is also used to make a different variety of household goods viz., furniture, dinnerware, sporting goods, jewelry and handbags comprised of it. It has also been used for flooring, cutting boards, and many other good that is commonly made of wood.

BAMBOO CULTIVATION
About 5% of the growing stock of bamboo of the country is in Nagaland which is about 4, 48,000 hectares. The dominant species in Nagaland are Kako (Dendrocalamushamiltonii), Dolo (Teinostachyumdulloa) and Jati (Bambusatulda).They occur all along thelower belts in the border with Assam. While Kakoo and Daloo clumps are characterized in moist localities along the nalas and streams, Jati occupies better-drained sites. In more accessible localities along the roads bamboos have been over cut while, in other areas they have been left untouched for many years.

TABLE 1. LIST OF THE DISTRICTS AND TOWN WITH DETAILS OF CULTIVATE BAMBOO LAND IN THE STATE DURING THE YEAR 2007-2010

Sl. No.	Districts/Town	2007 Ha.	2008 Ha.	2009 Ha.	2010 Ha.	Total Ha.
1	Dimapur	350	600	210	210	**1370**
2	Kiphire	250	390	210	150	**1000**
3	Kohima	300	600	215	150	**1265**
4	Longleng	280	400	180	270	**1130**
5	Mokokchung	Nil	500	250	500	**1250**
6	Mon	262	550	80	250	**1142**
7	Peren	250	400	210	150	**1010**
8	Phek	230	620	210	150	**1210**
9	Tuensang	350	500	180	150	**1180**
10	Tuli	1000	500	400	700	**2600**
11	Wokha	250	450	210	270	**1180**
12	Zunheboto	250	450	210	150	**1060**
	Total (Ha.)	**3772**	**5960**	**2565**	**3100**	**15397**

Source: *Nagaland Bamboo Development Agency, Dimapur.*

2. STUDY OBJECTIVES

The study was carried out with the following objectives:
1) To identify the reasons for cultivating bamboo.
2) To identify the problems faced in the bamboo cultivation

3. MATERIALS AND METHODS

It is an empirical research based on survey method. The study was conducted from May to July 2012 in Dimapur district of Nagaland. The sample of 104 households of bamboo cultivators was selected from the 6 villages out of 43 available villages cultivating bamboo within the Dimapur district. The sample farmers were selected from the following villages namely; Homeland, Zhuheshe, Ghotovi, Phushito, Nihoi and Bade where the cultivation was higher compared to other available villages. Information regarding different species of bamboo cultivations, reason for cultivating bamboo and the problems faced in bamboo cultivation were all gathered from field visits and interaction with bamboo cultivators through detailed and structured questionnaire. Friedman Test and Wilcoxon Signed-Rank Test were used to identify the objectives.Secondary data were also gathered from relevant articles, reports and documents.

4. GREEN GOLD IN DIMAPUR (STUDY AREA)

The focus of this study is Dimapur district also known as Brick city by the European scholar and Ahoms, situated on the banks of the River Dhansiri. It is one of the largest bamboo raw material production areas in the state. The district is 4,300 ha, with a bamboo cultivated area of 1,370 ha. A large area of the district is in the plains with an average elevation of 260 m above sea level excepting the Medziphema sub-division and few villages of Niuland sub-division, which are located in the foothills. Dimapur, situated at 25° 54' 45'' N Latitude and 93° 44' 30'' E Longitude. Climate is hot and humid in the plains during summer (reaching a maximum of 36ºC, with humidity upto 93%) while the winter months are cool and pleasant. The average annual rainfall is 1504.7 mm

Dimapur in Nagaland is bounded by Kohima district on the south and east, KarbiAnglong district of Assam on the west, the KarbiAnglong and stretch of Golaghat District of Assam in the west and the south. It is an important trade and commercial center. Besides being referred to as a gateway of Nagaland and Manipur, main commercial activities of the state, is centered on Dimapur.

TABLE 2: LIST OF BAMBOO CULTIVATING VILLAGES IN DIMAPUR DISTRICT

Sl. No.	Name of the village	2007 (Ha.)	2008 (Ha.)	2009 (Ha.)	2010 (Ha.)	Total (Ha.)
1	Homeland	180	60	25	35	**300**
2	United Village	5				**5**
3	Piphema	2				**2**
4	Ganeshnagar	10				**10**
5	Kashiram	10				**10**
6	Showoba	12				**12**
7	Chumukedima	25				**25**
8	Lotavi	17				**17**
9	Keyezu	5				**5**
10	Padumpukhuri	10				**10**
11	Zhuheshe		80	30	25	**135**
12	Ghotovi	36	50	20	25	**131**
13	Vihokhu		20	10		**30**
14	Sethekima Old		20			**20**
15	New Chumukedima	5	20			**25**
16	Razaphema		20			**20**
17	Phushito	33	40	30	15	**118**
18	Shikavi		15			**15**
19	Murise		10			**10**
20	Khehoi		15			**15**
21	Ghokuto		20			**20**
22	Zutovi/Pinla		15			**15**
23	Nihoi		15		30	**45**
24	Phuhoto		15	10		**25**
25	Khehokhu		25			**25**
26	Bade		15	10	12	**37**
27	Luhevi		20			**20**
28	Sahoi		35			**35**
29	Lohozhe		15			**15**
30	Hovukhu		15			**15**
31	Ghokito		20			**20**
32	Videma		10	5		**15**
33	Tsiepama		10			**10**
34	Aoyimkum		20			**20**
35	Hevishe			30	5	**35**
36	Zukihe			10		**10**
37	Zhuikhu			20	5	**25**
38	Setrongse			10		**10**
39	Khekiho				5	**5**
40	Suhoi				5	**5**
41	Khughovi				5	**5**
42	Kakiho				20	**20**
43	Medziphema				8	**8**
	Total	**350**	**600**	**210**	**210**	**1370**

Source: *Nagaland Bamboo Development Agency, Dimapur*

5. BAMBOO PLANTATION DEVELOPMENT IN NAGALAND

Nagaland with 89% of its total geographical area under the ownership of private individuals and communities offers a unique scope for raising bamboo plantation. Plantation is promoted on individual landholdings as well as community lands.

TABLE 3: PHYSICAL AND FINANCIAL PROGRESS REPORT FOR NATIONAL BAMBOO MISSION (NBM) FUNDED ACTIVITIES FROM THE YEAR 2007-08 & 2008-09

Work plan under NBM		2007-2008		2008-2009	
Sl. No.	Particulars	Unit	Amount (in Lacs)	Unit	Amount (in Lacs)
1	Bamboo Plantation	3892 Ha	973.00	7500 Ha	1875.00
2	Nursery				
	I. Central Public Nursery	6 Nos	2.50	5 Nos	2.50
	II. Central Private Nursery	10 Nos	0.68	8 Nos	0.68
	III. Kisan Nursery	10 Nos	0.06	16 Nos	0.06
	IV. Mahila Nursery	10 Nos	0.06	16 Nos	0.06
3	Existing Stock Management	3237 Ha	122.96	2500 Ha	122.96
4	Pest and Disease Management	1750 Ha	12.00	6000 Ha	12.00
5	Post-Harvest treatment	2 Nos	40.00	2 Nos	40.00
6	Wholesale/Retail Outlet	3 Nos	15.99	3 Nos	15.99
7	Bamboo Bazaar	2 Nos	18.00	2 Nos	18.00
	Total		**1185.25**		**2087.25**

Source: *Nagaland Bamboo Development Agency, Dimapur*.

The Nagaland Bamboo Development Agency (NBDA) has implemented the National Bamboo Mission (NBM) Programme by undertaking bamboo plantation of selected commercially viable bamboo species with appropriate species-site match that is suitable to the agro climatic condition prevalent in the state. So far, the Agency has covered 13,982 hectares of bamboo plantation against the target of 50,000 hectares.

The Agency facilitates availability of quality saplings required for the plantation and also undertakes regeneration through scientific management practices focusing on cluster based compact areas. A total of 81 nurseries, both Central and Private have been established in all Districts to meet the requirements for propagation of bamboo.

The Village Bamboo Development Committees (VBDC) has been formed at village level where bamboo plantation is taken up. These committees are composed of bamboo growers, women groups, youth and VC/VDB members.

The NBDA facilitates the VBDCs in strategizing, implementing and identifying areas for resources and enterprise development. Micro-finance facility is provided to VBDCs in the form of Revolving Fund. Training on bamboo plantation, management of existing stocks through scientific method and method of pest and diseases control to improve productivity have been imparted to all the VBDCs through districts level farmers training.

6.   RESULTS AND DISCUSSION

Though 22 species of bamboo are available in Nagaland, only three species Kako, Dolo and Jatiare are being cultivated by majority of the villagers in Dimapur district, though nearly 60 species are cultivated in India (**Anon, 1988**). It was also found that labour charges were high in the village with an average of Rs. 5000 per acre. Cost of bamboo for plantation was Rs. 5 per sapling where cultivation cost per hectares was Rs. 10,000 approx. An average harvest of bamboo per hectare was 15 tons and maintenance cost at Rs. 3335 per acre.

Under the assistance for bamboo plantation projects, the agency is providing revolving fund assistance to the village Bamboo Development Committees. The concept of the revolving fund assistance and its application has been formulated in the line with the revolving fund scheme. The revolving fund placed at the disposal of the VBDCs are utilized to provide soft loan assistance to the bamboo farmers and villager for taking up income generating activity as a stop gap arrangement before the bamboo plantations can generate income. The VBDCs manage the fund under the supervision of the agency officials.

TABLE 4: PLANTATION AND HARVESTING FROM ONE HA.BAMBOO PLANTATION

Year	Total no. of clums appear	No. of clums ready for harvest and sale	Rate	Amount
1st year	400	Nil	Nil	Nil
2nd year	1200	Nil	Nil	Nil
3rd year	3600	2400	Rs.50	120,000
4th year	7200	4800	Rs.50	240,000

TABLE 5: CONSUMPTION PATTERN OF BAMBOO IN INDIA

Uses	Percentage consumption (%)
Pulp	35.0
Housing	20.0
Non-residential	5.0
Rural areas	20.0
Fuel	8.5
Packing including basket	5.0
Transport	1.5
Furniture	1.0
Other wood working industries	1.0
Other including fodders, mats etc.	3.0
Total	100.0

Source: Tewari, 1992

REASONS FOR PREFERRING CULTIVATION OF BAMBOO

When the researcher surveyed the bamboo growers, they were asked about reasons for preferring bamboo cultivation and asked them to rank it.

H$_o$: There is no significant difference in the perceived reasons high profit, suitability of soil and climate condition for preferring bamboo cultivation.

TABLE 6: REASON FOR BAMBOO CULTIVATION

	N	Mean	Std. dev.	Min	Max	Percentiles			Mean Rank
						25th	50th	75th	
1.High profit	104	1.0577	.27260	1.00	3.00	1.0000	1.0000	1.0000	1.07
2.Suitability of soil	104	2.6058	.95955	1.00	5.00	2.0000	2.0000	4.0000	2.62
3.Inter crop cultivation	104	6.0096	.22011	5.00	7.00	6.0000	6.0000	6.0000	6.01
4.Lum-sum amount	104	3.4519	1.06013	1.00	5.00	2.0000	4.0000	4.0000	3.46
5.Hereditary	104	4.3077	1.09790	1.00	7.00	3.0000	5.0000	5.0000	4.32
6.Stackable produce	104	6.9423	.27260	5.00	7.00	7.0000	7.0000	7.0000	6.94
7.Suitable Climatic	104	3.5769	.95218	2.00	5.00	3.0000	3.0000	5.0000	3.58

Source: Primary data

The table shows the median of high profit, suitability of soil, inter crop cultivation, lump-sum amount, hereditary, stackable produce and suitability of climatic condition as 1 (1 to 1), 2 (2 to 4), 6 (6 to 6), 4 (2 to 4), 5 (3 to 5), 7 (7 to 7), 3 (3 to 5), respectively. The mean value is lowest in high profit with its figure 1.0577 followed by suitability of soil and lump-sum amount as 2.6058 and 3.4519......

TABLE 6.1: TEST STATISTICS ^{a}

N	104
Chi-Square	529.286
df	6
Asymp. Sig.	.000

a.   Friedman Test

The above table provides the test statistic (χ^2) value (chi-square) =529.286, degree of freedom (df) =6 and significance level (Asymp. Sig.)=.000, which is all we required for Friedman Test. From the above tables it is clearly seen that there is an overall statistically significant difference between the mean ranks of the related groups.

There is a statistically significant difference in perceived reasons for the cultivation of bamboo by the farmers, χ^2 (2) = 529.286, *P* = .000

Median perceived efforts levels for the high profit, suitability of soil; inter crop cultivation, lump-sum amount, heredity, stackable produce and suitable climatic condition were 1 (1 to 1), 2 (2 to 4), 6 (6 to 6), 4 (2 to 4), 5 (3 to 5), 7 (7 to 7), 3 (3 to 5), respectively.

Table mean table also shows that high profit, suitability of soil, lump-sum amount and climatic condition are the main preference given by the famers for cultivation of bamboo since they are given the first priority in rank. Also the sig. level is less than .05 and hence null hypothesis is rejected. Therefore, it leads to the conclusion that high profit, suitability of soil and climatic condition are the main reasons for the cultivation of bamboo.

PROBLEM FACED BY FARMERS IN BAMBOO CULTIVATION

Borers like Beetles and Termites are the most commonly occurredinsects that attack bamboo. Untreated bamboo has a high possibility of being attacked by the insects since the insects obtained their food from the bamboo. Therefore the bamboo should be treated well to avoid infestation.

Bamboo in suffers assiduously from insect damage, right from the seed to the finished products, many insect pests including borers, defoliators, culms and shoot borers and sap-suckers attack the plants and hamper the growth and production. In India 66 species of sap-suckers are found, of which two species are major pets where sap-sucking aphids were observed as major pests **(Revathi T. G, et al, 2001)**

The most commonly preventive measures taken by the farmers are to cut and burn. Therefore bamboo should be treated well but unfortunately it seems to be quite difficult when it comes to treatment of bamboo because the skin of the bamboo is very compact. It is very important for the bamboo to be got treated because the durability of the bamboo seems to be lower than compared to other wood. In most application it is not enough for an economic lifetime because the life of an untreated bamboo varies from one to fifteen years only depending on the variety of the species if they are left contact with the water, undercover, humidity etc.

H₀: There is no significant difference in the perception of growers with regard to problems in bamboo cultivation.

TABLE 7: PROBLEM FACED BY THE BAMBOO CULTIVATORS

	N	Mean	Std. dev.	Min	Max	Percentiles			Mean Rank
						25th	50th	75th	
1.Severity of disease and pests	104	3.3942	.86370	1.00	4.00	3.0000	4.0000	4.0000	3.39
2.High labour charges	104	3.2692	.52567	1.00	4.00	3.0000	3.0000	4.0000	3.27
3.Lack of scientific knowledge	104	1.0385	.23824	1.00	3.00	1.0000	1.0000	1.0000	1.04
4.Weeds	104	2.2981	.60547	1.00	4.00	2.0000	2.0000	2.0000	2.30

Source: Primary data

Table shows that the median value for severity of disease and pests, labor shortage and high labor charges, lack of scientific knowledge and weeds were 4 (3 to 4), 3 (3 to 4), 1 (1 to 1), 2 (2 to 2) respectively. Mean value, lack of scientific knowledge shows the fewer figures 1.0385 which indicate the major problem followed by weeds value as 2.2981, high labor charges as 3.2692 and severity of disease and pests as 3.3942.

From the above table we can justify that lack of scientific knowledge among the cultivators is the major problem faced by the cultivators followed by the weeds spreading of the bamboo. Labour shortage and high labour charges comes under the third important problem ranked by the farmers followed by the severity of disease and pests.

TABLE 7.1: TEST STATISTICS [a]

N	104
Chi-Square	222.658
df	3
Asymp. Sig.	.000

a.   Friedman Test

The above table provides the test statistic χ^2value (chi-square), degree of freedom (df) and the significance level (Asymp. Sig.), which is all the Friedman Test, can report. We can see form the table, that there is an overall statistically significant difference between the mean ranks of the related problems. Since Friedman Test is an omnibus test like its parametric alternatives i.e. it can show only whether there are overall difference but does not pinpoint which problem in particular differ from each other.

THE OUTPUT OF THE FRIEDMAN TEST

There was a statistically significant difference in perceived effort depending on which specific constraints the farmer have a major problem, χ^2 (2) = 222.658, *P* = .000.

However, we know that there are differences somewhere between the related groups but we don't know where exactly those difference lie. To examine where the difference actually occur, we need to run Wilcoxon Signed-Rank Tests on the different combinations of related problems.

1.   Severity of disease and pests to labor shortage and high labor charges.
2.   Severity of disease and pests to lack of scientific knowledge.
3.   Severity of disease and pests to weeds.
4.   High labor charges to lack of scientific knowledge.
5.   High labor charges to weeds.
6.   Lack of scientific knowledge to weeds.

Here, we need to use Bonferroni adjustment on the results we get from Wilcoxon Signed-Rank Test since we are making multiple comparison, which makes it more likely that we will declare a result significant when we shouldn't (Type I error). The Bonferroni adjustment is calculated by taking the initial significant level (0.05) and dividing it by the number of tests we run. Now, we have a new significant level of 0.05/6 = 0.083. This means that if the *P* value is larger than 0.083 then we do not have a statistically significant result.

RUNNING THE WILCOXON SIGNED-RANK TEST, WE GET THE FOLLOWING RESULT

TABLE 7.2: TEST STATISTICS [c]

	High labour charges - Severity of disease and pests	Lack of scientific knowledge - Severity of disease and pests	Weeds - Severity of disease and pests	Lack of scientific knowledge - High labour charges	Weeds - High labour charges	Weeds - Lack of scientific knowledge
Z	-.797a	-9.066a	-6.689a	-9.138a	-8.116a	-9.282b
Asymp. Sig. (2-tailed)	.425	.000	.000	.000	.000	.000

Source: Primary data

a. Based on positive ranks.

b. Based on negative ranks.

c. Wilcoxon Signed Ranks Test

We can see that at the $P< 0.083$ significance level the perceived problems between (lack of scientific knowledge - severity of disease and pests, weeds – severity of disease and pests, lack of scientific knowledge – high labor charge, weeds – high labor charges, weeds – lack of scientific knowledge $P = 0.000$) was statically different except (high labor charges – severity of disease and pests, $P = 0.425$).

THE RESULT OF FRIEDMAN TEST (WITH POST-HOC TESTS)

There was a statistically significant difference in perceived problems depending on the different constraints $\chi^2(2) = 222.658$, P = .000. Post-hoc analysis with Wilcoxon Signed-Rank Tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $P< 0.083$. Median perceived level for severity of disease and pests, labor shortage and high labor charges, lack of scientific knowledge and weeds were 4 (3 to 4), 3 (3 to 4), 1 (1 to 1), 2 (2 to 2) respectively. There was no significant difference between the high labor charges and severity of disease and pests (Z = -797, $P = .425$). Since P value is greater than 0.083 in high labor charges and severity of disease and pests, we reject null hypothesis. Therefore, it is concluded that lack of scientific knowledge and weeds are the main problem faced by the cultivators.

7.   CONCLUSION

Bamboo is one of the rich resources abundantly available in Nagaland but was not economically exploited though it has survived through centuries as an integral part of Naga society. While traditional usage has been extensive, the great ecological and economic potential came to light with the formation of Nagaland Bamboo Development Agency (NBDA) in 2004. Bamboo, known as a poor man's timber has now been transformed into green gold because of its potential to provide ecological and economic benefits to the people. But due to the lack of scientific knowledge among the farmers, there have been a problem in cultivation and therefore, it is suggested that scientific plantation of bamboo with specified spacing between saplings should be adopted and cultivated. Management of clump forming bamboo should be utilizing while cultivation and mulching of bamboo plant should also be considered in a nurseries or while cultivating.

Therefore, the Naga people have survived through the centuries with the diverse and varied uses of bamboo. From the cutting of the umbilical cord to the mats that have used for wrapping the bodies for burial, the bamboo has been integral to the life of the Nagas. It continues to play a predominant role in the life of the people even today in every walk of life that ranges from agricultural tools and implements to shelter, food and livelihood.

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USE OF Z-SCORE ANALYSIS FOR EVALUATION OF FINANCIAL HEALTH OF INDIAN OIL REFINERIES

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ABSTRACT

Altman's 'Z' score analysis has been applied by financial analysts to evaluate the general trend in the financial health of an enterprise over a period. Some of the individual accounting ratios used frequently to predict the financial performance of an enterprise may only provide warnings when it is too late to take a corrective action. Further single ratio does not convey much of the sense. There is no internationally accepted standard for financial ratio against which the results can be compared. Therefore, Edwin I Altman combined a number of accounting ratios   (liquidity , leverage, activity and profitability) to form an index of the profitability, which are effective indicators of corporate performance predicting bankruptcy well over a year or two in advance. The analysis shows that the financial health of oil refineries in India during the study period was lying in too healthy zone. It may be attributed to the positive changes in the net operating profit from the increased sales volume and market capitalization of the equity, maintaining sufficient working capital and effective utilization of capacity.

KEYWORDS
Assessment of Financial Health, Altman-Z-Score, Profitability, Solvency and Indian Oil refinery.

INTRODUCTION

In this study, an attempt has been made to have an insight into the financial stability and operational health of the selected oil refineries during the post liberalization period. Altman's 'Z' score analysis has been applied by financial analysts to evaluate the general trend in the financial health of an enterprise over a period. Some of the individual accounting ratios used frequently to predict the financial performance of an enterprise may only provide warnings when it is too late to take a corrective action. Further single ratio does not convey much of the sense. There is no internationally accepted standard for financial ratio against which the results can be compared. Therefore, **Edwin I Altman** combined a number of accounting ratios   (liquidity , leverage, activity and profitability) to form an index of the profitability, which are effective indicators of corporate performance predicting bankruptcy well over a year or two in advance. In this direction a variety of studies have been conducted, over the period, by applying Multiple Discriminate Analysis (MDA) to predict the corporate failure, as for instance by, **Mansur A. Mulla (2002), Selvam et.al (2004), Vijayakumar(2007), Dheenadhyalan (2008), Srinivasan and Tiripura sundari (2011) and Maheswara Reddy and Reddy(2011).**

REVIEW OF LITERATURE
Mansur A. Mulla (2002) made a study of the financial health of Shri Venkatesh Co-operative Textile Mills Ltd., Arunageri of Dharwad District. The 'Z' score analysis was applied to evaluate the general trend in financial health of a firm over a period by using many of the accounting ratios. From the study it was concluded that the textiles mill under study was just on the verge of financial collapse. On the one hand, current assets declined because of the negative profitability performance, on the other hand, the current liabilities were on the increase because of poor liquidity performance of the mill. **Selvam et al. (2004)** analyzed the financial health of India Cements Ltd. This study was mainly based on secondary data. The required accounting information about India Cements Ltd for the Z- score analysis was obtained from the Prowess Corporate Data Base of CMIE, Chennai for a period of 5 years (1998-2002). "Z" score analysis was applied to evaluate the general trend in the financial health of India Cements Ltd by using ratio analysis. The analysis showed that the cement company under the study was just on the verge of financial collapse. The financial health of the company was never in the too healthy zone during the study period.   They suggested India Cements Ltd to take steps to improve the financial health of the company. **Dheenadhyalan (2008)** adopted Z score to predict the corporate failure of Steel Authority of India Ltd. The Z score of SAIL showed a rising trend throughout the study period and it was concluded that the financial health of SAIL was good.

Srinivasan and Tiripurasundari (2011) used Z-score to measure the financial health of fourteen south Indian Cement industries. Three modes (Altman, Springate and Fulmer Model) of z-score were used in the study in order to measure the 'fiscal fitness' of the companies. According to all the three methods, Rain Commodities Ltd and Zuari Cement Ltd were rated as failure from the sample of fourteen South Indian cement companies. The possible reasons for a company to be rated as failure may be excess debt and excess working capital, that may weaken the financial health of that particular company. **Maheswara Reddy and Reddy (2011)** considered five ratios and assigned a weight for each ratio and produced a single number which indicates the financial health of the business concerns. He made an attempt to predict the financial health of two selected sample pharmacy companies (Aurobindo Datong Bio-Pharmacy Ltd and Ranbaxy Laboratories Ltd) for five years from 2005 to 06 to 2009-10 using modified Altman's model. The finding of the study was that the overall financial health of both companies was good. **Vijayakumar(2012)** in his study made an attempt to assessing the financial health of Indian Automobile companies using Altman Bankruptcy Model. The analyses of operational efficiency using the model revealed that except few companies, the financial health of Indian automobile companies were good during the study period.

ALTMAN Z SCORE MODEL
One of the objectives of the study is to predict the financial health and viability of the selected oil refineries during the post liberalization period to improve its operational efficiency and effectiveness, productivity and profitability. The data collected are first analyzed with the help of five accounting ratios. These different ratios are combined into a single measure 'Z' score   analysis with the help of Multiple Discriminate Analysis (MDA). The formula used to evaluate the 'Z' score analysis as established by Altman is:

$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5$
Where 'Z' is the overall index
X_1 - ratio of working capital to total assets (WC/TA)

X_2 - ratio of net operating profit to net sales (NOP/S)

X_3 - ratio of earnings before interest and tax total assets (EBIT/TA)

X_4 - ratio of market value of equity to book value of debt

X_5 - ratio of sales to total assets (S/TA)

The following accounting ratios are used as variables to combine them into a single measure (Index), which is efficient in predicting bankruptcy.

X_1: The ratio of working to total assets. It is the measure of the net liquid assets of a concern to the total capitalization.

X_2: The ratio of net operating profit to net sales (NOP/S). It indicates the efficiency of the management in manufacturing, sales, administration and other activities.

X_3: The ratio of earnings before interest and tax to total assets. It is a measure of productivity of assets employed in an enterprise. The ultimate existence of an enterprise is based on the earning power.

X_4: The ratio of market value of equity to book value of debt. It is reciprocal of the familiar debt-equity ratio. This measure shows how much assets of an enterprise can decline in value before the liabilities exceed the assets and the concern becomes insolvent.

X_5: The ratio of sales to total assets. The capital turnover ratio is standard financial measure for illustrating the sales generating capacity of the assets.

According to **Altman (1968)**, the following three situations are considered for studying the financial health of selected oil refineries in India.

i)   The "Z" score below 1.8 units is considered to be bankruptcy zone. Failure is certain and extremely likely and would occur probably in two years.

ii)   If a unit's 'Z' score is 1.8 or above but less than 3.0, its financial viability is considered to be healthy. The failure in this situation is uncertain to predict.

iii) The 'Z' scores 3.0 and above indicates too healthy zone. Its financial health is very viable and would not fall.

TABLE 1: ALTMAN'S Z-SCORE

Category	Z- score	Zone	Situation
I	Below 1.8	Bankruptcy zone	Certain to fall
II	1.8 to 2.99	Healthy zone	Uncertain to predict
II	3.0 and above	Too healthy zone	Not to fall

Source: Journal of Finance

STATEMENT OF THE PROBLEM

A common statistical way of standardizing data on one scale so that a comparison can take place is using a Z score. The Z score is like a common yard stick for all types of data. Each Z score corresponds to a point in a normal distribution and as such is sometimes called a normal deviate since a Z score will describe how much a point deviates from a mean or specification point. Z score means statistical measure that quantifies the distance a data point is from the mean of a data set. In a more financial sense, Z score is the output from a credit-strength test that gauges the likelihood of bankruptcy. The formula may be used to predict the probability that a firm will go into bankruptcy within two years. Z scores are used to predict corporate defaults and an easy-to-calculate control measure for the financial distress status of companies in academic studies. The Z score uses multiple corporate income and balance sheet values to measure the financial health of a company. The Z score has been proved successful in the real world. It correctly predicted 72 per cent of bankruptcies two years prior to the event. So, Altman Z score model has been applied to predict the financial soundness of the selected oil refineries during the post liberalization period to improve its operational efficiency and effectiveness, productivity and profitability.

SELECTION OF OIL REFINERY INDUSTRY

The Indian oil and gas sector is one of the six core industries in India and has very significant forward linkages with the entire economy. Petroleum Refining Industry is a generator of fuel required for energy purposes in all sorts of industry. Hence, this industry can be regarded as the heart of economy. It is a source of energy for domestic, industrial, agricultural and transport services and as feed stock for fertilizer, chemical and other industries. It has also created an impetus for allied sectors such as engineering, procurement, construction firms, project management consultancy firms and other such service providers. The rapidly growing number of petroleum and petrochemicals industries in the country during the last three decades have generated considerable employment at all levels. The petroleum sector in India is particularly favorable to foreign investment because the industry is one of the fastest growing segments, and it has shown a staggering growth rate of around 13 per cent in the recent past. Apart from the tremendous growth rate in the Indian petroleum industry today, it also boasts of technology of international standards, easy availability of infrastructure at very cheap rates, high demand for petroleum products, and increased spending habits of the middle-class people. All these factors make investments in the Indian petroleum sector an attractive proposition for foreign investors. India is the 22nd largest producer in the world and fifth largest petroleum refining country with a share of 3 per cent of global capacity. The expansion of Indian petroleum retail market is triggered by the growth in automobile sales that has resulted in major foreign investments. The growth is estimated to sustain and the market is likely to expand further by 20 million every year till 2030, placing India at the world map in terms of being the biggest automobile market. This has encouraged the researcher to analyze the financial health of Oil Refinery Industry in India.

SAMPLING DESIGN

Keeping in view of the scope of the study, the oil refineries operating in India were considered for the study. It was decided to include all the companies working in India under private sector as well as public sector from the year 1994-95. However, owing to several constraints such as non-availability of financial statements or non-working of the company in a particular year etc., it was decided to restrict the number of sample companies to seven. The Capitaline and CMIE database publish key financial data of Indian corporate sector systematically. Hence Capitaline and CMIE databases proved to be complimentary to finalize the sample for the study. The exhaustive list of oil refineries in India from Capitaline was cross checked with CMIE database to sort out companies to fit in as the sample for the study. The comprehensive list of companies prepared from the database was modified by sorting out the firms using the following criteria: which were not in operation for a year during the period of study; which were in operation but non-availability of data for the whole study period; which were merged with another company during the period of study and which were not listed in Bombay Stock Exchange. There are 20 refineries operating in India. Of these, 17 refineries are in the public sector and 3 are in private sector. Out of the oil refineries operating in India, only 15 companies' data are available in the databases. Among the 15 companies, 9 companies are listed in a stock exchange, and 2 of them are merged companies, and so the remaining seven companies have been taken for the present study. The selected companies includes in the present study are: Indian Oil Corporation Ltd(IOCL), Bharat Petroleum Corporation Ltd(BPCL), Hindustan Petroleum Corporation Ltd(HPCL), Mangalore Refinery and Petrochemicals Ltd(MRPL), Essar Oil Ltd(EOL), Chennai Petroleum Corporation Ltd(CPCL) and Reliance Industries Ltd(RIL). The period from 1996-97 to 2010-11 is selected for the study of selected Indian oil refineries. This 15-year period is chosen in order to have a fairly long, cyclically well balanced period, for which reasonably homogeneous, reliable and up-to-date data would be available.

SOURCE OF DATA

The study is mainly based on secondary data. The data analyzed and interpreted in this study related to all companies selected are collected from "Capitaline" and "PROWESS" databases, which are the most reliable on the empowered corporate database of Bombay Stock Exchange and Centre for Monitoring Indian Economy (CMIE) respectively. Besides Capitaline and prowesS databases, relevant secondary data have also been collected from BSE Stock Exchange Official Directory, CMIE Publications, Annual Survey of Industry, Business Newspapers, Reports on Currency and Finance, Libraries of various research institutions and the Internet. As the study required a variety of data, various websites have been comprehensively searched.

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DISCUSSION

ASSESSMENT OF FINANCIAL HEALTH - WHOLE INDUSTRY

The 'Z' scores with respect to the selected oil refineries have been computed and presented in Table 2. Further, the scores obtained over the period have been presented graphically in Figure 1. It is imperative from the analysis that the 'Z' scores for the oil refineries in India are more than 3.00 during the entire study period. It implies that the selected oil refineries were in too healthy zone during the post liberalization period. The highest score was 6.35 in 2007-08 and the lowest score was 3.41 in 1998-99. It is evident from the table that the 'Z' scores of the selected oil refineries witnessed very good financial health during the study period as the scores are between 3.00 and 6.00. It may be attributed to the positive changes in the net operating profit from the increased sales volume and market capitalization of the equity, maintaining sufficient working capital and effective utilization of capacity.

INDIAN OIL CORPORATION LTD

In order to ascertain the financial health of Indian Oil Corporation Ltd, 'Z' score has been computed and presented in Table 3. The scores obtained over the period have also been presented graphically in Figure 2. During the entire period of post liberalization, the 'Z' scores of Indian Oil Corporation Ltd are greater than 3.0. The 'Z' scores of Indian Oil Corporation Ltd ranged from 3.96 in 1997-98 to 7.53 in 2003-04. It may be inferred from the table that a sharp decline was faced by the company at the end of the study period due to excess debt, poor turnover and excess working capital.

HINDUSTAN PETROLEUM CORPORATION LTD

Table 4 depicts 'Z' scores of Hindustan Petroleum Corporation Ltd for the period from 1994-95 to 2008-09. The general trend in the financial health of the company has been depicted graphically in Figure 3. The 'Z' scores of Hindustan Petroleum Corporation Ltd are more than 3.0 during the entire period of post liberalization and it was in too healthy zone throughout the study period. The 'Z' score ranged from 4.62 in 2008-09 to 13.45 in 1995-96. It may be inferred from the table that the company after enjoying sound financial health at the initial phase and during mid way, a sharp decline was faced at the end of the study period. It is evident from the table that the 'Z' scores of Hindustan Petroleum Corporation Ltd witnessed the very good financial health during the study period as the scores lie between 4.00 and 13.00. It may be attributed to the positive changes in the net operating profit from the increased sales volume, market capitalization of the equity, maintaining sufficient working capital and effective utilization of capacity.

BHARAT PETROLEUM CORPORATION LTD

Table 5 depicts the 'Z' scores of Bharat Petroleum Corporation Ltd for the period from 1994-95 to 2008-09. Further, using the data points, the scores obtained over the period has been plotted on a graph in Figure 4. From Table 5 it is clear that the Z score of Bharat Petroleum Corporation Ltd witnessed very good financial health as the scores obtained are more than 5.0 during the entire period of study. The 'Z' score of Bharat Petroleum Corporation Ltd ranged from 11.56 in 1994-95 to 5.08 in 2008-09. Maximum utilization of the available capacity and avoidance of excess working capital helps to improve the operating profit and the sales have been achieved according to the target and all these helped to keep the company financially fit.

MANGALORE REFINERY AND PETROCHEMICALS LTD

Table 6 reveals the financial health of Mangalore Refinery and Petrochemicals Ltd for the period from 1994-95 to 2008-09. Further, the scores obtained over the period have been presented graphically in Figure 5. It is evident from the table that the 'Z' scores of Mangalore Refinery and Petrochemicals Ltd witnessed poor financial health during the first phase of the study as the scores obtained are below the 1.8. The company remained in the bankruptcy zone from 1994-95 to 2002-03, except in 1996-97 as it had below 1.8 score. It was also found the worst financial health was in 2000-01. This may be due to under trading, excess working capital, negative operating profit and poor ratio of turnover. It is noticed from the table that there was a sudden improvement in the financial health of the company in 2003-04 because of which it entered too healthy zone. The company remained in too healthy zone during the period from 2003-04 to 2008-09. The highest score obtained was 11.42 in 2007-08 and the lowest score was 0.60 in 2000-01. It has shown very good improvement in the financial soundness at the tail end of the study period. This improvement may be attributed to the positive changes in the net operating profit from the increased sales volume and market capitalization of the equity and maximum utilization of the available capacity.

CHENNAI PETROLEUM CORPORATION LTD

The 'Z' scores of Chennai Petroleum Corporation Ltd for the period from 1994-95 to 2008-09 was computed and presented in Table 7. The general trend in the financial health of the company has been depicted graphically in Figure 6. It is clear from the analysis that the 'Z' scores of Chennai Petroleum Corporation Ltd is more than 3.0 during the entire period of study except in the years 1995-96, 1996-97 and 1997-98. In the year 1998-99, the financial health slightly improved and entered the too healthy zone. The highest 'Z' score was obtained in the year 2008-09 and the lowest score was 2.70 in 1996-97. It is noticed from the table that the 'Z' scores of Chennai Petroleum Corporation Ltd has shown improvements at the end of the study. It may be attributed to the positive changes in the net operating profit from the increased sales volume, effective utilization of capital and market capitalization of the equity, maximum utilization of the available capacity and avoidance of excess working capital.

ESSAR OIL LTD

The 'Z' scores with respect to Essar Oil Ltd for the period from 1994-95 to 2008-09 was computed and presented in Table 8. Further, using the data points, the scores obtained over the period has been plotted in a graph in Figure 7. It is clear from the analysis that the 'Z' scores for Essar Oil Ltd is less than 1.8 during the entire study period except in the year 1994-95 and 2008-09. It is understood that the financial health of the Essar Oil Ltd was never in too healthy zone during the post liberalization period except in the year 2008-09. The company remained in the bankruptcy zone from 1995-96 to 2007-08 as it had below 1.8 scores. It is also found that this is attributable to poor turnover, excess working capital, underutilization of the capital, poor market capitalization and over non-operating expenses. It is also found that the worst financial health was in 2002-2003 and 2003-04. The possible reasons for its poor financial health are excess debt and excess working capital that may weaken the financial health of the company. It is also witnessed from the table that the "Z" Score of Essar Oil Ltd is more than 1.8 in 1994-95 and 2008-09. It may be inferred from the figure that a sharp decline was faced during the midway and started picking up at the end of the study period. The company has got enough scope to improve its financial health further more in the years to come as it has seen improvements at the tail end of the study period. In the year 2008-09 the company has moved from bankruptcy zone to too healthy zone.

RELIANCE INDUSTRIES LTD

The financial health of Reliance Industries Ltd using 'Z' score has been disclosed in Table 9. Further, the scores obtained over the period have been presented graphically in Figure 8. It is evident from the table that the "Z" scores of Reliance Industries Ltd are in healthy zone during the initial period of the study as the 'Z' scores lie between 1.8 and 3.00. The 'Z' scores of Reliance Industries Ltd for the study period ranged from 2.07 in 1998-99 to 7.66 in 2007-08. It is noticed from the table that there was a sudden improvement in the financial soundness of the company and it entered the too healthy zone in 1999-2000. The company remained in too healthy zone till the end of the study period but there was a sudden fall in the Z score of the company in the year 2008-09 due to excessive use of working capital, failure to achieve adequate sales and poor turnover of the company.

CONCLUSION

The assessment of financial health of Indian oil refineries has been made by using Altman's Z score. The analysis shows that the financial health of oil refineries in India during the study period was lying in too healthy zone. It may be attributed to the positive changes in the net operating profit from the increased sales volume and market capitalization of the equity, maintaining sufficient working capital and effective utilization of capacity.

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TABLE 2: 'Z' SCORE OF SELECTED OIL REFINERIES IN INDIA [WHOLE INDUSTRY]

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.20	0.25	0.34	2.55	2.28	**5.62**
1995-96	0.18	0.27	0.33	2.61	1.86	**5.26**
1996-97	0.33	0.22	0.34	1.22	1.59	**3.71**
1997-98	0.17	0.28	0.29	1.44	1.48	**3.65**
1998-99	0.19	0.22	0.32	0.69	2.00	**3.41**
1999-00	0.24	0.17	0.26	0.66	2.34	**3.67**
2000-01	0.24	0.15	0.27	0.69	2.60	**3.94**
2001-02	0.16	0.14	0.27	0.75	2.56	**3.89**
2002-03	0.14	0.11	0.33	1.11	3.07	**4.77**
2003-04	0.14	0.10	0.39	2.31	3.10	**6.04**
2004-05	0.22	0.07	0.36	1.63	3.51	**5.80**
2005-06	0.24	0.05	0.22	1.28	3.52	**5.32**
2006-07	0.20	0.07	0.35	1.30	3.99	**5.91**
2007-08	0.28	0.10	0.38	1.97	3.63	**6.35**
2008-09	0.17	0.07	0.20	0.92	4.30	**5.66**

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets

X_4: Market value of equity to book value of debt; X_5: Sales to total assets

Source: Computed

FIGURE 1: 'Z' SCORE OF SELECTED OIL REFINERIES IN INDIA (WHOLE INDUSTRY)
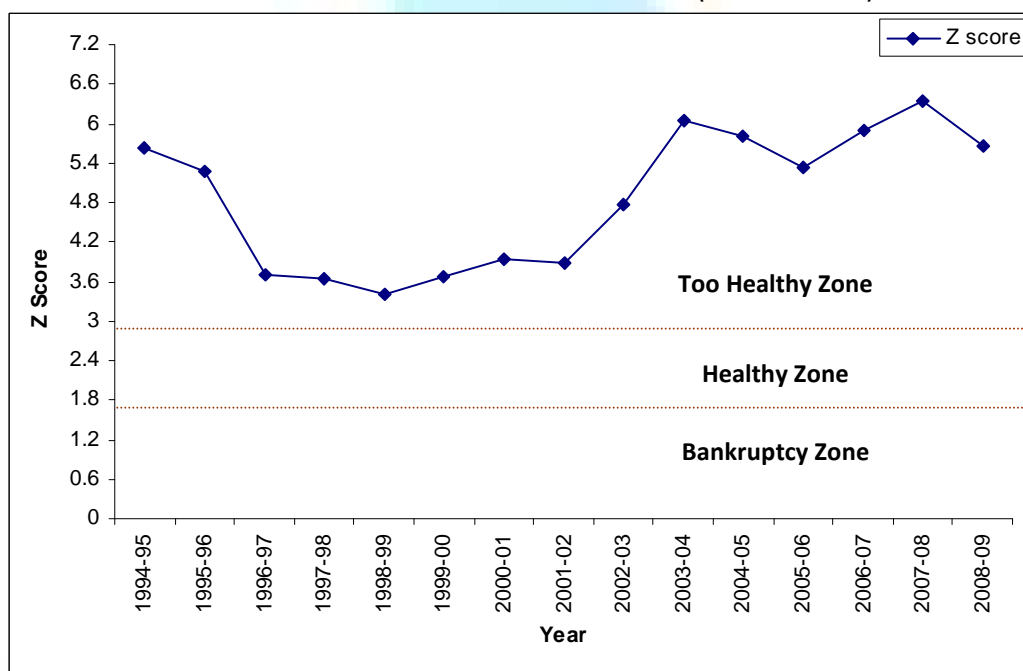
TABLE 3: 'Z' SCORE OF INDIAN OIL CORPORATION LTD

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.26	0.06	0.36	1.35	3.20	**5.24**
1995-96	0.34	0.07	0.37	2.13	2.88	**5.79**
1996-97	0.49	0.07	0.33	1.10	2.79	**4.78**
1997-98	0.18	0.09	0.30	0.99	2.41	**3.96**
1998-99	0.21	0.10	0.38	0.68	2.85	**4.23**
1999-00	0.31	0.09	0.34	0.59	3.33	**4.65**
2000-01	0.36	0.06	0.31	0.36	3.35	**4.44**
2001-02	0.14	0.09	0.37	0.51	3.35	**4.46**
2002-03	0.24	0.12	0.52	0.77	3.71	**5.36**
2003-04	0.22	0.12	0.54	2.84	3.80	**7.53**
2004-05	0.27	0.08	0.31	1.76	3.54	**5.95**
2005-06	0.23	0.07	0.30	1.53	3.46	**5.59**
2006-07	0.18	0.09	0.40	1.06	3.84	**5.57**
2007-08	0.29	0.07	0.34	0.91	3.53	**5.14**
2008-09	0.12	0.05	0.20	0.62	3.70	**4.69**

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets

X_4: Market value of equity to book value of debt; X_5: Sales to total assets

Source: Computed

FIGURE 2: 'Z' SCORE OF INDIAN OIL CORPORATION LTD
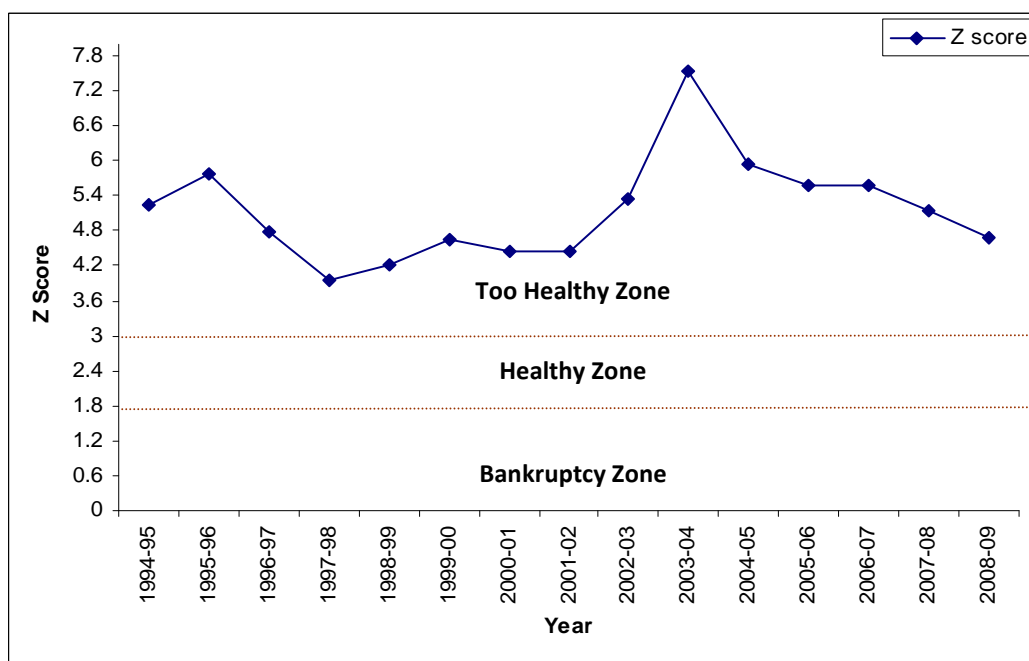
TABLE 4: 'Z' SCORE OF HINDUSTAN PETROLEUM CORPORATION LTD

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.15	0.09	0.60	6.23	4.46	11.53
1995-96	0.31	0.10	0.68	8.62	3.75	13.45
1996-97	0.46	0.10	0.57	3.19	2.96	7.28
1997-98	0.05	0.09	0.44	4.67	2.59	7.85
1998-99	0.10	0.09	0.53	1.85	3.72	6.30
1999-00	0.28	0.07	0.43	0.91	3.90	5.58
2000-01	0.36	0.06	0.40	0.90	4.83	6.56
2001-02	0.17	0.06	0.34	1.86	4.91	7.34
2002-03	0.10	0.08	0.52	4.31	6.76	11.77
2003-04	0.23	0.09	0.56	6.12	6.12	13.11
2004-05	0.28	0.05	0.33	2.89	6.17	9.72
2005-06	0.24	0.02	0.11	0.98	5.03	6.37
2006-07	0.08	0.05	0.33	0.50	4.85	5.81
2007-08	0.30	0.04	0.22	0.32	4.13	5.01
2008-09	0.15	0.04	0.23	0.24	3.95	4.62

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets;

X_4: Market value of equity to book value of debt; X_5: Sales to total assets

Source: Computed

FIGURE 3: 'Z' SCORE OF HINDUSTAN PETROLEUM CORPORATION LTD
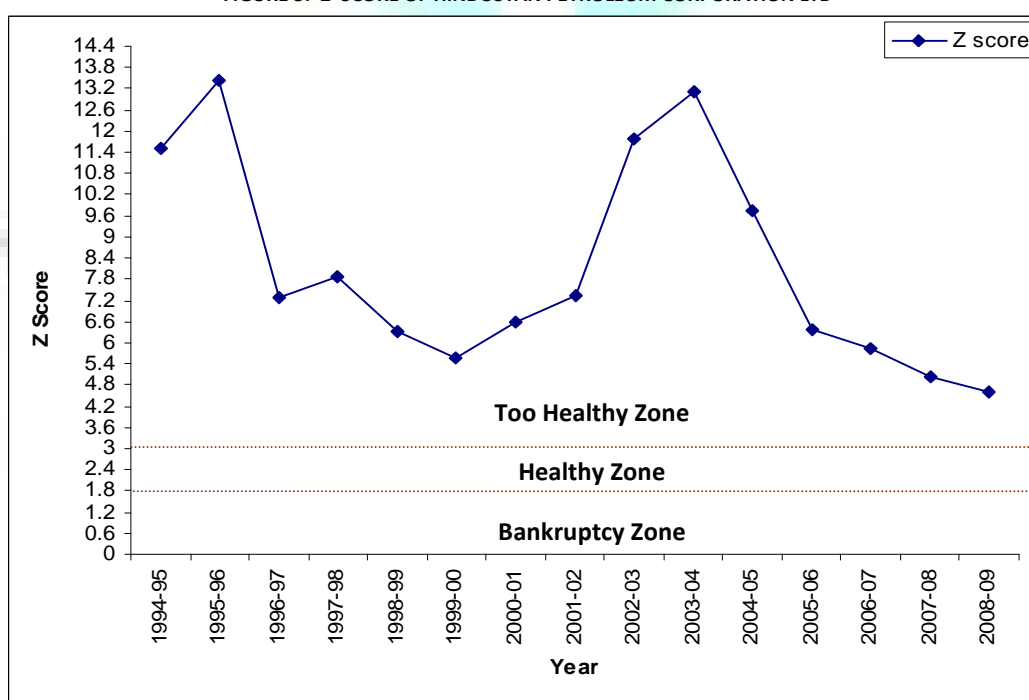
TABLE 5: 'Z' SCORE OF BHARAT PETROLEUM CORPORATION LTD

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.01	0.08	0.54	6.44	4.49	**11.56**
1995-96	0.16	0.09	0.65	4.98	4.10	**9.97**
1996-97	0.32	0.08	0.52	2.42	3.06	**6.40**
1997-98	-0.03	0.08	0.47	2.33	2.96	**5.81**
1998-99	0.09	0.08	0.55	1.09	4.60	**6.41**
1999-00	0.19	0.07	0.41	0.93	5.48	**7.07**
2000-01	0.24	0.06	0.39	0.80	5.57	**7.06**
2001-02	0.09	0.07	0.41	1.55	5.07	**7.19**
2002-03	0.05	0.08	0.48	1.24	6.03	**7.88**
2003-04	-0.01	0.09	0.52	3.22	6.25	**10.06**
2004-05	0.14	0.04	0.26	1.68	6.21	**8.34**
2005-06	0.27	0.02	0.09	0.92	4.86	**6.15**
2006-07	0.13	0.06	0.35	0.60	5.09	**6.22**
2007-08	0.23	0.05	0.27	0.58	4.55	**5.69**
2008-09	0.09	0.04	0.22	0.37	4.36	**5.08**

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets;

X_4: Market value of equity to book value of debt; X_5: Sales to total assets

Source: Computed

FIGURE 4: 'Z' SCORE OF BHARAT PETROLEUM CORPORATION LTD
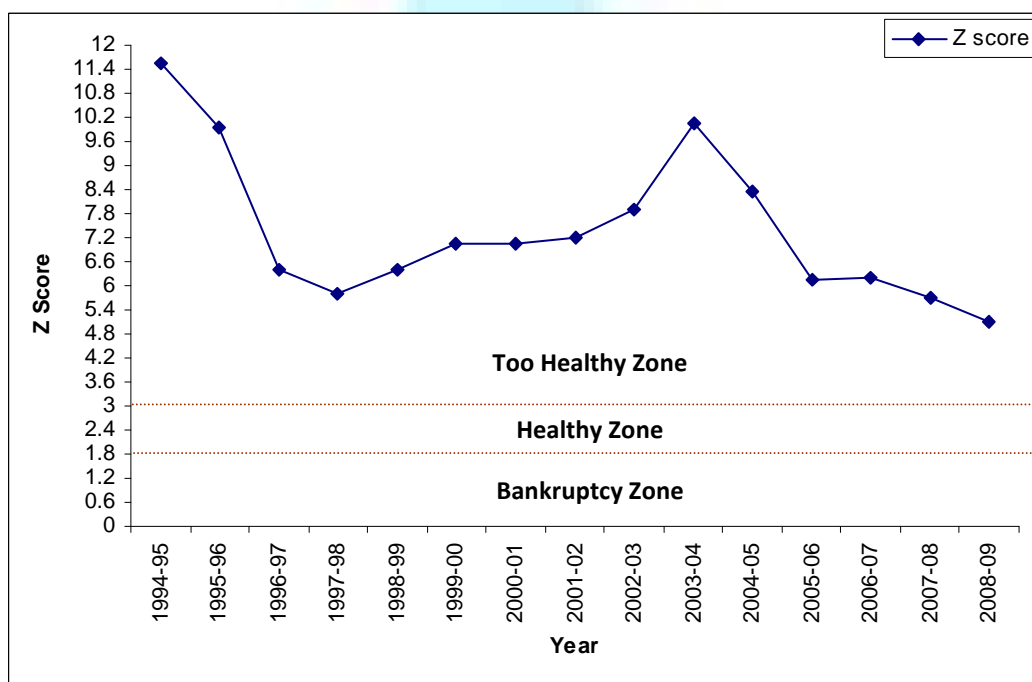
TABLE 6: 'Z' SCORE OF MANGALORE REFINERY AND PETROCHEMICALS LTD

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.13	0.65	-0.01	0.27	0.13	**1.18**
1995-96	-0.03	0.67	-0.01	0.37	0.25	**1.25**
1996-97	0.33	0.64	0.34	0.16	0.36	**1.84**
1997-98	0.43	0.57	0.23	0.13	0.32	**1.68**
1998-99	0.33	0.27	0.18	0.10	0.40	**1.29**
1999-00	0.20	0.07	0.01	0.11	0.47	**0.86**
2000-01	-0.03	0.05	0.01	0.07	0.49	**0.60**
2001-02	0.00	0.06	0.07	0.06	0.89	**1.08**
2002-03	0.08	0.06	-0.04	0.16	1.34	**1.61**
2003-04	0.17	0.12	0.35	1.19	1.99	**3.82**
2004-05	0.22	0.14	0.62	1.43	3.67	**6.08**
2005-06	0.28	0.06	0.29	1.33	4.95	**6.90**
2006-07	0.31	0.07	0.46	1.47	6.28	**8.59**
2007-08	0.33	0.08	0.59	4.03	6.39	**11.42**
2008-09	0.46	0.08	0.51	2.19	6.35	**9.59**

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets;

X_4: Market value of equity to book value of   debt; X_5: Sales to total assets

Source: Computed

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FIGURE 5: 'Z' SCORE OF MANGALORE REFINERY AND PETROCHEMICALS LTD
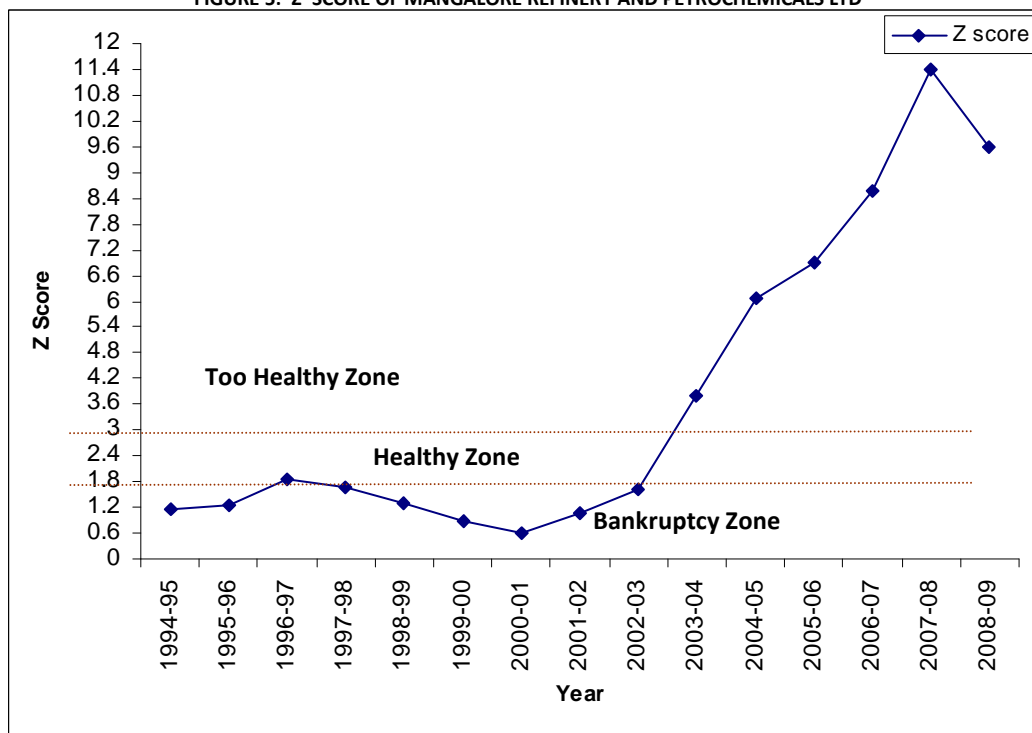
TABLE 7: 'Z' SCORE OF CHENNAI PETROLEUM CORPORATION LTD

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.39	0.14	0.24	0.90	1.62	**3.29**
1995-96	0.39	0.17	0.22	0.68	1.48	**2.94**
1996-97	0.53	0.19	0.22	0.34	1.43	**2.70**
1997-98	0.45	0.20	0.21	0.55	1.49	**2.90**
1998-99	0.45	0.18	0.24	0.29	1.88	**3.05**
1999-00	0.49	0.09	0.22	0.30	2.56	**3.65**
2000-01	0.54	0.08	0.31	0.22	2.97	**4.13**
2001-02	0.45	0.07	0.22	0.24	2.72	**3.70**
2002-03	0.34	0.12	0.48	0.13	2.64	**3.71**
2003-04	0.26	0.12	0.38	0.55	2.38	**3.70**
2004-05	0.41	0.13	0.56	0.86	3.70	**5.65**
2005-06	0.53	0.08	0.37	0.72	5.06	**6.75**
2006-07	0.45	0.07	0.41	0.96	6.57	**8.47**
2007-08	0.62	0.11	0.67	1.05	5.58	**8.03**
2008-09	0.37	-0.05	-0.13	0.57	7.93	**8.69**

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets;

X_4: Market value of equity to book value of debt; X_5: Sales to total assets

Source: Computed

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FIGURE 6: 'Z' SCORE OF CHENNAI PETROLEUM CORPORATION LTD
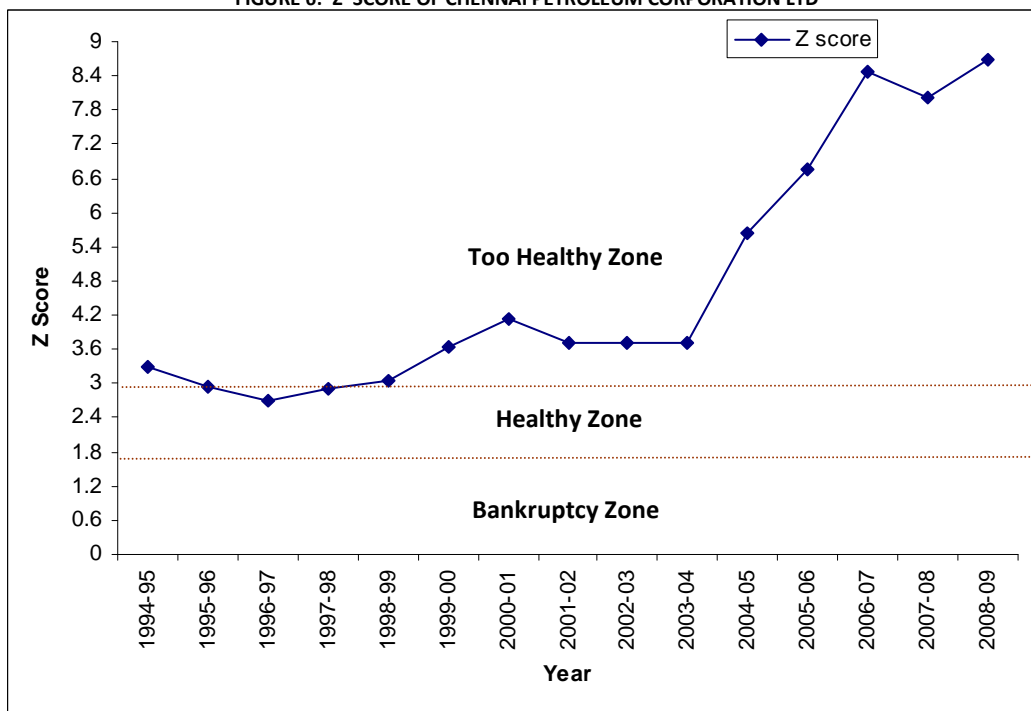
TABLE 8: 'Z' SCORE OF ESSAR OIL LTD

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.27	0.32	0.21	0.21	1.53	**2.54**
1995-96	-0.08	0.33	0.08	0.31	0.39	**1.04**
1996-97	0.14	0.06	0.10	0.41	0.14	**0.86**
1997-98	0.07	0.35	0.03	0.20	0.09	**0.75**
1998-99	-0.01	0.34	0.02	0.14	0.07	**0.55**
1999-00	0.05	0.35	0.03	0.06	0.05	**0.53**
2000-01	-0.02	0.38	0.01	0.07	0.03	**0.47**
2001-02	-0.04	0.38	0.02	0.02	0.05	**0.43**
2002-03	-0.09	0.05	0.01	0.02	0.02	**0.02**
2003-04	-0.11	-0.07	0.01	0.06	0.13	**0.03**
2004-05	0.00	-0.21	0.01	0.39	0.00	**0.19**
2005-06	0.01	-0.14	-0.03	0.44	0.07	**0.35**
2006-07	0.07	-0.05	-0.01	0.42	0.04	**0.46**
2007-08	-0.03	0.03	-0.01	1.48	0.05	**1.52**
2008-09	-0.09	0.06	0.04	0.53	3.07	**3.60**

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets;

X_4: Market value of equity to book value of debt; X_5: Sales to total assets

Source: Computed

FIGURE 7: 'Z' SCORE OF ESSAR OIL LTD
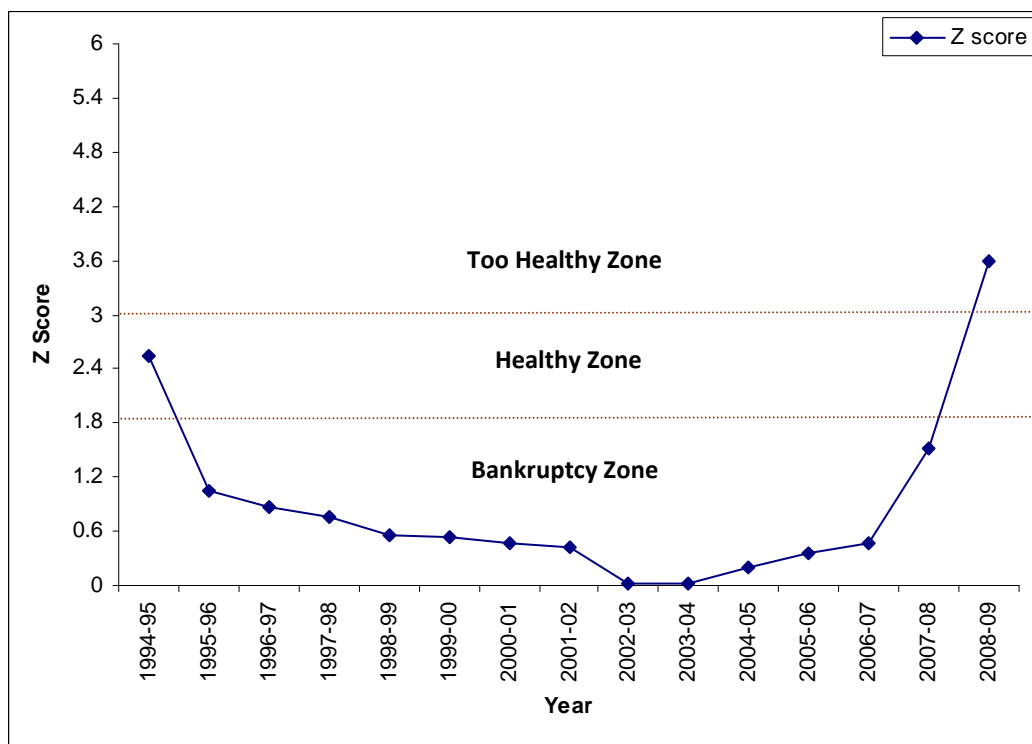
**TABLE 8: Z' SCORE OF RELIANCE INDUSTRIES LTD**

Year	X_1	X_2	X_3	X_4	X_5	Z score
1994-95	0.18	0.42	0.45	2.43	0.53	4.02
1995-96	0.18	0.43	0.35	1.21	0.44	2.60
1996-97	0.03	0.42	0.29	0.93	0.40	2.08
1997-98	0.06	0.56	0.32	1.20	0.48	2.62
1998-99	0.18	0.44	0.31	0.69	0.46	2.07
1999-00	0.19	0.42	0.40	1.72	0.62	3.35
2000-01	0.20	0.34	0.45	2.44	0.92	4.35
2001-02	0.30	0.28	0.48	1.01	0.97	3.03
2002-03	0.29	0.26	0.36	1.17	1.00	3.08
2003-04	0.21	0.27	0.38	2.16	1.01	4.03
2004-05	0.23	0.27	0.45	2.43	1.23	4.62
2005-06	0.14	0.24	0.44	3.03	1.24	5.09
2006-07	0.15	0.24	0.49	4.11	1.29	6.28
2007-08	0.19	0.29	0.59	5.41	1.18	7.66
2008-09	0.11	0.25	0.34	1.95	0.73	3.37

X_1: Working capital to total assets; X_2: Net operating profit to net sales

X_3: Earnings before interest and taxes to total assets;

X_4: Market value of equity to book value of debt; X_5: Sales to total assets

Source: Computed

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FIGURE 7: Z' SCORE OF RELIANCE INDUSTRIES LTD
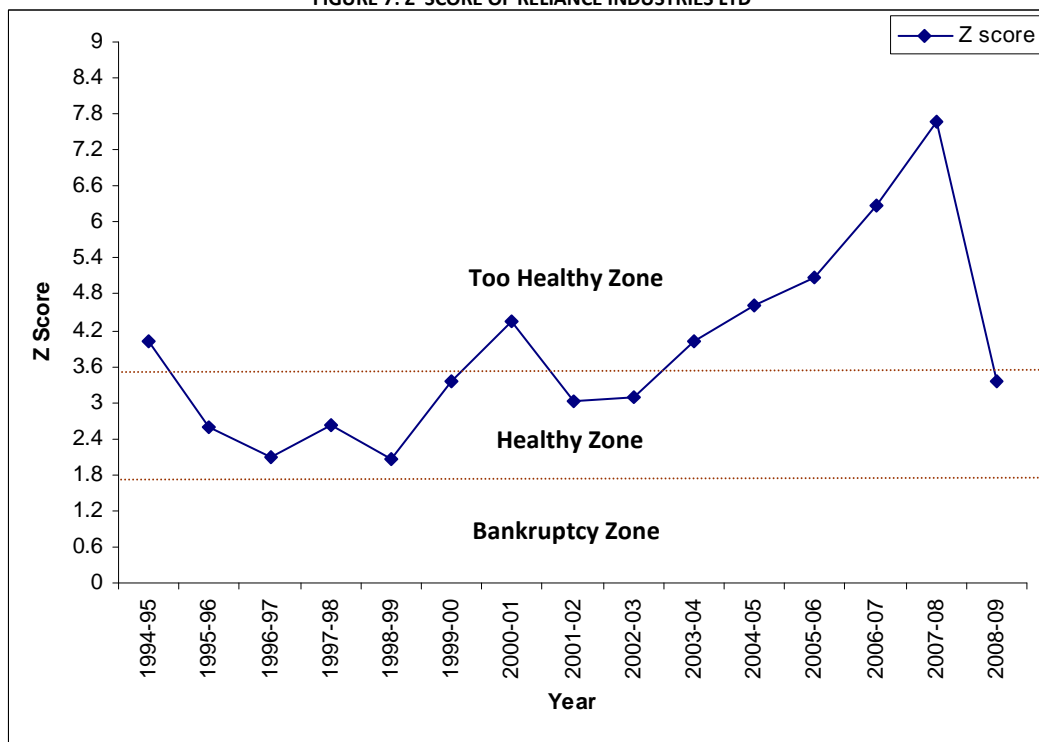
IMPACT OF PSYCHOLOGICAL FACTORS ON EMPLOYEE TURNOVER INTENTION

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ABSTRACT

Every year in Pakistan employee turnover rate is increasing continually and it becomes a pain full issue for organizations as well as for Govt. The aim of our study is to explore the influence of variables i.e. commitment to organization/supervisor, leader member exchange etc those are strongly related with employee turnover intention. Our research is descriptive by nature and we used questionnaire technique of survey method for collection of data. Pre defined scales are used in questionnaire to measure the variables. Size of research sample is 175 but we gathered useful data from 150 respondents. Regression analysis is used. Results support our projected model and prove that commitment to organization, commitment to colleagues, commitment to supervisors & leader member exchange have negative impact on employee turnover intention while emotional intelligence has direct impact on leader member exchange. Based on results of our study we suggest to managers/employers that employee turnover intention can be reduced by developing organizational culture based on shared values, providing them suitable working environment and leader member exchange of better quality on the part of employer/supervisor.

KEYWORDS

Employee turnover intention, Commitment to organization, colleagues and supervisors, Emotional intelligence, Leader member exchange.

1. INTRODUCTION

As time passes in spite of tremendous efforts of organizations in terms of attractive compensation, training and appraisal, incentives and health benefits etc, employee's intention to leave the organization goes on increasing. Employee turnover defines as "Rate of change in composition of employees in an organization." This change may be voluntary or involuntary. Therefore, employee turnover is of two types: (1) Voluntary Turnover (2) Involuntary Turnover. According to Dess & Shaw (2001), voluntary turnover defines as an employee's personal decision to quit from the present organization, where he works. While in-voluntary turnover defines as an employee expelled from the organization on the behalf of the employer's decision.

Most common causes of high employee turnover are (1) Low wages & allowances (2) Un-happy relations with co-workers & supervisors (3) Un-satisfactory working conditions (4) Trade union rivalry (5) Lack of in-adequate facilities (6) In adequate job security etc. In order to find out the reason for turnover, current literature focuses on those factors that consider be related to the turnover intention. As the result of these causes, high employee turnover may have either negative or positive consequences to the organization. Major negative consequence of turnover on the organization is that the organizational personnel costs

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related with process of selecting, recruiting, training and development of newly hired employees to enable them to work at the place of those one who leave the organization voluntary/involuntary (Staw, 1990; Huselid, 1995). When turnover rate is high, much time of organization has wasted in selection and recruitment of new employees. Moreover, new employees have to give orientation and training to make them familiar with the culture of and tools/equipments used in the organization. Instead of training, new employees do not make production at the level of old employees and firm's productivity reduces. New employees are unable to maintain the same level of quality of products and services that affects the sales of firm. High turnover is also responsible for poor morale in many organizations. Dess and Shaw's (2001), assessment of cost benefit approach argue that sometimes cost of turnover is significant for the organization because it realizes the benefits for the organization in terms of payroll deductions, betterment in innovations and voluntary departure of employees those performance is not up to standards. If employees showing poor performance are encouraged to quit from the organization then organization can hire the more productive employees at their place. It would increase the productivity as well as human resources of the organization. The newly hired productive employees may bring their knowledge, skills and competencies, provide innovative solutions and put brand new ideas to the organization.

According to Staw (1980), in the organization hierarchy turnover in strategic and business level positions may also be the most important factor to determine the chances of promotion opportunities and can contribute to a direct association between turnover and organizations morale. While moderate levels of turnover are valuable to the organization because it reduces the differences at workplace and new ideas bring improvement in innovations. A firm suffering from the problem of excessive turnover reduces its effectiveness and efficiency. It has un-balanced workforce due to which its HR costs increases. Different researches and historical evidences related to employee turnover push us to conduct this research. In Québec, the projected turnover rate of truckers has been 36% since 2003 and on the average 37300 new truckers are required each year as reported by Canadian Trucking Human Resource Council. From the assessment of existing truckers turnover literature, it is found that the effect of employee commitment on turnover remain a neglected topic. Studies of Morrow et al. (2005); Arkoubi et al. (2007) have used employee commitment as a variable but Morrow et al. (2005) failed to find out any relationship between affective commitment to the organization and actual turnover. The average monthly resignation rates were 2.7%, 2.9% and 3.4% in Taiwan, South Korea and Singapore respectively (Barnard and Rodgers, 1998). According to the international human resource-consulting firm Hewitt Associate's 2007 Total Management Survey, the average rate of employee turnover is 18% in Malaysia.

Organization wants to utilize its time effectively and to improve their efficiency while employee's desire to establish a high quality interaction with leaders in the organization. However, developing a better workplace relationship is a time consuming process but it results in terms of highly satisfied employees and lower quitting rates. From a research paper, it found that emotional intelligence of leader enable them to solve the differences between organizational interests and employee's desires. Many past researches conducted on employee turnover intention explore different aspects. However, the general objective of our study is to explore the few much considerable factors that affect the employee intention to leave the organization. More specifically, our study will make an effort to accomplish the following objectives:
1. Briefly understand the effect of commitment to the organization on turnover intention.
2. Study the effect of affective commitment to organization on turnover intention.
3. Explore the effect of emotional intelligence on leader member exchange.
4. Describe the effect of leader member exchange on turnover intention.
5. Study the relationship of commitment to colleagues with the turnover intention.
6. Understand the association of commitment to supervisors with intention to leave.

2. LITURATURE REVIEW

2.1 EMPLOYEE TURNOVER INTENTION (ETINT)

"Employee turnover intention (ETInt)" also called intention to quit/leave. It is defined as, "Employee's perception to depart from the organization due to different factors i.e. dissatisfaction with job, and dissatisfaction with pay etc is called intention to leave/turnover intention". Research conducted in "Asian countries" like Singapore, Hong Kong, Malaysia etc exposed that ETInt is increasing day by day and it becomes impossible to control it (Asia Pacific Management News, 1997). According to National Productivity Board, Singapore (1988) over two third of the business firms indicated that they had faced a productivity loss of more than 10% due to high employee turnover. Besides the low productivity, the survey reported a reduced quality of products & services and high staffing cost relative to high employee turnover. Employee turnover especially found to be the most important cause of poor morale in several organizations. Based on human capital theory, Shaw & Dess (2001) propose a direct negative association between level of productivity and voluntary turnover. Riley (2006) examine that effective communication systems and social dynamics are vital to the valuable performance levels of work groups. That is why; turnover can have a negative effect on the performance of a firm through loss of team integration, morale, cohesions and may boost up in-group conflicts and crash the interaction with their customers. Riley also reported that projected cost of turnover has been approximately one to one and a half times the employee's total pay.

2.2 COMMITMENT TO ORGANIZATION (CTO)

It is define as, "how much an employee is willing / serious to work for organization in order to achieve its goals." The relationship between commitment to organization (CTO) & several antecedents to organizational commitments (for instance intention to leave) has been well-established (Allen& Meyer, 1990; Tett & Meyer, 1993; DeConinck & Bachmann, 1994). According to literature, strongly committed workforce is the one who is least probable to leave the organization. The study of Porter et al. (1974) highlighted the significance of CTO in explaining employee turnover. They verified in their study, that commitment towards organization is a good forecaster of turnover intention. From that time, CTO has often explored in literature on turnover and shown be linked negatively with turnover intention. In Singapore Aryee et al.'s (1991) study on professional accountants also showed a negative link between CTO and turnover intention. In the same way, in a longitudinal study of 485 graduate students in Hong Kong, Wong et al. (1996) found CTO as a strong predictor of turnover intention. Some other scholars (Kim et al. 1996; Ben-Bahr et al. 1994; Tett & Meyer, 1993; Arnold & Feldman, 1982) have also found same results. CTO is basic research variable on actual turnover/turnover intention (Tett & Meyer, 1993; Matheiu & Zajac, 1990). The results of the study by Mayer et al. (2002) show that the higher the employee CTO, the lesser will be his/her desire to leave the organization. Following the above discussion, it is hypothesize that:

H1: There is a negative relationship between commitment to organization and intention to leave the organization.

2.3 AFFECTIVE COMMITMENT TO ORGANIZATION (ACTO)

The most frequently cited model of organizational commitment is the one developed by Allen & Meyer (1990) comprises of these three dimensions: 1) Affective component concerns with employee's emotional adherence to and participation in the organization. 2) Continuance commitment to organization 3) normative commitment to organization. According to the study of Pascal Paille et al. (2011) on trukers turnover intention it is found that if employees are allowed to participate in decision making, development of organizational objectives and culture based on shared values then employer can increase the ACTO in employees. In recent times, Al Arkoubi et al. (2007) found a negative and significant relationship between ACTO and turnover intention. The results of his study are coherent with the empirical figures in the literature on organizational commitment. Research of Meyer and Allen (1991) stated an inverse relationship between the ACTO and ETInt. They said that if employee has strong ACTO, he continued his job with the organization because he actually wants to attach with it. From the meta-analysis released on commitment (Meyer et al., 2002), we find that affective component of commitment is highly correlated with ETInt than the actual turnover. Based on existing data in literature, we suggested the following hypothesis:

H2: There is a significant negative relationship between affective commitment to organization & intention to leave the organization.

2.4 EMOTIONAL INTELLIGENCE (EMI)

An extensively accepted model of emotional intelligence (EMI) presented by Mayer & Salovey (1997) consists of four constructs: 1) Understanding of own emotions 2) Management of own emotions 3) Understanding of other's emotions 4) Management of other's emotions. They suggested that emotional intelligence abilities assist individuals to identify, understand and cope with emotions in themselves as well as in others that contributes to the improvement of relationship (LMEx) at work place. In organizational researches, EMI has a quite recent history as a variable of concern. Mayer & Salovey's model of EMI (1997) presents four consistent emotions processing abilities: awareness, integration, realizing and management of own and other's emotions. According to Graen &

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Uhl-Bien (1995), as a critical aspect of affective leadership, EMI contributes to improving workplace relationship. Wong & Law (2002); Carmeli (2003), suggests that some evidence exists about the influence of EMI on attitudes in the workplace. In a sample of senior managers in public region, Carmeli (2003) in his study found a relationship between EMI and withdrawal cognition of these managers. Managers with higher levels of EMI are able to deal with stress and cover issues that may eventually result in them to leave and they developed LMEx of better quality. According to Jordan et al. (2002), job insecurity may be responsible of increasing level of turnover in the organizations and that emotionally intelligent employees are able to understand and manage their emotions that come out from perception of job insecurity that may eventually result in lower turnover. In the light of above studies, we suggest that:

H3: There is a positive relationship between emotional intelligence and leader member exchange.

2.5 LEADER MEMBER EXCHANGE (LMEX)

Dienesh & Liden (1986) proposed LMEx as a multi dimensional concept and they defined three dimensions of LMEx: 1) Perceived contribution to the exchange 2) Loyalty 3) Affect that based on interpersonal attraction instead of the effort of specialized values afterwards is called LMEx linking (Liden & Maslyn, 1998). We point out that the effect of EMI on LMEx's quality will be direct. Intrinsically LMEx is interchange of emotions. Kellett et al. (2006) from a diverse perspective, found a relationship between leadership emergence perceptions and a follower's perception about leaders displayed emotions. Wolff et al. (2002); Pescosolido (2002) have found that EMI predicts leader emergence. Leader as well as follower's interaction is important, on the above basis we contend that the relationship is also affected by follower emotional intelligence. Based on the link between LMEx & employee attitudes, Fedor & Maslyn (1998) describe a negative relationship between LMEx & turnover intentions. Followers who had better relations with the leaders were less likely to leave their organization. Schyns Wolfram (2008) found that it is appropriate to investigate follower's perception of LMEx on their attitudes. In a meta-analysis study by Day & Gerstner (1997), a significant relationship found between LMEx and turnover intentions. So the employees that have a better quality relationship with their leaders tend to be more gratified in their working environment. We argue that LMEx captures the quality of association between a follower and his leader and that this whole process is interactive. Based on arguments, we anticipate that:

H4: There is a negative relationship between leader member exchange and turnover intention.

2.6 COMMITMENT TO COLLEAGUES (CTCL)

"Commitment to colleagues (CTCL) means which kind of emotional and working relationship exists between employees and colleagues." Herbik & Pearce (2004) defines CTCL as, "the degree to which an employee attach with the members of a work group psychologically." From previous research, it has found that existence of unity and good relationship among team members lead to high degree of CTCL. As the result of such strong relationship, employee desire to attach with same workgroup increases and intention to switch decreases. According to Vandenberghe et al's study 1 (2004), a high degree of CTCL linked with the insight of high-quality unity between team members. While according to Griffeth et al. (2000), coherence within team members increases their desire to stay with the organization. Clugston et al. (2000) study, provide the empirical support to CTCL as a distinct variable affecting the employee turnover intention. Internal marketing approach used by Taylor & Cosenza (1998); Keller & Ozment (1999a, b) in their study state that if behaviors and attitudes of team members are better, they play an important role in retaining the leaving employees. Becker (1992) also suggested a negative relationship between CTCL and their desire to leave the organization. On this basis, we suggest hypothesis as:

H5: There is a negative relation between commitment to colleagues and intention to leave the organization.

2.7 COMMITMENT TO SUPERVISOR (CTSP)

Commitment to supervisor (CTSP) is define as, "the way in which an affective relation exists between supervisors & employee." This relation may be positive or negative. If supervisor is friendly, show positive attitude, provide proper guidance, appreciation on good performance etc then relationship between supervisor and employee is positive. It makes employee more committed to supervisor while on the other hand lesser the appraisal, discrimination by supervisor and rude attitude etc leads to negative relationship between supervisor & employee & it push up employee's intention to leave. Stinglhamber & Vendenberghe (2003) describe effective commitment to supervisor as, "a type of attachment that is demonstrated by recognition with the supervisor's personality." Clugston et al. (2000) suggest that a commitment approach must consider the employee's desire to keep up a long-lasting relationship. Employing this to Vandenbergh & Stinglhamber's definition eventually leads to the end that a direct relation must exist between CTSP and ETInt. While Mels & Boshoff (2000), found no such association. Most of the empirical research has found negative and significant association between CTSP and ETInt (Chan et al., 2006; Chen, 2001; Becker, 1992).We proposed hypothesis as:

H6: There is negative relation between commitment to supervisor and intention le leave the organization.

2.8 PROPOSED RESEARCH MODEL

FIGURE 1. PROPOSED RESEARCH MODEL
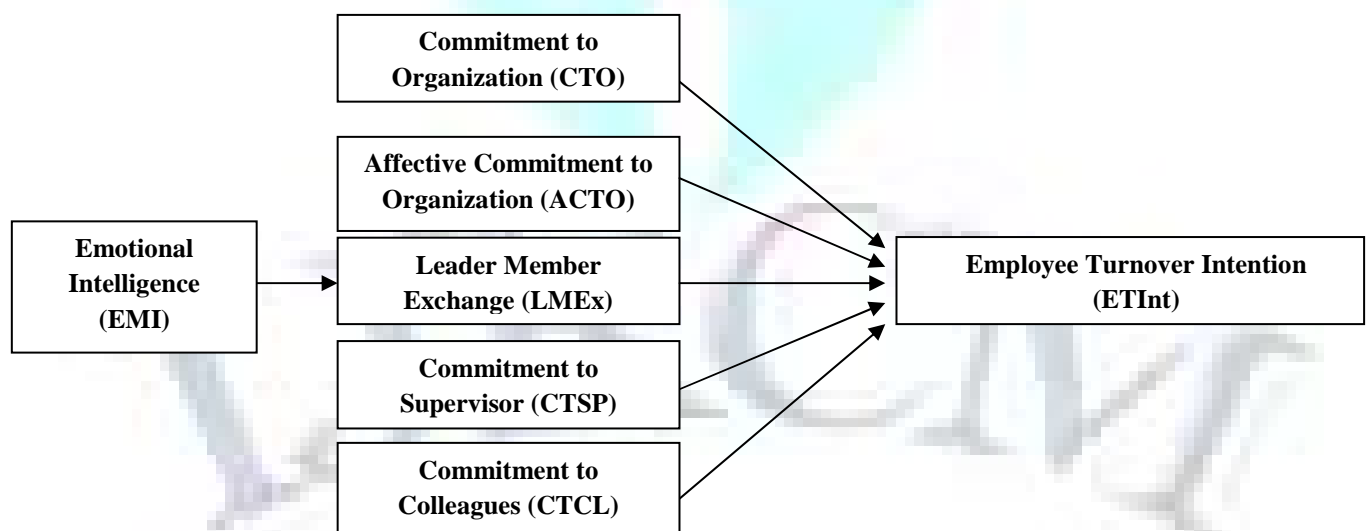
3. RESEARCH METHODOLOGY

The current research is descriptive by nature. Descriptive research can be defined as the process of describing some phenomenon, any event or any particular situation. The main objective of descriptive research is to verify the proposed hypothesis that reflects the current situation.

3.1 SAMPLE/ DATA

In order to collect data for understanding the effect of different factors on employee's turnover intention, sample of 175 respondents will ask to participate in a self-administrated questionnaire. The population of our study is the employees in Pakistan. For the selection of sample, we use the non-probability sampling technique because it is convenient sampling method. It is called convenient sampling because by this sampling technique we collect the large amount of data speedily and economically. We select these sample members from different cities of Pakistan. To collect the sample data, we mainly target the teachers, lecturers, professors and employees of banking sector.

3.2 INSTRUMENTS AND SCALES

There are two major purposes of survey instrument select for our current study. First is to analyze the effect of different variables on employee's turnover intention. Second, in order to understand the variation in different categories of respondent, we collect data about different characteristics of the respondents. There are two sections in our survey instrument. Section 1 is design to collect personal and demographical information and we collect information about respondent's gender, age, income, education, status and their previous experience or organizations already served. Section 2 includes the most current study relevant variables. These variables are commitment to organization, affective commitment to organization, emotional intelligence, leader member exchange, commitment to colleagues and commitment to supervisor and employee turnover intention. This section is developed on the base of past researches and already administrated questionnaires. All of the scales used in our questionnaire were adopted from previous literature and published studies. First scale in our questionnaire is ETInt consists of 3 items and taken from Cummann et al. (1997). Second is CTO , 8 items scale taken from Porter et al.(1974).Third variable is ACTO and 4 items scale of Meyer and Allen(1991) used. For EMI, we use the 4 items scale of Jordan et al. (2002). While 4 items scale of Liden and Maslyn (1998) used to measure the LMEx. The next two variables are CTCL and CTSP and these are measured by using scales of Bentein et al.(2002).Each scale has 3 item.

3.3 PROCEDURE

The questionnaires distributed among 175 respondents in different cities of Pakistan. Before giving the questionnaire, employees informed about the purpose of study and questions had explained to them so they fill questionnaire conveniently. They also provided assurance that their responses were kept confidential. After completing the survey, nearly about 15 questionnaires were incomplete. Therefore, they had separated and 150 questionnaires were selected. After collection, all questionnaires coded and entered in SPSS sheet for further analysis.

3.4 RELIABILITY ANALYSIS

The cronbach alphas of all the variables are more than acceptable and recommended value of 0.50 by Nunnally (1970) and 0.60 by Moss et al. (1998). It shows that all 29 items included in our questionnaire were reliable and valid to measure the opinion of employees towards intention to leave the organization.

TABLE 1: RELIABILITY OF MEASUREMENTS SCALES

Scales	Items	Cronbach Alpha
ETInt	3	0.844
CTO	8	0.851
ACTO	4	0.642
EMI	4	0.647
LMEx	4	0.782
CTCL	3	0.732
CTSP	3	0.865

4. RESULTS AND ANALYSIS

4.1 PROFILE OF RESPONDENTS

Personal and demographic information about respondents such as gender, age, income, education, status and already served organizations presented in the following table 3.

TABLE 2: PROFILE OF THE RESPONDENTS

Variable	Category	Frequency	Percentage
Gender	Male	103	68.7
	Female	47	31.3
Age	16-20 years	8	5.3
	21-25 years	33	22
	26-30 years	43	28.7
	31-35 years	24	16
	36-40 years	13	8.7
	Above 41 years	29	19.3
Income	Below 15000	31	20.7
	15000-25000	29	19.3
	25000-35000	33	22
	35000-45000	27	18
	45000-55000	15	10
	Above 55000	15	10
Education	Inter	14	9.3
	Bachelor	35	23.3
	Master	72	48
	MS/M.Phill	23	15.3
	PHD	6	4
Status	Student	11	7.3
	Employee	133	88.7
	Businessman	4	2.7
	Housewife	2	1.3
Already served organization	1	29	19.3
	2	34	22.7
	3	17	11.3
	4	5	3.3
	5	8	5.3
	None	57	38

4.2 HYPOTHESIS TESTING

4.2.1 COMMITMENT TO ORGANIZATION AND EMPLOYEE TURNOVER INTENTION

After applying regression analysis on collected data it is find out that our purposed hypothesis is true and there is an indirect association between CTO and ETInt. Specifically, CTO has significant indirect relationship with (β=-0.225) and ($p < 0.001$). It means CTO contributes more than 22% to ETInt. Results of current study validate the H1.

4.2.2 AFFECTIVE COMMITMENT TO ORGANIZATION AND EMPLOYEE TURNOVER INTENTION

After the regression analysis, we found that H2 is true and ACTO and ETInt have an indirect association. According to results, ACTO has considerable indirect relationship with (β=-0.274) and ($p < 0.001$). It represents that contribution of ACTO to ETInt is 27%.

4.2.3 EMOTIONAL INTELLIGENCE AND LEADER MEMBER EXCHANGE

Through regression analysis it is prove that EMI has positive relationship with LMEx with (β=0.252) and (p < 0.001). Results of regression analysis prove our proposed hypothesis true and valid.

4.2.4 LEADER MEMBER EXCHANGE AND EMPLOYEE TURNOVER INTENTION

Regression analysis proves H4 and found that there is negative relationship exist between LMEx and ETInt with (β=-0.116) and (p < 0.01). LMEx contributes approximately 12% to ETInt.

4.2.5 COMMITMENT TO COLLEAGUES AND EMPLOYEE TURNOVER INTENTION

The regression analysis of our study confirms that there is an indirect association between commitment to colleagues and ETInt with (β=-0.114) and (p < 0.01). According to these results, CTCL contributes nearly about 11% to employee's turnover intention.

4.2.6 COMMITMENT TO SUPERVISOR AND EMPLOYEE TURNOVER INTENTION

In H6, we proposed that there is an indirect association between commitment to supervisor and ETInt. Regression analysis shows that there is a negative relationship between CTSP and ETInt with (β=-0.131) and (p < 0.01). These results suggest that CTSP contributes approximately 13 % to ETInt.

TABLE 3: REGRESSION RESULTS

Hypothesis	Model variables	Estimate	S.E	C.R	P	Results
H1	CTO → ETInt	-0.225	0.196	-2,156	0.000	Supported
H2	ACTO→ETInt	-0.274	0.149	-3.065	0.001	Supported
H3	EMI → LMEx	0.252	0.088	3.165	0.002	Supported
H4	LMEx → ETInt	-0.116	0.149	-3.065	0.001	Supported
H5	CTCL → ETInt	-0.114	0.177	-3.177	0.003	Supported
H6	CTSP→ ETInt	-0.131	0.146	-2.778	0.008	Supported

FIGURE 2: STRUCTURAL MODEL RESULTS
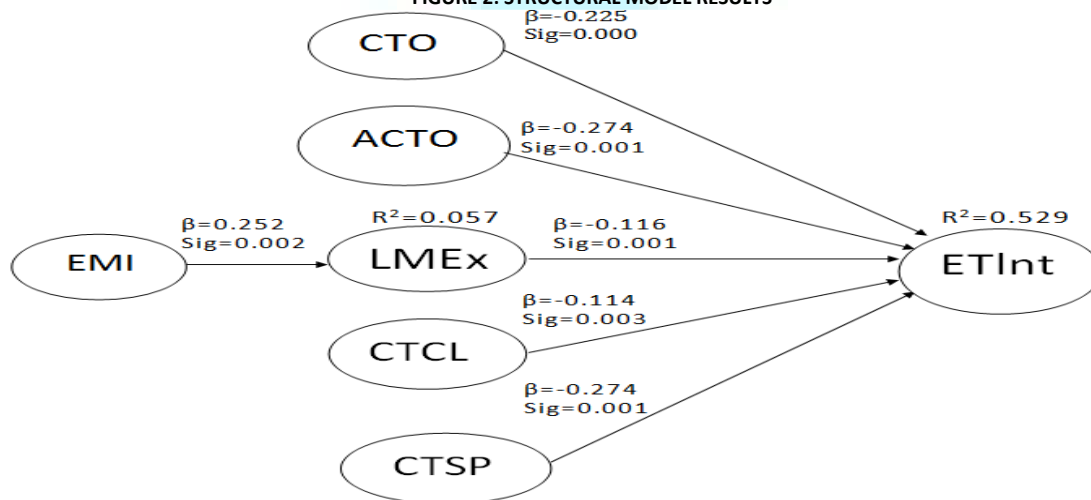
5. DISCUSSION

The main purpose of our study is to analyze the effect of commitment to organization, affective commitment to organization, emotional intelligence, leader member exchange, commitment to colleagues and commitment to supervisor on employee's turnover intention in the context of developing country like Pakistan in contrast to the vast research that was conducted in developed countries. The results obtained from the analysis of our study allowed us to verify the proposed hypothesis and help us to understand the relationship of different variables with employee's turnover intention. In the following section, we discuss the results of all variables and their implications one by one. Many previous researches were conducted to observe the effect of different variables on employee's turnover Intention. In most of these researches, role of psychological variable employee commitment has neglected to examine while studying the reasons of high turnover intention among employees. According to the research conducted by E.S.K Wong, W.L Kueen and S.Kaur in Malaysia, it proves that commitment to organization is negatively related with employee's turnover intention. They proved empirically that higher the commitment to organization, employee has lower intention to quit the organization. The outcome of our study is also in line with the previous studies reporting that there is inverse association between CTO and ETInt. These results suggested that if the commitment of employee to the organization is high then she/he has lower/no intention to quit and to join another organization.

We also include the one of the most important dimension of CTO, which is ACTO. According to Meyer & Allen (1991), employees with strong ACTO have high emotional attachment with the organization; they carry on their employments with the organization. While Arkoubi et al. (2007) study also revealed that there is an inverse and considerable relationship between ACTO and intention to quit. Results of our study are also same and our proposed hypothesis related to the relationship between ACTO and intention to quit is proved and supported by previous studies. In third hypothesis, we proposed that EMI has direct positive impact on LMEx. According to Jordan and Torth (2004) study, it was revealed that if employees had high emotional abilities, high quality relationships develop between them and their leader. The influence of EMI in building a good LMEx is also supported by the previous researchers (Salovey and Grewal, 2005; Lopes et al., 2003). In forth hypothesis, we state that there is an inverse association between LMEx and intention to quit. According to research of Jordan & Troth (2004), it is find that if employees have ability to manage their and other emotions, then they are successful to build a strong LMEx and they have less intention to leave the organization. According to Sosik and Megerian (1999), emotional awareness helps in promoting the effective leadership. From all above discussion it is concluded that higher the LMEx, lower will be the turnover intention. Fifth hypothesis states that there is an inverse relationship between CTCL and intention to quit. Our sixth hypothesis is that there is an inverse association between CTSP and intention to quit. Workgroup have significant contribution in retaining truckers as recommended by Taylor and Cosenza (1998). Results of our study are supported by previous researches, it is proved that nature of relationship of employee with his supervisor, and coworkers have an effect on his intention to give up his association with organization. According to the results of our study and research of Vandenberghe et al. (2004, p 59) we can say that in all of three types of commitment, the influence of CTSP and CTCL was lesser than the CTO. It suggested that according to the psyche of employee, organization is important for him as compare to supervisors and colleagues.

Through our study, we try to make contribution to existing literature on employee's turnover intention specifically in terms of effect of ACTO on turnover intention. From the study of past literature, we discovered three dimensions of CTO but very little work is done on them and the existing research proves that ACTO has significant negative impact on ETInt. Through our research, we empirically prove it and make an authentic contribution to existing literature on influence of ACTO on turnover intention. Our study empirically proved that CTO, ACTO, CTCL & CTSP have negative relationship with employee's intention to quit. Our study findings would support the executives and strategy makers of the organization to originate the specific and effective strategic plans and

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especially focused those areas, which are accountable of high ETInt. Previous empirical researches proved that if employer identify and put emphasis on the working efforts of employees and provide them appraisal, compensation and different benefits, all of these efforts on the part of employer realize the employee as an important part of organization. In addition, they become more loyal and have less intention to leave the organization. Organizational culture should be based on share values and providing the employees empowerment to some extent will promote the commitment to organization and reduced the employee's intention to quite. According to the study of Jordan and Murray (2005) research, we suggest that both employee and supervisor should be given EMI training. Through it, they are able to manage their emotions. It helps to build a good leader member relation at workplace. Therefore, when the relation between supervisor and employee is good then there is less conflict between them. It helps to make the employee highly committed and reduces ETInt. Moreover, employer tries to build such an environment that develops a strong affective relationship between colleagues. The emotional attachment with organization, supervisor and colleagues strongly influence the decision of employee to leave the organization. Organization must use the commitment based management philosophy in spite of central based.

6. LIMITATIONS AND FUTURE RESEARCH

Our study has some limitations. Firstly, size of our research sample is small and it may create sample biasness. Moreover, miss-leading responses by respondents in order to give such responses that be socially acceptable can minimize the reliability and validity of our data. Secondly, current global economic conditions also effect the employee's decision to quit. They want to leave but due to economic recession, they have to continue their jobs in every situation. In booming economy, results of present study might be different. At the end in our study, we discuss the impact of LMEx on ETInt only in the context of employees. Although its effect must be studied in the perspective of both manager/employer and employee.

From our study it is reveal that following variables must be focused in future research to get results that are more reliable. First of all our study is cross sectional study. In future, research must be conducted based on longitudinal study to get more deep understanding of effect of different variables on high ETInt. Moreover, very little research data is available on the concept that perceived organizational support help in making the employee committed to the organization developed by Eisenberger et al. (1986). Employee's perception of equity and organizational justice also affect the employee's commitment to organization. Therefore, future research on ETInt should also consider the above-mentioned factors as variable and try to explore the effect of these variables on ETInt through employee's commitment to organization.

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WOMEN ENTREPRENEURSHIP IN INDIA

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ABSTRACT

It is imperative to note the participation of women in economic activities as self-employed individuals. Many of the traditional occupations open to women were mainly based on caste and creed and the nature of self-employment was based on the standard of living. Presently, not only are women generating employment for themselves in the unorganized sector, they are also providing employment to others. Woman constitutes the family, which leads to society and Nation. Social and economic development of women is necessary for overall economic development of any society or a country. Entrepreneurship is the state of mind which every woman has in her but has not been capitalized in India in way in which it should be. Due to change in environment, now people are more comfortable to accept leading role of women in our society, though there are some exceptions. In this paper we discuss about the promotional efforts for women entrepreneurs and barriers faced by women entrepreneurs while establishing and running business.

KEYWORDS
women entrepreneurship.

INTRODUCTION

There is tremendous interest in entrepreneurship around the world. Although this statement may seem bold there is evidence supporting it some of which is provided by the global entrepreneurship monitor-GEM, which is a joint research effort by Babson College & the London Business School tracks entrepreneurship in 42 countries of particular interest to GEM is early state entrepreneurial activity, which consists of businesses that are just being set up and businesses that have been in existence for less than 3½ yrs. A sample of the rate of early stage entrepreneurial activity in countries included in the GEM study is shown in Table 1.1 while the highest rates of entrepreneurial start-up activities occur in low income countries where good jobs are not plentiful, the rates are also impressive in high-income countries like Ireland (8.2%), Spain (7.6%), and united states (9.6%).

TABLE-1.1: RATES OF EARLY-STATE ENTREPRENEURIAL ACTIVITY (AGES 18-64)

COUNTRY	% OF POPULATION STRAING A NEW BUSINESS
BRAZIL	12.7%
CHINA	16.4%
HONGKONG	10.0%
ICELAND	12.5%
PERU	25.9%
RUSSIA	2.7%
SPAIN	7.6%
THAILAND	26.9%
UNITED KINGDOM	5.5%
UNITED STATE	9.6%

SOURCE:- N.Bosma, K.Jones, E.Autio and J. Levie, Global Entrepreneurship Monitor 2007 Executive Report(Babson College & London Business School, 2007)

ENTREPRENEUR TODAY

To an economist, an entrepreneur is one who brings, resources, labour, materials and other assets into combinations that make their value greater than before and also one who introduces changes innovations and a new order. To a psychologist, such a person is typically driven by certain forces-the need to obtain or attain something, to experiment, to accomplish, or perhaps to escape the authority of others. To one businessman, an entrepreneur appears as a threat, an aggressive competitor, whereas to another businessman the same entrepreneur may be an ally, source of supply a customer, or someone who creates wealth for others, as well as finds better ways to utilize resources, reduce waste, and produce jobs others are glad to get.

SCOPE OF ENTREPRENEURSHIP IN INDIA

There is growth in the number of individuals opting for entrepreneurship as a career. The concept of entrepreneurship is not different in developing economies. In fact in developing economies like that of India, the scope and need of entrepreneurship are higher. The reasons are many unemployment, disguised employment and under employment, poverty are growing in the developing nations and entrepreneurship can be an answer to all of them as entrepreneurship not only provides employment and source of earning to the entrepreneur but to all those who become associated with the business enterprise. Moreover, the increase in the number of entrepreneurs can reduce the monopoly of rich businessmen and lead to balanced regional development and growth of the entire economy.

WOMEN ENTREPRENEURSHIP

Women entrepreneurs have been making a significant impact in all segments of the economy in India, Canada, great Britain, Germany, Australia and the united states. The area chosen by women are retail trade, restaurants, hotels, education, cultural, cleaning, insurance and manufacturing. The new thrust suggests following two factors pulling or pushing women in an entrepreneurship factors leading women to be an entrepreneur. Women entrepreneurs choose a women takes up enterprises to a profession as a challenge and an get over financial difficulties and respond –adventure with an urge to do some-visibility is thrust on them due to family-thing new, liking for business and circumstances to have an independent occupation. With the spread of education and approaches/awareness, women entrepreneurs are achieving higher level of 3E's, namely: (i) Engineering (ii) Electronics (iii) Energy. Though we should not forget certain Psycho-Social Barriers which hinders the growth of women entrepreneurs.

It is estimated that presently women entrepreneurs compare about 10% of the total entrepreneurs in India. It is also clear that this percentage is growing every year. If prevailing trends continue, it is not unlikely that in another five years, women will comprise 20% of the entrepreneurial force in India. It is perhaps for these reasons that government bodies, NGO's, Social Scientists, Researchers and International agencies have started showing interest in the issues related to entrepreneurship among women in India

WOMEN ENTREPRENEURSHIP IN INDIA

Indian women have come a long way with changing time. Interestingly issues related to women in India, like female foeticide, bride burning (for reasons for dowry) and 'sati' (widow burning) are a passé in modern India. Each of these acts is a criminal act and an extremely rare occurrence is now being reported.

The emergence of women entrepreneur and women-owned firms and their significant contributions to the economy is visible in India. These businesses are ready for continued growth in the future. The number of women entrepreneurs has increased especially during the 1990s. The new generation of women-owned enterprises is actively seeking capital for their businesses using modern technology to find and create a niche in both the domestic and export markets. While women-owned businesses possess the potential and are capable of contributing much more, it is essential to for mulate strategies to invigorate, support and sustain their efforts in the right direction.

Survey's demonstrate that women's primary entrepreneurial activity is focused on the small and medium enterprises (SME) sector. Approx. 60% are small scale entrepreneurs, 15% are large scale manufacturers and the remainder consists of cottage and micro entrepreneurs. They work in a wide range of sectors from trade and services, to tailoring, beauty parlors and printing. However the involvement of women entrepreneurs in the production sector is minimal and the development of this sector is rather slow.

The center for Women's Development Studies (CWDS) indicates that while the participation of women in the workforce is high and on the increase the general status of women and their control over resources is not increasing at the same pace.

Following are some interesting facts on status of women in modern India:
- India has the world's largest number of professionally qualified women.
- India has more female doctors, surgeons, scientists and professors than the United States.
- India has more working women than any other country world. This includes female workers at all levels of skill-from the surgeon and the airline pilot to bus conductors and menial labourers.

Ironically, even with such advancements made by women of modern India, on an average women in India are socially, politically and economically weaker than men. But moves are underway to empower women. The call of the present time is that women should be financially independent. But the problem with financial independence of women is that the availability of jobs (in general for both women and men) is very less and hence some new methods have to be sought out by women to gain financial independence. Entrepreneurship among women can be eyed as a tool for employment and income Generation. The concern to develop more women entrepreneurs emerges from the fact that women represent 50% of the world population, but receive only 10% of the world income and less than 1% of the world assets. Efforts have been made by various governmental and non-governmental agencies all over the world to promote women entrepreneurship.

There is growth in the number of women opting for entrepreneurship as their career option. There is also a perceptible shift in the nature of businesses being set up by women in India. The myth that women are fit only for papad and pickle making is shattered completely. Women entrepreneurs are making a mark in the garment and service industries, as also in the computer, chemicals and construction material industries. The development of women entrepreneurs is in line with the overall entrepreneurship development in the country. 'The Women Entrepreneurship' in modern India is there to stay.

ENTREPRENEURS IN DEVELOPING ECONOMY

The concept of entrepreneurship is not different in developing economies. In developing economies like that India, the scope and need of entrepreneur is higher. An entrepreneur need not necessarily innovate, even if he imitates any technique of production/marketing from a developed country, he is an entrepreneur in his own right and makes a contribution to economic development as long as he starts business, undertakes risk and bears uncertainties. In developing countries, entrepreneurship is considered as a form of labour, which tells the rest of labour what to do and how to get things done.

Entrepreneurship development in India has received much attention during the last few years. In the industrial policy resolution of 1956, the government had emphasized the setting up of large numbers of medium and small-scale industries as one of the major steps for the economic growth of the country and to solvethe massive unemployment problem among the educated youth of India.

During the last decade women as entrepreneurs have been brought into sharper focus, which has led to a number of surveys, where male and female entrepreneurs have been compared. But accordingly to Baker et al. (1997) surveys with the focus on women entrepreneurs still account for only 6-8 percent of international research into entrepreneurship.

However, interest is increasing as a consequence of a rapidly increasing social and industrial policy focus on the potential of entrepreneurship amongst women; this is motivating more women to start their own business world.

STATUS OF WOMEN ENTREPRENEURS

Since the turn of century, the status of women in India has been changing due to growing industrialization and urbanization, spatial mobility, and social legislation. Over the years, more and more of women are going in for higher education, technical and professional education. Their proportion in the labour force has also increased with the spread of education and awareness. Women have shifted from the extended kitchen, handicrafts and traditional cottage industries to non- traditional higher level of activities. During the 1970s, the decade of the International women's year efforts to promote self-employment among women received greater attention from the government and private agencies.

While almost half the population of India comprises women, the businesses owned and operated by them constitute less than 5%. This is reflection of social, cultural as well as economic distortions in the decades of development. However, women's contribution and participation in economic activity and production of goods and services is much greater than statistics reveal since much of it takes place in the informal sector and also in households.

THE SCOPE OF ENTREPRENEURSHIP AMONG WOMEN

Although many women have advanced in economic structures, for the majority of women, particularly those who face additional barriers, continuing obstacles have hindered their ability to achieve economic autonomy and to ensure sustainable livelihoods for themselves and their dependents. Women are active in a variety of economic areas, which they often combine, ranging from wage labour, subsistence farming and fishing to the informal sector.

However, legal and customary barriers to ownership of access to land, natural resources, capital, credit, technology and other means of production, as well as wage differentials, contribute to impeding the economic progress of women. Women contribute to development not only through remunerated work but also through a great deal of unremunerated work.On the other hand, women participate in the production of goods and services for the market and household consumption, in agriculture, food production or family enterprises. On the other hand, women also perform the great majority of unremunerated domestic work and community work, such as caring for children and older persons, preparing food for the family, protecting the environment and providing voluntary assistance to vulnerable and disadvantaged individuals and groups.

Women contribution to development is seriously underestimated, and thus its social recognition is limited. The full visibility of the type, extent and distribution of this remunerated work will also contribute to a better sharing of responsibilities between women and men. Lack of employment in the private sector and reductions in public services and public services jobs have affected women disproportionately. In some countries, women take on more unpaid work, such as the care of children and those who are ill or elderly, compensating for lost household income, particularly when public services are not available. In many cases, employment creation strategies have not paid sufficient attention to occupations and sectors where women predominate; nor have they adequately promoted the access of women to those occupations and sectors that aretraditionally male.

To add weight to the issue of promoting Entrepreneurship among women, let's scan an interesting finding. Women entrepreneurs are on rise in modern India. A study by Global Entrepreneurship Monitor (GEM) which covers wide range of 37 GEM countries has some interesting results: in 2002, the average rate of entrepreneurship among women across GEM countries was 8.9%, meaning that one in eleven women is an entrepreneur, with a wide range across 37 GEM countries. Thailand tops the list with 18.5% of women as entrepreneurs followed by India with 14.1% women entrepreneurs.

Japan has lowest rates of women entrepreneurs with just 0.6% women as entrepreneurs. The GEM countries with highest levels of entrepreneurship among women in 2002 are, in descending order:

COUNTRIES	HIGHEST WOMEN ENTERPRENEUR IN %
THAILAND	18.5%
INDIA	14.1%
ARGENTINA	11.5%
BRAZIL	11.1%
CHINA	11%
NEW ZEALAND	10.6%
MEXICO	10.3%
CHILE	9.5%
KOREA	8.6%
THE UNITED STATES	8.1%

The countries with the lowest rates of women entrepreneurship are, in ascending order:

COUNTRIES	LOWEST WOMEN ENTREPRENEUR IN %
JAPAN	0.6%
BELGIUM	1.5%
RUSSIA	1.6%
CROATIA	1.8%
FRANCE	2.1%
HONG KONG	2.3%
SPAIN	2.8%
SWEDEN	2.6%
SINGAPORE	2.7%
SLOVENIA	2.9%

SOURCE: "women' entrepreneurship around the globe, www.nwbc.gov

The phenomena related to women's entrepreneurship has been augmented by this tremendous growth in the formation and development of women-owned businesses. For women, the need for an effective and comprehensive approach for detecting stimulating entrepreneurial potential is underlined by *some other important issues* like *population pressure* and *sluggish growth* in developing nations like India.

CHALLENGES IN THE PATH OF WOMEN ENTREPRENEURSHIP

❖ **LACK OF CONFIDENCE**- women generally lack of confidence in their own capabilities. Having accepted a subordinate status for long even at home member of their family do not appear to have total confidence in their abilities and on their decision-making.

❖ **PROBLEMS OF FINANCE AND WORKING CAPITAL**- another problem faced by women entrepreneurs is lack access to funds because they do not possess any tangible security and credit in the market. Since women do not enjoy right over property of any form, they have limited access over external sources of funds.

❖ **SOCIO-CULTURAL BARRIERS**- a woman has to perform her family duties irrespective of her career as a working women or an entrepreneur. In our society, more importance is giving to educating the male child as compared to the female child. This results in lack of schooling and vocational training of women, their lack of attaining technical skills and there by lack of awareness of opportunities available.

❖ **PRODUCTION PROBLEMS**- production is a manufacturing enterprise involves coordination of a number of activities while some of these activities are in the control of the entrepreneur; there are others over which she has little control. Improper coordination and delay in execution of any activity cause production problems in industry.

❖ **INEFFICIENT MARKETING ARRENGEMENTS**- heavy competition in the market, and their lack of mobility makes the women entrepreneurs dependent on middlemen.

STRATEGIES FOR THE DEVELOPMENT OF WOMEN

In small and medium enterprises due to limited sources, majority of the functions have to be performed by the owners themselves. In case of women entrepreneurs the problems get compounded because certain functions have gender dimensions attached to them.

Domestic commitments and child-care support are the two main responsibilities of women. This along with the still narrow outlook of society in accepting a woman as an entrepreneur makes her life more difficult. Some suggestions to meet these challenges and to encourage women entrepreneurship are given below:-

❖ A woman can set up a home-based business. By operating her business from home a woman can better coordinate her household and business responsibilities.

❖ A woman can start her business when her children are grown up enough to take care of their own small needs. This gives the women enough time enough to manage her enterprise.

❖ Women must acquire education and go through confidence-building training to get rid of the traditional feeling that they are inferior to men and are dependent on men.

❖ Workshop and seminars should be organized frequently for the officials of financial and support agencies and for women entrepreneurs to make their relations more cordial.

❖ Procedures for financial assistance by banks and government organizations must be simplified. Women inspectors, if available, should be Asked to inspect women enterprises.

In the present scenario, due to modernization, urbanization, globalization and development of education, with increasing awareness, women are now seeking gainful employment in several fields.

Women are entering into entrepreneurship even in the face of socio-cultural, economic, technical, financial and managerial difficulties. Women entrepreneurship movement can gain momentum by providing encouragement, appropriate awareness, training, environment, and support.

INSTITUTIONS SUPPORTING WOMEN ENTREPRENEURSHIP IN INDIA

❖ **CONSORTIUM OF WOMEN ENTREPRENEURS OF INDIA (CWEI)** - in the context of the opening up of the economy and the need for upgradation of technology, the consortium of women entrepreneurs of India started in the year 2001 provides a common platform to help women entrepreneurs find innovative technique of production, marketing and finance. CWEI consists of NGOs, voluntary organizations, self-help groups, institutions, and individual enterprises, both from rural and urban areas, collectively support and benefit from the activities taken up by consortium. CWEI takes up integrated activity linked with product development and manpower training. It also acts as an intermediary between India entrepreneurs and overseas agencies for marketing and exports.

❖ **FEDERATION OF INDIAN WOMEN ENTREPRENEURS (FIWE)** - the FIWE was started in 1993 following decisions taken at the 4th international conference of women entrepreneurs, held in December, at Hyderabad. Its main function was to establish networking and to provide a package of services to the women entrepreneur's association in India. Associations of women entrepreneurs in different states and districts are affiliated to FIWE so that they can have networking.

❖ **FEDERATIONS OF LADIES' ORGANISATION (FLO)** - the federation of ladies' organization (FLO) is the women's' wing of the federation of Indian chambers of commerce and industry (FICCI). FLO was formed in 1983 as a national level forum for women with the basic objective of "women empowerment". The primary objective of FLO is to promote entrepreneurship and professional excellence in women. FLO acts as catalyst for the social and economic advancementof women and society at large. FLO endeavours to make women aware of their strengthsa through its educational and vocationaltraining programmes, talks, seminars, panel discussions, and workshops on a wide range of subjects like information technology, taxation,insurance, venture capital, travel and tourism, entrepreneur development programmes, and women-related issues like women's achievers and women's empowerment.

❖ **WOMEN'S INDIA TRUST (WIT)**-When Kamila Tyabji launched WIT in 1968,little did she realize that it would grow into large organization with two shops in Mumbai and a training and production center known as Kamila Tyabji WIT center at Penvel, 40 km from Mumbai. Encouraged by the success of WIT in Mumbai, the Kamila Trust, UK, was set up in the early 1990s with the aim of selling in England items produced by the WIT family of women in India.

Some other institutions are also there for supporting the women entrepreneur:-

❖ **CENT KALYANI OF CENTRAL BANK OF INDIA CREDIT SCHEMES**-
➢ SMALL BUSINESS
➢ PRFESSIONAL AND SELF EMPLOYED
➢ RETAIL TRADE
➢ VILLAGE AND COTTAGE/TINY INDUSTRIES
➢ SMALL-SCALE INDUSTRIES
➢ AGRICULTURE AND ALLIED ACTIVITIES
➢ GOVERNMENT- SPONSORED PROGRAMMES.
❖ **NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT (NABARD)**
❖ **STATE GOVERNMENT SCHEME FOR DEVELOPMENT OF WOMEN AND CHILDREN IN RURAL AREAS (DWCRA)**
➢ SWASAKTHI SCHEME
➢ MANEBELAKU
➢ WOMEN ECONOMIC EMPOWERMENT (MAHILA ARTHIK SWAVALAMBHAN YOJNA)
➢ TRAINING PROGRAMME FOR THE WOMEN ENTREPRENEURS THROUGH WDC
➢ MARKETING ASSISTANCE TO WOMEN ENTREPRENEURS (WDC)
➢ SREE SHAKTI
❖ **SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA (SIDBI)**
❖ **SELF-EMPLOYED WOMEN ASSOCIATION (SEWA)**
❖ **ASSOCIATION OF WOMEN ENTREPREENEURS OF KARNATAKA (AWAKE)**

WOMENS ORGANISTAIONS SUPPORTING WOMEN'S ENTREPRENEURSHIP

♦ SHRI MAHILA GRIHA UDYOG LIJJAT PAPAD
♦ MAHILA BUNKAR SAHKARI SAMITI
♦ SABALA: CRAFTING EXPORTS OF INDIAN HANDICRAFTS

CONCLUSION

Throughout the world, women make a vital contribution to industrial output. Between 1992 and 1997, the number of women-owned firms have increased two-and-a-half times faster than all businesses and employment in women-owned firms have grown more than three times the rate for all firms. Over 200 million women are employed across all industry sectors, with half of this number in developing countries. Their work not only sustains their families, but also makes a major contribution to socio-economic progress.

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THE ROLE OF LOCAL INSTITUTIONS FOR SUSTAINABLE LIVELIHOODS: THE CASE OF HAOR FISHERMEN IN BANGLADESH

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ABSTRACT

This place-based research critically analyses the sustainable livelihoods of fishermen in Hakaluki haor, one of the major wetlands of Bangladesh, which is full of wildlife and aquatic resources, flora and fauna, thousands of migratory birds, along with local birds of different species and plants. Based on field study in two fishing villages and secondary information from different publish articles, paper, project papers, etc., this research constitutes some major aspects in addition to the introduction and conclusion. First part provides numerous definitions such as sustainability, livelihood, sustainable livelihood and institution. In second session, the empirical link between sustainable livelihood and institution has been discussed. Third section highlights the different level of local institutions and hierarchy in haor area. Forth part analyzes the role of the Department of Fisheries (DOF), where it acts as a mediator of providing effective support for fishermen's livelihoods. The research concludes that the DOF is an ineffective and inefficient local institution due to lack of financial support and plays an insignificant role of planning, haor management and generating alternative income opportunities for haor fishermen in the lean period.

KEYWORDS

Sustainable livelihood, institution, governance, haor management policy, vulnerable.

INTRODUCTION

ustainability has recently come out as a major development issue of societies, livelihoods, and additional social, economic, and ecological activities. After the Rio Earth Summit 1992, the sustainability of humankind has become more dynamic debates on how to conserve natural resources to sustain the required goods and services for human well-being as these resources are providing livelihood support to millions (Scoones, 2007). Local institutions are important for rural people in this regards. Their influencing powers secure the rural people's participation equally in management, conservation and sustainable use of natural resources so that rural people can build their ability to cope with and recover from stress and shock by identifying their basic requirement. In this line of thought, the question is raised that do local institutions play a significant role in securing sustainable livelihood of rural people? This question is now critically important for policymakers, regulators, government, and non-government organizations in seeking sustainable livelihood of poor people in Bangladesh. In the study, it is necessary to define livelihood first for analyzing and understanding the livelihood sustainability. Ellis (2000:10) defines as "a livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household". Livelihood systems entail as a sets of complex economic, social and physical strategies. In this regard, the sustainable livelihood strategy of institutions is a major influencing instrument of poverty reduction. It improves the people's capacity and ability to enjoy choice, access to and use of natural resources at present or in the future. The effective and adequate support of local institution is also a contributing factor of generating alternative income opportunities in the lean period. It is, therefore necessary to define institutions.

Institutions are "the humanly devised constraints that shape human interaction….[and] reduce uncertainty (North, 1990:4)". Institutions are discussed in shaping people's life and its institutional arrangement is a fundamental aspect of investment in easier, cheaper and more profitable activities; particularly poor people diversify their livelihoods to overcome the vulnerabilities and gain new and more profitable income opportunities. It is, therefore important to address the question of how particular institution work efficiently in generating sustainable income opportunities for specific interest groups.

In the creation of sustainable livelihoods, the research has focused primarily on service provision of the Department of Fisheries (DOF), as a local institution, towards fishermen in Hakaluki haor, one of the major wetlands of Bangladesh, which is full of wildlife and aquatic resources, flora and fauna, thousands of migratory birds, along with local birds of different species and plants. The objective of this research paper is to examine the role of the DOF in generating sustainable livelihoods for haor fishermen and to highlight the different level hierarchy of haor resource management policies. The systematic review of role of the fisheries department complies and evaluates a rigorous theoretical research which examines the question; how the DOF works efficiently in securing the livelihood sustainability for haor fishermen and the arrangement of existing institutional capacity in the haor area by sharing the findings and policy implications of the research.

CONCEPTUAL FRAMEWORK

To understand the sustainable livelihood strategy of the DOF, a conceptual framework is essential to construct. The study develops a sustainable livelihoods framework in figure 1 which reflects the critical role of the local institutions in general. The study includes some assets in this framework: human capital (education, skills and health of fishermen), physical capital (fishing equipment, house, sewing machine, etc.), social capital (social network, associations, membership organizations, and peer-group network), financial capital (savings, credit, insurance, etc.), and natural capital (haor resource base).

FIGURE 1: A FRAMEWORK FOR SUSTAINABLE LIVELIHOODS ANALYSIS OF POOR PEOPLE (ADOPTED FROM CARNEY ET AL 1999)
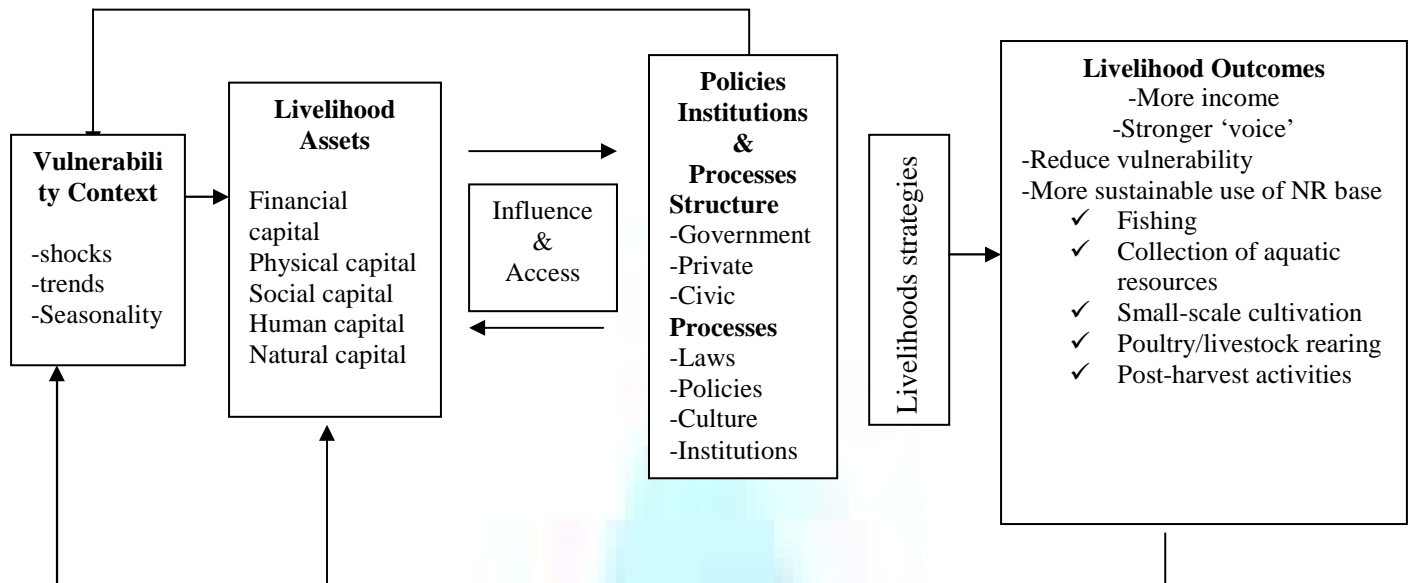
DFID (in Asley and Carney1999:7) provides a sustainable livelihood framework to help building the understanding of various livelihood components and factors; "i) the priorities that people identify, ii) the different strategies they adopt in pursuit of their priorities, iii) the institutions, policies and organizations that determine their access to assets and the returns they can achieve, iv) their access to social, human, physical, financial and natural capital and their ability to put these to productive use, iv) the context in which they live, including external trends (economic, technological, demographic etc.), shocks (natural or man-made), and seasonality".

METHODOLOGY

This research focuses on place-based intensive field work case studies of a *haor* in Bangladesh, named *Hakaluki haor.* A haor is basically a very low lying river basin area, which is just six months of a year covered by water. More specifically, "a haor is a wetland in the North Eastern part of Bangladesh which physically is a bowl shaped shallow depression. It is a mosaic of wetland habitats including rivers, streams and irrigation canals, large areas of seasonally flooded cultivated plains and hundreds of beels." (Hussain and Salam 2007: 3). The study was conducted in Kulaura Upazila under Maulvibazar district. The qualitative method was used with participatory technique. A multi-stage random sampling technique was considered. Two villages (i.e. Kandigaon and Radhanagar) and total 100 fishermen (50 haor fishermen from every village) were selected from this upazila. Structure and semi-structured interviews were conducted. Questionnaires, focus group discussions and key informant interviews were the main components of research tools. Secondary information also collected from the different published articles, policy papers, project papers, government and other useful websites, etc. The paper argues that the DOF is 'inefficient' by providing necessary support towards haor fishermen, in terms of capacity building (i.e. fishery improvement, restoration and rehabilitation, monitoring and supervision, etc.) and sustainable livelihood strategies (i.e. sufficient funds, training facilities, information, locally-driven technology, etc.). It also argues that homogeneous and heterogeneous institutions play different but complementary roles in haor resources. In conclusion, the paper establishes strong policy to strengthening and capacity building of the DOF.

RESULT AND DISCUSSION

Fishermen are not a homogeneous group (Crona and Bodin, 2006); rather they are classified by fishing gear or equipments. Christophe (2003:951) indicates as 'they are poor because they are fishermen and they are fishermen because they are poor'. In general, people and the ecological environment are more vulnerable in haor area due to flash floods and other natural calamities, ecological degradation, unsafe drinking water and sanitation, deforestation, lack of educational institutions and communication facilities and overall poor service provision of local institutions, etc., whose are inverse impacedt on livelihood (Anika, 2011). Particularly, fishermen become more vulnerable in the lean season (mid-May to mid-October) and face unemployment situation due to ban fishing on haor for sanctuary, and shrink the fishable water areas, as a result, they become day labourers in the agricultural and construction sectors, or migrate to urban areas for better work, but lack of inputs as fishing gear and persistent debt to the usurious traditional credit system also bind them to their communities and occupation (Ruddle, 1994) during this season. It is therefore, the socio-economic background of haor fishermen are tremendously squat (Alam, 2005) due to unable to meet their basic needs, even to buy the main instruments of fishing (e.g. boat, net, etc.).

On the other hand, Government regulations of leasing and licensing policy have been affected small-scale fishermen to take customary fishing rights in haor basin after leasing to richer groups. This system of collecting maximum revenue is influenced overexploitations, which have escalated wetland degradation, decimated fish stocks and other aquatic life from haor, and have put haor ecosystems at risk; these changes also have in turn adversely impacted on fishermen's livelihoods (Rahman and Begum, 2011). In order to restore habitats of fish and to increase fish productivity the Government of Bangladesh has inaugurated a particular local institution as a Department of Fisheries (DOF) and accepted the Haor Development Board Ordinance. Yet haor fishermen are not able to enjoy the certain flow of income opportunities. It is therefore, the DOF plays a significant role of ensuring sustainable income for haor fishermen. To examine its effective services towards fishermen, it is critically important to address the different level of institutions and hierarchy in haor area, whose are directly impacted on the sustainable role of the DOF and different assets of fishermen.

DIFFERENT LEVEL OF LOCAL INSTITUTIONS IN HAOR AREA

This paper focuses on existing three types of governance systems over haor resource management such as civic, public, and private with formal form. Within these three broad domains, Uphoff and Buck (2006) highlighted two local *public* institutions (*local governments* and *local agencies*), two types of *civic* institutions (*membership organizations* and *cooperatives*), and two types of *private* institutions (*service organizations* i.e. NGOs, charities etc., and *private business*). For livelihood approaches, dozens of ministries and departments such as health, education, social welfare, agriculture, local government, etc., are involved in *haor* area as public organizations. At the central level, Ministry of Livestock and Fisheries (MOLF), Ministry of Land (MOL), Ministry of Water Resources (MOWR), Ministry of Agriculture (MOA), Ministry of Environment and Forest (MOEF), and Local Government and Rural Development (MOLGRD) are primarily concerned with haor fisheries and other natural resource management. Among all these ministries, the MOL plays a critical role in controlling and leasing various government-owned water-bodies (*Jalmahal*). Moreover, a good number of national and International Non-Governmental Organizations are also working for the betterment of haor, such as; Center for Natural Resource Studies (CNRS), Bangladesh POUSH, Bangladesh Center for Advanced Studies (BCAS), BRAC, NACOM, CFSD, IUCN, Universities and CBOs, local Nijera Kari (do own self), Samata (equity) etc. as private and civic organizations.

DIFFERENT LEVELS OF HIERARCHY IN HAOR AREA

Historically, Bangladesh has been exploited by the British colonial and Pakistani regimes. Over the last two centuries, the management of haor has been focused on revenue earning. Prior to British rule, haor fishermen of Bangladesh enjoyed customary rights to fishing and local fishing communities had access to fisheries resources to support their subsistence livelihoods. The British colonial ruler established the Permanent Settlement Act 1793 over land and natural resources. According to the Act, the customary right to hold hereditary land was subject to the regular payment of rent, but this right could not be transferred from one individual to another. By this Act, local peoples' rights were restricted to the land and natural resources and maximized revenue collection for the colonial state. After the independence of the country (as East Pakistan in 1947 and as Bangladesh in 1971), there have been maintained the legal regimes in natural resource management (NRM) approaches which are basically scientific and technology-based, top-down, centralized, production and efficiency-oriented. In the formal management system, access to resources of resource users have been ignored and followed a state-governed management approach (SMA). The SMA was developed a strict control system of ensuring rent collection from resources and established the required administrative network of revenue collectors (Siddiqui, 1989) on all kinds of wetlands, such as rivers, *haors, beels, baors,* canals, streams, lakes and large ponds. After that the Government of Bangladesh transferred all 'jalmahals' from the MOL to the Department of Fisheries (DOF) under the Ministry of Fisheries and Livestock (MOFL) in 1980. After establishing upazila (sub-district) administration in 1984, the responsibility of revenue earning from under 8 ha water bodies are taken under the Local Government Ordinance 1983. In 1986, the Government introduced 'New Fisheries Management Policy' (NFMP) with the objective of free fishing by intermediaries, leaseholders and financiers; to direct major benefits of fisheries to genuine fishermen (Ahmed et al, 1997). It is, therefore, fisheries management in the floodplain areas of Bangladesh cannot be operated by the lead ministry as MOL alone, only 257 water bodies out of 12,000 (around 2%) were handed over to DOF for licensing (Muir, 2003). Beside these, fishermen cannot fishing properly in *haor* due to economic, social and technical constants (Alam, 2005), and usually water bodies are leased out for three to five years by government to rich people, as a result, poor fishermen (Sarma, 2010) are not allowed to establish their customary rights on *jalmahal*. According to law, the leasing system is given preference to local fishermen on participation in the bidding system, but in reality most of fishermen cannot participate in the auction due to lack of bidding money. As a result, they become jobless after leasing and they move to cities or anywhere else in seeking farming or non-farming jobs to cope up their unemployment situation. Moreover, this leasing system of open water bodies is generated conflicts and chaos at local level, and reinforced the power hierarchy in the society (Toufique 1997). It is, therefore important to examine the specific role of the DOF which helps to generate sustainable livelihood for fishermen.

ROLE OF THE DEPARTMENT OF FISHERIES

In this paper, the role of the DOF has significant implications on livelihoods, quality of life, and participation in decision making process of haor fishermen. In this regard, it is critically important to give attention on three sets of factors of the DOF: i) its nature and goals, ii) its pattern, how to facilitate the livelihood strategies for fishermen, and iii) linkages with other local institutions in the haor area. An understanding of above three aspects helps to identify the characteristic features of the DOF and focuses on the livelihood sustainability of fishing communities. According to law, it is the sole authority over aquaculture and fisheries resources across Bangladesh. Primarily, the objective of the DOF is to plan, implement and monitor various key development policies in order to establish livelihood opportunities and reduce income vulnerabilities of fishermen. It also acts as a protector, regulator and mediator and it is difficult to differentiate its haor fisheries management from other fisheries related activities. It is characterized by several important roles such as capacity-building and sustainable livelihood strategies in achieving livelihood sustainability. Such roles can be discussed below.

A. CAPACITY-BUILDING

The role of capacity-building relates to the aspects of learning, skill acquisition for both institution and beneficiaries group. A traditional proverb "give a man a fish, you have fed him for today; teach a man to fish, and you have fed him for a lifetime" (http://www.eduqna.com/Quotations/815-Quotations-6.html). The proverb implies that the local institution is needed to focus on sustainable know-how development among fishing communities and on engaging their beneficiaries groups effectively in the decision-making process of natural resource management, rather than providing relief or material help. Not only do identify how fishermen are affected by livelihoods vulnerabilities, the DOF also helps to build the capacity of fishermen for improving livelihoods in a sustainable fashion. It compasses a multitude of activities as ability of fishery improvement, restoration, and rehabilitation in order to improve fishermen's performance and achieve their goal of sustainable income. The following some elements of capacity-building whose are essential to ensure the volume of fisheries resources in haor basin.

PLAN OF HAOR FISHERY IMPROVEMENT, RESTORATION, AND REHABILITATION

In general the DOF prepares and follows a fish production plan (annual, five yearly or any other), identifies a priority list of development the fish habitat and takes-up an annual fund for preparing *beel* nursery, sanctuary, etc. It is also a mediator of transferring technology, conserving fisheries resources, administering fisheries projects, formulating various policy, etc. Particularly, it did not show any official documents of fish production plan and formulation various committee to maintain fish habitat. Moreover, it has a remarkable progress in the extension of culture-based fisheries in *haor* area (see table 1). Recently, it is going to take 'fish culture and management project' in haor area for three years which will focus on i) increased fish production, ii) safe sanctuary, and iii) conservation of free breeding place and movement of fish.

Items	No.
Total number of pond	4110
Private fish hatchery	1
Private fish nursery	42

Field survey, 2012 (*Kulaura upazila*).

It is trying to impose 'best practices' to bring improved fishery. In the study area, 49 sanctuaries in 167 hectares were established and 511,000 trees were planted to maintain water year round for restoration the fish habitats. Unfortunately, more and more people (non-fishermen also) use destructively fine mesh nets to get high catch volume of fish. As a result, juvenile fish are disappeared day by day that is severely affected the fish regeneration cycle in the next monsoon.

NEEDS ASSESSMENT TO PRIORITY SETTING

The institutional capacity-building activity can be tailored on needs assessments to priority setting that is reflected a specific design of its services. It needs a multi-stakeholder approach to identify the target groups, such as poor, women and marginalized groups of fishermen. From the investigation, the needs assessment was completed by a capacity assessment of the DOF on banning harmful gears for fishing, banning fishing during the breeding season, maintaining a closed-season, restoring the fish migratory route, compliance of harvesting codes of conduct, use of irrigation pumps during the dry season, and plantation of flooded forest in *khas khandas* (raised land around beels). Even there was no any priority list of genuine fishermen in haor area.

Recently the DOF is going to take a 'Fishermen Registration and Issuing of Identity Card Project' that will help them to identify those who are involved in fishing in natural water bodies and their livelihoods depend mainly on fishing. This initiative will help to differentiate between fishermen and non-fishermen, particularly poor fishermen will be more benefited.

SUPERVISION AND MONITORING CAPACITY, AND SKILL ENHANCE

The supervision and monitoring capacity of development projects are a significant role of strengthening the future activities of the DOF. This is a bona fide mechanism to know it's every pros and cons, and to ensure its efficiency, accountability and responsibility towards fishermen. For building supervision and monitoring capacity, regular field visits are administered, discussion with implementing committee and representative of fishermen, and fishermen's participation in the monthly meeting are ensured. The DOF also prepares the progressing report of development activities and sends it to government time to time. Moreover, local fisheries department plays a critical role on development work of *haor* fisheries as preparing *beels* for sanctuary, conservation of mother fishery, establishment of fisheries law, etc. It is also responsible for long and short-term training on awareness building of conserving *beel* nursery. The

facilitation, supervision, guidance and supportive activities of the DOF play a significant role of enhancing skill in planning and implementing of development project also.

To compare the mechanism of capacity-building with the theoretical insights of sustainable livelihood, it is observable that most of the issues were different in practice from the theory. There was no any positive linkage between the role of capacity-building and development of *haor* fisheries resources for sustainable livelihood of haor fishermen. Because strengthening capacities as a part of long-term, continuous and self-sustaining effort that needs to be addressed target group and funding requirements. During the field visit, the sustainable livelihood framework was not administered in practice. The DOF was not influential institution for involving fishermen; rather it was more active to involve the superior, political leaders or local elite people. Due to lack of institutional capacity-building problems, monitoring and supervision capacity of haor development projects were not administered properly and annual plan of improved fishing habitat was not produced. The DOF had no power; the haor was strictly maintained by the Ministry of Land, the provisions of leasing rules of *jalmahals*. It was also not maintained the co-relation with other branches of government, and it's monitoring, evaluation and reporting systems were not up-to date. Thus, the DOF was not an accountable, responsible and efficient local institution for haor fishermen.

B. SUSTAINABLE LIVELIHOODS STRATEGIES

In this regards, the DOF plays a key role in generating alternative income opportunities by facilitating access, use and control over fisheries resources for haor fishermen. Based on primary objective of poverty reduction, the DOF is taken a sustainable livelihood strategy by transferring fish technology, conserving fisheries resources, and administering fisheries projects and policy for fishing communities. It also ensures small-scale hatcheries, fish nurseries and fish seed collecting activities. In practice, the Fisheries Department controls only five *beels* out of more than 80 for sanctuaries in Hakaluki haor, but two *beels* are low productive capacity of fish production in terms of siltation, pollution from multiple sources, demographic pressure, and flood control measurement, etc. It is difficult to produce sustainable fishery stock for the future in these limited *beels*. On the other hand, flash flood, haor management and conservation policy are prohibited the small-scale fishing communities to continue their income opportunities. In these cases, haor fishermen are needed to provide financial support on livelihood diversification strategies by the respective institution. During investigation the fisheries department was providing financial support on only private pond construction, fishing equipments and fish production inputs. There was no any advance on loan provision or training facilities of generating alternative income (i.e. livestock and poultry rearing, tailoring, small business, etc.) for small-scale haor fishermen. It had limited staff to provide loan which was demanded a chain process of distribution, monitoring and timely collection. Sometimes fishermen were not interested to maintain the loan processing system which was also taken long time to get the loan. On the other hand, the DOF was not agreed to take the risk of management and the difficulties of loan distribution among poor fishermen. It was also stated that unpredictable the future production and the catch of fish and declined fish stock due to uncertain natural breeding systems were affected fishermen's income to pay back loans.

In contrast, there were some non-governmental financial institutions/NGOs, such as Green Bank, Association for Social Advancement (ASA), BRAC, etc. They were only provided micro-credit facilities to specific groups (i.e. women, poor people, and farmer) for small trading business. But there were not any provision of giving loan on fishing activities/or leasing of *Jalmahals* by these institutions. Moreover, Bangladesh *Krishi* (agricultural) Bank (BKB) had limited opportunities for genuine fishermen due to lack of property or fixed assets to use as collateral evidence against the loan. Hoar Fishermen were not allowed for taking credit from these institutions as well. In response with this financial problem, the DOF wanted to start micro-credit systems and some training facilities with financial support. Some experienced staff and new technologies were also needed to operate the haor fisheries resources in haor area.

In this case, the institutional financial support was the most powerful element for generating alternative livelihood options, which are provided a minimum flow of monthly income opportunities so that they can lead a better life that are interconnected with other dimensions of life i.e. housing, education, lighting, and sanitation, etc. Fishermen also demanded specific training facilities (i.e. farm, off-farm) that build their skills, and need to introduce locally driven (i.e. tree plantation, other aquatic life) alternative income generating activities during the closed season of fishing or lean season when poor fishermen cannot sell their labour or unable to catch fish in *haor* basin. From the Study, the establishing sanctuaries of brood stock during the dry season are created a long-term reproduction of fish and other aquatic life. In this argument, there is a positive link with sustainable fish production that is contributed to livelihood sustainability over time. From the field experience, the DOF had well-trained and educated technical staff, fisheries extension and research capacity, and decision-making power for establishing fish sanctuaries. On the other site, it had poor capacity of governing system, low motivation, and revenue budgetary allocation towards fishing communities, whose are influenced a strong revenue orientation system rather than sustainable management of haor. Such types of activities are not allowed to develop a better livelihood outcome, a better health ecosystem, social equity and justice. As a result, it is difficult to generate livelihood strategies for poor *haor* fishermen. It was evident that the sustainable livelihood strategies of the DOF were very far from the theory of sustainable livelihood due to lack of providing financial support and generating alternative income opportunities towards fishermen in the lean period.

CONCLUSION

However, the study revealed some critical aspects; First, there were no clear guideline of formation of fish production plan, monitoring or supervision, and implementation committees of fisheries projects, Second, due to lack of institutional coordination with other institutions and capacity, the DOF was not capable to define their rights and duties, entitlement, and proper management initiatives in *haor* fishery, Third, it was unable to provide sufficient coordination and cooperation of credit facilities for generating alternative income opportunities in the lean period, Fourth, the diverse actors manage *haor* resources with diverse interest within the complex power structure of management. The diversity of actors signifies diverse resource use and production activities that are interconnected each other. As a consequence, fishermen are suffering from the isolation of the respective department, low or poor *haor* infrastructure (roads, water transport during the flood season, warehouse, and market) and services (health, education), and local conflicts. Moreover, the DOF failed to give an appropriate and specific attention of locally planning process of fishermen's livelihood and to facilitate a better exchanging power of information among fishermen. Based on field experience, it was impossible to provide an effective *haor* management policy and maintain equity and fairness, accountability, responsibility and efficiency within a strong networking process by the DOF.

In the research, the role of local fisheries office in *Hakaluki haor* of Bangladesh was examined and identified its haor management capacity and basic requirement for establishing sustainable livelihoods of fishermen. Obviously, it is evident that the relief or subsistence oriented programs cannot develop a positive trend of self-dependent or efficient manner of livelihood for poor people. It is, therefore, critically important to build capacity of its beneficiaries group to overcome the livelihoods challenges. Based on the key findings of the study, the following critical issues will be useful to develop a strong local institution for haor fishermen;

i) First of all the DOF needs to build its institutional capacity to keep record of pre and post fish harvest, communicate with beneficiaries, and plan, design and implement the *haor* fisheries related programs and projects.

ii) For empowering the *haor* fishermen, it should emphasis on sufficient fund as a micro-credit form with low interest rate, relevant technology of sustainable fish management, increasing awareness to conserve the fisheries resources etc. In order to increase fishermen's livelihoods, it should introduce diverse, locally-driven income generating activities, especially during the lean periods. Moreover, non-agricultural based training can be empowered them to ensure economic safety nets.

iii) For the *haor* fisheries management, 'genuine' fishermen should be identified and involved them as early as possible in the development activities from planning to supervision over haor resources.

iv) Last but not least, the government should change the leasing policy and controlling power over *haor* resources. It should be handed over to the fisheries department from the MOL.

This case study also offers a strong coordination between all actors and fishermen whose will directly involve in *haor* resource management in order to build up new policies, plans, and development initiatives. The aim of integrated governance approach is to build capacity of the DOF for promoting equal access to and control over haor resources.

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STRUCTURAL CHANGE IN NORTHERN STATES OF INDIA

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ABSTRACT

Economic development in an economy is viewed through the process of structural change being witnessed by it. Structural change being a universal phenomenon is taking place in all economies; national or sub-national. The present paper attempts to study structural change in addition to certain socio-economic indicators in the northern states of India. Time period of the study is from 1980-81 to 2010-11. A distinguishing feature of structural change in these economies has been seen in the declining share of primary sector in the NSDP and the increasing share of secondary and tertiary sectors in the NSDP. The process of urbanisation was found in all subnational economies with Punjab showing the maximum rate followed by Haryana and Uttarakhand while J&K and H.P. witnessed the lowest rates. The level of inequality was found to be lower in northern states than All India level. Although both rural and urban inequality were on a rise in the fag end, urban inequality was greater than rural inequality at all points of time. The socio-economic indicator of population below poverty line has witnessed Punjab being a better player in comparison to the other northern states. J&K, H.P. and Haryana have shown a spectacular decline in the year 1999-2000, although all states witnessed an increase in population below poverty line in 2004-05. In case of demographic indicators of sex ratio and literacy, H.P. has shown the highest figures followed by Uttarakhand, while Haryana faired the poorest in the sex ratio , it was J&K to lag behind in literacy.

KEYWORDS

Primary sector, structural change, structural transformation, tertiary sector.

INTRODUCTION

The Indian economy has experienced a gradual structural change in the past decades like many developed and developing economies across the world. A similar phenomenon has occurred within the Indian sub-national economies also. The present study is of structural change and certain socio-economic indicators of the northern states of India. An attempt is made to study the manner in which these neighbouring states located in the north are transforming with time. The time period of the study is from 1980-81 to 2010-11. Major sources of data have been CSO, RBI publications, Planning Commission and Socio-economic Review of States. Certain variations in the time periods were found due to non-availability of data for specific years from the same source.

The northern states have shown a relatively better growth performance in the last few decades with few variations among them which have occurred due to certain internal factors of these states. The Punjab and Haryana growth performance was based on the fast growth of their farm sector whereas the growth performance of J&K was dependent on the strong base of tertiary sector in addition to the primary sector. Himachal Pradesh also attributes its growth to the farm sector with a comparatively strong services sector base as compared to the other states besides J&K.

Economic development is seen as an interrelated set of long run processes of structural transformation that accompany growth. The central feature consists of economy-wide phenomena such as industrialisation, urbanisation and agricultural transformation. The principal changes in structure emphasized in the development literatures are increase in the rates of capital accumulation (Rostow 1960, Lewis 1954) ; shift in the sectoral composition of economic activity (industrialization) focusing on the allocation of labour (Clark 1940) and on production and factor use (Kuznets 1966 , Chenery 1966) ; and change in the location of economic activity (urbanisation) and other concomitant aspects of industrialisation (demographic transition, income distribution etc).

On comparing the process of structural change between developed and developing countries a distinctive feature of difference between the two was found. The process of structural transformation across developed countries is quite similar and follows the pattern described by Kuznets (1966), Fisher (1939) and Chenery (1960). According to them as the economy grows, production and employment shift from primary to secondary and then to tertiary sector. The shift in production occurs earlier and is fast compared to the shift in employment. On the other hand, structural transformation of present day developing countries is occurring at a rather slow pace, barring a few exceptions. The process of structural transformation in developing countries deviates considerably from the path followed by the developed countries (Bah, 2008). In fast growing developing countries, a rapid decline in the importance of agriculture and a strong expansion of both the industrial and modern services sector has been experienced.

Researchers have tried to study the process of structural change in various countries of the world. Schnabl, West, Foster and Cook (1999) have studied the Queensland economy, Caselli and Coleman II (2001) undertook research of the US economy, Nhi and Giesecke (2008) for Vietnam. All have found the prevalence of structural change in some degree in these economies. Moving closer, the incidence of structural change has also been witnessed in the Indian economy. Studies undertaken by Venkatramaiah, Kulkarni and Argrade (1984); Bhargava and Joshi (1990), Dasgupta and Chakraborty (2005) highlight the existence of structural change in the Indian economy. Likewise, research throws light on structural transformation occurring at the state level in the Indian economy. Studies conducted by Rao (1986) for Andhra Pradesh, Singh and Joshi (1991) for U.P., Shetty (2003) for Haryana, Bagchi, Das and Chattopadhyay (2005) for Gujarat and Khanna (2011) for Punjab conclude that some level of structural change has been witnessed in the respective state economies, thus making the present study have a strong base in attempting to study the process of structural change and certain socio-economic indicators in North India and comparing them with the All India level.

COMPOSITION OF NSDP OF NORTHERN STATES

A comparison of the northern states in the components of NSDP in **Table 1** reveals that there has been a shift from the primary sector to the secondary and the tertiary sectors. The share of primary sector in NSDP has witnessed a gradual decline in the states of H.P, Punjab and Haryana. In H.P. it was 49.91% in 1980-81, declined to 36.61% in 1990-91, further to 27.52% in 2000-01 and to 22.95% in 2010-11. Similarly for Punjab it stood at 49.48% in 1980-81, decreased to 44.61% in 1990-91, to 38.26% in 2000-01 and finally to 32.82% in 2010-11. For Haryana the composition of GSDP over the respective time period shows a similar feature of a gradual decline in the share of the primary sector in GSDP from 53.39% in 1980-81 to 20.82% in 2010-11. Uttarakhand has also witnessed a similar decline in short span of time , from 29.33% in 2000-01 it declined to 15.02% in 2010-11. Although similar decline in the share of primary sector was seen in J&K also but there were variations found in the rate at which it took place. In 1980-81 the share of primary sector was 47.04% which declined to 43.03% in 1990-91. It was followed by a major fall in its share to 26.05% in 2000-01 and further to 20.82% in 2010-11.

The decline in the primary sector seems to have been absorbed by the secondary and the tertiary sectors. In case of H.P., the share of secondary sector increased from 19.13% in 1980-81 to 26.23% in 1990-91. It further rose to 34.45% in 2000-01 and to 35.72% in 2010-11. In Haryana the share of secondary sector rose from 19.84% to 25.08% to 28.05% to 28.87% in the respective years showing a gradual rise in its share. In Punjab also it saw an increase from 18.49% in 1980-81 to 22.41% in 1990-91. It witnessed a slight fall to 20.31% in 2000-01 and thereafter an increase to 25.21%. In J&K the share of secondary sector in NSDP after a slight fall from12.66% in 1980-81 to 10.65% in 1990-91 rose to 36.97% in 2000-01, although it further declined to 29.22% in 2010-11.Uttarakhand also witnessed a rise from 21% in 2000-01 to 29.51% in 2010-11 in the share of secondary sector in NSDP.

A similar shift was seen in the tertiary sector over the time period of the study in the northern states of India. H.P. again showed a gradual increase in the share of tertiary sector in NSDP. It increased from 30.95% in 1980-81 to 41.31% in 2010-11. Punjab also witnessed a similar rise in its services sector from 32.02% in

1980-81 to 41.95% in 2010-11. J&K was the state in which services sector had the largest share of 40.29% in the NSDP in as early as 1980-81. This may be attributed to the tourism industry. It further rose to 46.31% in 1990-91 but declined to 36.97% in 2000-01. The decline may be due to the ill effects of terrorism in the state which seem to have deteriorated tourism thus leading to a fall in the share of services sector. In 2010-11 it again seems to have gained momentum by having a share of 49.95% in NSDP. Haryana and Uttarakhand have again shown a similar shift which witnesses a gradual rise in the share of tertiary sector. For Haryana it rose from 26.76% in 1980-81 to 50.29% in 2010-11. In Uttarakhand it increased from 48.78% in 2000-01 to 55.45% in 2010-11.

TABLE 1: COMPOSITION OF NSDP OF NORTHERN STATES (In Percent)

JAMMU AND KASHMIR

	1980-81	1990-91	2000-01	2010-11
Primary Sector	47.04	43.03	26.05	20.82
Secondary Sector	12.66	10.65	36.97	29.22
Tertiary Sector	40.29	46.31	36.97	49.95

HIMACHAL PRADESH

	1980-81	1990-91	2000-01	2010-11
Primary Sector	49.91	36.61	27.52	22.95
Secondary Sector	19.13	26.23	34.45	35.72
Tertiary Sector	30.95	37.15	38.02	41.31

PUNJAB

	1980-81	1990-91	2000-01	2010-11
Primary Sector	49.48	44.61	38.26	32.82
Secondary Sector	18.49	22.41	20.31	25.21
Tertiary Sector	32.02	32.97	41.41	41.95

HARYANA*

	1980-81	1990-91	2000-01	2010-11
Primary Sector	53.39	43.84	30.17	20.82
Secondary Sector	19.84	25.08	28.05	28.87
Tertiary Sector	26.76	31.07	41..76	50.29

UTTARAKHAND**

	1980-81	1990-91	2000-01	2010-11
Primary Sector			29.33	15.02
Secondary Sector			21.87	29.51
Tertiary Sector			48.78	55.45

Source: CSO

*For Haryana the GSDP have been analysed due to non availability of data from the same source.

**Data for Uttarakhand is available from 2000-01 since it is a newly formed state.

URBANISATION

The states of the north have seen a rising trend in urbanisation in the last four decades. As seen in **Table 2** Punjab with an urbanisation rate of 27.68% in 1981, 29.55% in 1991, 33.92% in 2001 and 37.49% in 2011 has been leading throughout so much so that it has surpassed the national figures of 23.34%, 25.71%, 27.81% and 31.16% in the respective years. It was followed by Haryana with an urbanisation rate of 21.88%, 24.63%, 28.92% and 34.79% in the same time period. Uttarakhand was next witnessing 22.97% in 1991, 25.67% in 2001 and 30.55% in 2011 followed by J&K which figured at 21.05% in 1981 and reached to a maximum of 27.21% in 2011. On the other hand, Himachal Pradesh although has shown a rising trend in urbanisation having an urbanisation rate of 7.61% in 1981, 8.69% in 1991, 9.8% in 2001 and 10.04% in 2011 but has been lagging behind the rest of the northern states throughout.

TABLE 2: URBANISATION (In Percent)

States	1981	1991	2001	2011
Jammu and Kashmir	21.05	23.83	24.81	27.21
Himachal Pradesh	7.61	8.69	9.80	10.04
Punjab	27.68	29.55	33.92	37.49
Haryana	21.88	24.63	28.92	34.79
Uttarakhand		22.97	25.67	30.55
All India	23.34	25.71	27.81	31.16

Source: Socio Economic Review of Gujarat

GINNI CO-EFFICIENT

The Ginni Co-efficient is a measure of inequality in a population. A lower Ginni Co-efficient indicates a more equal distribution, with 0 corresponding to complete equality while a higher Ginni Co-efficient indicates more unequal distribution with 1 corresponding to complete equality.

As depicted in **Table 3**, the Ginni Co-efficient for the northern states show a greater level of inequality in the urban areas as compared to the rural with a few exceptions. Comparing the year 1993-94 with1983-84 the values show an increased level of rural inequality from 0.22, 0.27, 0.27 for J&K, Himachal Pradesh and Haryana to 0.23, 0.28 and 0.30 for the respective states except for Punjab where there was a fall in the level of rural inequality from 0.28 in 1983-84 to 0.26 in 1993-94. A fall in the values of Ginni Co-efficients in 1999 to 0.17, 0.23, 0.24 and 0.24 for J&K, Himachal Pradesh, Punjab and Haryana depicts a good picture by showing rise in equality. The picture tends to be somewhat different in 2004-05 where the level of rural inequality tends to increase again depicted by an increase in the values of Ginni Co-efficients to 0.24,0.30, 0.28, 0.32 for that year for the respective states.

The urban inequality has somewhat varied in the same time period for the northern states. In case of Haryana and Punjab it decreased from 0.30 and 0.32 in 1983-84 to 0.28 for both the states in 1993-94 and then rose to 0.29 for both the states in 1999-2000, whereas in Himachal Pradesh and J&K it rose from 0.31 and 0.24 in 1983-84 to 0.43 and 0.28 in 1993-94 and then declined to 0.30 and 0.22 in 1999-2000. All the northern states saw an increase in the level of urban inequality in 2004-05 i.e.0.36 for Haryana, 0.39 for Punjab, 0.32 for H.P. and 0.24 for J&K.

The Ginni Co-efficients of the northern states at no point in the time period of this study surpassed the values of the All India level for the respective years. This shows that the northern states exhibit a greater level of equality as compared to the national level at large.

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TABLE 3: GINNI COEFFICIENT

	Rural	Urban
1983-84		
Jammu and Kashmir	0.22	0.24
Himachal Pradesh	0.27	0.31
Punjab	0.28	0.32
Haryana	0.27	0.30
Uttarakhand	-	-
All India	0.30	0.30
1993-94		
Jammu and Kashmir	0.23	0.28
Himachal Pradesh	0.28	0.43
Punjab	0.26	0.28
Haryana	0.30	0.28
Uttarakhand	-	-
All India	0.28	0.34
1999-2000		
Jammu and Kashmir	0.17	0.22
Himachal Pradesh	0.23	0.30
Punjab	0.24	0.29
Haryana	0.24	0.29
Uttarakhand	-	-
All India	0.26	0.34
2004-05		
Jammu and Kashmir	0.24	0.24
Himachal Pradesh	0.30	0.32
Punjab	0.28	0.39
Haryana	0.32	0.36
Uttarakhand	0.28	0.32
All India	0.30	0.37

Source: Planning Commission

POPULATION BELOW POVERTY LINE

The northern states have shown considerable improvement as is seen by a decrease in the percentage of people below the poverty line in the past few decades. A reference to **Table 4** reveals that out of the northern group it was seen that Punjab showed a better picture as its percentage of population below the poverty line showed a gradual decline from 16.18% in 1983-84 to 11.77% in 1993-94 to 6.16 in 1999-2000, although it showed a small increase to 8.4% in 2004-05. As against it, the states of Haryana, J & K, H.P. saw a spectacular fall in the poverty rates from 25.05% in 1993-94 to 8.74% in 1999-00 for Haryana, similarly from 25.17% in 1993-94 to 3.48% in 1999-00 for J&K and from 28.44% in 1993-94 to 7.63% in 1999-00 for H.P.It was only Punjab which saw a gradual decline throughout the time period which was in line with the All India figures.

The year 2004-05 saw an increase in the poverty rates for all the states and for India at the national level too which shows that stringent measures need to be taken and policies need to be restructured so as to bring the poverty rates within feasible limits in order to maintain the progress of the states and the Indian economy as a whole. Uttarakhand, a newly formed state showed 39.6% rate of poverty which shows that it still has a long way to go so as to maintain parity with the other neighbouring states.

TABLE 4: POPULATION BELOW POVERTY LINE (In Percent)

States	1983-84	1993-94	1999-2000	2004-05
Jammu and Kashmir	24.24	25.17	3.48	5.4
Himachal Pradesh	16.4	28.44	7.63	10
Punjab	16.18	11.77	6.16	8.4
Haryana	21.37	25.05	8.74	14
Uttarakhand	-	-	-	39.6
All India	44.48	35.97	26.1	27.5

Source: RBI Handbook of Statistics of Indian Economy 2010-11

SEX RATIOS

The demographic indicator of sex ratio, **Table 5**, was seen to be highest in Himachal Pradesh for the various years so much so that it was even higher than the All India Level at all points of time. It was 973 in 1981, 976 in 1991, 970 in 2001 and 974 in 2011 as against the All India Level of 934, 927, 933 and 940 in the same time period. On the other hand, Haryana has shown a poor show throughout by having the lowest figures of 870, 865, 861 and 877 for the respective years depicting the prevalence of the desire of male child even in today's times.

Close to the heels to Himachal Pradesh has been Uttarakhand which has shown a good show by having a sex ratio of 936 in 1981, 936 in 1991, 964 in 2001 and 963 in 2011. It is followed by J&K which had a sex ratio of 892 in 1981 and declined to 883 in 2011. Punjab too could only show a marginal increase in its sex ratio from 879 in 1981 to 893 in 2011. Haryana, Punjab and J&K need to take more measures to improve sex ratios in their states. This can be done by changing and transforming the socio-economic and cultural attitudes of the population of these states.

TABLE 5: SEX RATIOS

States	1981	1991	2001	2011
Jammu and Kashmir	892	896	900	883
Himachal Pradesh	973	976	970	974
Punjab	879	882	874	893
Haryana	870	865	861	877
Uttarakhand	936	936	964	963
All India	934	927	933	940

Source: Planning Commission

LITERACY RATES

In the area of the literacy also Himachal Pradesh has done a commendable job by exceeding the rest of North India and All India too by having highest literacy rates for the period under study as can be seen in **Table 6**. It showed the literacy rates of 63.86%, 76.48% and 83.78% for the years 1991, 2001 and 2011 which are even higher than that of the national level of 52.21%, 64.84% and 74.04% for the corresponding years. Next in line is Uttarakhand with literacy rates 46.06% in 1981, 57.75% in 1991, 71.62% in 2001 and 79% in 2011. It is followed by Punjab having literacy rates of 43.37%, 58.51%, 69.65% and 76.68% in the same time periods.

Haryana has been close on the heels of Punjab by showing literacy rates of 37.13% in 1981, 55.85% in 1991, 67.91% in 2001 and just managing to be in line with it by having 76.64% in 2011 as its literacy rate. The northern most state of India, J&K has not showed a good picture in this indicator. It has had the lowest levels in literacy. It was 30.64% in 1981 lagging behind by almost 13% from the national level. It increased to 55.52% in 2001 and further to 68.74% in 2011 where the gap was reduced to approximately 6% from the national level.

Although the literacy levels have increased over the past decades in almost all northern states but the rates have varied. This mismatch in the literacy levels has occurred due to internal problems which these states have faced such as the problem of terrorism in J&K plays a key role in its low level of development which is seen even in the education sector.

TABLE 6: LITERACY RATES (Percent)

States	1981	1991	2001	2011
Jammu and Kashmir	30.64	N.A.	55.52	68.74
Himachal Pradesh		63.86	76.48	83.78
Punjab	43.37	58.51	69.65	76.68
Haryana	37.13	55.85	67.91	76.64
Uttarakhand	46.06	57.75	71.62	79.63
All India	43.57	52.21	64.84	74.04

Source: Planning Commission

CONCLUSION

The present study of the states of north India brings into light various correlating factors which determine the ongoing process of structural change in these sub-national economies. A distinguishing feature of structural change in these economies has been seen in the declining share of primary sector in the NSDP and the increasing share of secondary and tertiary sectors in the same in the time span of the study.

In addition to it urbanisation, an important indicator of structural change was found in all subnational economies with Punjab showing the maximum rate followed by Haryana and Uttarakhand. J&K and H.P. witnessed the lowest rates in comparison to the others.

The level of inequality is also seen to be prevalent in India and also in the northern states. It was found to be lower than the All India level during the time period under study. Although both rural and urban inequality were on a rise in the fag end, urban inequality was found to be greater than rural at all points of time.

The socio-economic indicator of population below poverty line has witnessed Punjab being a better player in comparison to the other northern states. It has showed a gradual decline in the poverty rates and has had the least of population below poverty line for the entire period. J&K, H.P. and Haryana have shown a spectacular decline in the year 1999-2000, although all states witnessed an increase in population below poverty line in 2004-05.

In case of demographic indicators of sex ratio and literacy, H.P. has shown the highest figures setting a good example for the others to follow. It was followed by Uttarakhand in both the indicators. While Haryana faired the poorest in the sex ratio it was J&K to lag behind in literacy.

Thus structural change is taking place which is a concomitant indicator of development, but strong measures need to be taken so that the states may be at parity with each other in the process of growth and development.

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INDIAN IPO MARKET - QUO VADIS

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ABSTRACT

Capital market plays an effective and efficient role by channelizing the small and scattered savings of the country to productive investments. Indian investors (risk averse) invest their hard earned money into safe (slow growing) investments. The awareness drive by educational institutions, corporate organizations and the stock exchanges has been able to break through these mental barriers of the middle class but to a very small extent. One such safe but lucrative opportunity came across such small time investor who became ready to enter into a slight risk mode, the Initial Public offer. This offer was aimed at public, where such small time investors (a little ambitious) were lured. Indian primary market witnessed an Influx of IPOs in the period of 2000-2008. Retail investors got good returns on their investments thus drawing many such non risk taking investors in the primary market. Post 2008, the IPO market started declining due to changes in the macro environment (both domestic and global), low commission to brokers, frequent changes by regulatory authorities. The poor and ailing market has worsened the sentiment of companies as well as the investors. The present paper aims to study the trend of returns of IPOs for the period January 2008 to December 2012 for the IPOs listed on NSE and implications of the same on middle class sentiment. Is this an opportunity lost or is it paving a way for better and stronger investment option for such middle class investors is yet to be ascertained.

JEL CODE
G 14

KEYWORDS
initial public offer, listing gains/losses, retail investor.

1. INTRODUCTION

The stock exchanges of a country work as a convenient platform for investors and corporate to fulfill their mutual needs. The people of India, majorly the middle class, dread the share market. The volatility of the market is a difficult phenomenon to be understood and analyzed by such people. Rather if the middle class scattered savings are available to the corporate or industries, there is a possibility of more advantages being passed on to them. But there persists a general negative sentiment for share market. A simpler and lucrative option for them is the IPO market. IPO refers to Initial Public Offer. The companies offering their shares for the first time to public to accomplish their financial requirements, is known as the Public Issue or IPO. The Indian IPO market recorded huge participation from retail investors as the returns were lucrative for the period 2000-2008. Many companies introduced IPOs, all of them generally listed at much higher price than the issue price thus giving a momentum to retail investors to earn at the time of listing and then quit safely. From the retail middle class point of view, this seemed to be a safe bet. The aversion towards the share market thus declined and thus a positive wave spread across India luring more such investors. This paper tries to look into the IPO market post 2008 from investor point of view and general conditions which prevailed then and possible reforms in future.

1.2 INDIAN CAPITAL MARKET
Primary market refers to long term flow of funds from the surplus sector to the government and corporate sector (through primary issues) and to banks and non bank financial intermediaries (through secondary issues).

Hence savings play a vital role in development of an economy. Savings in households have considerably increased thus allowing them an opportunity to invest the same in productive as well as riskier options. Though the Indian mentality is anti risk, yet increasing disposable income, education and awareness have helped the investors to build a favorable attitude towards equity market. One of the temptations is the 'positive listing returns' as it minimizes risk of holding losses.

1.3 INDIAN IPO MARKET
1.3.1 INITIAL PUBLIC OFFER
An initial public offer (IPO) is the selling of securities to the public in the primary market by the unlisted companies either a fresh issue of securities or an offer for sale of existing securities are both for the first time to the public. The Indian IPO market is one of the promising markets for the investors. During the period 1993-94 to 2007-08 4,538 companies had been raised Rs.1,49,671 crore from the primary market through IPOs. Resources rose through public issues declined by 91.5 per cent to Rs. 2,031 crore during April-June 2008 over those in the corresponding period of last year. The number of issues declined from 24 in April-June 2007 to 15 in April-June 2008. The average size of public issues also declined to Rs.135 crore during April-June 2008 from Rs.994 crore during April-June 2007. All public issues during April-June 2008 were in the form of equity. Out of 15 issues during April-June 2008, 13 issues were initial public offerings (IPOs), accounting for 78.4 per cent of total resource mobilization. (Sasi Kumar et al 2010)

1.3.2 RESOURCE MOBILIZATION FROM PUBLIC ISSUES (IPO)

YEAR	NO.	AMOUNT (RS.MILLION)
2000-01	114	2722
2001-02	7	1202
2002-03	6	1039
2003-04	21	3434
2004-05	23	13749
2005-06	79	10936
2006-07	77	28504
2007-08	85	42595
2009-2010	39	246,961
2010-2011	51	333, 853
APRIL-SEPT 2011	29	49,810

(Source: www.sebi.gov.in)

One of the unique features of the Indian IPO market is the transparency in the offer process. Throughout the offer period, information on the participation of various investor categories is publicly available on a real time basis on stock exchange websites, where the IPO is to be listed.

Indian IPOs, a separate quota of shares is reserved for retail investors; they do not have to compete directly with informed institutional investors. This eliminates the problem of being crowded out by informed investors in good offerings. Further, underwriters for Indian IPOs do not have allocation discretion as retail investors receive allocation on a pro rata basis.

In India, middle class retail investors view Initial Public Offer as fast money making opportunity. Generally the trend is that they fill in the applications after being very sure of the reports. Since the appetite for risk is lesser in such segment, they expect to quit the market as soon as they spot profits on the listing day. Usually when the market sentiment is positive, listing price is higher than the issue price which encourages such impatient retail customers to book profits. This phenomenon is termed as 'under pricing'.

The term IPO 'under pricing' means a positive difference in the closing offer price of a security and the closing price of security on first trading day (Agrawal, 2011).Empirical studies indicate that IPO under pricing enables investors to earn abnormal high rate of return in comparison with the benchmark index on the listing day. Usually during the boom period, this may persist up to 3 years maximum and later on the returns start dwindling. It is observed that most IPOs are traded on higher price on listing day, which means that the firm could raise money by higher offer price which they actually didn't. This implies that IPO under pricing is good for investors as a short run investment opportunity but it is a cost for issuer as it missed on the opportunity for making more money.

The public issues managed to generate euphoria among the investors, which can be seen from the fact that 43% of the issues were subscribed more than 5 times as a result of **_under pricing_**, compared to 17% in 2008-09. Moreover out of the 51 IPOs that hit the market in 2010-11, 33 reported **_listing gains_**. Only 28% of public issues were subscribed less than 1.5 times, compared to 55% in 2008-09.

2. LITERATURE REVIEW

Agrawal distinctly pointed out the characteristics of Indian primary market. It is characterized by size, large no of firms going for listing and large number of retail participants who apply directly. Such participants are usually uninformed which causes information asymmetry leading to irrational decisions. Since such investors apply both for good and bad issues, there is oversubscription leading to non allotment and problems of rationing and ex ante uncertainty, so under pricing compensates both the risks leading to higher satisfaction among investors.

Ajay Pandey studied the differences between the IPOs following different processes. He described the mechanisms followed in India for pricing and allocation of IPOs comparing the same with processes followed in other countries. Also a comparison was made regarding characteristics of issuers using fixed price offerings and book building method. Data set on IPOs in India was used for the year 1999 to 2002. 178 IPOs were floated, out of which 84 IPOs were analyzed. The unadjusted log and simple returns on listing helped to compute initial returns/under pricing. It was also revealed that fixed price offerings had higher initial returns on an average than book building issues. Due to the sheer size of book build issue, the investment bankers can easily target the uninformed investors. Thus fixed price offerings are preferred by smaller issues offering large portion of stock to retail uninformed investors.

Bhanu Murthy et al conducted a study to show that concept of under pricing is misleading and needs to be termed as overpricing by the IPO market. He segregated the investors in two types a) fly by night investor who invests for listing gains b) short term investor who invests for short term capital gain. He also found a negative correlation between under pricing and volatility. Data of 24 companies was taken from NSE. Case study approach was used to study the trend. They measured and analyzed a) listing gains b) price trends.

Govindrajan conducted a study on IPOs in India during 2010-11 so as to evaluate the gains or losses to investors. A short run analysis was done for various time periods i.e. listing day, second day, one week, one month, three months and six months. 53 IPOs representing different sectors of economy were made. For analysis of the returns of the same, the author considered day's high, day's low and closing price. Standard deviation and correlation was used for the same. Secondary data was collected from BSE and NSE. The results revealed that investors bagged good returns on first and second day but it declined thereafter.

Sahoo et al analyzed the IPO scenario in India from 2002-2006. It was able to present fresh evidence on IPO performance i.e short run under pricing and long run underperformance for 92 Indian IPOs. The factors significantly affecting on listing day returns were identified as offer size, leverage at IPO date, ex ante uncertainty, issue timing etc. whereas factors like age of IPO firm, rate of subscription, promoter's group retention and price to book value impact on long run performance.

Sasi kumar et al reiterated the fact that IPOs are considered as safe investments by retail investors. His objective was to identify the fundamental risk and returns involved in investment of IPOs and the performance of IPOs of last 5 years. The period of 2004-2008 where 275 IPOs were floated of which 71 issues were studied. Short term performance was studied by examining offer to open returns, offer to high, offer to low and offer to average price which gave a clear idea of how much the IPOs gained or lost on opening day trade and intraday return on listing day. His study revealed the following results: a)first day returns are higher b) second day returns are also gainful c) upto 3 months average earnings was more than 50% d) returns declined in 5 years e) public sector IPOs have better returns than private sector IPOs.

SSS kumar attempted to investigate the short run and long run performances of book built IPOs. 156 IPOs listed on NSE were taken for sample where short run performance was calculated using the data of listing returns. The long run performance was computed using buy and hold market adjusted returns (BHAR) and monthly market adjusted returns (MMAR). His results indicated listing gains of 26.35%. The intra-day returns on the listing date showed an average of 27%. The long run performance was saddening as after two years the returns declined.

3.RESEARCH METHODOLOGY

3.1 OBJECTIVES OF THE STUDY

a.   To identify the listing gains/losses for the period January 2008 to December 2012 for the IPOs listed on NSE.

b.   To evaluate the trend of returns of IPOs for the period January 2008 to December 2012 for the IPOs listed on NSE.

c.   To understand the impact of listing returns on middle class investor sentiment.

3.2 SAMPLE

A total of 138 companies listed on National Stock Exchange (NSE) for the period January 2008 to December 2012 was taken for the study. Various price levels considered for analysis were; issue price, listing price, listing high, listing low, 52 week high and 52 week low. All the prices were obtained from the website www.moneycontrol.com. The above mentioned figures were compared to the issue price so as to calculate Simple returns like listing gains/losses and 52 week gains/losses. Thus both short term and long run simple returns were computed so as to give a fair view of gains/losses for that period.

3.3 DATA ANALYSIS AND RESULTS

The performance of Indian IPO market has been studied from January 2008 to December 2012.

3.3.1 IPOs listed on NSE (January 2008-December 2012)

APPENDIX 1: VARIOUS PRICE LEVELS AND RESPECTIVE RETURNS

Equity Name	Month	Year	Issue Price	Current Price	Listing Price	Listing day HIGH	Listing day LOW	52 WEEK LOW	52 WEEK HIGH	Offer to LISTING	Offer to LISTING HIGH	Offer to LISTING LOW	Offer to 52 week LOW	Offer to 52 week HIGH	Offer to Current Price
Titagarh Wagons	April	2008	540	386.15	540.00	734.70	540.00	275.55	484.70	0.00	36.06	0.00	-48.97	-10.24	-28.49
Sita Shree Food	April	2008	30	8.32	35.00	46.70	33.95	4.30	8.95	16.67	55.67	13.17	-85.67	-70.17	-72.27
Gammon Infra	April	2008	167	13.79	34.00	37.00	29.40	9.30	18.15	-79.64	-77.84	-82.40	-94.43	-89.13	-91.74
Nu Tek India	Aug	2008	192	0.83	97.50	108.50	96.88	0.00	1.55	-49.22	-43.49	-49.54	-100.00	-99.19	-99.57
Tulsi Extrusion	February	2008	85	8.06	90.00	131.36	90.00	6.50	13.50	5.88	54.54	5.88	-92.35	-84.12	-90.52

IRB Infra	February	20	08	185	140.50	170.05	209.00	167.30	100.10	210.50	-8.08	12.97	-9.57	-45.89	13.78	-24.05
Bang Overseas	February	20	08	207	17.85	250.00	269.90	168.55	13.05	23.00	20.77	30.39	-18.57	-93.70	-88.89	-91.38
Shriram EPC	February	20	08	300	73.30	320.00	377.00	251.00	51.20	113.00	6.67	25.67	-16.33	-82.93	-62.33	-75.57
KNR Construct	February	20	08	170	109.35	210.00	210.00	151.30	85.40	153.00	23.53	23.53	-11.00	-49.76	-10.00	-35.68
Cords Cable Ind	February	20	08	135	26.55	143.00	151.00	110.20	21.05	38.95	5.93	11.85	-18.37	-84.41	-71.15	-80.33
J Kumar Infra	February	20	08	110	225.25	109.00	119.00	84.20	145.00	241.70	-0.91	8.18	-23.45	31.82	119.73	104.77
Reliance Power	February	20	08	450	100.40	516.53	586.65	334.79	68.50	139.40	14.78	30.37	-25.60	-84.78	-69.02	-77.69
Precision Pipes	January	20	08	150	58.75	165.00	175.00	132.00	55.25	78.40	10.00	16.67	-12.00	-63.17	-47.73	-60.83
Aries Agro	January	20	08	130	68.30	160.00	261.00	145.10	45.60	102.05	23.08	100.77	11.62	-64.92	-21.50	-47.46
Manaksia	January	20	08	160	47.35	175.30	212.00	167.70	36.40	66.45	9.56	32.50	4.81	-77.25	-58.47	-70.41
BGR Energy	January	20	08	480	263.50	840.00	922.70	840.00	172.20	378.45	75.00	92.23	75.00	-64.13	-21.16	-45.10
KSK Energy Vent	July	20	08	240	60.30	210.05	234.80	176.65	33.35	81.00	-12.48	-2.17	-26.40	-86.10	-66.25	-74.88
Lotus Eye Care	July	20	08	38	8.42	40.00	40.00	32.50	6.65	11.25	5.26	5.26	-14.47	-82.50	-70.39	-77.84
First Winner	July	20	08	125	9.45	110.00	129.90	81.00	8.00	18.90	-12.00	3.92	-35.20	-93.60	-84.88	-92.44
Archidply Indus	July	20	08	74	9.17	72.90	72.90	48.80	7.65	16.75	-1.49	-1.49	-34.05	-89.66	-77.36	-87.61
Gokul Refoils	June	20	08	195	48.00	43.98	44.94	35.60	37.55	98.00	-77.45	-76.95	-81.74	-80.74	-49.74	-75.38
V-Guard Ind	March	20	08	82	541.40	90.00	98.95	72.60	142.85	547.40	9.76	20.67	-11.46	74.21	567.56	560.24
Rural Elect Cor	March	20	08	105	232.50	129.90	129.90	118.75	143.50	252.00	23.71	23.71	13.10	36.67	140.00	121.43
Alkali Metals	November	20	08	103	26.90	90.00	179.30	90.00	21.00	46.30	-12.62	74.08	-12.62	-79.61	-55.05	-73.88
20 Microns	October	20	08	55	139.30	80.00	80.00	31.60	56.00	172.40	45.45	45.45	-42.55	1.82	213.45	153.27
Adani Power	August	20	09	100	63.10	108.00	110.00	98.30	36.80	96.75	8.00	10.00	-1.70	-63.20	-3.25	-36.90
Raj Oil Mills	August	20	09	120	3.95	120.00	133.50	115.25	3.20	17.50	0.00	11.25	-3.96	-97.33	-85.42	-96.71
Excel Infoways	August	20	09	85	25.05	86.00	110.00	86.00	10.95	31.50	1.18	29.41	1.18	-87.12	-62.94	-70.53
Cox & Kings	December	20	09	330	139.75	171.60	216.95	171.60	119.05	207.30	-48.00	-34.26	-48.00	-63.92	-37.18	-57.65
Mahindra Holida	July	20	09	300	327.25	370.00	374.50	311.35	25.30	347.35	23.33	24.83	3.78	-91.57	15.78	9.08
Edserv Softsyst	March	20	09	60	16.33	60.00	147.00	58.20	12.50	52.85	0.00	145.00	-3.00	-79.17	-11.92	-72.78
Astec Life	November	20	09	82	31.35	83.00	90.70	83.00	21.20	36.90	1.22	10.61	1.22	-74.15	-55.00	-61.77
Den Networks	November	20	09	195	190.25	195.00	199.80	149.50	46.50	206.20	0.00	2.46	-23.33	-76.15	5.74	-2.44
IndiaBPower	October	20	09	45	13.43	44.95	45.50	35.00	8.00	20.90	-0.11	1.11	-22.22	-82.22	-53.56	-70.16
Thinksoft	October	20	09	125	85.75	126.00	169.80	126.00	35.55	123.50	0.80	35.84	0.80	-71.56	-1.20	-31.40
EuroMult	October	20	09	75	4.00	75.00	80.70	51.65	3.35	7.60	0.00	7.60	-31.13	-95.53	-89.87	-94.67
Pipavav Defence	October	20	09	58	96.55	61.10	61.10	53.85	52.60	98.50	5.34	5.34	-7.16	-9.31	69.83	66.47
Oil India	September	20	09	1050	440.60	438.40	462.68	436.00	430.45	544.40	-58.25	-55.94	-58.48	-59.00	-48.15	-58.04
Globus Spirits	September	20	09	100	129.80	101.00	111.70	89.50	87.20	143.50	1.00	11.70	-10.50	-12.80	43.50	29.80
Jindal Cotex	September	20	09	75	76.75	77.00	93.50	76.10	40.05	82.10	2.67	24.67	1.47	-46.60	9.47	2.33
NHPC	September	20	09	36	23.45	42.00	42.00	36.65	17.15	24.50	16.67	16.67	1.81	-52.36	-31.94	-34.86
Intrasoft Tech	April	20	10	145	51.00	150.00	167.40	124.00	46.65	68.40	3.45	15.45	-14.48	-67.83	-52.83	-64.83
Shree Gan Jewel	April	20	10	260	120.85	250.00	250.00	161.75	65.60	132.90	-3.85	-3.85	-37.79	-74.77	-48.88	-53.52
Persistent	April	20	10	310	483.65	361.60	447.30	361.60	295.00	514.95	16.65	44.29	16.65	-4.84	66.11	56.02
Pradip Oversea	April	20	10	110	29.30	115.00	122.70	102.15	26.05	124.80	4.55	11.55	-7.14	-76.32	13.45	-73.36
ILandFS Trans	April	20	10	258	207.35	266.60	299.00	266.60	142.55	223.90	3.33	15.89	3.33	-44.75	-13.22	-19.63
United Bank	April	20	10	66	76.85	74.90	77.00	68.00	45.60	86.90	13.48	16.67	3.03	-30.91	31.67	16.44
Man Infra	April	20	10	252	152.85	318.00	375.00	318.00	90.65	228.90	26.19	48.81	26.19	-64.03	-9.17	-39.35
Texmo Pipes	April	20	10	90	9.40	92.80	139.90	92.80	7.35	28.00	3.11	55.44	3.11	-91.83	-68.89	-89.56
ARSS Infra	April	20	10	450	49.95	630.00	751.80	630.00	36.40	150.75	40.00	67.07	40.00	-91.91	-66.50	-88.90
Prakash Steelag	August	20	10	110	145.05	122.00	200.00	117.00	114.80	194.90	10.91	81.82	6.36	4.36	77.18	31.86
Bajaj Corp	August	20	10	660	221.50	152.00	163.39	149.53	96.15	243.45	-76.97	-75.24	-77.34	-85.43	-63.11	-66.44

SKS Microfin	August	20	10	985	191.95	1040.00	1162.00	1040.00	54.30	198.70	5.58	17.97	5.58	-94.49	-79.83	-80.51
Punjab & Sind	December	20	10	120	73.55	144.00	146.70	126.20	58.00	94.50	20.00	22.25	5.17	-51.67	-21.25	-38.71
A2Z Maintenance	December	20	10	400	63.05	500.00	500.00	318.60	56.15	144.65	25.00	25.00	-20.35	-85.96	-63.84	-84.24
Hathway Cable	February	20	10	240	275.15	250.00	250.00	204.50	104.00	288.90	4.17	4.17	-14.79	-56.67	20.38	14.65
Emmbi Polyarns	February	20	10	45	13.00	46.00	48.30	26.65	9.40	16.55	2.22	7.33	-40.78	-79.11	-63.22	-71.11
DB Realty	February	20	10	468	134.30	452.10	467.00	412.45	45.55	142.75	-3.40	-0.21	-11.87	-90.27	-69.50	-71.30
Aqua Logistics	February	20	10	220	14.91	22.50	24.60	22.38	7.90	16.15	-89.77	-88.82	-89.83	-96.41	-92.66	-93.22
Thangamayil	February	20	10	75	323.90	75.70	82.00	70.00	136.95	351.00	0.93	9.33	-6.67	82.60	368.00	331.87
Syncom Health	February	20	10	75	19.40	89.90	107.20	85.75	9.00	22.00	19.87	42.93	14.33	-88.00	-70.67	-74.13
VasconEngg	February	20	10	165	49.25	156.00	171.95	145.10	35.00	59.40	-5.45	4.21	-12.06	-78.79	-64.00	-70.15
Jubilant Food	February	20	10	145	1312.10	160.00	240.90	160.00	696.40	1397.40	10.34	66.14	10.34	380.28	863.72	804.90
Infinite Comp	February	20	10	165	141.05	170.00	206.00	170.00	56.20	167.00	3.03	24.85	3.03	-65.94	1.21	-14.52
MBL Infra	January	20	10	180	168.50	185.00	219.40	185.00	92.50	218.00	2.78	21.89	2.78	-48.61	21.11	-6.39
DB Corp	January	20	10	212	222.05	254.00	274.70	250.55	173.00	235.00	19.81	29.58	18.18	-18.40	10.85	4.74
Godrej Proper	January	20	10	490	656.55	511.00	586.80	502.15	500.00	699.00	4.29	19.76	2.48	2.04	42.65	33.99
JSW Energy	January	20	10	100	66.10	106.00	106.35	100.00	37.10	76.90	6.00	6.35	0.00	-62.90	-23.10	-33.90
Hindustan Media	July	20	10	166	147.50	177.95	191.85	174.15	104.00	153.00	7.20	15.57	4.91	-37.35	-7.83	-11.14
Technofab Engg	July	20	10	240	127.00	276.00	307.80	268.00	111.15	179.00	15.00	28.25	11.67	-53.69	-25.42	-47.08
Parabolic Drugs	July	20	10	75	10.49	75.00	75.95	63.10	9.50	39.85	0.00	1.27	-15.87	-87.33	-46.87	-86.01
Jaypee Infra	May	20	10	102	50.30	98.00	98.80	90.00	32.50	64.35	-3.92	-3.14	-11.76	-68.14	-36.91	-50.69
SJVN	May	20	10	26	20.10	27.10	27.10	24.00	18.40	22.80	4.23	4.23	-7.69	-29.23	-12.31	-22.69
Mandhana Ind	May	20	10	130	249.30	131.00	139.50	130.00	202.15	280.00	0.77	7.31	0.00	55.50	115.38	91.77
Tarapur Trans	May	20	10	75	13.29	75.00	97.45	54.30	11.00	21.00	0.00	29.93	-27.60	-85.33	-72.00	-82.28
Nitesh Estates	May	20	10	54	14.80	54.00	58.00	48.40	107.00	223.70	0.00	7.41	-10.37	98.15	314.26	-72.59
Talwalkars Fitn	May	20	10	128	189.25	147.95	168.90	132.00	107.00	223.70	15.59	31.95	3.13	-16.41	74.77	47.85
Gravita India	November	20	10	125	166.15	40.22	50.64	40.22	69.01	204.50	-67.82	-59.49	-67.82	-44.79	63.60	32.92
Coal India	November	20	10	245	356.20	291.00	344.90	291.00	289.40	386.25	18.78	40.78	18.78	18.12	57.65	45.39
BS Limited	October	20	10	248	192.70	257.00	398.40	239.00	112.00	230.70	3.63	60.65	-3.63	-54.84	-6.98	-22.30
Prestige Estate	October	20	10	183	161.35	190.00	208.80	188.35	57.55	171.00	3.83	14.10	2.92	-68.55	-6.56	-11.83
Gyscoal Alloys	October	20	10	71	13.85	75.15	112.50	75.15	9.00	18.70	5.85	58.45	5.85	-87.32	-73.66	-80.49
Oberoi Realty	October	20	10	260	286.40	271.10	299.00	271.10	204.10	325.00	4.27	15.00	4.27	-21.50	25.00	10.15
Commercial Eng	October	20	10	127	100.10	119.00	142.55	106.35	98.10	98.35	-6.30	12.24	-16.26	-22.76	-22.56	-21.18
Ashoka Buildcon	October	20	10	324	209.30	213.95	213.95	201.05	175.70	283.00	-33.97	-33.97	-37.95	-45.77	-12.65	-35.40
Bedmutha Ind	October	20	10	102	14.25	113.50	204.00	98.00	10.75	45.50	11.27	100.00	-3.92	-89.46	-55.39	-86.03
Va Tech Wabag	October	20	10	1310	507.65	600.00	722.72	600.00	285.00	559.90	-54.20	-44.83	-54.20	-78.24	-57.26	-61.25
Tecpro Systems	October	20	10	355	157.65	380.00	453.80	380.00	143.00	210.00	7.04	27.83	7.04	-59.72	-40.85	-55.59
Cantabil Retail	October	20	10	135	19.65	114.70	125.90	101.10	14.00	25.35	-15.04	-6.74	-25.11	-89.63	-81.22	-85.44
Electrosteel St	October	20	10	11	7.19	11.15	11.85	9.35	3.70	9.15	1.36	7.73	-15.00	-66.36	-16.82	-34.64
Orient Green	October	20	10	47	10.96	45.70	46.65	38.10	8.05	15.25	-2.77	-0.74	-18.94	-82.87	-67.55	-76.68
Ramky Infra	October	20	10	450	96.10	471.55	471.55	351.20	86.15	256.00	4.79	4.79	-21.96	-80.86	-43.11	-78.64
Eros Intern	October	20	10	175	216.80	213.35	217.70	178.60	153.00	230.95	21.91	24.40	2.06	-12.57	31.97	23.89
Career Point	October	20	10	310	176.65	461.10	664.00	436.10	137.20	277.80	48.74	114.19	40.68	-55.74	-10.39	-43.02
Microsec Fin	October	20	10	118	39.95	130.10	142.00	108.55	20.00	44.05	10.25	20.34	-8.01	-83.05	-62.67	-66.14
Indosolar	September	20	10	29	4.56	29.50	29.50	22.60	3.35	7.90	1.72	1.72	-22.07	-88.45	-72.76	-84.28
Gujarat Pipavav	September	20	10	46	49.25	56.10	58.00	52.00	44.25	64.25	21.96	26.09	13.04	-3.80	39.67	7.07
MOIL	December	20	10	375	264.15	565.00	590.00	456.65	219.00	300.10	50.67	57.33	21.77	-41.60	-19.97	-29.56
RPP Infra Proj	December	20	10	75	41.00	75.00	80.50	67.20	35.60	80.00	0.00	7.33	-10.40	-52.53	6.67	-45.33

Shilpi Cable	April	20 11	69	19.25	78.00	84.70	45.40	8.10	25.90	13.04	22.75	-34.20	-88.26	-62.46	-72.10
Tree House Edu	August	20 11	135	271.80	132.00	161.50	105.15	140.10	289.90	-2.22	19.63	-22.11	3.78	114.74	101.33
L&T Finance	August	20 11	52	91.95	53.85	53.85	49.30	40.40	94.00	3.56	3.56	-5.19	-22.31	80.77	76.83
Inventure Grow	August	20 11	117	13.82	29.25	56.25	22.80	13.00	84.70	-75.00	-51.92	-80.51	-88.89	-27.61	-88.19
Omkar Special	February	20 11	98	120.00	92.00	101.00	42.05	52.90	132.20	-6.12	3.06	-57.09	-46.02	34.90	22.45
C Mahendra Expo	January	20 11	110	82.65	114.00	121.00	110.00	71.15	175.90	3.64	10.00	0.00	-35.32	59.91	-24.86
Shekhawati Poly	January	20 11	30	51.40	50.00	69.75	30.70	21.90	60.75	66.67	132.50	2.33	-27.00	102.50	71.33
Bharatiya Glob	July	20 11	82	6.27	81.90	83.00	26.10	5.15	10.85	-0.12	1.22	-68.17	-93.72	-86.77	-92.35
Rushil Décor	July	20 11	72	287.85	74.50	124.05	74.50	100.85	321.55	3.47	72.29	3.47	40.07	346.60	299.79
Timbor Home	June	20 11	63	42.10	72.00	99.00	72.00	19.10	44.90	14.29	57.14	14.29	-69.68	-28.73	-33.17
PTC India Fin	March	20 11	28	18.25	26.75	27.00	23.50	9.20	20.35	-4.46	-3.57	-16.07	-67.14	-27.32	-34.82
Lovable Lingeri	March	20 11	205	372.40	240.00	278.90	240.00	278.20	479.80	17.07	36.05	17.07	35.71	134.05	81.66
Sudar Industrie	March	20 11	77	158.65	80.05	117.35	80.05	43.00	177.00	3.96	52.40	3.96	-44.16	129.87	106.04
Acropetal Tech	March	20 11	90	12.07	92.00	140.00	87.40	10.55	19.50	2.22	55.56	-2.89	-88.28	-78.33	-86.59
Aanjaneya Life	May	20 11	234	751.50	218.00	324.00	218.00	380.10	804.00	-6.84	38.46	-6.84	62.44	243.59	221.15
Sanghvi Forging	May	20 11	85	38.25	88.00	116.80	86.50	21.00	100.80	3.53	37.41	1.76	-75.29	18.59	-55.00
Innoventive Ind	May	20 11	117	126.65	111.95	114.00	86.25	72.00	135.80	-4.32	-2.56	-26.28	-38.46	16.07	8.25
Servalakshmi	May	20 11	29	4.35	29.00	48.70	17.70	3.65	6.00	0.00	67.93	-38.97	-87.41	-79.31	-85.00
Future Ventures	May	20 11	10	9.97	9.00	9.65	7.90	7.80	11.40	-10.00	-3.50	-21.00	-22.00	14.00	-0.30
Paramount Print	May	20 11	35	2.82	36.50	37.90	24.80	2.75	9.35	4.29	8.29	-29.14	-92.14	-73.29	-91.94
Muthoot Finance	May	20 11	175	188.45	196.60	198.90	161.40	112.60	232.00	12.34	13.66	-7.77	-35.66	32.57	7.69
Indo Thai Secu	November	20 11	74	11.65	76.00	98.90	18.85	9.55	15.30	2.70	33.65	-74.53	-87.09	-79.32	-84.26
M and B Switch	October	20 11	186	233.75	190.00	356.00	121.05	50.40	239.00	2.15	91.40	-34.92	-72.90	28.49	25.67
Flexituff Inter	October	20 11	155	230.15	155.00	185.40	142.00	183.40	384.45	0.00	19.61	-8.39	18.32	148.03	48.48
Taksheel Solut	October	20 11	150	13.96	157.00	184.30	39.10	9.90	17.90	4.67	22.87	-73.93	-93.40	-88.07	-90.69
Onelife Capital	October	20 11	110	825.75	115.00	173.00	114.00	183.30	850.00	4.55	57.27	3.64	66.64	672.73	650.68
PG Electroplast	September	20 11	210	281.00	215.00	484.40	176.00	122.30	303.15	2.38	130.67	-16.19	-41.76	44.36	33.81
SRS	September	20 11	58	48.50	68.00	68.00	31.50	27.65	51.25	17.24	17.24	-45.69	-52.33	-11.64	-16.38
TD Power System	September	20 11	256	243.00	260.00	309.70	242.00	210.25	341.80	1.56	20.98	-5.47	-17.87	33.52	-5.08
Brooks Labs	September	20 11	100	20.80	100.00	131.60	58.15	12.45	28.45	0.00	31.60	-41.85	-87.55	-71.55	-79.20
MT Educare	April	20 12	80	126.80	86.05	90.36	86.05	75.50	137.70	7.56	12.95	7.56	-5.63	72.13	58.50
NBCC	April	20 12	106	170.90	101.00	101.00	95.95	73.00	173.95	-4.72	-4.72	-9.48	-31.13	64.10	61.23
Speciality Rest	May	20 12	150	174.50	175.50	175.50	170.70	44.65	183.45	17.00	17.00	13.80	-70.23	22.30	16.33
Tribhovandas	May	20 12	120	264.90	115.00	119.80	110.00	88.00	300.00	-4.17	-0.17	-8.33	-26.67	150.00	120.75
Tara Jewels	December	20 12	230	217.95	242.00	242.00	229.90	207.10	242.00	0.00	5.22	-0.04	-9.96	5.22	-5.24
VKS Projects	December	20 12	55	174.05	55.80	56.00	53.05	45.15	182.75	1.45	1.82	-3.55	-17.91	232.27	216.45

The above table explains the great amount of interest in the IPO market. Empirical studies have found that small and young firms time their offers to use investors' optimism in their favour and get listed during the booming period. There are evidences of high under pricing and industry clustering during the hot periods, though their nature and extent have differed from country to country.

3.3.2 AVERAGE RETURNS OF IPOs

Year	Average of Offer to LISTING	Average of Offer to LISTING HIGH	Average of Offer to LISTING LOW	Average of Offer to 52 week HIGH	Average of Offer to 52 week LOW
2008	1.69	20.10	-16.07	-6.09	-60.00
2009	-2.88	15.39	-12.45	-21.01	-66.38
2010	2.43	18.29	-7.15	9.02	-43.39
2011	2.47	33.19	-22.36	51.36	-41.59
2012	2.86	5.35	-0.01	91.00	-26.92

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3.3.3 STANDARD DEVIATION (IPO RETURNS)

Row Labels	S.D. of Offer to LISTING	S.D. of Offer to LISTING HIGH	S.D. of Offer to LISTING LOW	S.D. of Offer to 52 week HIGH	S.D. of Offer to 52 week LOW
2008	32.86	42.41	31.32	142.47	46.44
2009	20.80	41.44	19.08	44.86	26.15
2010	24.72	35.55	24.65	140.34	70.69
2011	19.81	39.01	27.51	155.50	48.06
2012	8.23	8.22	9.16	85.55	23.31

4. RESULTS

4.1 LISTING RETURNS

1. The above table indicates average of listing day returns (gains/losses) for the years 2008-2012. In 2008 the listing gains were **1.69%** which could be increased up to **20.10%** if the investor quit at the listing day high.
2. The **listing returns** were **negative** in 2009. This is indicative of the fact that the IPO bubble burst in 2009 with companies having weaker credentials entered the market to make hay during the hot period.
3. Year 2010 onwards an average of **2.5% listing gains**. Again it indicates the revival of positive sentiment among investors. This was also a result of constant efforts of SEBI to restore and regulate the IPO market.
4. Table 5.2.2 represents the listing day high returns. An average of **20%** could be earned by the investors if they would have invested some portion of their savings in the IPO during 2008-2010

4.2 52- WEEK RETURNS

1. A very striking feature of the IPO was that 52 week reports were negative in 2008-2010. Hence from an investor point of view (short run) listing gain is still a safe bet. If the investor kept holding on to such shares, they may have witnessed a major dip in the trading prices. Rather a drastic downfall was observed in the latest trading prices during the analysis.
2. A major uptrend was witnessed in the IPO sector from January to April 2011 as a result of reforms introduced by SEBI which were intended to regain the confidence of investors.(Appendix 2: SEBI REFORMS)

5. LIMITATIONS

1. Due to lack of information, certain IPOs were not taken into consideration.
2. IPOs listed on NSE were only taken into consideration.
3. Market adjusted returns, brokerage etc was not considered to compute average listing returns.

6. SCOPE OF THE STUDY

The study was conducted to give a fair view of listing returns to a middle class investor. The same can be extended to analyze returns across periods and sectors. A sector wise analysis would guide the investors in choosing the most productive sector for long term investments.

7. CONCLUSION

The study, "INDIAN **IPO MARKET -** *QUO VADIS***?"** was aimed to study the trend of IPO market from 2008-2012. This market faced major ups and downs for a decade. The study was done with keeping middle class point of view. The literature review for the period before 2008 revealed that lot of factors influenced the investor gains included grey market dominance, lack of vision of SEBI, malpractices by operators etc. Post 2008, with the increasing awareness drives, bad experiences regarding listing gains, increase in number of educated investors and timely reforms by SEBI upped the confidence of small retail investors. Now retail investors are expected to witness growth opportunities in the IPO market and thus book fair profits if invested wisely.

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APPENDIX

APPENDIX 2: SEBI REFORMS

The Securities & Exchange Board of India (SEBI) has taken a host of steps to protect the retail stock investors. Market analysts expect the trend to pick up in the coming weeks, as the government and SEBI have expressed their intention to revive equity culture in the country and help channelize the household income into stocks, mutual funds and insurance sectors, rather than in idle assets like gold. The same presented below are expected to bring a surge in the investor sentiment;

1. Minimum applications size for retail investors has been increases from Rs.5000-7000 to Rs. 10000-15000.
2. Every retail investor will get a minimum number of shares subject to availability, while the remaining will be allotted proportionately.
3. Retail investors will be able to open a basic demat account that will offer limited services at a reduced cost. However the value of securities in such no frill accounts must not exceed Rs. 200000.
4. Annual maintenance charges
    *   Up to Rs.50000 – nil
    *   Rs.50000 to 200000 – Rs.100
5. Process for applying for IPOs has become easier as an investor can now apply in electronic form through brokers. Stock exchanges too will provide forms on websites and facilitate viewing of status of IPO applicants.
6. Non retail investors will not be allowed to withdraw bids. This will give more clarity to retail investors. This move will attract only serious investors and thus oversubscription can be controlled.
7. In order to curb the abnormal market movements, the SEBI has directed the exchanges to put a circuit (upper and lower) of 5% on the listing day.

The Times of India, dated December 10, 2012 mentions about the revival of Indian IPO market due to the slew of public issues slated to come. Though BSE index shows underperformance, yet it is supposedly the right time to invest as both the government as well as the issuers are expecting good times to come. The major reasons for this uptrend would be a) SEBI reforms for investor b) fair pricing of issues c) fundamentally strong companies entering the market.

Most of the IPOs set to come in future promise listing gains but the endeavor is to convert such fly by night investors into serious ones. A classic example to be quoted would be stocks of Tribhovandas Bhimji Zaveri Group which did not lure the investors during the issue but showed a tremendous performance later on. Listing gains are a result of hype and volatility (not to forget the grey market of India). Contrary to that short run investments by investors would help them gain returns in real terms. Very important to state that the basic assumption that an Indian investor views IPO as a safe bet, considers overnight gains as more appealing. The SEBI reforms make sure that the gains are not abnormally high and interest of investors can be preserved for long run. This automatically would block companies with weak credential to enter the market. Also the wisdom of investors would reflect in the issue pricing. A wise middle class investor would make sure that his portfolio of investments reflects fundamentally strong companies raising more returns than the slow growing investments. To address the dilemma of investors both the major stock exchanges: NSE & BSE should undertake an awareness drive. This would equip the investors with the required information and keep hold of genuine investors. Also the regulator SEBI is doing its bit to prune the domination of grey market and control the operations to ensure authenticity.

FINANCIAL PERFORMANCE EVALUATION OF PRIVATE SECTOR BANKS IN INDIA: A COMPARATIVE STUDY

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ABSTRACT

India is fast emerging country on the world map as a strong economy and a global power. The country is going through a phase of rapid development and growth. All the vital industries and sectors of the country are registering growth and thus luring investors. Banking industry is one of them. The present study deals with the comparative financial performance evaluation of private sector banks in India. In this study, the authors have chosen TEN private sector banks, among the top private sector banks in India. The banks chosen for the study are Axis Bank(AXIS), Federal Bank(FED BANK), HDFC, ICICI ,Indus land Bank(INDUS), ING VYSYA(ING), Jammu& Kashmir Bank(J&K), Kotak Mahindra(KOTAK), South India Bank(SOUTH IND),Yes Bank. The present study is aimed at comparing the financial performance of the selected banks by taking various financial indicators and thereby to show the relative financial position and performance of each bank and a comparative result. The core objective of this study is to evaluate the financial performance of the Private Sector Banks in India.

KEYWORDS
Private sector banks, net worth, deposits, borrowings, net profit, interest earned.

INTRODUCTION

ndia is fast emerging country on the world map as a strong economy and a global power. The country is going through a phase of rapid development and growth. All the vital industries and sectors of the country are registering growth and thus luring investors. Banking industry is one of them .If we glance the history of banking industry, it will be clearly seen that in all the countries the functioning of banking activities was started not by the public sector banks but by the private sector banks. The banks of merchant were the original form of banking all around the world. In India all the leading public sector banks of present day were originally established as private sector banks. At present there are 23 Indian private banks and 29 foreign private banks are functioning in India. Private Banks are playing vital role in the development of Indian economy. With the entry of foreign private banks, a new era was started in the functioning of private banks in India. Private Banks in India indirectly motivate the public sector banks by offering healthy competition. Beside this private banks offer high degree of professional management, encourage flow of FDI, opportunity to access foreign capital market; develop the innovation in the field of banking.

As per the recommendation of Narashiman committee RBI liberalized the policy for establishing new private sector banks in India. Till that time Indian banking industry was dominated by public sector banks. But now, the technology oriented functioning helped private banks to sustain and grow in Indian market. The revolutionary way of servicing by private banks forced other Indian public sector banks to undergo vital change in the way they serve their customer. Along with this strict control by the RBI on private banks made Indian customer to have faith on functioning of private banks. The private banks in India are required to undergo strict inspection of documentation by RBI on periodical intervals. That is why the proportion of private banks went on insolvent in India is very less when compared to other countries. In this study the authors have chosen 10 top public sector banks operating in India. The banks chosen for the study are Axis Bank (AXIS), Federal Bank (FED BANK), HDFC, ICICI, Indus land Bank (INDUS), ING VYSYA(ING), Jammu& Kashmir Bank (J&K), Kotak Mahindra (KOTAK), South India Bank (SOUTH IND), Yes Bank. The present study is aimed at comparing the financial performance of selected banks by taking various parameters and thereby to show the relative financial position and performance of the banks under study.

OBJECTIVES OF THE STUDY

The core objective of the study is to evaluate the financial performance of public sector banks in India. However in order to achieve the main objective, the following subsidiary objectives have been framed by the authors.
- To examine growth rate of key financial indicators such as; net worth, deposits, borrowings, net profit, interest earned.
- To find out the correlation, co efficient of determinant between various financial indicators.

HYPOTHESIS

In addition to the above objectives, the researchers formulated the following 4 hypothesis.
Hypothesis 1: There is no significant correlation between interest expended and deposits over the years
Hypothesis 2: There is no significant correlation between interest expended and borrowings over the years
Hypothesis 3: There is no significant correlation between interest earned and advances years
Hypothesis 4: There is no significant correlation between interest earned and investment over the years

METHODOLOGY OF THE STUDY

The entire study is based on the secondary data, procured and extracted from the financial statements of the selected private banks covering a period of five years from 2008 to 2012. For the purpose of analyzing the financial performance of selected banks the average growth and overall growth of selected banks in following financial indicators have been taken. They are; net worth, deposits, borrowings, net profit, interest earned has been taken. To test the hypothesis, t-test have been used. The tests have been conducted at 5% level of significance. The statistical tools used in this study are: correlation, co-efficient of determinant, t-value.

RESULTS AND DISCUSSIONS

TABLE 1: GROWTH RATE OF THE NET WORTH OF THE SELECTED BANKS (Rs. In Crore's)

BANK/YEAR	2008	2009	2010	2011	2012	AVERAGE GROWTH (%)
AXIS	8,770.69	10,214.80	16,044.61	18,998.83	22,808.54	28.00056
FED BANK	3,925.69	4,325.88	4,690.44	5,108.66	5,706.33	9.809284
HDFC	11,497.23	15,052.73	21,522.49	25,379.27	29,924.68	27.4338
ICICI	46,820.21	49,883.02	51,618.37	55,090.93	60,405.25	6.598576
INDUS	1,349.71	1,664.39	2,397.23	4,050.22	4,741.71	38.34306
ING	1,535.66	1,702.89	2,330.92	2,624.29	3,979.79	28.00203
J&K BANK	2,308.93	2,622.86	3,010.46	3,478.68	4,093.18	15.39799
KOTAK	3,593.71	3,905.53	4,539.92	6,833.39	7,980.75	23.05714
SOUTH IND	1,160.99	1,304.01	1,485.29	1,847.28	2,170.39	17.02083
YES BANK	1,318.92	1,624.22	3,089.55	3,794.08	4,676.64	39.85758

Source: Annual reports of the banks under study

Table 1 shows the absolute value of net worth of the selected banks under study over the period of five years. ICICI bank has highest net worth among the selected banks. Yes bank & Indus land bank have recorded highest average growth (i.e. 39.86% and 38.34% respectively) in the net worth during the period of five years. No banks have recorded negative change in growth of net worth. Net worth of all the banks under study is increased over the period of last five year. ICICI bank has highest and SOUTH INDIA Bank has the least net worth among the selected banks.

TABLE 2: GROWTH RATE OF THE DEPOSITS OF THE SELECTED BANKS (Rs. In crores)

BANK/YEAR	2008	2009	2010	2011	2012	AVERAGE GROWTH(%)
AXIS	87,626.2	117,374.1	141,300.2	189,237.8	220,104.3	26.14253
FED BANK	25,913.4	32,198.2	36,057.9	43,014.8	48,937.1	17.32559
HDFC	100,768.6	142,811.6	167,404.4	208,586.4	246,706.5	25.45463
ICICI	244,431.1	218,347.8	202,016.6	225,602.1	255,499.9	1.694264
INDUS	19,037.42	22,110.3	26,710.8	34,365.4	42,361.6	22.21846
ING	20,498.1	24,889.9	25,865.3	30,194.3	35,195.4	14.66109
J&K BANK	28,593.3	33,004.1	37,237.2	44,675.9	53,346.9	16.90934
KOTAK	16,423.7	15,644.9	23,886.5	29,260.9	38,536.5	25.5342
SOUTH IND	15,156.1	18,092.3	23,011.5	29,721.1	36,500.5	24.63253
YES BANK	13,273.2	16,169.4	26,798.6	45,938.9	49,151.7	41.4933

Source: Annual reports of the banks under study

Table 2 shows the amount held by the banks as deposits. Deposits collected from outsiders of all banks have considerably increased. Even though deposits fall under the head liability, it shows the trust worthiness of the banks. ICICI bank has collected highest amount of deposits from the outsiders over the period of last five years. The performance of ING Vysya bank and South India in collecting deposits is comparatively low. The growth rate of Yes bank in collecting deposits is high i.e. 41.5%.

TABLE 3: GROWTH RATE OF THE BORROWINGS OF THE SELECTED BANKS   (Rs. In crores)

BANK/YEAR	2008	2009	2010	2011	2012	AVERAGE GROWTH(%)
AXIS	5,624.0	10,185.5	17,169.6	26,267.9	34,071.7	58.09
FED BANK	791.9	748.9	1,546.8	1,888.4	4,241.03	61.94
HDFC	4,478.9	2,685.8	12,915.7	14,394.1	23,846.5	104.49
ICICI	65,648.4	67,323.7	94,263.6	109,554.3	140,164.9	21.68
INDUS	1,095.4	1,856.5	4,934.3	5,525.4	8,682.0	76.09
ING	1,249.8	2,152.4	3,671.4	4,146.9	5,696.5	48.28
J&K BANK	751.8	996.6	1,100.2	1,104.7	1,241.0	13.93
KOTAK	5,119.3	5,904.1	6,140.5	11,723.9	16,595.5	37.95
SOUTH IND	27.6	257.0	331.0	290.4	588.2	237.65
YES BANK	986.2	2,189.1	4,749.1	6,690.9	14,156.5	97.85

Source: Annual reports of the banks under study

Table 3 shows the amount raised by the banks as borrowing. Normally banks raise borrowing in order to meet working capital requirements. ICICI bank has collected highest amount of borrowings from the outsiders over the period of last five years. South India bank raised least amount of borrowings when compared to other banks under study. The growth rate of South India bank in raising the borrowing is comparatively high and that of J&K bank is low.

TABLE 4: GROWTH RATE OF THE NET PROFIT OF THE SELECTED BANKS   (Rs. In crores)

BANK/YEAR	2008	2009	2010	2011	2012	AVERAGE GROWTH(%)
AXIS	1,071.03	1,815.36	2,514.53	3,388.49	4,242.21	42.00
FED BANK	368.05	500.49	464.55	587.08	776.8	21.87
HDFC	1,590.18	2,244.94	2,948.70	3,926.40	5,167.09	34.32
ICICI	4,157.73	3,758.13	4,024.98	5,151.38	6,465.26	12.75
INDUS	75.05	148.34	350.31	577.33	802.61	84.41
ING	154.95	188.78	242.22	318.65	456.3	31.22
J&K BANK	360	409.84	512.38	615.2	803.25	22.37
KOTAK	293.93	276.1	561.11	818.18	1,085.05	43.90
SOUTH IND	151.62	194.75	233.76	292.56	401.66	27.73
YES BANK	200.02	303.84	477.74	727.14	977	48.93

Source: Annual reports of the banks under study

It is understood from Table 3 that the net profit of all the banks under study have increased over the period of last five years under consideration. ICICI has posted highest profit among the selected banks. The average growth in the net profit of the Indus Land bank is highest (84.41%) and UBI is lowest (12.71%) when compare to other banks under study.

TABLE 5: GROWTH RATE OF THE INTEREST EARNED OF THE SELECTED BANKS (Rs. In crores)

BANK/YEAR	2008	2009	2010	2011	2012	AVERAGE GROWTH(%)
AXIS	7,005.32	10,835.49	11,638.02	15,154.81	21,994.65	34.36
FED BANK	2,515.44	3,315.38	3,673.24	4,052.03	5,558.39	22.52
HDFC	10,115.00	16,332.26	16,172.90	19,928.21	27,286.35	30.16
ICICI	30,788.34	31,092.55	25,706.93	25,974.05	33,542.65	3.46
INDUS	1,920.23	2,309.47	2,706.99	3,589.36	5,359.19	29.85
ING	1,680.44	2,239.89	2,232.89	2,694.06	3,856.81	24.19
J&K BANK	2,434.23	2,988.12	3,056.88	3,713.13	4,835.58	19.19
KOTAK	2,535.36	3,065.14	3,255.62	4,303.56	6,180.24	25.73
SOUTH IND	1,309.24	1,686.92	1,935.72	2,446.02	3,583.43	29.11
YES BANK	1,310.83	2,003.32	2,369.71	4,041.75	6,307.36	49.43

Source: Annual reports of the banks under study

Table 5 shows the amount of interest collected by the banks on advances and investments. No doubt, interests earned by the banks comprise 80% of the total revenue. Here all the banks posted considerable increase in their performance in collecting interest. ICICI bank stands at top followed by Axis bank in collection of interest. Yes bank's average growth rate of interest earning is high i.e. 49.43%. The average growth of ICICI in earning interest is very low when compared to other banks under study i.e. 3.46%.

TABLE 6: OVERALL GROWTH RATE OF SELECTED BANKS

BANK	Average growth rate of Net worth (%)	Average growth rate of deposits (%)	Average growth rate of borrowing (%)	Average growth rate of net profit (%)	Overall average interest earned (%)	Overall growth rate (%)
AXIS	28.00056	26.14253	58.09364	41.99047	34.35822	37.71708
FED BANK	9.809284	17.32559	61.94213	21.8738	22.52068	26.6943
HDFC	27.4338	25.45463	104.4908	34.3199	30.15825	44.37148
ICICI	6.598576	1.694264	21.6824	12.74506	3.461248	9.23631
INDUS	38.34306	22.21846	76.093	84.4087	29.84669	50.18198
ING	28.00203	14.66109	48.27731	31.22319	24.19816	29.27236
J&K BANK	15.39799	16.90934	13.92596	22.3746	19.18813	17.5592
KOTAK	23.05714	25.5342	37.95393	43.89827	25.72658	31.23402
SOUTH IND	17.02083	24.63253	237.6539	27.73061	29.11469	67.23051
YES BANK	39.85758	41.4933	97.84488	48.92626	49.43288	55.51098

It is crystal clear from Table 5 that the overall average growth rate of South India bank is highest (67.23.70%) among the banks under study. ICICI bank has the lowest overall growth rate (9%) compared to all other banks under study.

TESTING OF HYPOTHESES

TABLE 7: CORRELATION COEFFICIENT, COEFFICIENT OF DETERMINATION AND T-VALUE BETWEEN INTEREST EXPENDED AND DEPOSITS AND INTEREST EXPENDED AND BORROWINGS (Data of 5 years from 2008 to 2012)

	Between interest expended and deposits			Between interest expended and borrowing		
Bank	r-value	r^2	t-value	r-value	r^2	t-value
AXIS	0.917265	0.841375	3.984335	0.916401	0.839791	3.960845
FED BANK	0.906543	0.82182	3.71539	0.981733	0.9638	8.926639
HDFC	0.911837	0.831446	3.842325	0.820559	0.673317	2.483662
ICICI	0.649241	0.421514	1.476745[*]	-0.24071[*]	0.05794	-0.42904
INDUS	0.91934	0.845187	4.042207	0.884353	0.782081	3.277358
ING	0.927113	0.859539	4.279581	0.852948	0.72752	2.826843
J&K BANK	0.943093	0.889424	4.906479	0.842377	0.7096	2.704296
KOTAK	0.902076	0.81374	3.61601	0.962408	0.926229	6.130013
SOUTH IND	0.966655	0.934422	6.530358	0.931696	0.868058	4.437403
YES BANK	0.902563	0.814621	3.626546	0.984023	0.9683	9.561467

(Critical value of 't' for d. f. of 3 at 5% level of significance is 2.353)

Hypothesis 1: There is no significant correlation between interest expended and deposits collected over the years

From table 7 it is clear that there is a high positive correlation(r) between interest expended and deposits among all the banks. The co efficient of determinant (r^2) shows that except in the case of ICICI in all other banks more than 80% of the variance in interest expended is depending upon variance in deposits. Among the calculated t values except the t-value in ICICI all other values are more than critical value. There for null hypothesis is rejected and it is concluded here that there is significant correlation between interest expended and deposits.

Hypothesis 2: There is no significant correlation between interest expended and borrowings over the years

From the above table it is clear that there is high positive correlation(r) between interest expended and borrowing among all the banks except ICICI. The co efficient of determinant shows that except in the case of ICICI in all other banks more than 67% of the variance in interest expended is depending upon variance in borrowings. Among the calculated t values except the t-value in ICICI all other values are more than critical value. There for null hypothesis is rejected and it is concluded here that there is significant correlation between interest expended and borrowings

TABLE 8: CORRELATION COEFFICIENT, COEFFICIENT OF DETERMINATION AND T-VALUE BETWEEN INTEREST EARNED AND ADVANCES AND INTEREST EARNED AND INVESTMENT (Data of 5 years from 2008 to 2012)

Bank	Between interest earned and advances			Between interest earned and investment		
	r-value	r^2	t-value	r-value	r^2	t-value
AXIS	0.967214	0.967214	6.588735	0.98928	0.978675	11.7199
FED BANK	0.970138	0.970138	6.919486	0.993072	0.986192	14.62046
HDFC	0.965355	0.965355	6.400212	0.976845	0.954227	7.898867
ICICI	0.842827	0.842827	2.70928	0.226597	0.051346	0.402481
INDUS	0.988202	0.988202	11.1622	0.918225	0.843137	4.010835
ING	0.9701	0.9701	6.914899	0.854345	0.729905	2.843945
J&K BANK	0.993477	0.993477	15.07156	0.933718	0.871829	4.511979
KOTAK	0.986418	0.986418	10.38923	0.967591	0.936232	6.628804
SOUTH IND	0.987555	0.987555	10.86299	0.908927	0.826149	3.771256
YES BANK	0.930772	0.930772	4.404379	0.996029	0.992073	19.35389

(Critical value of 't' for d. f. of 3 at 5% level of significance is 2.353)

Hypothesis 3: There is no significant correlation between interest earned and advances years

From table 8 it is clear that there is positive correlation(r) exists between interests earned and advances among all the banks. The co efficient of determinant (r^2) shows that more than 80% of the variance in interest earned is depending upon variance in advances. All the calculated t values are more than critical value. There for null hypothesis is rejected and it is concluded here that there is significant correlation between interest earned and advances.

Hypothesis 4: There is no significant correlation between interest earned and investment over the years

From the above table it is clear that there is high positive correlation(r) between interest earned and investment among all the banks. The co efficient of determinant (r^2) shows that except ICICI in all other bank more than 80% of the variance in interest earned is depending upon variance in investment. All the calculated t values are more than critical value except in the case of ICICI bank. There for null hypothesis is rejected and it is concluded here that there is significant correlation between interest earned and investment.

FINDINGS AND CONCLUSION

After analyzing the financial performance of banks under study, the authors have drawn the following findings: Even though ICICI bank has highest amount of net worth, its growth rate of net worth is comparatively low. Yes bank has posted highest growth rate in net worth. Even in collecting deposits from the public ICICI bank stands at top, but its average growth in collecting deposits is not optimum. South India bank has less amount of borrowing but posted good rate of growth over the last five years. ICICI bank has earned highest amount of profit when compared to other banks. Indus Land bank has recorded considerable high growth rate in net profit. ICICI bank has highest amount of earning and SOUTH INDIA bank has least amount of earning through interest on advances given to customers as loan. The growth rate of ICICI bank by way of earning through interest is very low i.e. only 3%. In the entire four hypotheses null hypothesis is rejected and alternative hypothesis is accepted. Among the selected banks SOUTH INDIA bank has highest growth rate and ICICI has the least growth rate in key financial indicators selected for present study.

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EMOTIONAL INTELLIGENCE OF FEMALE FACULTY IN COLLEGES

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ABSTRACT

Emotional Intelligence is "The capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions effectively in others and ourselves". The factors pertaining to this study are self awareness, self management, social awareness and relationship management. The main aim of this study was to observe the level of emotional intelligence of the female faculty working in colleges. Descriptive research was used for this study. The study used primary data and it was collected through survey method. From the analysis it was found that marital status affects the ability to change tactics quickly according to circumstance change and the number of dependents increases the respondent's ability to help others to manage their emotions increases. Female faculty as well as educational institutions should consider the offered findings and suggestion for the performance improvement of the faculty.

KEYWORDS

emotional intelligence, female teachers.

INTRODUCTION

The relevance of emotional intelligence to various aspects of human endeavour has become subject of investigation in the last two decades. It has been postulated for instance, that to succeed in life will require more than innate intelligence or what is popularly called Intelligence Quotient (IQ). Goleman (1995) claimed that emotional intelligence is more valuable than IQ as an important indicator of professional and life's success. Not only is the construct relevant to one's work situation, it also provides a conceptual understanding of organization as a whole. Goleman (1998) conceptualized emotional intelligence as the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotion in ourselves and in our relationship. Goleman (1998) further elaborated on the concept of intelligence as a building block for developing emotional competence which he defined as a learned capability based on emotional intelligence that result in outstanding performance at work. The emotional and social competencies, skills and facilitators referred to in the model are the five components and their related competencies. These components are: (a) The ability to recognize, understand and express emotion and feelings.(b) The ability to understand how others feel and relate with them.(c) The ability to manage and control emotions.(d)The ability to manage change, adapt and solve problems of a personal and interpersonal nature.(e) The ability to generate positive affect and be self-motivated.

REVIEW OF LITERATURE

"Design of an Instrument for Evaluating Emotional Intelligence among Professionals", (Aruna. R, Suganthi.L, Samuee, Anand.A,2011) The study investigated the person's behaviour and competency at work are related to that person's personality and his emotional intelligence. These two parameters define a person's ability to handle stress, work pressure etc. and help determine the performance levels and the sociability levels of the employee. An instrument for determining the emotional intelligence (EI) level of individuals at work place has been designed and validated.

Vigoda-Gadot and Meisler (2010) surveyed 809 employees and managers to examine the effects of EI at work. They found that employees with a high level of EI are more dedicated and satisfied at work, making themselves valuable assets to their organizations. Those employees high in EI also tended to be lower in burnout and have fewer intentions to leave their current position.

Adeyemo,D.A (2008) explored that "Demographic Characteristics And Emotional Intelligence Among Workers In Some Selected Organizations" . The study investigated the relationship between demographic variables and emotional intelligence among workers The results show that gender and working experience have significant predictive effects on emotional intelligence. There was also significant difference in the emotional intelligence mean scores of male and female. The direction of difference was in favour of female. On the basis of the findings, it was recommended that organisational socialisation programme which encompass aspects of emotional intelligence should be mounted for new employees to compensate for inadequate experience and inexperience.

In Simard.C (2008) study, both men and women perceived dissonance between what it takes to be successful and who they were. Yet, a later study by Simard and Gilmartin (2010) found that women were comparable to men in having these attributes of success. For example, 77.8% of senior technical women stated they perceived themselves as analytical—similar to the proportion (84.6%) reported by their male colleagues. In addition, 77.8% of the women perceived themselves as questioning (compared to 77.1% of their male colleagues). Senior women also were significantly more likely to perceive themselves as working long hours and being more assertive than entry- to midlevel women.

OBJECTIVES OF THE STUDY

1.   To assess the level of emotional intelligence of the female faculty working in colleges.
2.   To study the factors associated with emotional intelligence of female faculty.
3.   To find out if there is any association between the Personal factors and factors of Emotional Intelligence.
4.   To study the personal profile of female faculty at colleges

RESEARCH METHODOLOGY

Descriptive research was used for this study.The study used primary data and it was collected through survey method.For collecting the data,questionarie was used as a main tool.The data have been collected purely on proportionate stratified sampling and the sample size is 150.The collected data have been categorized and processed manually and also through computer.The statistical technique used for the analysis include like Chi-square Analysis (Test of Independence),Method of variance (Anova) ,Karl Pearson correlation **were employed.** Weighted arithmetic mean was used to ascertain the level of emotional intelligence of female faculty in college.

LIMITATIONS OF THE STUDY

The sample size of the study is limited to 150 respondents residing in Gobichettipalayam taluk only.So the results may not be generalized to other places.The attitude of people tend to change time to time so sometime the present result may not give the correct future picture.

ANALYSIS AND INTERPRETATION
ANALYSIS OF PERSONAL PROFILE
SIMPLE PERCENTAGE ANALYSIS

Particulars	Details	Frequency	Percentage
Age	22-30	92	61.33%
	31-39	28	18.67%
	40-48	21	14%
	Above 48	9	6%
Marital Status	Single	81	54 %
	Married	67	44.67%
	Divorced	1	0.67 %
	Widow	1	0.67%
Number of dependents	None	25	16.67%
	One	47	31.33%
	Two	16	10.67%
	Three	9	6%
	four	53	35.33%
Income	Below Rs.10000	88	58.67%
	Rs.10000 – Rs.15000	34	22.67%
	Rs.15000 – Rs.20000	15	10%
	Rs.20000 – Rs.25000	11	7.33%
	Above Rs.25000	2	1.33%
Education qualification	UG	0	0%
	PG	55	36.67%
	M.Phil	74	49.33%
	Ph.D	21	14%
Designation	Lecturer	105	70%
	Assistant Professor	28	18.67%
	Senior professor	6	4%
	Principal	8	5.33%
	Director	3	2%

From above table, it could be inferred that most (61.33%) of the respondents belong to the age group of 22-30, majority (54%) of respondents are single, 44.67% of respondents are married, most (35.33%) of the respondents are have four dependents, many (58.67 %) of respondents fall in the income group of below Rs.10000, majority (49.33%) of respondents qualification is M.Phil, that most (70%) of respondent's designation is lecturer.

TABLE – 1.1: CHI-SQUARE TEST

Factor	Calculated x^2 value	Table value	D.F	Remarks
Marital status Vs Change tactics quickly according to circumstance change	11.34	7.815	3	Significant at 5% level
Age Vs Ability to help others to manage their emotions	2.26	5.507	8	Significant at 5% level
No of dependents Vs People's reaction are not noticed much	77.32	21.026	6	Significant at 5% level

From the above it could be inferred that the calculated value of chi-square is 11.34 higher than the table value (i.e.) 7.815, therefore the null hypothesis is rejected. This implies that there is significant relationship between the marital status and ability to change tactics quickly according to circumstances change.It could be inferred that the calculated value of chi-square is 2.26 less than the table value (i.e.) 15.507, therefore the null hypothesis is accepted.This implies that there is no significant relationship between the age of the respondents and ability to help others to manage their emotions. it could be inferred that the calculated value of chi-square is 77.32 higher than the table value (i.e.) 21.026, therefore the null hypothesis is rejected.This implies that there is significant relationship between the number of dependents and people reaction are not noticed much.

TABLE -2.1: EDUCATIONAL QUALIFICATION VS ORGANIZING THEIR WORK (One-way Anova)

Source of variation	Sum of Squares	V	Mean squares
SSC =Between samples	1688	4	422
SSE = Within samples	1869	16	116.81
Total	SST = 3557	20	

Test statistic
F   = 422 /116.81
          = 3.61
For v_1 = 4, v_2 = 16 and for α = 0.05, the table value of F is $F_{0.05}$ =3.01
The calculated value is greater than the tabulated value so the null hypothesis is rejected. So, alternate hypothesis is accepted. As H_1 is accepted there is significance difference between educational qualification and organizing their work.

TABLE -2.2: AGE VS BEING NEUTRAL TILL GET TO KNOW A PERSON (One-way Anova)

Source of variation	Sum of Squares	V	Mean squares
SSC =Between samples	1842.50	4	460.63
SSE = Within samples	2468.48	15	164.57
Total	SST = 4310.98	19	

Test statistic
F = 460.63 /164.57
          = 2.80
For v_1 = 4, v_2 = 15 and for α = 0.05, the table value of F is $F_{0.05}$ =3.06
The calculated value is less than the tabulated value so the null hypothesis is accepted. As H_0 is accepted there is no significance difference between age and being on neutral state till get to know a person.

TABLE - 2.3: MARITAL STATUS VS WORRYING ABOUT THEIR PROBLEM OFTEN (One-way Anova)

Source of variation	Sum of Squares	V	Mean squares
SSC =Between samples	1076.84	4	269.21
SSE = Within samples	2267	15	151.13
Total	SST = 3343.84	19	

Test statistic

F   = 269.21 / 151.13

        = 1.76

For v_1 = 4, v_2 = 15 and for ⍺ = 0.05, the table value of F is $F_{0.05}$ =3.06

The calculated value is less than the tabulated value so the null hypothesis is accepted. As **H_0 is** accepted there is no significance difference between marital status and worrying about their problems often.

TABLE -2.4: DESIGNATION VS MAINTAIN RELATIONSHIP WITH COLLEAGUES (One-way Anova)

Source of variation	Sum of Squares	V	Mean squares
SSC =Between samples	1061.03	4	265.26
SSE = Within samples	3784.80	20	189.24
Total	SST = 4845.83	24	

Test statistic

F   = 265.26 / 189.24

        = 1.4

For v_1 = 4, v_2 = 20 and for ⍺ = 0.05, the table value of F is $F_{0.05}$ = 2.87

The calculated value is less than the tabulated value so the null hypothesis is accepted. As **H_0 is** accepted there is no significance difference between designation and relationship with colleagues.

TABLE -3.1: BREAKING OBSTACLES MAKE THEM TO DELAY IN PERFORM VS HANDLING MULTIPLE DEMAND AND CHANGING PRIORITIES SMOOTHLY [KARL PEARSON CORRELATION]

Factors	Opinion of the respondents				
	Strongly agree	Agree	Neutral	Disagree	Strongly agree
Breaking obstacles make them to delay in performance	44	71	17	16	2
Handling multiple demands and changing priorities smoothly	49	95	1	5	0

$\overline{x}$ = 30

$\overline{y}$ = 30

r $= \xi dxdy / \sqrt{\xi dx^2 * dy^2}$

        = 0.96

Hence, r = 0.96, it is inferred that there is positive relationship between breaking obstacles make them to delay in performance and handling multiple demands and changing priorities smoothly.

TABLE – 3.2: PEOPLE REACTION AREN'T NOTICED MUCH VS SATISFACTION ON WORK IF SOMEONE PRAISES ON IT[KARL PEARSON CORRELATION)

Factors	Opinion of the respondents				
	Strongly agree	Agree	Neutral	Disagree	Strongly agree
People reaction are not noticed much	8	59	47	35	1
Satisfaction on work if someone praises on it	33	48	26	26	17

$\overline{x}$ = 30

$\overline{y}$ =30

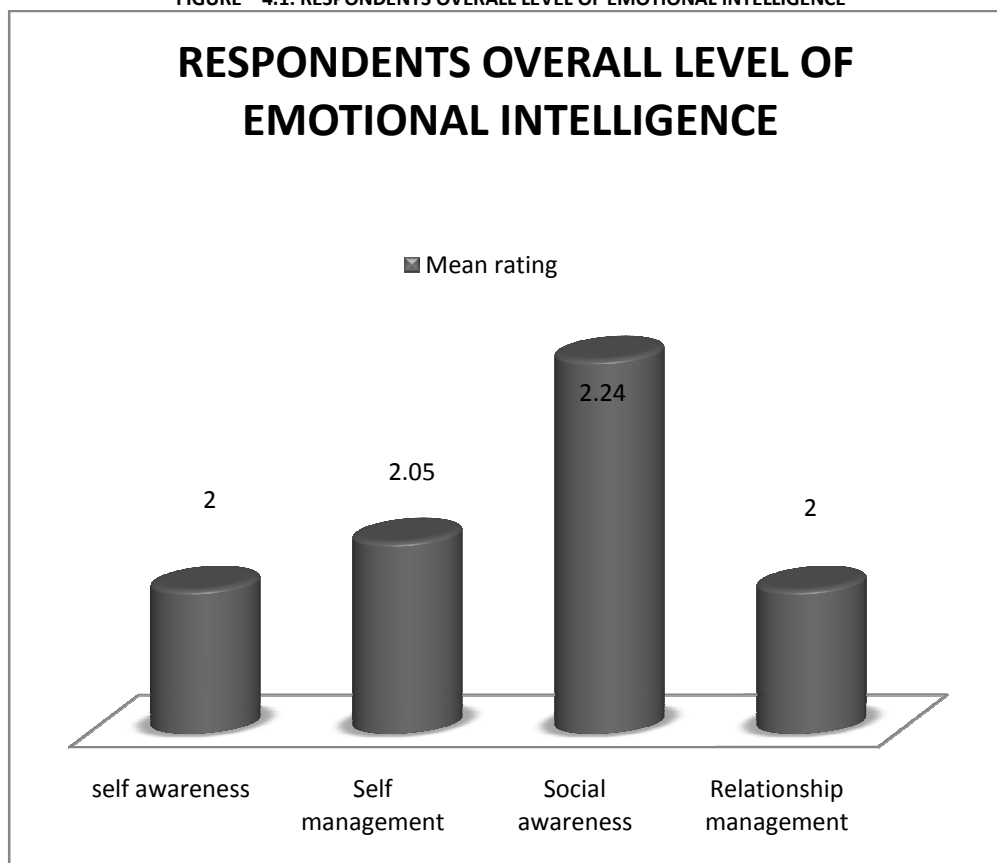r $= \xi dxdy / \sqrt{\xi dx^2 * dy^2}$

        = 877 / √1150.79

        = 0.76

Hence, r = 0.76, it is clear that there is positive relationship between people reaction are not noticed much and satisfaction on work if someone praises on it.

TABLE - 4.1: RESPONDENTS OVERALL LEVEL OF EMOTIONAL INTELLIGENCE [WEIGHTED ARITHMETIC MEAN]

S.No	FACTORS	POINT RATING					WEIGHTED MEAN
		1	2	3	4	5	
1.	I am often worried about problems	56	146	39	28	5	**1.83**
2.	I can think clearly and stay focused on the task under pressure	21	154	66	116	5	**2.41**
3.	I'm well organized in my work	74	152	0	0	0	**1.51**
4.	I pursue goals beyond what's required of me in my current job	10	164	174	0	0	**2.32**
5.	Obstacles and setbacks may delay me a little, but they don't stop me	44	142	51	64	10	**2.07**
6.	I'm aware of my moods and feelings	56	112	114	0	0	**1.88**
7.	When I resolve to achieve something. I run into obstacles that keep me from reaching my goals	33	164	102	4	0	**2.02**
8.	It's better to remain cold and neutral until you really get to know a person	18	208	81	4	0	**2.07**
9.	I'm able to admit my own mistakes	33	196	57	0	0	**1.91**
10.	I usually meet commitments and keep promises	12	124	192	48	0	**2.51**
11.	I can smoothly handle multiple demands and changing priorities	49	190	3	20	0	**1.75**
12.	I'm not satisfied with my work unless someone else praises it	33	96	78	104	85	**2.64**
13.	I regularly seek out fresh ideas from a wide variety of sources	14	226	69	0	0	**2.06**
14.	I'm always trying to learn how to improve my performance, including asking advice from people younger than me	69	120	45	24	0	**1.72**
15.	I can change tactics quickly when circumstances change	17	216	36	52	0	**2.14**
16.	Pursuing new information is my best bet for cutting down on uncertainty and finding ways to do things better	34	152	81	52	0	**2.13**
17.	I don't really take much notice of how people react to me	8	118	141	140	5	**2.75**
18.	I have good relationship with my colleagues	85	102	42	0	0	**1.53**
19.	I'm able to manage the conflict that occur with my colleagues	51	154	33	44	0	**1.88**
20.	I've good relationship with higher authority	41	150	51	68	0	**2.07**
21.	I understand people through their tone and voice	59	136	69	0	0	**1.76**
22.	Cutting through red tape and bending outdated rules are sometimes necessary	24	102	180	60	0	**2.44**
23.	I'm comfortable to work as team	51	138	45	0	75	**2.06**
24.	I'm able to help others to manage their emotions	53	94	45	96	55	**2.29**

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FIGURE – 4.1: RESPONDENTS OVERALL LEVEL OF EMOTIONAL INTELLIGENCE

RESPONDENTS OVERALL LEVEL OF EMOTIONAL INTELLIGENCE

On the whole social awareness is the prime factor in determining the level of emotional intelligence when compared to other factors like self awareness, self management and relationship management.

FINDINGS

It is found from chi-square test that , marital status affects the ability to change tactics quickly according to circumstance change and the number of dependents increases, the respondents ability to help others to manage their emotions increases .It is found from one-way anova that, significance difference between educational qualification and organization their work and no significance difference between age and ability to help others to manage their emotions marital status and worrying about their problems often . It is found from Karl Pearson Correlation that positive relationship exhibit between breaking obstacles makes them to delay in performance and smoothly handle multiple demands and changing priorities .from the weighted arithmetic mean it would be inferred that On the whole social awareness is the prime factor in determining the level of emotional intelligence when compared to other factors like self awareness, self management and relationship management .

SUGGESTIONS

1. 17.33% of the respondents agreed and 11.33% of respondents disagreed that they are not satisfied unless someone praises them. Receiving appreciation plays a major role in getting psychological satisfaction and performance improvement. Superiors may praise the faculty members whether they give a productive performance.
2. 8.6% disagreed with the ability to adopt the circumstance changes. The management has to train its faculty members be adaptable. This can be achieved by giving them training in handling unexpected situation and help them to develop their creativity.
3. 11.33% disagreed on maintaining relationship with higher authority. For getting moral support and improving efficiency, relationship with higher authority is essential. Necessary steps may be taken to improve relationship with higher authority.
4. 40% of the faculty members had neutral opinion on red tape and bending outdated rules are necessary. So red tappism may be mitigated some extent.
5. 10% of the respondents strongly disagreed that they comfortable to work as a team. Some steps may be taken for improving relationship with peer group.
6. 16% are disagreed and 7.33% are strongly disagreed to help others to manage their emotions. Employees should be helped to manage their emotions. Helping others to manage their emotion will help once to look into oneself and making efforts to control their emotions and overcome unwanted problems. This will help a lot in improving their emotional intelligence.

CONCLUSION

Emotional intelligence can make a big difference for both individual and organizational effectiveness. This study concludes that the level of emotional intelligence of female faculty members is good. Some of the dissatisfied areas like worried about their problems, getting satisfaction on work if someone praises it were identified. The faculty members can achieve maximum emotional intelligence, if those dissatisfied areas will be concentrated.

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EFFECTIVE EDUCATION FOR DIFFERENTLY ABLED CHILDREN IN REGULAR STREAM: PERCEPTIONS OF TEACHERS

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ABSTRACT

Inclusive education is concerned with reducing all exclusionary pressures arise on the basis of disability, gender, class, family structure and life style. The emerging trend is to open the doors for the disabled children to get education on par with the non-disabled. Though there are children who can be helped in special schools or in integrated education programmes whichever is feasible, certainly Sarva Shiksha Abhiyan (SSA) is one of the best solutions for a country like ours. The present study was conducted in Lalgudi block of Tiruchirappalli District, Tamilnadu. The universe consists of 278 primary school teachers in Lalgudi block, Tiruchirappalli District. There are 8 Government & 7 Aided schools, out of which the researchers selected 10 primary school teachers from each schools (n=150) through stratified disproportionate random sampling technique. The study reveal that in all the aspects the normal school teachers demonstrated only moderate level of attitude and competency irrespective of their awareness. The present study highlights that social workers can play a vital role in educational setting are to provide all kinds of resource support for inclusive education. This support comes in the form of early intervention, assessment and therapeutic services, parental education and community development. They are responsible for identification and enrolment of the special children either in regular school or any other suitable educational centre.

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KEYWORDS
Inclusive education, Competency, Sarva Shiksha Abhiyan and Education for all.

INTRODUCTION

The belief that education, if available to any, should be available equally to all was also energized by the emergent awareness of individual differences among students and the need, indeed the responsibility of the school, to adapt curricula to these differences. Children with special needs received individualized education programs with goals, expected learning processes, and educational resources tailored to their needs. The movement to individualize education for all children in the context of standards of achievement continues to be one of the central issues in education. Philosophies of inclusion and respect for individual differences continue to shape profoundly the practice of education and provide the basis for the role of the school social worker. The correspondence between social work values, the emergent mission of education, and the role of the school social worker is illustrated by Allen-Meares (1999). The mission of education, implicit in these values, became the basis for school social work as it emerged in the twentieth century.

Social Work Values	Application to Social Work in Schools
Recognition of the worth and dignity of each human being	Each pupil is valued as an individual regardless of any unique characteristic
The right to self-determination or self –realization	Each pupil should be allowed to share in the learning process
Respect for individual potential and support for an individual's aspirations to attain it	Individual differences (including differences in rate of learning) should be recognized, intervention should be aims at supporting pupil's education goals.
The right of each individual to be different from every other and to be accorded respect for those differences	Each child, regardless of race and socio economic characteristics, has a right to equal treatment in the school.

Dynamic and wide ranging and involves children, their families, and an institution called school. It is the context for school social work. School is no longer viewed as a building or a collection of classrooms in which teachers and pupils work together. The school community, no longer simply bounded by geography, comprises all those who engage in the educational process. As in any community, there are varied concrete roles. People fit into these communities in very different ways. Parents and families have membership through their children. Teachers and other school personnel are members with accountability to parents, children, and the broader community. Drawing on each person's capacities, the school social worker focuses on making the educational process work to the fullest extent. Therefore, school social workers work with parents, teachers, pupils, and administrators on behalf of vulnerable children or groups of children. The success of the process depends on the collective and individual involvement of everyone. The social worker helps the school community operate as a real community so that personal, familial, and community resources can be discovered and used to meet children's developmental needs (Barber, 1960). The inclusive education can act as a catalyst for change in educational practice, leading to improved quality of education. Including children with special needs in mainstream schools challenges teachers to develop more child-centered, participatory, and active teaching approaches – and this benefits all children. However, it promotes activities which help disabled children to develop their full potential, become self-reliant and participate in their own communities. At the same time, it challenges discriminatory attitudes in the community, helping parents to think positively about their disabled children and promoting wider social inclusion (Puri, 2008).

The concept of inclusion as an ideology should be assimilated right from the classroom level, and in this context general teachers and social workers are the key players in inclusive education. Social Workers can play a most important role in educational setting is to provide all kinds of resource support for inclusive education. This support comes in the form of early intervention, assessment and therapeutic services, parental education and community development. They are responsible for identification and enrolment of the special children either in regular school or any other suitable educational centre. The selected qualified special teachers and social workers appoint them at block level. If the special teachers are trained in dealing with a particular category of disability, the social workers can provide cross-disability training to resource teachers so that all the categories of children are provided the needed support (Dakar, 2000).

OBJECTIVES OF THE STUDY

1. To assess the awareness, attitude and competencies of normal school teachers on different aspects of children with disabilities.
2. To find out the significant difference, if any, in the awareness, attitude and competencies of normal school teachers on different aspects of children with disabilities due to variation in their gender, age, educational qualification, training in special education, years of experience, location of school, nature of school, category of school and type of school they are working.
3. To find out the relationship between teachers' awareness & attitude, awareness & existing competencies and attitude & existing competencies to deal children with disabilities.

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4.   To study how far and to what extent the independent variables of the normal school teachers (gender, age, educational qualification, training in special education, years of experience, location of school, nature of school, category of school and type of school) influence the dependent variables (awareness, attitude and existing competencies) of teachers.

METHODS AND TOOLS

The present study was conducted in Lalgudi block of Tiruchirappalli district. The universe consists of 278 primary school teachers in Lalgudi block, Tiruchirappalli District. There are 8 Government & 7 Aided schools, out of which the researchers selected 10 primary school teachers from each schools (n=150) through stratified disproportionate random sampling technique. The present study was descriptive in nature. In order to respond to the research questions, the following analyses of the data were undertaken. First, the information from the closed-ended items in the questionnaire was entered into the SPSS statistical package. In addition an interpretational approach was applied to identify categories and subcategories in the answers and comments given to the open-ended items in the questionnaire, thus enabling to entry of this information into SPSS as well. Second, an exploratory analysis approach was applied to all data, providing frequency distributions as well as graphical displays of data. Descriptive statistical analyses indicated some not statistically significant (chi-square), interdependency between teacher or school factors and teachers opinions about inclusion. Finally, the information extracted was analyzed on the basis of the assumption that teachers' beliefs about and acceptance of inclusive education are significant predictors of the degree to which they carry out inclusive practices. Three main themes were generated and discussed: opinions about inclusion and factors associated with teachers' opinions, preferred models inclusion and present classroom practices. The collected data were analyzed by using appropriate statistical techniques such as mean, SD, mean $\pm$1SD, t / F- test, correlations and stepwise multiple regression. The obtained data are presented in the form of tables and discussed.

RESULTS AND DISCUSSION

TABLE 1: ASCENDING MEAN SCORES PER SCALE ITEMS ON ATIE

Rank of items	Test Items	N	percent	Mean	SD
1	Integrated education is a practical solution to the behaviour problem of disabled children.	150	58	1.1100	.3134
2	Disabled children should be provided with necessary apparatus like wheelchairs, artificial limb etc., which will help them for movement and communication with the people in the community.	150	56.3	1.1267	.3332
3	Modified furniture to provide comfort to the children with disability is very much essential in a regular classroom.	150	59	1.1800	.3848
4	Children with disability have specific difficulties of learning; therefore some special training materials should be used in regular classroom situation.	150	58.7	1.1933	.3956
5	Children with disability are able to lead a free and independent life.	150	63	1.2067	.4056
6	They can learn as efficiently as the normal children.	150	59.7	1.2100	.4080
7	Physical therapists should take much care to enable the disabled child to develop the ability for free movement.	150	79	1.2333	.4237
8	Healthy relationship between the two groups of children in an inclusive system only.	150	76.3	1.2433	.4298
9	Children with disability are getting the equal opportunity like the normal children in the classroom.	150	79.7	1.2667	.4430
10	Children with special needs are no way inferior to the normal children in intellectual pursuits.	150	79.3	1.2867	.4530
11	Children with disability are getting the same type of social acceptance with the normal children.	150	80.7	1.3133	.446
12	Special needs children do not have any impairment of intellectual functioning, they do not need any specialized teaching methods, and they can be placed in a general classroom.	150	82	1.3367	.4734
13	IED provides the least restrictive and the most effective environment to disabled children so than they may grow and develop like other children.	150	84	1.3400	.4745
14	Integrated education is a viable approach to attain the goals of universalization of elementary education by providing equality of educational and developmental opportunities to the children with disabilities.	150	89.7	1.3700	.4836
15	Children with disability are less well accepted than normal children in an integrated class, as a result of which these children face many psychological problems.	150	85.7	1.3933	.4893
16	Curriculum revision is not essential for children with special needs.	150	89.6	1.4367	.4968
17	Inclusive Education can improve the academic performance of the children with disabilities.	150	90.0	1.8233	.3820

Table 1 indicates the Teacher's perception towards inclusive education all the items are arranged in an ascending order based on its mean score. It implies that lower the mean score lower level of attitude towards the ATIE and higher the score higher level of attitude towards ATIE. Item1 shows that more than half (58 percent) of respondents agreed that integrated education is a practical solution to the behaviour problem of disabled children (mean score 1.11, SD .31). In this regard, previous studies support the views that inclusive education is provide opportunities for social interactions often occur in contexts (such as those related to play) that provide desirable stimulation and thus act as setting events for fewer inappropriate and more pro-social behaviors. Through modeling, students with developmental disabilities appear to learn behaviors that are essential to successful integration in school and community. For item 2, 3, & 7, majority of the respondents agreed that Disabled children should be provided with necessary apparatus like wheelchairs, artificial limb etc., which will help them for movement and communication with the people in the community (Mean score 1.12, SD .33, 56.3 percent); modified furniture to provide comfort to the children with disability is very much essential in a regular classroom (Mean score 1.18 , SD .38, 59 percent) and Physical therapists should take much care to enable the disabled child to develop the ability for free movement (Mean score 1.2 SD . 42, 79 percent).

Nevertheless, item 3, 4, 5 & 13 about majority (60 percent) of the respondents have favourable attitude towards Children with disability have specific difficulties of learning; therefore some special training materials should be used in regular classroom situation so that they may able to lead a free and independent life (Mean score 1.19 SD .39, 58.7 percent); Special needs children do not have any impairment of intellectual functioning, they do not need any specialized teaching methods, and they can be placed in a general classroom (Mean score 1.33 SD .47, 82 percent) and IED provides the least restrictive and the most effective environment to disabled children so than they may grow and develop like other children (Mean score 1.34 SD .47, 84 percent). Item 8, 9, 10 & 15 about majority of the respondents perceived the mixed feelings of relationship between children with disability and normal children, Healthy relationship between the two groups of children in an inclusive system only (Mean score 1.24, SD .42, 76.3 percent); Children with disability are getting the equal opportunity like the normal children in the classroom (Mean score 1.26, SD .44, 79.7 percent) and Children with disability are getting the same type of social acceptance with the normal children (Mean score 1.31, SD .446, 80.7 percent). With regard to 14 & 17 item about two – third of the respondents agreed than Integrated Education is a viable approach to attain the goals of Universalization of Elementary Education (UPE) by providing equality of educational and developmental opportunities to the children with disabilities (Mean score 1.37, SD .48, 89.7 percent) and Inclusive Education can improve the academic performance of the children with disabilities (Mean score 1.82, SD .38, 90 percent). Similar findings were found in previous studies to identify the attitude of teachers towards inclusion. The survey focused on areas such as the role of regular teachers, their attitudes and knowledge about inclusion, collaboration and team teaching, recourses, the rights of learners, and family support. It emphasized the attitudes of teachers with little experience of inclusive education towards the placement of learners with special needs in regular classrooms, may not be different from those of established practitioners. The majority is respondents agreed that the education of learners with special needs is not the primary responsibility of the regular education teacher (Brent et al., 2003 & Gudio, 1990)

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TABLE 2: ASCENDING MEAN SCORES PER SCALE ITEMS ON TCTCWD

Rank of items	Test Items	N	percent	Mean	SD
1	Pupils with emotional and behavioural problems should be included in the mainstream classes.	150	42.9	1.1100	.3134
2	Difficult to give equal attention to all students in inclusive classrooms.	150	47.8	1.1167	.3216
3	Children with disabilities in your classroom.	150	50.7	1.2167	.4127
4	Able to cope with disabled students.	150	60.5	1.2333	.4237
5	Mainstream classroom teachers should have the training and skills to teach special needs students.	150	68.7	1.2533	.4356
6	Need to be a special kind of teacher to teach pupils with special educational needs.	150	68.1	1.2533	.4356
7	Are able to manage the behavior of children with disabilities.	150	64.7	1.2633	.4412
8	Have the skills required teaching special educational needs in an inclusive setting.	150	70.8	1.3200	.4673
9	Adequate instructional materials are available with you for teaching children with disabilities.	150	71.5	1.3333	.4722
10	Willing to attend additional workshops to broaden your knowledge about education of children with disabilities.	150	87.7	1.4200	.4944
11	Some people claim to have special educational needs to get extra attention and special treatment.	150	90.4	1.6167	.4870
12	Able to remediate the learning benefits of children with disabilities.	150	98.4	1.6733	.4698

Table 2 explain that teachers' level of awareness and competency towards children with disabilities, 42.9 percent of the respondents agreed that Pupils with emotional and behavioural problems should be included in the mainstream classes (Mean score, 1.11 SD .31). Nevertheless, nearly half (47.7 percent) of the respondents agreed that equal attention should be given to all students in inclusive classrooms without any ground of caste, class, colour and disability (Mean score, 1.11 SD .32). Most importantly, more than half of respondents agreed that all are having children with disabilities in their classroom (Mean score 1.21, SD .41, 50.7 percent); they are able to cope with disabled students (Mean score 1.23, SD .42, 60.5 percent) and Mainstream classroom teachers should have the training and skills to teach special needs students (Mean score 1.25, SD .43, 68.7 percent). With regard to special educators, two – third of the respondents agreed that need to be a special kind of teacher to teach pupils with special educational needs (Mean score, 1.25, SD.43, 68.1 percent), availability of adequate instructional materials for teaching children with disabilities (Mean score 1.33, SD.47, 71.5 percent) and willing to attend additional workshops to broaden their knowledge about education of children with disabilities (Mean score 1.42, SD .49, 87.7 percent). The next probing questions reveal that Inclusive Education is a suitable model for children with special needs to remediate the learning benefits.

In this regard previous studies support the view that to conclude a holistic view on competencies of teachers to handle children with disabilities was seen through the quoted studies. Studies that are conducted directly on competencies of teachers have listed out the important competencies required for teachers have listed out the important competencies required for a teacher (Reddy, 2004). Some researchers carried out their studies to find out the effectiveness of certain instructional strategies in dealing children with disabilities which a competent teacher should use in their teaching-learning process. Instructional strategies used in the above quoted studies are of much use in educating the children with disabilities. A teacher should possess the abilities or competency to adopt those instructional strategies effectively to deal children with disabilities. Another one study clearly indicated the special education teacher's low performance in guidance and counseling activities and poor infrastructure facility available in general schools (Treder et al., 2000).

To interpretart these findings it should be noted that an efficient teacher with specific competencies can handle children with disabilities more effectively. Every special and normal school teacher needs certain specific competencies to know the nature and type of disabilities in children. The teacher should be prepared to recognize the problem or a condition and cause for it. Identification and assessment ability is a must for a teacher as they are with the children and considered as a second parent. Proficient in teaching Strategies and methods is an important task of a teacher. Use of innovative teaching strategies to compensate the disabilities in children is one of the competencies a teacher should possess (Ali, 2006).

Table 3 inferred that there is a significant different between gender, Training in special education needs and nature of school of the respondents with regard to overall level of attitude towards Inclusive Education for Disabled (IED) at 1 percent level of significant. The mean score indicates that female teachers (154.97); Special training programme attended (158.14) and Government Aided Private schools (174.55) were having high level of attitude towards IED. However, that there is significant variance among Age, Educational qualification and Teaching experience of the respondents with regard to overall level of attitude towards IED. The mean score indicates that age belongs to 51 years and above (161.11), who had post graduate with B.Ed., and M.Ed., (162.25) and who have teaching experience of 21 years and above (158.75) were having high level of attitude toward IED. Some noteworthy results were emerged from this observation perceived by primary schools teachers who have higher the age, more teaching experience, higher education qualification and who had special training their level of attitude towards IED is higher.

Further there is a significant different between gender, Training in special education needs and nature of school of the respondents with regard to overall level of Competency towards Children With Special Needs (CWSN) at 1 percent level of significant. The mean score indicates that female teachers (92.41); Special training programme attended (96.34) and Government Aided Private schools (113.07) were having high level of attitude towards CWSN. However, that there is significant variance among Age, Educational qualification and Teaching experience of the respondents with regard to overall level of attitude towards CWSN. The mean score indicates that age belongs to 51 years and above (93.11), who had post graduate with B.Ed., and M.Ed., (94.75) and who have teaching experience of 21 years and above (95.91) were having high level of attitude toward CWSN. Some noteworthy results were emerged from this observation perceived by primary schools teachers who have higher the age, more teaching experience, higher education qualification and who had special training their level of attitude towards CWSN is higher.

Other factors that have been studied with regard to how they affect teachers' attitudes toward integration include gender, teachers' experiences, level of education and training. With regard to gender, male teachers' attitudes toward integration are more negative than female teachers. Studies that examined teachers' experiences noted that teachers' acceptance of integration is related to previous experience with children with disabilities. The years of teaching experience was positively correlated with attitudes toward integration. This finding supports the regression analysis conducted in this study, which showed that the actual teaching experiences of teachers were more important in predicting attitudes towards IED than the teachers' owns ideas and beliefs. Although years of teaching experience was associated with attitudes, having a higher educational degree was positively correlated with attitudes toward integration. This finding underscores the importance of education in implementing changes, and in this particular case, in acceptance and willingness to accommodate students with disabilities (Heller et al., 1999 & Hannah, 1998).

CORRELATIONAL STUDIES

Correlation studies are made to find out the relationship between awareness & attitude, awareness & existing competencies and attitude & existing competencies of normal school teachers to deal children with disabilities. For this, Karl Pearson Correlation Co-efficient is used.

TABLE 4: CORRELATION STUDIES

	Awareness & Attitude	Awareness & Existing Competencies	Attitude & Existing Competencies
Concept of disabilities	0.043[@]	0.215**	0.036[@]
Causes & identification	0.237**	0.482**	0.238**
Identification & Assessment	0.124**	0.182**	0.306**
Teaching & Guidance	0.421**	0.640**	0.394**
Guidance & Counselling	0.412**	0.595**	0.416**
Dimensions as a whole	0.522**	0.754**	0.492**

Note:
[@] Not Significant at 0.05 level
** Significant at 0.01 level

The correlation studies in table 4 also reveals that there is a significant positive correlation between awareness & attitude, attitude & existing competencies with reference to all the dimensions of disabilities except for concept of disabilities (0.043 and 0.036). Likewise, there is a significant positive correlation between awareness and existing competencies with reference to all the dimensions of disabilities in children. This result clearly indicate that higher the awareness better will be the attitude and competencies, better the attitude more will be the competency of teachers in dealing children with special needs. Hence it is imperative to sensitize the teachers towards different aspects of special needs in children and develop better attitudinal programmes, which in turn facilitate competencies of the teachers.

STEPWISE MULTIPLE REGRESSION ANALYSIS

To know how far and to what extent the independent variables are influencing the dependent variables, stepwise multiple regressions are used. This analysis predicts the contribution of independent variables to the dependent variable.

TABLE 5: STEPWISE MULTIPLE REGRESSION ANALYSIS

Dependent Variable	Independent Variable	β Coefficient	Individual Contribution (R^2)	Percentage wise Individual Contribution
Awareness	Nature of School	0.566	0.411	41 percent
	Training in Special Education	-0.185	0.439	43 percent
	Gender	0.085	0.446	44 percent
	Location of the School	0.125	0.193	19 percent
Attitude	Nature of School	0.564	0.318	31 percent
Existing Competencies	Nature of School	0.640	0.490	49 percent
	Training in Special Education	-0.190	0.523	52 percent

The stepwise multiple regression analysis in table 5 clearly reveals that gender, training in special education and nature of school are the significant predictors to the awareness of teachers by contributing 44, 43 and 41 percent respectively. By contributing 31 percent the variable nature of school stands as a prime predictor for attitude of teachers towards children with special needs. Likewise, the variable nature of school and training in special education contribute 49 and 52 percent respectively to the dependent variable existing competencies. So while organizing training programmes to the normal school teachers' one should keep in mind these variables.

IMPLICATIONS OF THE STUDY

The study reveal that in all the aspects the normal school teachers demonstrated only moderate level of attitude and competency irrespective of their awareness. It means, on certain aspects even though they are aware of the aspects superficially they are not clear in their attitude on different aspects of disabilities in children. It in turn reflected in the form of moderate competency. This result gives vast scope for organization of sensitization; attitudinal building and need based training programmes to the normal school teachers to handle children with disabilities in normal schools. As integrated education is gaining momentum in India, the teachers working in normal schools should be geared up with adequate knowledge, proper attitudes and competencies to deal children with disabilities. As such the RCI, DIETs and the Special Education Departments should organize one to two months need based training programmes to these teachers incorporating specific and multiple disability concepts. A Training and Teaching Manual on the different aspects of disabilities in the form of Handbook should be prepared and supplied to each teacher working in the schools. Similarly, there is a need to appoint resource teacher or specialist teacher who can assist the teachers to handle children with mild and moderate disability and support the students with severe disabilities individually. Every school must be provided with a resource room with adequate teaching learning materials that promote independent learning of the disabled children with and without teachers support. Community networks can be established by involving governmental and non-governmental organizations that can support and give guidance and counselling the parents and children with disabilities in their personal and social life. This inturn sensitize the governmental and non-governmental organizations to incorporate the disability concepts in their development and welfare programmes.

As the study clearly reveals that there is a positive significant correlation between awareness & attitude, awareness & existing competencies, and attitude & existing competencies of the normal school teachers, there is a need to integrate the awareness, attitude and competency development programmes in one umbrella by involving print as well as electronic media. Audio and video cassettes can be developed on different aspects of disabilities such as concept of disabilities, etiology of disabilities, ways and means of identification & assessment, development of educational programmes keeping in mind the strengths and weaknesses of disabled children, providing guidance & counseling appropriately to the parents and children with disabilities. Such audio and video cassettes can be supplied to all the normal schools and teacher training institutions. The national bodies like NCERT and RCI in collaboration with special education Departments at University and College level should develop such audio and video cassettes and the same can be supplied to the schools. The stepwise multiple regression reveals the influence of independent variables – nature of school, training in special education, and gender on the dependent variables – teachers' awareness, attitude and exiting competencies in dealing children with disabilities. So, while selecting personnel for teaching and giving training to them, these variables should be bear in mind.

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TABLE

TABLE 3: MEAN AND SD OF THE ATTITUDE SCORES OF NORMAL SCHOOL TEACHERS TOWARDS INCLUSIVE EDUCATION AMONG CHILDREN WITH SPECIAL NEEDS AND THE CALCULATED t- VALUES.

Independent Variables	N	Attitude		Calculated t / F- Values		Existing Competency		Calculated t / F- Values	
		Mean	SD			Mean	SD		
(1)	150	(2)	(3)	(4)		(5)	(6)	(7)	
Gender									
Men	46	150.65	14.17	2.87**		87.90	11.25	3.54**	't'
Women	104	154.97	19.97			92.41	17.37		
Age									
20 – 30 years	11	154.49	16.98	3.92**		91.85	14.96	4.78**	'F'
31 – 40 years	30	151.75	17.98			89.95	15.73		
41 – 50 years	90	148.38	13.10			84.40	16.65		
51 years & above	19	161.11	24.28			93.11	17.58		
Educational Qualification									
Teacher Training (DITEs)	15	152.64	17.93	3.67**		85.56	14.93	4.64**	'F'
Graduate with B.Ed.	45	154.72	15.66			84.10	15.14		
Graduate with B.Ed. & M.Ed.	25	148.68	16.61			87.82	11.88		
Post Graduate with B.Ed.	55	145.45	19.74			86.95	10.46		
Post Graduate with B.Ed. & M.Ed.	10	162.25	20.67			94.75	17.25		
(1)	150	(2)	(3)	(4)		(5)	(6)	(7)	
Training in Special Education									
Attended	130	158.14	19.31	8.61**		96.34	13.69	14.36**	't'
Not attended	20	150.52	16.63			87.45	13.33		
Years of Experience									
1 – 5 years	15	152.14	19.31	8.61**		86.34	17.77	14.36**	'F'
6 – 10 years	40	150.52	16.63			87.45	87.45		
11 – 15 years	60	148.22	14.23			85.27	85.27		
15 – 20 years	15	146.03	13.40			86.88	86.88		
21 years & above	10	158.75	14.94			95.91	85.91		
Nature of School									
Government School	110	148.38	12.51	15.63**		85.48	9.73	22.47**	't'
Government Aided Private School	40	174.55	21.45			113.07	13.97		

* Significant at 0.05 level
** Significant at 0.01 level

WOMEN EMPOWERMENT THROUGH SELF- HELP GROUPS IN PUDUCHERRY: A CASE STUDY OF YANAM

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ABSTRACT

Women represent 50 percent of world population and receive 10 percent of the world income and own even less than 1percent of the world's property. They suffer many disadvantages as compared to men in terms of literacy rates, labour participation rates and earnings. Empowerment of women has emerged as an important issue in recent times. The major strategies of women empowerment include social empowerment, economic empowerment, political empowerment and gender justice along with demographical justice (rural and urban). Empowering women particularly rural women is a challenge. Women are economically empowered through small scale entrepreneurship programme with the help of Self-Help Movement. Economic empowerment of women led to the empowerment of women in several aspects such as socio- economic opportunity, property rights, political representation, social equality, personal rights, family development, and community development and at last the nation development. For rural women, economic empowerment the concept of Self-Help Groups (SHGs) based on group approach to rural development is indeed a boon to the rural poor women who undertake viable economic activities on their own. The SHGs are voluntary associations of people formed to attain some common goals. The present study highlights to evaluate the empowerment of women through SHGs in Puducherry by using a case study approach. For this purpose, Yanam was selected to make the study more imperative.

KEYWORDS

Economic empowerment, rural women, demographical justice, literacy rates, poverty.

1. INTRODUCTION

f you want to awaken the country, first awake women. If a woman is awakened a family is awakened and a family is awakened, a village is awakened thereby entire country is awakened."

Jawaharlal Nehru

"Women are the builder and moulder of nation's destiny. Though delicate and soft aslily, she has a heart, far stronger and bolder than of man... she is supreme inspiration of man's onward march"

Rabindranath Tagore.

In India, women Empowerment is a buzz word to-day. As a nation, India is committed to the empowerment of women. Though women is regarded as " the unsung heroine who works from dawn to dusk", yet it is unfortunate that even the ignorant and worthless men had been enjoying superiority over women which they do not deserve and ought not to have. So, since Independence, Government has made concerted efforts towards removing various biases. The emergence of women entrepreneurs and their contribution to the national economy is quite visible in India. The number of women entrepreneurs has grown over a period of time, especially in the 1990s. Microfinance programs have significant potential for contributing to women's economic, social and political empowerment. Access to savings and credit can initiate or strengthen a series of interlinked and mutually reinforcing 'virtuous spirals' of empowerment. Microfinance development has emerged as major strategy to combat the twin issues of poverty and unemployment that continue to pose a major threat to the polity and economy of both the developed and developing countries. A number of agencies both Government as well as Non-Government Organizations are involved in micro-finance development initiatives.

FIGURE 1: SELF HELP GROUPS (WOMEN AT WORK)

Self-help groups have emerged as one of the major strategies for women's empowerment and various schemes of the Government of India have shown that strong women's groups could contribute substantially to the development and convergence of services and activities. These programmes have highlighted the benefits of formation of women's groups for building confidence and focusing on developmental tasks. Different groups in various states all over the country have focused on skill development and awareness generation, promoting economic development through income generating activities, inculcating thrift and credit management activities among poor women. A self-help group (SHG) is a voluntary association of persons with common interest, formed and managed democratically without any political affiliation (Ramesh, 1996). Women cannot be ignored while devising various policies for rural and socio-economic development. So, treating the women with equality of opportunities is very much required.

The major form of microfinance in India is that based on women's Self Help Groups (SHGs), which are small groups of 10-20 members. These groups collect savings from their members and provide loans to them. However, unlike most Accumulating Savings and Credit Associations (ASCAs) found in several countries, these groups also obtain loans from banks and lend them to their members. Despite these considerable achievements, sustainability of the SHGs has been suspect because several essential services required by the SHGs are provided free or at a significantly subsidized cost by organizations that have developed these groups.

1.1. COMMON CHARACTERISTICS OF SHGS

- Each group should contain 10 to 20 members.

- The members of this group should live below the poverty line.
- It has identical interest/common occupation/social heritage, homogeneity and affinity.
- This group creates self-help, awareness, and economic and social empowerment to the poor.
- The self-help group inculcates the thrift and savings habit among the members of each group.
- SHG have full support from Government as well as non-government orgnisation to enhance it.
- Each group maintains simple records and documents, which exhibit meetings, savings, and expenditures and store other extracurricular activities.
- This group has a principle of collective leadership and mutual discussions.
- This group get loans in micro-level from banks and some social service orgnisation.

The primary objective of SHG includes economic and social empowerment and also the skill development.

[a] Economic Empowerment

i. To inculcate the habit of saving

ii. To meet the small and emergency credit needs of their own

iii. To use the credit for the right purpose and to teach them to repay the loan regularly

iv. To enhance the income of the family

[b] Social Empowerment

i. To create among the women to have a feeling of "We for Ourselves";

ii. To improve the status of women in the society and in family, distribute the responsibilities of decision-making power to all.

[c] Skill Development:

i. Create self-confidence

ii. To inculcate the leadership qualities and interacting ability among the women.

The Union Territory of Puducherry is 479 Sq.kms. in area and has a population of 9,74,345 as per 2001 census with four distinct regions viz. Pondicherry, Karaikal, Mahe and Yanam lying geographically isolated from one another. Yanam region is located about 840 Sq.kms. north-east of Puducherry, near Kakinada in Andhra Pradesh. It covers with Puducherry town and its villages encompass 290 sq.kms surrounded by the south Arcot District, Karaikal town and its villages spread over an area of about 161 sq.kms, Mahe and its villages cover around 9 sq.kms surrounded by the Kerala state, and Yanam spreading over an area of around 20 sq.kms within the East Godavari district in Puducherry. While Puducherry, the head quarters of the union territory, lies 162 km south of Chennai and 22 km north of Cuddalore, Karaikal is about 150 km south of Puducherry and Yanam about 840 km north-east of Puducherry on the Andhra Coast. Mahe lies almost parallel to Puducherry, 653 km away on the west coast. There are 2 main drainage basins, the one of Gingee River which crosses it diagonally from north-west to the south-east and the other of Pennaiyar which forms the southern border. The people here speak about 55 languages. Puducherry town is connected by railways and roadways.

Puducherry is referred by names such as 'Quintessence of French Culture', 'India's Little France' and 'The French Riviera of the East', Still it has the French flavor in it as one can see by the grand colonial mansions, beautiful boulevards, and placid promenades, spellings on sign boards and buildings, names of roads and public places. The district presents more or less a flat land. There are no hills or forests. The main soil types are red ferrallitie black clay and coastal alluvial.

Karaikal district is situated in more or less a flat land. There are no hills or forest in this district. This district consists of almost entirely coastal alluvial soil which is highly suitable for cultivation of paddy and pulses. Pulses, cotton, chilies, coconuts, ground nuts, vegetables and sun flower are the other popular items grown in the district. Karaikal is a good fishing centre with the following ten marine fishing villages spread along the coast. Mahe is a little area which is bounded on the south-west by the Arabian Sea, on the north by river Ponniyar and on the other sides by a stretch of calcareous hills of medium height which are linked to the ghats by a series of wooden hillocks. The district consists of three entities viz, Mahe town proper, the small enclave of Kallayi and of Naluthura. Mahe is situated on the Malabar Coast. This district is entirely rain fed and is covered by typical red lateriate soil. There is no forest area in this district. The coast line here lies between the richest fishing belt between Ponnani and Mangalore on the west coast. Mahe is at the centre of a prawn grouped which stretch from Quilon to Mangalore. Yanam lies on the spot where the Coringa River and the Godavari River separate. It is more or less a flat land.

FIGURE 2: GEOGRAPHICAL MAP OF PUDUCHERRY

The density of population of the Union Territory is 2034 persons/Sq.km. The rural population is 3,25,726 persons (33.43%) whereas the urban population is 6,48,619 persons which constitutes 66.57% of the total population. The region-wise break-up is as follows:

TABLE 1: THE REGION WISE DETAILS OF THE UNION TERRITORY OF PUDUCHERRY

Region	Area (Sq.kms)	Population	Male	Female
Puducherry	290	7,35,332	3,69,428	3,65,904
Karaikal	161	1,70,791	84,487	86,304
Mahe	9	36,828	17,153	19,675
Yanam	20	31,394	15,893	15,501
Total	479	9,74,345	4,86,961	4,87,384

Source: Directorate of Economics and Statistics, Government of Puducherry

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As against the national pattern, the percentage of population in urban areas is much higher than the population in rural areas. The entire Mahe and Yanam regions have been classified as urban. 66% of the Union Territory is classified as urban as against the All India level of 25.7%. The male population is placed at 4,86,961 as against female population of 4,87,384, registering a sex ratio of 1,001 females for every 1000 males. The scheduled Castes population is 1,57,771 and accounts for 16.19% of the total population. There are no Scheduled Tribes in the UT of Puducherry according to 2001 Census Report.

In Union Territory of Puducherry (UTP), Swarnajayanti Gram Swarojgar Yojana (SGSY) was launched on 1st April 1999 with the aim of assisting families (swarojgaris means self-employed) below poverty to earn an income of Rs. 2000 per month and rise above the poverty line through a combination human and economic capabilities development assistance, viz., bank credit, government subsidy and skill up gradation, for sustainable development. Currently, 1640 SHGs have been formed in the UTP, of which 1550 have received revolving funds.

PIPDIC has also proposed to start Skill Development Mission in this UT of Puducherry. It has already appointed M/s.IL & FS CDI as the consultant for mapping the skill gaps, identifying the groups to be trained and the training courses. The consultant has submitted the report and the same have been discussed in the State Level Skill Development Mission at its meeting held on 23rd October 2010. The project envisages imparting training to about 20,200 persons in five years period through skill schools by M/s.IL & FS CDI.

District Industries Centre plays a vital role in creating employment opportunities to the unskilled women through various training programmes.

a) In plant Training: Candidates are sponsored to industrial establishments to have hands on training in the trades of computer operations, floor shop management etc. for a period of one year.

b) Vocational Training: It is an institution oriented training focused towards increasing the employment opportunities of women. Training is imparted for a period of six months in trades like tailoring, embroidery, beauty parlor etc.

c) Advanced / Hi-skilled Training: Candidates are sponsored to selected short term trades offered by reputed training institutes in order to get training in advanced skills in the field of study so as to augment employment opportunities.

d) Training and Development: Unemployed women are given training in the development of handicrafts, coir and silk to take up employment or to go for self employment. They are also given advanced training options to improve their skill and make them competitive.

e) Self Employment: Financial assistance is provided to unemployed youth for taking up self employment ventures. Subsidized loan assistance through banks is provided under PMEGP, MUPSES to take up self employment ventures.

Apart from the above, action is taken to provide quality and professional training in the potential areas like Tourism and Hospitality, Food Processing, Logistics, BPO Call Centers and Medical Transcription, Office Management and Export Import Management etc., with a target of 3000 beneficiaries in the Annual Plan 2011-12 through all these training programmes.

Promotion of low cost decentralized tiny and cottage, small and medium enterprises with the underlying principles of "technological demystification" and the appropriate linkages with technical institutions and ensuring forward linkages with the marketing agencies would simultaneously address the critical problem of rural unemployment and income enhancement. The opportunity available is the large number of well mobilized SHGs which could manage particularly small business enterprises tiny and cottage industries.

SHGs, a proven concept for social mobilization of rural poor can be effectively utilized with the support of the experienced NGOs to mobilize the BPL families and to enhance the outreach of the social security programmes. The other vital factor is to ensure quality delivery of the programme and continuous human resource development for the staff executing the different programmes. Sufficient representation needs to be ensured for women's contribution at various stages of planning and implementation of various social security programmes. Active joint campaign and support by the Government and Scheduled Banks for setting up of small and medium-sized enterprises (SMEs) and small scale service and business enterprises (SSSBEs) would improve and provide significant employment opportunities. With dwindling agriculture sector base, emphasis on tiny and cottage sector and micro finance / SHGs would boost rural economy. The state should specially focus on partnership with SHGs, civil society organizations and NGOs to improve the efficiency in the implementation of various development programmes aimed at poverty alleviation

2. REVIEW OF LITERATURE

Staples (1990) defined the term empowerment as means (a) to gain power (b) to develop power; to take or seize power; (c) to facilitate or enable power and (d) to give or grantor permit power. Sandbergen (1991) while assessing the impact of a small scale irrigation project had shown indications of contribution to potential empowerment of women in the form of enlargement of freedom of movement of women. Sen (1997) stressed the importance of empowerment of women which is about change in favour of those who previously exercised little control over their lives. This change has two components, the first is control over resources (financial, physical and human) and the second is control over ideology belief, values and attitudes. Srilatha *et al.* (1997) observed that a major gain of making the programme of SHGs women centered was that the transition of power from the bureaucracy to the people. Joseph (1998) concluded that the "Preshitha Service Society (PSS)" of Coimbatore district had made women not only economically independent but they were also made to change their self-perception that they need not always be at the receiving end. Men and society had come to understand women's capabilities and their contribution to the development process. Mridula (1998) stated that women's development in recent years emphasize on providing equal opportunities to women by removing gender bias, empowering women and creating self-reliance among them. Sashi (1998) revealed that through the intervention of India Social Institute in two slums, women were beginning to develop a better understanding of their self in terms of health, income, leisure, marital and familiar roles and various other rights and obligations. Jayasri (1999) opined that empowerment by exercising one's own right is the only way by which the society can sustain itself. Sunita Roy (1999) reported that empowerment of women should focus on aspects like (a) direct involvement of women in programming and management, (b) effective collaboration with community organizations, (c) organizing and strengthening of women's self-help groups, (d) sensitization and advocacy for gender justice in society, (e) identifying women's need and priorities while generating employment, (f) organizing women in different groups to undertake certain productive activities to earn their livelihood and (g) elimination of violence and discrimination against women at physical, mental, domestic or societal level. Sudharani *et al.* (2000) defined empowerment as the process of challenging existing power relations and gaining greater control over the sources of power. Empowerment is a process of awareness and capacity building leading to greater participation to greater decision making power and control to transformative action. Hemantha (2001) has comprehensively given the parameters of empowerment of women as follows:

- Enhance self-esteem and self-confidence in women.
- Build a positive image of women by recognizing their contribution to the society and economy.
- Develop in them an ability to think critically.
- Faster decision-making action through collective process.
- Enable women to make informed choices in areas like education, employment and health especially reproductive health.
- Ensure equal participation in development process.
- Provide information, knowledge and skill for economic independence.
- Enhance access to legal literacy and information related to their rights and entitlements in the society with a view to enhance their participation in all areas.

Sherin (1999) found that 82.69 per cent of the functional SHG respondents had expressed empowerment in terms of authority in planning, decision making, implementation and evaluation of the SHGs programmes while only 55.17 per cent of the respondents of the non-functional SHGs claimed that they had been similarly empowered. Saradha (2001) reported that the product empowerment of women in self-help groups was found to range from high and low with 35.80 and 35.00 per cent, respectively. It indicated that even though the women are psychologically empowered but their real empowerment level was low. Choudhary (1996) reported in his study on 'empowering strategies for rural women that the goals of poverty reduction and empowerment of women can be effectively achieved if poor women could organize into groups for community participation, as well as for assertion of their rights in various services relating to their economic and social well-being. Poor women's creativity, group dynamics and self-management are major elements in tackling the gender and equity

issues. Srinivasan (1996) found that SHGs offer means by which the poor had access the sources in their own right which makes the people confident that by saving small amount over a period of time that help each other in group in a big way. Patnaik (1997) described the important areas for empowerment of women in rural areas is (a) women and their work force participation (b) women and their education (c) women and their health and (d) women and their political participation. He also felt that empowering women with economically productive work will enhance their contribution to rural development. Agarwal (2000) described that training of rural women was important so as to increase their involvement in development process, enhance their skill and make them equal partners in national development. Saradha (2001) in her study on empowerment of rural women through SHGs found that education, social participation, extension participation, training, mass media use and capacity building had significant association with the level of empowerment, whereas age, family size, land holding and material possession had no association with the level of empowerment. She also reported that very high majority (90%) of the women agreed that their economic independence increase the decision-making power. Puhazhendi (2000) revealed that participation of women in SHGs made a significant impact on their empowerment both in social and economic aspects. The women members were able to increase their income level manifold and contribute to the development of the family. Above reviews clearly revealed that the major factors affecting the empowerment were access to land, independent earning, community participation, decision making and self-confidence. Further education and social participation, also affect the empowerment of women.

3. METHODOLOGY

In India, Self-Help groups are playing a vital role in the socio-economic development of women. Their role is significant in extending loans besides providing training, inputs, marketing and extension services. Today there are more than 25 lakh SHGs in the country, ninety percent of them are women Self-Help Groups. There are about 1640 women SHGs in Puducherry covering nearly 1450 poor women. Puducherry alone has about half of SHGs organized in the country. Since inception, an amount of Rs.150.90 crore is mobilized as corpus by these groups. In this context and with this backdrop, this is a modest attempt to study the impact of SHGs on women empowerment in the Union Territory of Puducherry.

It is a case study for which "Yanam" was selected as a sample which represents the overall characteristics of Puducherry. Women empowerment in the present work has been assessed through the growth of Self-Help groups and their services to both rural and urban women. Consistent with the objectives of the study, different techniques have used for the analysis of the data. The data pertaining to the study has been analyzed and presented in tabular forms to make the findings meaningful and easily understandable with simple statistical tools of analysis like ratios, percentages etc. The present study was based on two sources of data viz., primary data and secondary data. Primary data is the first hand information collected from the SHG members of Yanam directly to know the impact of the scheme on their lives in terms of increase in the level of employment and incomes. The primary data was collected through direct interview method from sample population of 400 beneficiaries. The secondary data related to present study was mainly collected through secondary sources which include various official reports, periodicals, magazines and websites etc.

FIGURE 3: GEOGRAPHICAL MAP OF YANAM
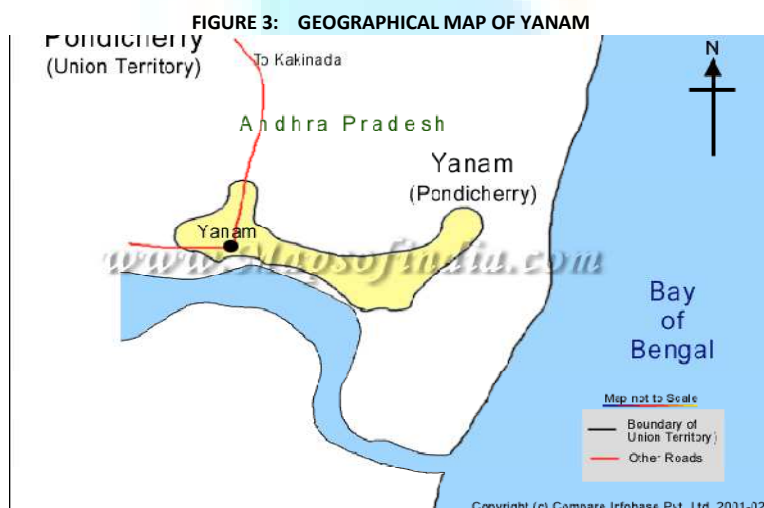
4. OBJECTIVES OF THE STUDY

Very few studies are available related to the measurement of level of empowerment of women and contributing factors for it. This study has been designed mainly to focus on extent of empowerment of women through income generating activities and constraints that are experienced by the women in their empowerment.

With this background the present study, **"*Women Empowerment through Self-Help Groups in Puducherry: A case study of Yanam"* has been formulated with the following objectives:

o   To study the extent of women empowerment through various income generating activities
o   To study the profile of women involved in income generating activities
o   To study the relationship between empowerment and personal characteristics of women
o   To identify the constraints in empowerment of women.
o   To study the profile and nature of enterprises owned by women.
o   To evaluate the performance of business enterprises carried out by rural women entrepreneurs
o   To offer suggestions for promoting empowerment among rural women.

5. ANALYSIS

According to Pandit Jawaharalal Nehru, the first Prime Minister of India, *"Freedom depends on economic condition even more than political. If women are not economically free and self-earning, she has to depend on her husband or son or father or someone-else and dependents are never free."*

Economic empowerment is one of the means to empower the women. Enhancing women's economic productivity is an important strategy for improving the welfare of 60 million Indian households living below the poverty line (Dwarakanath, 1999). The existence of women in a state of economic, political, social and knowledge disempowerment is known to be a major hindrance to economic development. J. Cooper, famous Anthropologist has defined the position of women in more scientific way as "Status of women in any society depends on her recognized rights, duties, liberties and opportunities – chiefly in the domestic, economic, social, political and religious spheres". Economic independence or access to an inherited or self-generated income is considered as the major means of empowerment of women, to a great extent this is true as economic dependence is the worst form of dependence. Women's income in a family is very important in relation to their full identity and powers in all spheres of life. However, as in the case of education, economic independence also may not give women the necessary decision making power. The prevailing value system has put so many hurdles on the path for women's equality through economic

empowerment even so the role of the economic factor cannot be minimized. The self-help group provides an appropriate platform for initiating and sustaining income generating activities.

Self-Help Groups (SHGs) have emerged in order to help poor women to secure inputs like credit and other services. The concept of SHG in India was introduced in 1985. Self-Help Groups are small, economical, homogeneous, affinity groups of rural poor who are voluntarily ready to contribute to a common fund to be lent to their members as per the group decision. They work for group solidarity, self group awareness and social and economic empowerment through democratic functioning and have refinanced Rs. 3.00 crores to the banks. Many rural development programmes like 'Swarn Jayanti Gram Swarozgar Yozana' (SGSY) which is a combination of six rural development programmes, are based on the self-help group strategy. It is a viable alternative to achieve the objectives of rural development and to get women's participation in all rural development programmes. The present study addresses issues related to the performance of self-help groups. Various research gaps have been identified that need to be studied immediately to strengthen the performance of self-help groups.

In the U.T. of Puducherry Self Help Groups are actively undertaking various trades/business. This Corporation is effectively arranging for formation of Self Help Groups in various villages of Puducherry and Karaikal Region. Periodical camps are being arranged to Self Help Groups in various villages with a view to increase social awareness, development of leadership qualities and towards building up of self confidence among women. Training on Health, Nutrition, Legal Awareness, Self Confidence, Accounts Maintenance, Leadership Quality, Human Understanding etc., are being given to Self Help Groups. After one year Group loan will be sanctioned under this scheme in order to develop savings habits and to make them self sufficient by circulating the loans among the members and also to improve their living status.

In order to gear up the functions of the Self Help Group and also to take up the income generating activities 677 Multi-purpose Women Development Coordinator and 677 Multi-purpose Women Development Helper was absorbed. They will undertake Group formation/mobilization activities community oriented innovative interventions, integration and convergence of schemes etc., They will make Lead Agency, access to Micro Credit and facilitation of micro enterprise (toward poverty alleviation) monitoring and evaluation of various schemes of women development corporation. They will persuade women beneficiaries who availed loan from Banks and Puducherry Corporation for Development of Women and Handicapped Persons Ltd., to repay the loans.

Swayamsidha (SHGs) a new scheme being implemented with the long – term objective being the all-round empowerment of women, especially socially and economically, by ensuring their direct access to and control over, resources through a sustained process of mobilization and convergence of all the on-going sectoral programmes, the immediate objectives are as below:

➢ Establishment of self-reliant women's Self Help Groups (SHGs) Women will be encouraged to form groups according to their socio-economic status and felt needs, after which they will net work with other groups.
➢ Creation of confidence and awareness among members of SHGs regarding women's status, health, nutrition, education, sanitation and hygiene, legal rights, economic upliftment and other social economic and political issues;
➢ Strengthening and institutionalizing the savings habit in rural women and their control over economic resources;
➢ Improving access of women to micro-credit;
➢ Involvement of Women in local-level planning;
➢ Convergence of different agencies for women's empowerment and integrated projects accessing delivery of different schemes from a single window; and
➢ Inculcating a subsidy-free approach to women's empowerment.

Under this scheme 100 Self Help Groups in Puducherry and 100 Self Help Groups in Karaikal have been formed with 3525 members by providing basic infrastructure facility such as name board, furniture, stationery items etc. The PCDWHP has been identified as an implementing agency for the Oulgaret Municipality, Bahour and Mannadipet Commune in Puducherry Region and entire Karaikal Region.

"*Payment of Interest Subsidy to the Women Self-help Groups Scheme, 2009*" Scheme for giving interest subsidy and that the interest beyond 3% on loan of maximum amount of Rs. 2/- lakhs to each Self-help Group would be borne by the Government subject to prompt repayment being implemented in Yanam on pilot basis by Local Administration Department, PUDA, Puducherry vide (G.O. Ms. No. 3/LAS/A4/2010-11, dated 8th April 2010).

5.1. GUIDELINES FOR THE IMPLEMENTATION
▪ PUDA shall be the nodal agency for implementation of the scheme.
▪ It shall extend to all the Women Self-help Groups registered with the Puducherry Urban Development Agency, Local Administration Department and the District Rural Development Agency in the whole of the Union territory of Puducherry.
▪ It shall come into force in Yanam region from 6-1-2010 and in Puducherry, Karaikal and Mahe regions on such dates as the Government may publish in the gazette.

5.2. OBJECTIVES

This scheme aims at strengthening and empowering Women Self-help Groups engaged in providing self-employment of women by reimbursement of that part of the interest charged by Government banks over and above 3% per annum in respect of the loans not exceeding Rs.2.00 lakhs availed of by such Self-help Groups. If loan exceeds Rs. 2.00 lakhs, the component above Rs. 2.00 lakhs shall not be eligible for the interest subsidy.

For the purpose of this clause, if the interest rate is more than 3%, the Self-help Groups would pay the interest amount to the limit of 3% and the remaining amount will be reimbursed by way of subsidy by the Government so as to reduce the financial burden of the Self-help Groups.

Women Self-help Groups already registered with PUDA/DRDA which makes prompt repayment of loan every month i.e. within the period fixed by the bank shall be eligible to avail interest subsidy. These Self-help Groups should not be engaged in financing/money lending. These Self-help Groups should be working in the same region in which they are registered and engage in income generating activities.

Self-help Groups which have completed two years from the date of registration shall only be eligible for benefits of this scheme. Each Self-help Group will be eligible for availing this scheme from only one bank at a point of time. The Self-help Group can avail this scheme for a second loan only after the entire first loan has been paid off. If the Self-help Group defaults in payment, the Government will cease to pay the interest subsidy from the next month.

5.3. TRAINING SCHEMES

Training Programme with stipend is being provided for the educated unemployed women in the following trades by this Corporation. Cost of training application is Rs.5/-. Stipend: Rs.150/- per student.

TABLE 2: DETAILS OF TRAINING ACTIVITIES AND REQUIREMENTS

Trade	Document required for Enrolment
Computer	Birth Certificate 18 – 35 Years
Typewriting	Education Qualification :
Tailoring & Embroidery	SSC and above for General
Terracotta and Paper Making	Plus 2 and above for Computer Training
Toys making	8th and above for Typewriting
Sea Shell Articles making	Annual Income not exceeding Rs. 24,000/-
Stuffed Dolls making	
Palm Leaf Articles making	
Fishnet Weaving	
Silk Weaving	
Nylon Mat Weaving	

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5.4. FINANCIAL ASSISTANCE

This Corporation is extending financial assistance through Banks, through NHFDC and under Direct Control. Banks provide loan amount not exceeding Rs.10,000/- with 33.3% Subsidy for O.C. and 50% for S.C. is being disbursed through Nationalized Bank to setup Small Trades. Application cost Rs.10/-.

TABLE 3: DETAILS OF TRADES AND REQUIREMENTS FOR FINANCIAL ASSISTANCE

Trade	Document required for Enrolment
Petty Shops	Birth Certificate/Age Proof
Grocery Shops	Education Qualification Certificate
Dairy Units	Caste & Income Certificate (Ceiling Rs. 24,000/-)
Mobile Vendors	Ration Card/EPIC Xerox Copy
Mobile Canteens	Disability Certificate for Physically Handicapped Persons
Fair Price Shops	
Agarbathi Unit	
Papad & Pickle Making	
Tailoring	
Poultry	
Weaving	
Idly Shop	
Sarees Business	
Fire Wood Shops	
Vegetable Shops	
Autorickshaw	
Any other Small Shops/ Business	

INTEREST RATES

Upto Rs.50, 000/-   - 5%

Rs.50, 001/- and up to Rs.5, 00,000/-   - 6%

5.5. PONDICHERRY WOMEN'S COMMISSION

The Puducherry Women's Commission was constituted in the Union Territory of Puducherry with effect from 5th October 2004. This Commission is constituted to improve the status of women in the Union Territory of Puducherry and to enquire into unfair practices affecting women. The Commission is funded by Puducherry Corporation for Development of Women.

The profile of the women of the Union Territory (UT) of Pondicherry presents a demonstrable contrast to that of women of India in general. Conditioned by its geography, history and culture, Pondicherry reflects the South Indian world view in which the concept of femininity-motherhood is central to the way of life and education is perceived as the gateway for better livelihood. In the 20th century, especially, much attention was given to the social development of women especially under the influence of the Mother (Mirra Alfaasa) of Aurobindo Ashram-Auroville. The status of women in Pondicherry has been considerably influenced by the teachings of the Mother. She believed in the equality of sexes and wanted same education and training to be given to boys and girls.

In Yanam 6 regions were selected as samples viz., Kanakala Pet, Savitri Nagar, Dariyala Tippa, Faram Pet, Anyam Gardens and Gopal Nagar basing on the number of Self-Help Groups lined to the banks as on 31.03.2012. Multistage sampling technique was used to select the respondents for the study. The first stage is the selection of groups based on lining to the banks; the second stage involves the selection of regions in Yanam, while the third and the final stage is the random selection of sample groups from the selected regions. The sample groups are selected in the final stage of sampling on a random basis from the regions selected. Based on the information furnished by the official records, the regions were selected based on the number of group member's actively engaged in income generating activities. In selecting the groups, Co-operative societies were purposively selected due to their large membership. Accordingly 133 SHGs have been finalized from each selected region. From each group three members were selected on random basis making the sample 400 members. Data was collected from the members of the group with the help of interview schedule.

TABLE 4: REGION- WIDE DISTRIBUTION OF SHGs

Regions	No. of SHGs
Kanakala Pet	28
Savitri nagar	22
Darayala Tippa	07
Faram Pet	10
Anyam Gardens	40
Gopal Nagar	26
Total	**133**

Source: Collected through Official Record

TABLE 5: DISTRIBUTION OF SHG MEMBERS BY THEIR HABITS

Regions	Nature of Habits					
	Reading News Papers	Watching TV	TV Cinemas	Visiting Temples	Gardening	Total
Kanakala Pet	03 (03.57)	38(45.24)	83 (98.81)	80(95.24)	56(66.67)	84(100.00)
Savitri nagar	01 (01.52)	27(40.91)	66 (100.00)	66 (100.00)	17(80.95)	66 (100.00)
Darayala Tippa	04 (19.05)	12 (57.14)	21(100.00)	21(100.00)	17(80.95)	21(100.00)
Faram Pet	02 (06.67)	14(46.67)	30 (100.00)	30 (100.00)	23(76.67)	30 (100.00)
Anyam Gardens	12 (10.00)	55(45.83)	116(96.70)	115(95.83)	86(17.67)	120(100.00)
Gopal Nagar	02 (02.53)	30(37.97)	79 (100.00)	75(94.94)	50(63.29)	79 (100.00)
Total	**24 (06.00)**	**176 (44.00)**	**395 (98.75)**	**387 (96.75)**	**378 (94.50)**	**400(100.00)**

Source: Collected through Official Records (Figure in brackets is percentage to their respective samples)

The groups which are availed of assistance for individual activities have chosen a wide spectrum of income generating activities, which are area-specific. The following are the income generating activities selected by the respondents under study-

1. Dairy 2. Powders and Pickles 3. Garments 4. Kirana and Tea Stall 5. Vegetables 6. Adda leaf, Agarbatti and Candles 7. Construction Material 8. Coconut and Coir 9. Handicrafts 10. Sweets and Bakery 11. Dry Fish 12. Lace and Leather Bags.

Education is a boon to mankind, while lack of education to a person is a bane now-a-days. The confidence of illiterate women is generally low in comparison to literate women. The study revealed that out of 400 respondents in the sample, 62 members (15.50 per cent) are illiterates. Such illiterates are found more in Faram Pet (20.24 per cent), Dariyala Tippa (19.05 per cent) and Anyam Gardens (17.50 per cent) districts. The study further shows that 207 respondents (51.75 per cent) have studied between First and Fifth class while 98 respondents (24.50 per cent) studied between Sixth class and Ninth class. There are however a few

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respondents who have studied SSC (6.50 per cent), Intermediate (1.25 per cent), Degree (0.50 per cent). Respondents with intermediate and Degree education were found in Kanakala Pet, Gopal Nagar, Savitri Nagar and Anyam Gardens only. On the whole, it can be concluded that majority of the respondents have studied below Ninth class only. The possession of consumer durables such as Television, Radio, LPG, Mixi, Fan, Gold Ornaments, Moped, Refrigerator and Telephone reflects the standard of living as well as the life style of an individual. The larger the number of these consumer goods possessed by an individual, the higher the standard of living and vice versa. The ownership of these consumers is durable in the function of individual's discretionary income. The higher the discretionary income, the larger the number of consumer durables under the possession of an individual and vice versa. The study revealed that a little over 95.75 per cent of the members possessed either Table Fan or Ceiling Fan, 88.00 per cent possessed LPG, 44.25 per cent possessed different gold ornaments, 44.00 per cent possessed Television and 40.75 per cent possessed Radio. Surprisingly there are a few members who possess Telephone as well as Refrigerator. The same phenomenon is found among all the members belonging to the six districts under study. Thus it can be inferred that the standard of living as well as life style of the SHG members under study is satisfactory. An attempt is made in the study to find out the usual habits of the women under study and the information is presented in Table 2. It is clear from the table that out of 400 sample SHG members only 24 women (6.00 per cent) read daily news papers, 176 women (44 per cent) watch television, 395 members (98.75 percent) visits cinemas, 387 members (96.75 per cent) visit bank premises and 378 members (94.50 per cent) visit government offices. It is common phenomenon that though some of the group members do not possess television, they used to watch their neighbor's television. Thus it can be concluded that barring reading news paper habit, majority of the SHG women members have been in

6. CONCLUSION

SHG is the only programme of its kind, which aims at empowering the rural poor women by inculcating entrepreneurial skill. It seeks to encourage collective action in the form of group activities, which are known to work better than individual efforts. Self-employment is emerging to be a very important source of livelihood for women in Asia and South East Asia. This is due to paucity of employment opportunities. There is an additional factor that many types of paid employment are felt to be more suitable to males than females. The main objective of the scheme is to improve the economic, health, educational and social status of women by providing them assistance and creating employment opportunities. There is an emerging need to promote women empowerment for eradication of poverty. Towards this end, delivery of micro finance to the micro enterprises plays a significant role. Women with low income and lack of knowledge of available banking facilities can do little for the growth of banking habits on their own. As poverty alleviation is the ultimate goal of any nation, studies have shown that the delivery of micro finance to the poor is productive, effective and less costly, if they are organized into SHGs.

Self-employment, which is the best employment in the wake of paucity of employment opportunities, is emerging to be a very important source of livelihood for women in Asia and South East Asia. The SHG movement in India in general and Puducherry in particular has metamorphosis the rural economic scenario perceptibly. As a supplementary source of family income the SHGs proved to be a boon to the woman folk not only in enhancing their financial status but also promoting entrepreneurship among them. The SHG members have started the business with a good intention even though low educated members have availed group loans from bank and doing traditional business like Powders and Pickles, Garments, Dairy, Kirana and Tea Stalls and Handicraft activities and to earn money to supplement the family income.

Impressed by the remarkable success of women Self-Help Groups in India, the World Bank said that the model could be replicated in other countries also. The former Presidents of the USA, Bill Clinton and George Bush, the Micro Soft Wizard Bill Gates have praised the performance of the women Self-Help Groups in India. In the words of Paul D. Woolfitz "this is a great learning experience. We can tell others about the model. I have visited places in Africa, and Indonesia, but I found the Self-Help Group movement in India to be the biggest one". Thus it can be concluded that the women discriminated for generations have spearheading a silent revolution of SHGs for their empowerment in all spheres, mainly economic empowerment through which the progress of the nation can be achieved.

There is a need to prioritize the development strategies for the Union Territory. The positive side of development is reflected in performance of social sectors in Puducherry. A number of measures initiated by the state have resulted in improving the various indicators of health and education in particular. There is a need to have an Administrative Reforms Commission to look into the staffing pattern, devolution of more powers to the Collectors and Regional Administrators to make the system more accountable. The state also needs to address the issue of devolution of more functions, functionaries and finances to the newly created Panchayati Raj institutions.

All the Plan implementing departments have been requested to incorporate the relevant suggestion while formulating schemes in the Draft 12th Five Year Plan 2012-17 to generate its own resources adequately to maintain its committed liability.

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HINDRANCES TO MICROFINANCE SUSTAINABILITY IN RAJOURI DISTRICT OF JAMMU AND KASHMIR

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ABSTRACT

Microfinance is a general term used to describe financial services to low income individuals. It also helps low income individuals to lift themselves up out of poverty. That is why Microfinance has become a much favored intervention for poverty alleviation in the developing and least developed countries. Present study seeks to interpret various challenges that as per the perception of respondents affect proper sustainability of Microfinance in Rajouri district of Jammu and Kashmir. The study further analyzes the impact of each individual factor on Microfinance sustainability. The study also documents a field survey of two hundred and fifty people who are primarily or secondarily linked to Microfinance in Rajouri district of Jammu and Kashmir.

KEYWORDS

Microfinance, Microfinance Sustainability, Interventions, Strategic challenges.

INTRODUCTION

Microfinance is usually understood to entail the provision of financial services to micro entrepreneurs and small businesses. Microfinance plays a very important role in economic development of many developed and developing countries. They primarily offer loans and other assistance in development of business which is mostly run and managed by low income community. The prime advantage of Microfinance has been seen in case of developing countries. Microfinance provides a large variety of products that include microloans, savings and other deposit products, remittances and transfers, payment services, insurance and other type of products and services that is not mostly offered by other commercial and development banks.

Today Microfinance is gaining worldwide support and has become a major poverty alleviating strategy across countries. The United Nations has also regarded the trend by declaring 2005 as International Year of Microcredit, through which an increase has been seen in the global access of microfinance. In India, Microfinance has also been established with the opening of Microfinance Institutions. These institutions include a broad range of sub institutions that offer financial services to low income clients, non-governmental Organizations (NGO'S), non-banking financial institutions, cooperatives, rural banks, financial institutions and other commercial banks. Moreover Microfinance has endeavored to develop sustainable enterprises and its innovations throughout the country with renewed enthusiasm and innovation leading to best practices that will benefit and guide future practices of Microfinance. However the Microfinance industry in most parts of India remained largely underdeveloped through facing of many challenges from time to time. These challenges include lack of Govt. support, lack of well trained staff, Improper/partial utilization of resources, strict norms for granting loans, limited/lesser Microfinance Institutions, Lack of public awareness programs, Borrowers sustainability etc. These all challenges have greatly affected the smooth implementation of Microfinance program at all possible levels whether it is Corporate, Business, Functional or Operational level. Previous researches have also focused on the need for development of a proper mechanism which will make Microfinance strategy more affective and open new dimensions of development.

OBJECTIVES

1. To identify various challenges to Microfinance Sustainability in Rajouri district of Jammu and Kashmir.
2. To analyze the nature of impact of each challenge on Microfinance in future.
3. To analyze challenges that has a primary or secondary impact on Microfinance Sustainability in Rajouri district of Jammu and Kashmir.
4. To analyze perception of people regarding various challenges to Microfinance sustainability.
5. To recommend various strategies that will increase Microfinance performance in Rajouri district of Jammu and Kashmir.

MATERIAL AND METHODS

Present study has been worked out with the help of primary data. The primary data has been collected with the help of a pretested questionnaire from people who are linked to Microfinance on primary or secondary basis. The data and information so collected has been analyzed statistically to access the nature of challenges being faced by microfinance for its sustainability in Rajouri district of Jammu and Kashmir.

RESULT AND DISCUSSION

Microfinance is one of the most important tools in elevating poverty and modifying socio economic conditions of poor today. India along with all the other nations of the world is also implementing Microfinance policies to reduce the ratio of poor people. No doubt Microfinance has given us a technique to reduce poverty but since there are multiple challenges to its proper implementation. The challenges faced now a days for proper implementation of Microfinance schemes as per the perception of people linked to Microfinance are given as follows:

1.   LACK OF GOVERNMENT SUPPORT

The values for factor "Lack of Govt. Support" has been tabulated in table 1. The analysis of values reveals that 35% of respondents have strong belief that lack of govt. support is one of the biggest challenges to Microfinance while 20% respondents support it up to some extent. Moreover 18% respondents have a neutral opinion. However a total of 27% respondents don't consider this factor as a challenge as Govt. support is on a regular increase to Microfinance institutions.

TABLE 1: LACK OF GOVT. SUPPORT

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
88	51	44	38	29
35%	20%	18%	15%	12%

2.   LACK OF WELL TRAINED STAFF

The values for factor "Lack of Well Trained Staff" has been tabulated in table 2. The analysis of values reveal that a total of 33% respondents consider this factor as a biggest challenge in Microfinance Sustainability in Rajouri district while 37% respondents have a neutral opinion. Moreover 16% respondents don't consider this factor as a challenge while 14% consider this factor as irrelevant to be considered as a challenge.

TABLE 2: LACK OF WELL TRAINED STAFF

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
53	30	93	41	33
21%	12%	37%	16%	14%

3.   PARTIAL/IMPROPER UTILIZATION OF RESOURCES

The values for factor "Partial/Improper Utilization of Resources" have been tabulated in table 3. The analysis of values reveals that 26% respondents consider this factor as a biggest challenge while 37% consider its impact up to certain level only. 20% respondents have a neutral opinion regarding this factor. Moreover a total of 17% respondents don't consider this factor as a challenge to microfinance sustainability in Rajouri district of Jammu and Kashmir.

TABLE 3: PARTIAL/IMPROPER UTILIZATION OF RESOURCES

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
65	92	49	26	18
26%	37%	20%	10%	7%

4.   STRICT NORMS FOR GRANTING LOANS

The values for factor "Strict Norms for Granting Loans" has been tabulated in table 4. The analysis of values reveals that a total of 32% respondents consider this factor as a major challenge to Microfinance sustainability while 40% respondents have a neutral opinion. Moreover a total of 28% respondents don't consider this factor as a challenge to Microfinance sustainability in Rajouri district of Jammu and Kashmir.

TABLE 4: STRICT NORMS FOR GRANTING LOANS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
50	29	101	38	32
20%	12%	40%	15%	13%

5.   LIMITED MICROFINANCE INSTITUTIONS

The values for factor "Limited Microfinance Institutions "has been given in table 5. The analysis of values shows that a total of 23% respondents consider this factor as a challenge to Microfinance Sustainability while only 14% respondents have no decided opinion. Moreover a greater percentage of respondents i.e. 63%, consider that this factor could not be considered as a challenge for Microfinance Sustainability.

TABLE 5: LIMITED MICROFINANCE INSTITUTIONS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
17	41	35	94	63
7%	16%	14%	38%	25%

6.   LIMITED AWARENESS PROGRAMS

The values for above factor are given in table 6. The analysis of table values reveals that a total of 64% respondents consider that this factor could greatly affect Microfinance Sustainability while 17% respondents have no decided opinion. Moreover a total of 19% respondents don't consider this factor as a challenge to Microfinance in Rajouri district of Jammu and Kashmir.

TABLE 6: LIMITED AWARENESS PROGRAMS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
75	86	43	27	19
30%	34%	17%	11%	8%

7.   EDUCATION LEVEL

The values for factor "Education Level" have been tabulated in table 7. The analysis of values reveals that only 17% respondents consider this factor as a challenge to Microfinance Sustainability while 13% respondents have a neutral opinion. Moreover a total of 70% respondents consider that this factor could not be considered as a challenge to Microfinance Sustainability in Rajouri district of Jammu and Kashmir.

TABLE 7: EDUCATION LEVEL

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
25	18	32	86	89
10%	7%	13%	34%	36%

8.   SERVICE CHARGE OF MICROFINANCE INSTITUTIONS

The data for factor "Service Charge of Microfinance Institutions" have been given in table 8. The analysis of values reveals that a total of 34% respondents consider this factor as a challenge for Microfinance Sustainability while a greater percentage of respondents i.e., 40% have no decided opinion. Moreover about 26% respondents are of the opinion that this factor could not be considered as a challenge to Microfinance Sustainability in Rajouri district.

TABLE 8: SERVICE CHARGE OF MICROFINANCE INSTITUTIONS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
47	38	99	40	26
19%	15%	40%	16%	10%

9.   REGULATORY FRAMEWORK

The data collected for factor "Regulatory Framework" has been tabulated in table 9. The analysis of values reveals that about 78% of the total respondents consider this factor as a major challenge to Microfinance Sustainability while only 11% have no decided opinion. Moreover a total of 11% respondents don't think this factor could affect the working of Microfinance as Govt. is keen in proper implementation of Microfinance policies.

TABLE 9: REGULATORY FRAMEWORK

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
104	90	27	18	11
42%	36%	11%	7%	4%

10. BORROWER'S SUSTAINABILITY

The values collected for factor "Borrower's Sustainability" has been given in table 10. The analysis of values reveals that majority of respondents i.e. 67% consider this factor as a factor that could greatly affect the roper functioning of Microfinance while only 18% respondents have no decided opinion. Moreover about 15% respondents don't consider the above factor as a challenge to Microfinance.

TABLE 10: BORROWER'S SUSTAINABILITY

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
93	74	46	22	15
37%	30%	18%	9%	6%

11.   HIGH COST INVOLVED IN ENTREPRENEURSHIP BUSINESS

The data collected for factor "High Cost involved in Entrepreneurship Business" have been given in table 11. The analysis of values shows that 19% respondents are in favor of considering this factor as a challenge to Microfinance while 21% respondents have no decided opinion. However majority of respondents i.e. 60% don't consider this factor as a challenge to Microfinance.

TABLE 11: HIGH COST INVOLVED IN ENTREPRENEURSHIP BUSINESS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
25	22	52	78	73
10%	9%	21%	31%	29%

12.   DIFFICULTY IN MEASURING PERFORMANCE

The data collected for factor" Difficulty in Measuring Performance" have been tabulated in table 12. The analysis of values reveals that 70% of the respondents find that measuring performance for Microfinance is very difficult thus acts as a major challenge to its sustainability while 19% respondents have no decided opinion. Moreover a total of 11% respondents believe that if proper control measures and evaluation techniques are employed this problem could be completely solved, so they don't consider it as a challenge to Microfinance in Rajouri district of Jammu and Kashmir.

TABLE 12: DIFFICULTY IN MEASURING PERFORMANCE

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
69	106	47	17	11
28%	42%	19%	7%	4%

CONCLUSION

Microfinance, no doubt plays a very important role in modifying the socio economic condition of poor people but it also has to face multiple challenges and in different areas for its sustainability. A number of challenges have been identified from current study and impact of each factor has also determined keeping in view the response of people directly linked to Microfinance. It has been assessed that there are factors that have a great affect on Microfinance sustainability and also there are other factors that have very negligible or no effect. The factors that greatly affect Microfinance sustainability are Lack of govt. support, Partial utilization of resources, Limited awareness programs, Regulatory framework, Sustainability of buyer and Difficulty in measuring performance. The other identified factors who have no or negligible impact are Limited Microfinance institutions, Education level and High cost involved in Entrepreneurship business.

RECOMMENDATIONS

1.   There is a need to develop a mechanism by which financial resources could be properly distributed among beneficiaries.
2.   An advisory service mechanism should be developed which could determine the feasibility of projects being run under Microfinance.
3.   The Microfinance institutions should also the service for extending loans depending on the credibility of borrower.
4.   There is also a need to categorize the beneficiaries on the basis of geographical segments such as Urban, Semi-urban, Rural etc.
5.   Efforts should be made to improve the quality of products and services being offered by people who start their businesses under Microfinance Scheme.
6.   Multiple training programs must be organized with greater frequency to train people about multiple innovative and entrepreneurship issues.
7.   More financial institutions must be started to make funds reach to maximum potential customers.
8.   There is also a need to make people familiar about modern technologies from time to time so that they could be able to reduce operating costs.
9.   Certain regulatory norms must be reformed from time to tie for effective development of Microfinance Sector.
10. Special packages and other assistance must be provided to women through microfinance so that women entrepreneurship could be boosted at a greater pace.
11. Training and other developmental schemes must be implemented for staff working in Microfinance Institutions to enhance their productivity and performance.
12. External as well as internal audits must be done at regular intervals to keep surveillance on activities and practices.
13. Dynamic thinkers and other leading economists must be assigned the responsibility of devising and implementing effective strategies for better future growth of Microfinance.

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A STUDY ON FACULTY STRESS IN SELECT COLLEGES IN KANCHIPURAM DISTRICT

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ABSTRACT

This research work entitled "A study on faculty stress in select Engineering colleges in kanchipuram district" Tamilnadu, carried out by the researcher to know attitudes, skills and knowledge. To achieve the objectives of a research, the primary data was collected with the help of questionnaire. A response was gathered from the employees in self finance engineering colleges. A descriptive study was conducted among these sample size of 25 engineering colleges were chosen for the purpose of study through a well structured questionnaire. The collecting data was analyzed with the help of simple statistical tool ANOVA.

KEYWORDS
faculty stress, Kanchipuram district.

1. INTRODUCTION

This research work has been carried out in self financing engineering colleges in kanchipuram District. The faculty is the respondent to find the stress towards the institution and students. The purpose of research was to determine the impact of faculty's satisfaction with job dimension perceived organizational commitment. This study reveals the level of faculty stress which is effecting for the performance of their academics. It is believed faculties who are committed are those who devote themselves wholly to the teaching profession and to the educational institutions. Teaching is more than presentation of facts; it includes the dedication of both heart and time. They exert effort to the optimum level. Teaching is the profession that molds the skills of the future workforce and laying the foundation for good citizenship and full participation in community and civic life. Teaching is a vocation which needs commitment and perseverance. Faculty commitment is purely based on the level of satisfaction. The level of satisfaction and dissatisfaction for them to know if the faculties' area likely to be more committed or less committed. Lower level of commitment of faculty may create a dilemma that affect negatively. The effectiveness of an educational organization may cause faculty to be more efficient in their profession or to leave the profession.

2. REVIEW OF LITERATURE

Rajagopalan.V and Noytine.A (2012) general stress is described as a relationship between individuals and their environment that is appraised as dangerous and evaluated as beyond their ability to deal with it. By definitions, stress is said to be a physical, mental, or emotional response to events that cause physical or mental tension. In simple words, stress is an outer force that has a command over inner feelings.

Cobb (1975) has the opinion that, the responsibility load creates severe stress among workers and managers. "If the individual manager cannot cope with the increased responsibilities it may lead to several physical and psychological disorders among them. "

Hans Selye in (1936), the term "stress" was coined by who defined it as "the non-specific response of the body to any demand for change" in attempting to extrapolate his animal Studies to humans so that people would understand what he meant. He redefined stress as "The rate of wear and tear on the body".

Stress is typically seen as a bad thing. But Hans selye, one of giant of stress research, pointed out that the only way to have no stress is dead. One metaphor about this may be instructive of a string on violin. Too little stress on the string and the resulting sound is flat. Too much stress and the sound is screech (and the string even could break).

The right amount of stress result in beautiful music. All administrators, all faculties and staff which prefer to make a beautiful, which in complex environment always a challenge.

3. OBJECTIVES OF THE STUDY

1. A study on faculties stress in selected colleges in kanchipuram district.
2. To analyze the factors related to the job performance of teaching and motivation level of satisfaction among the teaching faculties in selected engineering colleges in kanchipuram District.

4. RESEARCH METHODOLOGY

The descriptive research design was employed in this study.

SAMPLING METHOD
In this research sampling method involved is random sampling. Due to time constrain the random sampling has been adopted.

PRIMARY DATA
Primary data consists of original information collected for specific purpose. In this study primary data has been used. To obtain the primary data a well structured both open ended and closed ended questionnaire was prepared to get the answer from the respondent**.**

SECONDARY DATA
Secondary data can be defined as the information already existing somewhere has been collected for some other purposes. In this study the secondary information is obtained from the various books, articles and from colleges.

SAMPLE SIZE
The sample size is restricted to 50 faculties. The sample questionnaire consists of both open ended and closed ended questions.

STATISTICAL TOOLS
The statistical tools and test used for the studies is:
➢ ANOVA
➢ SIMPLE PERCENTAGE ANALYSIS

HYPOTHESIS
- H_0 ; There is no significant difference between the experience and performance of the teaching faculties.
- H_1;There is a significant difference between the experience and performance of the teaching faculties.

5. STUDY OF THE PROFILE AREA

The British coined name Conjeevaram, the anglicized version of Kanchipuram. Under the British regime, a Collector to the district was appointed for the first time in 1788 AD. The district was further split up into two divisions, Northern and Southern, and was placed under the administration of two Collectors.

Kanchipuram is known as the "city of a thousand temples". The 192 feet height temple tower of Ekamabaranadhar temple and the 100-pillar mandabam (building) in Varadaraja Perumal temple are famous in this town, and are considered marvels of the architectural techniques of the Vijayanagara dynasty. The British Viceroy Robert Clive, who is responsible for the British rule in India, had exclaimed the architectural techniques of Varadharaja perumal temple and presented a fabulous jewelry to this temple. Today, apart from its temples, this small town is also known for its thriving handloom industry. The city is quite famous for its silk sarees, considered to be one of the best varieties of silk sarees. Walajapet near Kanchipuram is also famous for silk saree weaving. Kanchi stood second in glory only to Banaras. Kanchi was a major seat of Tamil learning as well as an important place of pilgrimage for Buddhists, Jains and Hindus.

Kanchipuram, the temple town, is the district headquarters. For administrative purpose, the district has been divided into 3 revenue divisions consisting of 8 taluks with 1214 revenue villages. For development purpose, it is divided into 13 development blocks with 648 Village Panchayats.

The following colleges choosed for the purpose of the study.

S.NO	COLLEGE NAME	LOCATION	STATE
1	Adiparasakthi Engineering College	Kanchipuram	Tamilnadu
2	Apollo Engineering College	Kanchipuram	Tamilnadu
3	Arignar anna Institute of Science and Technology	Kanchipuram	Tamilnadu
4	Balaji Institute of Engineering and Technology	Kanchipuram	Tamilnadu
5	Dhanalakshmi College of Engineering	Kanchipuram	Tamilnadu
6	Hindustan College of Engineering	Kanchipuram	Tamilnadu
7	Kalsar College of Engineering	Kanchipuram	Tamilnadu
8	Kanchi Pallavan Engineering college	Kanchipuram	Tamilnadu
9	Karpaga Vinayaga College of Engineering and Technology	Kanchipuram	Tamilnadu
10	Kings College of Engineering	Kanchipuram	Tamilnadu
11	Lord Venkateshwara Engineering College	Kanchipuram	Tamilnadu
12	Loyola Institute of Technology	Kanchipuram	Tamilnadu
13	Maamallan Institute of Technology	Kanchipuram	Tamilnadu
14	Madha Engineering College	Kanchipuram	Tamilnadu
15	Marian Engineering College	Kanchipuram	Tamilnadu
16	Maruthi Institute of Engineering and Technology	Kanchipuram	Tamilnadu
17	P.T.Lee Chengalvaraya Naicker College of Engineering and Technology	Kanchipuram	Tamilnadu
18	Perumal Sami Rishi Engineering College	Kanchipuram	Tamilnadu
19	Rajalakshmi Engineering College	Kanchipuram	Tamilnadu
20	Rajiv Gandhi College of Engineering	Kanchipuram	Tamilnadu
21	Royal College of Engineering & Technology	Kanchipuram	Tamilnadu
22	S.M Khader Engineering College	Kanchipuram	Tamilnadu
23	Sri Krishna Engineering College	Kanchipuram	Tamilnadu
24	Sri Padmavathi College of Engineering	Kanchipuram	Tamilnadu
25	Sri Ramanujar Engineering College	Kanchipuram	Tamilnadu

6. ANALYSIS AND INTERPRETATION OF THE STUDY

6.1 FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON GENDER

TABLE 6.1: CLASSIFICATION OF RESPONDENTS ON THE BASIS OF GENDER

Male	26	52
Female	24	48
Total	50	100

Table 6.1 shows that out of 50 respondents 52 percentage of them belong to male and 48 percentage of them belong to female.

6.2 FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON AGE

TABLE 6.2: CLASSIFICATION OF RESPONDENTS ON THE BASIS OF AGE

Age	Number of Respondent	Percentage
25 - 35	19	38
36-45	15	30
46-55	9	18
56 and above	7	14
Total	50	100

Table 6.2 shows that out of 50 respondents 38 percentage belong to age group of 25-35, 30 percentages of them belong to age group of 36-45, 18 percentage respondents belong to age group of 46-55, and remaining 14 percentages belong to the age group above 56.

6.3 FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON QUALIFICATION

TABLE 6.3: CLASSIFICATION OF RESPONDENTS ON THE BASIS OF QUALIFICATION

Qualification	Number of Respondent	Percentage
UG	5	10
PG	30	60
M.PHIL	11	22
Ph.D	4	8
Total	50	100

Table 6.3 shows that out of 50 respondents 10 percentage belong to UG. 60 perceng to PG. 22 percentage belong to M.PHIL and 8 percentage belong to Ph.D.

6.4 FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON DESIGNATION

TABLE 6.4: CLASSIFICATION OF RESPONDENTS ON THE BASIS OF DESIGNATION

Designation	Number of respondent	Percentage
Assistant Professor	26	52
Associate Professor	20	40
Professor	4	8
Total	50	100

Table 6.4 shows that out of 50 respondents 52 percentage belong to Assistant Professor. 40 percentage belong to Associate Professor and 8 percentage belong to Professor.

6.5 FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON DEPARTMENT

TABLE 6.5: CLASSIFICATION OF RESPONDENTS ON THE BASIS OF DEPARTMENT

Department	Number of Respondent	Percentage
MBA	16	32
MCA	20	40
Engineering	14	28
Total	50	100

Table 6.5 shows that out of 50 respondents 32 percentages belong to MBA. 40 percentages belong to MCA. 28 percentages belong to Engineering.

6.6 FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON EXPERIENCE

TABLE 6.6

Experience	Number of Respondent	Percentage
1-5 years	26	52
6-10 years	10	20
11-15 years	6	12
16-20 years	5	10
20 Years and above	3	6
Total	50	100

The table 6.6 shows that out of 50 respondents 52 percentage belong to 1-5 years experience. 20 percentage belong to 6-10 years experience. 12 percentage belong to 11-15 years experience, 10 percentage belong to 16-20 years experience and 6 percentage belong to above 20 years experience.

TABLE NO. 6.7: ONE WAY ANALYSIS OF VARIANCE FOR EXPERIENCE AND JOB PERFORMANCE

Source of variance	Sum of squares	Df	Mean Square	F ratio	Statistical Inference
Between Groups	13.946	24	0.6972	2.5868	$0.121p > .05$
Within the groups	93.294	25	0.4146		Not Significant
Total	107.24	49			

- There is no significant difference between the experience and performance of the teaching faculties.

The table 6.7 clearly states that there is no significant difference between experience and job performance of the respondents. Null Hypothesis (Ho) is accepted. Hence it is concluded that experience of the respondents does not have significant difference in job performance of the faculties.

7. FINDINGS

1. Out of 50 respondents 52 percentages of them belong to male and 48 percentage of them belong to female.
2. Out of 50 respondents 38 percentage belong to age group of 25-35, 30 percentages of them belong to age group of 36-45, 18 percentage respondents belong to age group of 46-55, and remaining 14 percentages belong to the age group above 56.
3. Out of 50 respondents 10 percentage belong to UG. 60 percentages belong to PG. 22 percentages belong to M.PHIL and 8 percentages belong to Ph.D.
4. Out of 50 respondents 52 percentage belong to Assistant Professor 40 percentage belong to Associate Professor and 8 percentage belong to Professor
5. Out of 50 respondents 32 percentages belong to MBA. 40 percentages belong to MCA. 28 percentages belong to Engineering.
6. Out of 50 respondents 52 percentage belong to 1-5 years. 20 percentage belong to 6-10 years. 12 percentages belong to 11-15 years, 10 percentage belong to 16-20 years and 6 percentage belong to above 20 years.
7. There is no significant difference between experience and job performance of the respondents. Null Hypothesis (Ho) is accepted. Hence it is concluded that experience of the respondents does not have significant difference in job performance.

8. SUGGESTIONS

1. College administrators should motivate master degree holders in the institution to pursue their Ph.D in order to meet the necessary qualification in future.
2. The paying financial incentive to the faculty should be studied and implemented to keep a loyal and valued work force.
3. There should be regular review of faculty performance and relevant feedback should be provided to assure an environment of involvement and increased faculty commitment.
4. The administration should retain valued faculty by providing leadership training to prepare them for promotion.

5. The faculty should review the mission by vision of the institution in order to internalize once more their rules as educators.
6. The faculty should exert great effort by showing willingness to adhere to college policies, good record of attendance and efficiency in the teaching performance to improve the quality of instruction.
7. The faculty who proves their potential in producing high results should be motivated by giving bonuses, gold coins or some sort of rewards.
8. Faculty should stimulate the students to participate in extra curricular activities to improve the students and society.

9. CONCLUSION

➢ From findings it indicates working conditions have to be changed by colleges.
➢ Faculties are worried about their stressful work load that has to be reduced by the college management.
➢ Salary has to be implemented according to University Grant Commission pay scale.
➢ If the college managements implement these suggestions it would develop a commitment of faculty towards their work.

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GROWTH, PERFORMANCE AND DETERMINANTS OF AGRICULTURAL VARIATION IN PUNJAB: AN INTER DISTRICTS STUDY

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ABSTRACT
Punjab agriculture has been known for the green revolution of the late 1960s. Not only has it achieved an irrigation coverage of 97.4 per cent of the net sown area, cropping intensity of 190, and 98 per cent HYV's seed coverage which are all the highest among the Indian states, but even the yields of major crops - wheat and paddy - are of a very high order, i.e., 4,507 kg/per hectare and 4,022 kgs/per hectare respectively. Punjab contributes 43.8(p) percent of India's wheat production and 25.4(p) percent paddy. The state's agricultural production sector is highly capital-intensive and mechanised. It has 9.96 lakh energized tubewells, and no. of tractors 72 per/ 1000 hect. (net sown area) [GoP 2009].

KEYWORDS
Determinants of agricultural variation, Growth of agriculture and Performance of agriculture sector.

1.1 INTRODUCTION

The Punjab model of agrarian transformation was born out of the food shortages of the 1960's when the nation lacking the resources to buy food grains from abroad and to ask for food aid from the US under the PL-480. Given the income level and its distribution, there was a gap of around 20 per cent between the market demand and domestic production of food grains. This could not be filled through imports.

It is understand that there were only two ways to increase the food grains production. One option was to implement radical land reforms for land redistribution. It was conclusively established that smaller holdings had higher productivity than their large counterparts (Sen. 1964) and the redistribution of land in favour of smaller landholders and landless laborers would lead to an increase in aggregate output. Alternatively the nation had to find a technological solution to the country's chronic food shortages within the existing institutional framework through adoption of high yielding varieties of seeds and package of cheap subsidized inputs along with provision of credit. Given the class character of the Indian state, it was not feasible to carry out any radical land reform particularly when there was no such pressure from small peasants and landless workers who lacked organizational strength. In this scenario India opted for the second alternative i.e. expansion of technological.

Punjab has entered the new millennium with problems in the agriculture sector. During the mid-nineteen-sixties, the green revolution transformed the states agriculture and contributed significantly in making the country self-reliant in food. The increase in production and productivity of wheat and rice in the state is legendary in the history of agriculture in India. These achievements presented a rosy picture of agriculture in Punjab until recently, as the achievements of the state in agriculture have run out of steam. Growth rates in agricultural production and productivity are stagnating and profitability in farming progressively getting reduced. Sustainability in agricultural production and the natural resource base are under threat, as warnings have been sounded on over-exploitation of land and water resources, and degradation of the environment and ecology.

The fast-track adoption of production-augmenting technologies has led to several growth-related problems on the economic, social and environmental fronts in Punjab agriculture, so much so that the sustainability of wheat-paddy rotation is being doubted and debated.

Today, Punjab is at the crossroads, as the existing production pattern and marketing systems are out of tune with the immediate and long-term supply and demand situation in both national and international markets. A package of dynamic, pro-active and responsive policies and action programmes are required to revive Punjab agriculture, so as to meet the oncoming pressures of free trade, liberalization and globalization.

Looking in to foregoing discussion one finds that the situation of agriculture in Punjab has reached to a stagnating stage.This is because the technology diffusion and use is highest in Punjab and further growth in agriculture is not possible under the present conditions. Hence, the problem needs further analysis of past trends in growth rates of area, production and yield of major crops.Keeping this in mind present study intends to attempt to analyse the diffusion of agricultural technology and impact on productivity in Punjab.

1.2 THE OBJECTIVES OF THE STUDY

1. To analyse the trends in growth rates of area, production and yield of majorfood grains crops after post green revolution period.
2. To identify the determinant and responsiveness of agricultural productivity in Punjab.

The paper organized in four sections. Section I provides a few details about data selection/collection, methodology adopted and period covered in the study. In section II highlights the district wise growth performance of area, production and yield of selected crops. Section III related to the determinants of variation of yield for selected crops. And IV section provides conclusion and policy suggestion.

2   DATA BASE AND METHODOLOGY

To fulfill the objectives of the present study, secondary data were collected from different published sources of Punjab Govt. viz., Statistical abstract of Punjab from1970 to 2009. Although there are alternative methods by which the Compound Growth Rates can be calculated for a specified data series. In present paper compound growth rates of Area, Production and Yield were estimated by fitting log linear function as below:-

Log Y= a+b$_t$

Where "Y" is Area/Production/Yield and "t" represents time variable.

The growth rates were estimated by (e^b-10)x 100. The data series used for the estimation of growth are the three- yearly moving average. Three-yearly moving average was worked out in order to minimise the effect of extreme climatic variation.

Growth rates were estimated for main food grain crops for the four time periods viz., Period I(1970-71 to 1979-80); Period II(1980-81 to 1989-90); Period III (1990-91 to 1999-2000) and Period IV(2000-01 to 2008-09).

The determinants of yield variation for majorfood grain crops were estimated by fitting multiply regression equation of the following form using time series data for the period 1970-71 to 2008-09.

$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + U$

Where Y is yield in kg/hact.;X_1 is HYV's seeds, X_2 is Consumption of Power in Agriculture(Million K.W.H.),$X_3$is % Gross irrigated area to total cropped area, X_4 is Consumption of chemical fertilizer in Punjab District (000, Nutrients tonns), X_5 is % Net irrigated area to Net cropped area and X_6 isNo. of tractors per/ooohect. (net sown area),$\beta_0,\beta_1......\beta_n$ are constant.

To compare the explanatory power of inputs adjusted coefficient of determination (R^2) has been also calculated.

$$R^2_{1, 2, 3.....k} = 1- [\, (n-1) / (n-k) \{ 1-R^2 \}]_{1, 2, 3.....k}$$

3.1   RESULTS AND DISCUSSION

District wise compound growth rates of area under different crops for selected period of time presented in table 1. Its clear from table that the growth rate of area under rice and wheat highly increased during the I period (1970-71 to 1979-80) then it grow, but with slow rate. In case of Jalandhar, Ludhiana, Bathinda and Sangrurdistricts, area under rice highly increased by 17.5, 32.5, 21.4 and 23.1 respectively during I period of study.The increasing trend in growth rates over each successive period was more pronounced in the case of area under wheat. Decreasing area, in case of other crops like maize, bajra, gram, moong and masser over the all period of study. In case of area under masser increasing trends in I and II period of time, then highly decreasing in III and IV period of time in Hoshiarpur district.

District wise compound growth rates of production of different crops shows in table 2. For all districts, the resulting growth rates of rice and wheat were observed during the I, II, III and IV periods respectively. In case of maize for Ludhiana district decreasing trend of production -13.7 and -10.1 percent per annum for period I and II, then increasing by 5.91 and 3.7 percent per annum during the III and IV periods. The growth rates of production of gram, moong and masser all most decreasing trend over all periods of study.

TABLE 1: COMPOUND GROWTH RATES OF AREA

District	Time period	Rice	Maize	bajra	wheat	gram	moong	masser
Gurdaspur	I	5.81	-5.37	-10.3	2.23	-2.09	-10.2	1.372
	II	1.76	-0.64		0.79	-5.01		-8.62
	III	1.22	-2.37	-2.37	0.26			-0.5
	IV	0.54	-1.74		0.65			2.519
Amritsar	I	8.05	-4.75	-14.6	2.39	0.91	11.6	6.92
	II	3.01	-5.73		1.42		6.5	-9.79
	III	1.57	-6.72	-6.72	0.27		4.3	-1.34
	IV	1.1	-4.86		0.64		-4.2	-6.21
Kapurthala	I	8.85	-3.97		3.58		5.2	5.398
	II	4.11	-5.48		1.42			-13.1
	III	0.65	-3.81		-0.4		-10.9	
	IV	0.81	-2.49	-3.81	1.06			
Jalandhar	I	17.5	-1.49		1.69	-6.81		1.478
	II	5.83	-4.02		0.23		2.38	-5.38
	III	-0.9	-9.4		-3.2		9.78	
	IV	0.97	0.063	-9.4	1.04		-4.97	
Nawanshehar	I							
	II							
	III							
	IV	0.56	0.27		2.78			-3.02
Hoshiarpur	I	3.19	0.482	-4.73	1.22	-2.21	2.6	12.15
	II	2.31	0.451		0.71	-12.4	7.3	0.259
	III	0.09	-2.31	-2.31	-1.9	-13.2		-10
	IV	0.72	0.231		0.56	-6.69		-7.09
Rupnagar	I	14.1	-0.48		1.69	-2.78		5.426
	II	4.85	-0.65		1.19	-4.68	-2.77	-1.05
	III	4.19	-1.93	-1.93	0.67	-2.69		-1.44
	IV	1.84	-0.68		0.56	-17.7		-3.45
Ludhiana	I	32.2	-1.51	-7.54	0.99	-4.34	3.6	4.611
	II	9.08	-13.8		0		4.1	15.45
	III	1.91	-14	-14	-0.3		1.01	
	IV	-0.3	2.927		0		-10.4	
Firozpur	I	9.28	-7.5	-17.3	-1.8	-5.87	7.8	-4.5
	II	3.43	-10.8		1.75	-14.3	5.1	-3.49
	III	1.33			0.61	-8.48	0.07	
	IV	-0.8			-1.2	-4.86	-16.1	
Faridkot	I							
	II	6.27	-7		1.64	-14.4	7.7	-13.9
	III	-4.6			-10		-10.3	
	IV	4.32			0.48		-16.7	
Muktsar	I							
	II							
	III							
	IV	12.5			1.74	-16.4	-7.33	
Moga	I							
	II							
	III							
	IV	5.25	-9.3	-11.1	4.57		-6.36	
Bathinda	I	21.4	-8.1	-13.4	-1.1	-1.82	-5.11	-0.6
	II	7.3			3.2	-9.73	8.69	-9.67
	III	5.77		4.315	-3.9	-19.6	4.57	
	IV	7.73			1.72	-16.1	-6.35	
Mansa	I							
	II							
	III							
	IV	2.87	-3.23		0.78	-14.2	-7.44	
Sangrur	I	23.1	-16.8	-6.58	1.56	-5.06	7.77	-0.8
	II	10.4		-4.18	1.5	-17.8	17.8	-11.4
	III	3.48			0.38	-2.5	3.79	
	IV	1.02		0.31	-0	-2.65	-9.68	
Patiala	I	11.6	-3.7	-9.33	2.16	-6.18	8.8	1.566
	II	2.75	-8.45		0.74	-15.4	-10.7	-2.35
	III	-0.4	-2.8	-2.8	-2		7.7	-3.49
	IV	0.37	-7.53		0.63		-5.16	-3.96
Fatehgarh sahib	I							
	II							
	III							
	IV	-0.1			-0.1			

Note;-Period I-1970-71 to 1979-80; Period II- 1980-81 to 1989-90; Period III- 1990-91 to 1999-2000 and Period IV- 2000-01 to 2008-09
Source: Statistical abstract of Punjab, various issues, govt. of Punjab.

TABLE 2: COMPOUND GROWTH RATES OF PRODUCTION

District	Time period	Rice	maize	bajra	wheat	gram	moong	masser
Gurdaspur	I	9.47	-1.97		0.6			1.996
	II	2.75	0.707		4.48			-0.21
	III	2.88	0.6		2.61			
	IV	1.42	-0.02		2.03			
Amritsar	I	10.1	-3.62		2.87	-5.29		6.454
	II	4.51	-4.88		4.56			-2.44
	III	3.27	-4.94		1.6		9.8	
	IV	0.46	-3.27		0.97		-4.7	
Kapurthala	I	12.8	-3.04		5.41			
	II	4.04	-7.07		5.28			
	III	1.68	3.223		0.4			
	IV	2.72	1.162		2.53		-5.71	
Jalandhar	I	23.4	-0.31		2.69	-10.9		3.572
	II	6.41	-3.57		3.85			-1.84
	III	-0.3	-6.27		-2		9.17	
	IV	1.63	2.571		2.21		-7.14	
Nawanshehar	I							
	II							
	III							
	IV	0.91	3.639		3.64			
Hoshiarpur	I	6.54	3.427		5.19	-2.42		5.639
	II	3.51	-1.4		3.8	-14.2		6.928
	III	1.96	2.352		-0.1	-14.7		
	IV	0.47	3.07		1.55	-4.63		
Rupnagar	I	23.3	0.924		4.09	-6.45		10.98
	II	6.92	-0.4		3.26			0.559
	III	3.6	2.318		2.84	1.46		
	IV	2.67	2.244		0.73	-16.7		
Ludhiana	I	4.5	0.495		1.49	-6.31		-3.71
	II	9.49	-3.7		2.24		4	2.071
	III	1.35	-10.1		0.44		2.7	
	IV	2.54	5.913		1.02		-11.1	
Firozpur	I	3.6	-8.7		1.42	-6.93		
	II	4.55	-10.7	-16.6	4.43	-12.4	9.8	-9.23
	III	3.18			1.93	-6.17	1	
	IV	-0.2			-1.4	-5.95	-17.2	
Faridkot	I							
	II	7.83	-14.2		4.02	-11.8	1.5	
	III	-5.2			-7.8	-28.3	-13	
	IV	4.74			0.25	14.3	-17.6	
Muktsar	I							
	II							
	III							
	IV	4.7			3.33	-18.3	-5.98	
Moga	I							
	II							
	III							
	IV	5.87				9.17	-8.78	
Bathinda	I	3.4	-11.5	-11.2	4.71	-2.32		-1.48
	II	9.2	-1.86		0.94	-9.76	12.7	-7.54
	III	6.5			4.95	-16.7	1.82	
	IV	7.93		2.655	-2	-14.6	-7.21	
Mansa	I				2.22			
	II							
	III							
	IV	3.87			1.45	-20.8	-7.99	
Sangrur	I	31.8	-3.18	-7.49	3.87	-6.83		
	II	11.4	-15.6		4.57	-17.8	9.9	
	III	3.46		-1.38	1.28	-0.75	6.89	
	IV	2.37	-3.18	-3.07	0.42	-2.15	-10.3	
Patiala	I	17.1	-7.57	-11.6	5.32	-10.4		
	II	4.64	0.157		3.9			6.024
	III	-0.9	-6.73		-0.8	2.15	8.7	9.587
	IV	2			1.25	0.48	-10	
Fatehgarh sahib	I							
	II							
	III							
	IV	2.27	6.207		0.13			

Note;-Period I-1970-71 to 1979-80; Period II- 1980-81 to 1989-90; Period III- 1990-91 to 1999-2000 and Period IV- 2000-01 to 2008-09

Source: Statistical abstract of Punjab, various issues, govt. of Punjab.

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TABLE 3: COMPOUND GROWTH RATES OF YIELD

District	Time period	Rice	maize	bajra	wheat	gram	moong
Gurdaspur	I	3.76	3.47	1.31	0.87	-5.6	
	II	0.98	1		3.673		
	III	1.66	3.11		1.903		
	IV	0.87	1.7		0.223		
Amritsar	I	2.61	1.56	0.61	2.123	-7.7	6.7
	II	1.27	1.3	0.39	8.6		-2
	III	1.74	2.2		0.628		-0.8
	IV	-0.6	1.13		1.406		
Kapurthala	I	3.93	1.41				
	II		-1.5		3.876		
	III	0.99	7.33		-0.62		
	IV	1.88	3.01		2.298		7.62
Jalandhar	I	5.58	1.5		0.168	-4.7	
	II	1.42	0.79		3.611		
	III	-0.5	3.23		-0.26		-0.8
	IV	0.63	2.48		2.679		0.33
Nawanshehar	I						
	II						
	III						
	IV	0.32	3.47		0.785		
Hoshiarpur	I	3.52	3.03		1.76	-3.2	
	II	1.04	-1.9		3.127	6.63	
	III	1.94	4.82		1.18	-0.8	
	IV	-0.3	2.71		1.705	1.98	
Rupnagar	I	8.19	1.51		7.612	-3.2	
	II	2.12	0.26		2.259	9.11	
	III	-0.5	4.17		1.918	1.56	
	IV	0.76	3.2		-0.02	0.44	
Ludhiana	I	7.68	-0.4		2.653	-4.7	1.53
	II	0.35	-0		2.259		0.68
	III	-0.5	4.33		0.103		1.19
	IV	2.32	2.73		1.012		0.63
Firozpur	I	4.09	-2.5	-1.2	7.634	2.38	2.49
	II	1.11	2.1	-0.8	2.637	2.77	2.22
	III	1.83			0.714	2.19	0.7
	IV	0.6			0.08	-1.3	0.17
Faridkot	I			7.12			
	II	1.43	4.1	-2.3	2.397	2.91	2.6
	III	-0.2			1.873	-1.9	-3.5
	IV	0.38			0.396	6.37	0.82
Muktsar	I						
	II						
	III						
	IV	1.16			3.026	-0.9	1.69
Moga	I						
	II						
	III						
	IV	0.55			0.209	0.99	-1.6
Bathinda	I	8.6	-2.5	3.53	2.498	0.69	3.24
	II	1.32	-1.1	-1.7	1.704	-0.1	3.13
	III	0.93			1.02	2.69	-1.7
	IV	0.2			2.838	0.49	-2.1
Mansa	I						
	II						
	III						
	IV	0.82			2.681	0.45	-1.9
Sangrur	I	11.3	0.02	-1.5	3.814	3.81	3.68
	II	0.99	0.32	-1.6	3.017	3.02	0.18
	III	0.05		2.45	0.623	0.62	2.9
	IV	1.34		-2.5	0.892	0.89	-0.1
Patiala	I	6.36	0.85	-3.8	4.162	4.16	-8
	II	-1.6	-0.5		3.137	3.14	7.9
	III	4.71	3.97		0.536	0.54	0.32
	IV	1.63	1.44		1.464	1.46	-5.2
Fatehgarh sahib	I						
	II						
	III						
	IV	2.31	5.59		1.295	1.3	

Note;-Period I-1970-71 to 1979-80; Period II- 1980-81 to 1989-90; Period III- 1990-91 to 1999-2000 and Period IV- 2000-01 to 2008-09

Source: Statistical abstract of Punjab, various issues, govt. of Punjab.

Table 3 represents district wise compound growth rate of yield of major crops over the period of study. It's clear from table that the increasing trend in yield of rice over the all selected periods of study. The growth ratesof yield slowdown in case of rice and wheat, over the selected periods of time during 1970-71 to 2008-09. In some cases (rice and wheat) the growth rates are negative like Amritsar -0.6 in IV period, Kapurthala -0.62 in II period respectively.

3.2   DETERMINANTS OF GROWTH RATES OF YIELD

Table 4 shows the Impact of HYV's seeds,Consumption of Power in Agriculture(MillionK.W.H.),%Gross irrigated area to total cropped area,Consumption of chemical fertiliser in Punjab Districts (000, Nutrients tonns),% Net irrigated area to Net cropped area and No. of tractors per/ooohect. (net sown area) on Yield of Rice. HYV's seeds, use electricity, % net irrigated area to net cropped, use of fertiliser and no. of tractor per/1000 hect. Net sown area are the most important factors to determining yield variation in rice.

TABLE 4: IMPACT OF SELECTED INDICATORS ON YIELD OF RICE

District	β_0	β_1	β_2	β_3	β_4	β_5	β_6	R^2
Gurdaspur	1636.654	-0.129	-0.152	0.198	0.119	-0.006	.901*	0.729
Amritsar	10362.62	0.233	-0.016	0.059	0.31	-0.485	0.89	0.558
Kapurthala	10660.325	0.19	-0.204	-0.751	0.258	-0.108	1.165***	0.407
Jalandhar	325.714	-0.057	0.287	0.302	0.33	-0.035	0.077	0.302
Nawanshehar	3305.172	0.083	.810**	0.589	0.199	-0.711	0.17	0.753
Hoshiarpur	1802.913	-0.051	0.116	0.157	-0.388	0.319	0.692	0.641
Rupnagar	2018.641	0.268	0.224	-0.428	0.335	0.775	-0.498	0.293
Ludhiana	5505.393	0.266	0.143	-0.305	-0.105	0.082	.737***	0.691
Firozpur	909.543	-0.538	0.529	0.131	0.192	0.28	0.026	0.319
Faridkot	34.616	0.296	-0.37**	0.292	-0.066	0.022	0.345	0.325
Muktsar	53411.267	-0.37	-0.199	-0.819	1.305***	-0.72	-0.341	0.476
Moga	27439.838	0.502	-0.334	0.166	0.531	-0.189	0.35	0.328
Bathinda	2050.472	-0.37	-0.392	0.109	0.162	-0.198	1.429**	0.555
Mansa	-5443.518	-0.514	0.473	0.181	0.947	0.335	-1.05	0.37
Sangrur	725.508	-0.577	0.394	-0.12	-0.319	0.366	0.835	0.22
Patiala	-8416.005	-0.117	-0.077	2.469**	-0.786	-1.88***	.728***	0.227
Fatehgarh sahib	10225.147	0.045	-0.153	0.115	0.445	-0.025	0.282	0.067

* Significant at 1 per cent,** at 5 per cent and *** at 10 per cent level of signification.

Source: Statistical abstract of Punjab, various issues, govt. of Punjab.

The coefficient of these variables was found to be positive in a large no. of cases, indicating that an increased use of these variables would increase the yield of rice. But all most coefficient were not significant, this is due to the problem of multicollenerity. Because the independent/explanatory variables are highly correlated with each other for example use of feritiliser and % gross irrigated area to total cropped area has highly correlated each other. R^2 represented the explanatory power of regression model.Its clear from the table that the all variable jointly explains high explanatory power in case of Gurdaspur, Amritsar, Nawanshehar, Hoshiarpur, Ludhiana, and Bathinda district.

Consumption of Power in Agriculture (Million K.W.H.),% Gross irrigated area to total cropped area,Consumption of chemical fertilizer in Punjab District (000, Nutrients tonns),% Net irrigated area to Net cropped area and No. of tractors per/ooohect. (net sown area) on Yield of Maize, shows in table 6. It's clear from the table that many coefficients were found to be positive and significant in many cases, indicating that change in these variable would change in yield of maize. In case of use of tractor coefficient were found to be negative which indicates that increase in no. of tractor would decrease in yield of maize, in case of Rupnagar, Firozpur, Muktsar, Moga, Bathinda, Sangrur and Patiala district. The effect of use of electricity on yield of maize was found to be positive and significant in Amritsar and Faridkot district. R^2 represent the explanatory power of model fit. In cases of Amritsar, Kapurthala, Jalandhar, Nawanshehar, Rupnagar, Ludhiana, Faridkot, Muktsar, Moga and Patiala, R^2 value was found to be high shows the goodness of model fit.

TABLE 5: IMPACT OF SELECTED INDICATORS ON YIELD OF WHEAT

District	β_0	β_1	β_2	β_3	β_4	β_5	β_6	R^2
Gurdaspur	2624.716	-0.76	.321**	0.042	-0.41	-0.171	.800**	0.79
Amritsar	17302.637	-0.373	1.001	-0.009	-0.596	0.335	-0.049	0.46
Kapurthala	12181.07	0.033	-3.34	1.565*	-0.56	-1.267	.943*	0.84
Jalandhar	-3570.408	-0.115	-0.066	0.089	-0.092	0.155	.737***	0.8
Nawanshehar	-7527.536	1.803***	0.231	0.396	-0.869***	0.565	-0.894	0.39
Hoshiarpur	1354.162	-0.051	0.056	- 0.13***	0.125	0.242	.648***	0.94
Rupnagar	-69.894	0.505	0.107	.682*	-0.053	-0.212	-0.076	0.71
Ludhiana	-2338.956	0.209	-0.132	-0.28***	-0.22	0.285	1.312*	0.83
Firozpur	18743.081	-0.046	0.29	-1.1***	0.089	0.167	1.544	0.84
Faridkot	3151.464	-0.834**	.591**	-0.014	0.011	0.067	0.204	0.72
Muktsar	91131.895	2.713**	0.523	.874***	-0.429	-1.322	2.282***	0.88
Moga	96715.38	0.613	-1.42	0.678	1.171	0.52	0.307	0.38
Bathinda	-2080.96	0.044	0.095	0.07	-0.485**	-0.082	.829**	0.84
Mansa	10995.823	1.573	-0.448	0.93	-0.744	0.053	0.023	0.16
Sangrur	-3154.468	0.672	-0.488**	-0.23	-0.42	0.366	1.063*	0.86
Patiala	-4347.481	-0.434**	-0.308	0.878	.490**	-0.317	0.107	0.85
Fatehgarh sahib	5681.056	0.423	-0.363	0.062	-0.155	-0.22	0.72	0.04

* Significant at 1 per cent,** at 5 per cent and *** at 10 per cent level of signification..

Source: Statistical abstract of Punjab, various issues, govt. of Punjab.

TABLE 6: IMPACT OFSELECTED INDICATORS ON YIELD OF MAIZE

District	β_0	β_1	β_2	β_3	β_4	β_5	β_6	R^2
Gurdaspur	849.69		-4.282	-0.174	1.349	0.511	3.001	0.53
Amritsar	8226.079		-1.121	-0.04	.92**	-0.623	1.559	0.61
Kapurthala	4382.345		0.164	-0.992	-0.407	-0.221	2.063**	0.93
Jalandhar	1455.319		.58***	-0.727	0.365	0.276	0.434	0.93
Nawanshehar	741.04		0.22	0.121	0.579	-0.486	0.37	0.89
Hoshiarpur	1236.54		1.079	0.094	-1.152	-0.84	0.867	0.49
Rupnagar	682.37		-0.047	0.094	-1.17**	2.668*	-1.653**	0.97
Ludhiana	1993.62		-1.11**	1.628*	0.914	-3.343*	1.536***	0.91
Firozpur	1224.62		-0.64	0.945	1.028	-0.951	-0.372	0.56
Faridkot	2868.15		-0.682	-0.321	.804**	-0.182	0.066	0.69
Muktsar	180808.87		0.262	-1.17***	-0.115	-0.556	-1.77**	0.94
Moga	-3863.17		0.38	-0.027	0.647	0.035	-0.248	0.96
Bathinda	800.87		0.266	0.565	-0.2	-0.546	-0.598	0.54
Mansa	4509.647		-0.33	-0.807	-0.938	0.36	1.605	0.54
Sangrur	-1299.27		0.379	0.68	0.242	-0.459	-0.74	0.33
Patiala	459.58		1.853*	1.35	-0.864	-1.313	-0.76	0.62
Fatehgarh sahib								

* Significant at 1 per cent,** at 5 per cent and *** at 10 per cent level of signification.

Source: Statistical abstract of Punjab, various issues, govt. of Punjab.

Impact of HYV's seeds,Consumption of Power in Agriculture(Million K.W.H.),% Gross irrigated area to total cropped area,Consumption of chemical fertiliserin in Punjab District (000, Nutrients tonns),% Net irrigated area to Net cropped area and No. of tractors per/ooohect. (net sown area) on Yield of Bajra, shows in table 7. The effect of use no. of tractor on yield of bajra was found to be positive and significant in Gurdaspur, Amritsar, Kapurthala, Hoshipur, Rupnagar, Ludhiana, Sangrur, Patiala and Fathegarh Sahib. In cases of Faridkot and Moga coefficient was found negative and significant value, indicating the negative effect of % gross irrigated area to total cropped area on yield of bajra. Explanatory power of model fit represented by R^2 in case of Gurdaspur, Kapurthala, Hoshiarpur, Rupnagar, Ludhiana, Faridkot, Muktsar, Bathinda, sangrur and Fathgarh Sahib, high explanatory power of model fit.

TABLE 7: IMPACT OF SELECTED INDICATORS) ON YIELD OF BAJRA

District	β_0	β_1	β_2	β_3	β_4	β_5	β_6	R^2
Gurdaspur	947.065	-0.069	-0.18	-0.144	.388**	0.042	.796*	0.74
Amritsar	10379.606	-0.242	-0.342	-0.066	0.298	-0.303	1.33**	0.55
Kapurthala	16020.83	-0.006	-0.146	-1.212***	0.24	0.396	1.436*	0.73
Jalandhar	1455.3		0.584	-0.727	0.365	0.276	0.434	0.87
Nawanshehar	3448.569	0.311	0.737	0.352	-0.042	-0.561	0.209	0.68
Hoshiarpur	477.324	-0.541**	-0.09	0.007	-0.084	0.092	1.305**	0.73
Rupnagar	65.987	0.135	-0.091	0.073	-0.346	0.318	.723**	0.81
Ludhiana	10733.659	-0.022	-0.265	0.045	-0.039	-0.784*	4.04*	0.64
Firozpur	17542.66	-0.135	-0.774	-2.182	0.954	0.679	1.328	0.39
Faridkot	10902.19	-0.438	-0.446	-1.867**	1.054**	1.049*	0.25	0.88
Muktsar	27239.46	neg	1.046	0.276	0.73	-1.31	1.296	0.73
Moga	78414.2	neg	0.872	-1.009*	-1.067	-0.401	-0.414	0.53
Bathinda	3258.14	-0.063	0.471	-0.971	0.008	0.874	0.062	0.28
Mansa	13709.93		-0.037	0.223	0.101	-0.698	-0.371	0.65
Sangrur	2322.204	0.254	-0.52	-0.141	-0.09	0.02	1.522**	0.58
Patiala	664.22	-0.009	0.025	0.197	-0.101	-0.265	.886**	0.6
Fatehgarh sahib	66603.05	0.248	0.041	0.339	-0.263	-0.087	1.095**	0.8

* Significant at 1 per cent,** at 5 per cent and *** at 10 per cent level of signification.

Source: Statistical abstract of Punjab, various issues, govt. of Punjab.

4   CONCLUSION AND POLICY IMPLICATION

It was concluded from the foregone analysis that Punjab agriculture towards stagnation. The study reveals that in the case of area under rice and wheat, grows at high rate during the I and II period of study (1970-71 to1979-80 and 1980-81 to 1989-90) then growth rate sharply decline. It's founded that the growth rate in yield of rice and wheat reached at peak position, even the growth rate of these crops, during the III and IV period of time (1990-91 to 1999-2000 and 2000-01 to 2008-09), negative trends in case of Kapurthala, Jalandhar, Rupnagan, Ludhiana, Faridkot and Patiala district. The main determinants of agricultural performance were found to be the HYV's seeds and % gross irrigated area to total cropped area over the I and II period, use of fertilizer respectably.

In Punjab there is need to shift new production profile. Punjab farmer needs to diversify their crop base into crops like soybean, maize, fruit and vegetables. Developing diary industries to produce milk and milk products for urban centers of north India is another way of diversifying the crop base in Punjab. Establishing plants for processing vegetables and fruits; and for processing dairy and poultry is also an economically efficient way of diversifying the agricultural base. Expanding crop diversification and increasing agro industrialization requires the building of a golden triangle with farmer, agro industry, and the banker as the corners of the triangle.

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PROMOTING ORGANIC FARMING: AN ANALYSIS OF STATUS AND ISSUES OF UTTARAKHAND ORGANIC COMMODITY BOARD

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ABSTRACT

There has been a rise in consumer's demand for safe and healthy food due to increasing concerns over the quality of food, contamination due to chemicals, serious health hazards and environmental issues. This increasing demand has given way to a new stream of agriculture, popularly known as Organic Agriculture. This paper attempts to bring together different issues in the light of recent developments in organic Farming in the state of Uttarakhand with special emphasis on the working and issues of Uttarakhand Organic Commodity Board. This paper has reviewed scenario of Uttarakhand Organic Commodity Board with reference to organic farming through critical analysis of available secondary data. The key issues emerging in organic farming include yield reduction in conversion to organic farm, soil fertility enhancement, and integration of livestock, certification constraints, ecology, marketing and policy support. This paper discusses the potential for organic farming and argues that organic farming is productive and sustainable, but there is a need for strong support to it in the form of subsidies and research carried out by Public-private partnership.

KEYWORDS

Organic Farming, sustainable agriculture, Uttarakhand Organic Commodity Board(UOCB).

INTRODUCTION

ncreasing population of India has started creating demographic pressure on agriculture sector to maintain food security. Hence maximizing crop yield to meet the growing demand for food grains is an important issue. However increase in crop yield through excessive use of pesticide and fertilizers, introduced during green revolution pose great threat to sustainability of agriculture productivity in the long run. Removal of crop residues and indiscriminate use of chemical fertilizers have severely affected soil health which is continuously deteriorating. To address the issue of maintaining crop yield through sustainable agricultural practices, the Government proposes to promote organic farming methods, combining modern technology with traditional farming practices like green manuring, biological pest control and weed management. A large number of terms are used as an alternative to organic farming viz. biological agriculture, ecological agriculture, bio-dynamic, organic-biological agriculture and natural agriculture. According to the National Organic Standards Board of the US Department of Agriculture (USDA) the word 'Organic' has the following official definition (Lieberhardt, 2003): "An ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on the minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony."

Organic farming in India received attention after launching of National Project on Organic Farming (NPOF) in 2004-05. Area under organic farming was 42,000 hectares during 2004-05 which had increased to 1.08 hectares by March 2010. Area under wild forest harvest collection was 3.40 million hectares. Thus total area under organic certification process by March, 2010 was 4.48 million hectares which was 25 fold increase in last 6 years. Organic farming is being promoted under National Project on Organic Farming (NPOF), National Horticulture Mission (NHM) and Rashtriya Krishi Vikas Yojana (RKVY). India produced around 3.88 million MT of certified organic products which includes edible products along with organic cotton fiber, garments, cosmetics, functional food products, body care products, etc. India exported 86 items in the year 2010-11 with the total volume of 69837 MT. the export realization indicated a growth of 33% (157.22 million US $) over the previous year. Chief importers of Indian organic products are EU, US, Australia, Canada, Japan, Switzerland, South Africa and Middle East.

Nine States have drafted organic farming policies out of which Uttarakhand, Nagaland, Sikkim and Mizoram have declared their intention to go 100 percent organic. However Uttarakhand and Sikkim has declared themselves as 'Organic States'. This paper tries to focus on the development of organic farming in the state of Uttarakhand.

REVIEW OF LITERATURE

Organic agriculture is developing rapidly; its share in agricultural land and farms continues to grow in many countries. According to the FIBL survey, 2008; conducted BY Research Institute of Organic Agriculture, Switzerland, almost 30.4 million ha are managed organically by more than 7, 00,000 farms (based on 2006 consolidated data). Oceania holds 42 per cent of the world's organic land, followed by Europe (24 per cent) and Latin America (16 per cent). The global organic land area increased by almost 1.8 million ha compared to the previous year, 2005. Global demand for organic products remains robust, with sales increasing by over five billion US dollar per year. Currently, India ranks 33rd in terms of total land under organic cultivation and 88th position for agriculture land under organic crops to total farming area in the World. The cultivated land under certification is around 2.8 million ha. This includes one million ha under cultivation and the rest is under forest area (wild collection) (APEDA, 2010). India exported 86 items during 2007-08 with the total volume of 37533 MT. The export realization was around 100.4 million US $ registering a 30 per cent growth over the previous year (APEDA, 2010).

IFAD's thematic evaluation on Organic Agriculture and Poverty Reduction in Asia with a China and India focus published in 2005 elucidated the initial steps taken by Uttarakhand as an organic state. After attaining statehood in 2000, the possibility of expanding quality organic farming as an improvement of the existing agriculture traditions was attempted in Uttarakhand. The experiences gained by the state over last six years through the Uttaranchal Organic Commodity Board, Uttaranchal State Organic Certification Agency and other commodity boards, NGOs, and the line departments have brought vital learning to the state on many fronts. The results were encouraging with 4,000 ha of area brought into organic farming with approximately 35,000 farmers using Internal Control Systems and linked directly with the market. Forty-two commodities have been identified, tested, and up scaled for market and consumption. The maximum benefit came to the organic basmati rice producers as the area under organic basmati rice rose from 16 ha in 2002-03 to 2,200 ha involving 2,100 farmers. Neglected crops, such as finger millet, were developed for the markets and mainstreamed as cash crops. From 2003 to 2006, commodities worth Rs. 19.83 million have been marketed under Organic Uttaranchal Brand. The agriculture department has mainstreamed the organic agenda through research, policy, funding, and capacity building of state functionaries at a cross-cutting level.

PROFILE OF UTTRAKHAND

The total reporting area of Uttarakhand is 53,483 sq. km. which accounts for 1.63% of total geographical area of India. 65% percent of Uttrakhand is covered with forest and 23.6% percent is under agriculture and allied activities. Agricultural land of Uttarakhand can be broadly divided into plains (43.2%) and hills (56.8). only 9.43 percent land is irrigated and agriculture is mostly rain-fed. Due to micro climate differences, the agro climatic zones in the region can be divided broadly as follows:

1. Plains and tarai, bhabhar zone (up to 1000 ft.)
2. Middle Himalayan zone (1000 to 3000 ft.)
3. Higher Himalayan zone (above 3000 ft.)

TABLE-1: UTTRAKHAND AT A GLANCE

Total reported area	53483 Sq. Km.
Area under forest	34651 Sq. Km. (65%)
Area under Agriculture and Allied activities	13.37 lakh ha. (23.6%)
Area under Other Uses (infrastructure and Urban Development)	2.17 Lakh Ha. (3.8%)
Area Under Irrigation	1.26 lakh ha. (9.43%)
Other revenue land/fallow /waste land	6.33 Lakh Ha. (11.1%)
Districts	13
Population (Census 2011)	101.17 Lakh
Sex Ratio, 2011	963
Population Density	189 per Sq. Km.

Source: Uttarakhand Annual Plan 2011-12

The largely rain-fed agriculture and very low use of chemical fertilizers and pesticides, provides an opportunity to develop environment and farmer friendly organic farming that provide better value in the market. Marginal land holdings, rearing of indigenous cattle, unavailability of harmful chemicals to most of the farmers and prevalence of traditional farm practices can help in development of organic agriculture in this area. Organic agriculture was declared as a thrust area by the State as early as 2001-02 wherein a number of policy decisions were taken, one of them being establishment of Uttarakhand Organic Commodity Board (UOCB).

STATEMENT OF THE PROBLEM

Organic farming is the manifestation of the traditional environment stewardship of the people of Uttarakhand (Chipko Movement), providing a meaningful expression in the form of economic growth. Eighty percent of farmers in Uttarakhand practice organic farming by default in rain fed conditions. This practice has been the source of food security for small and marginal farmers in terms of safe, multiple and nutritious food. The state, because of its diverse topography has an immense potential to develop cultivation of herbs and medicinal plants through organic farming. However this remains untapped because of lack of serious efforts. However, UOCB has been established to work in the direction of promoting and enhancing the potential of organic farming in Uttarakhand. This paper tries to review the status of UOCB in development of organic farming and various issues and limitations they face in successful implementation of policies.

OBJECTIVES

1. To examine the status of UOCB.
2. To assess the problems faced by UOCB in implementation of Organic farming.

RESEARCH METHODOLOGY

The paper tries to study the role of UOCB in promotion of Organic farming in the state of Uttarakhand through a descriptive analysis based on secondary data collected through various sources. Charts and comparative tabulations are used for easier and simpler understanding and presentation of data.

RESULTS & DISCUSSION

STATUS OF UOCB

Uttarakhand Organic Commodity Board came in to existence on 19 May 2003 after being registered under the societies registration act, 1860. It acts as the nodal agencies to enhance organic activities in agriculture and allied sectors like Horticulture, Medicinal Aromatic Plants & Herbs, Milk Production and animal husbandry throughout the state. The professional, managerial, technical Support to UOCB for management of farmers' organization and to lead farmers is provided by Centre for Organic Farming (COF) which is a project grant sanctioned by Sir Ratan Tata Trust, Mumbai under Uttarakhand Organic Commodity Board. The main aim of UOCB is to make Uttarakhand 'The Organic Capital of India'. The main objective of UOCB is to provide training to farmers, extension workers from government line departments, NGO's in the field of production, certification as well as marketing. UOCB organizes exposure visits for farmers, middle and senior level officers for seminars, exhibitions and other gatherings in Organic sector. UOCB has converted few districts into bio-villages (Table-2).

TABLE-2: LIST OF BIO-VILLAGES OF UTTARAKHAND

1	Almora
2	Bageshwar
3	Chamoli
4	Champawat
5	Dehradun
6	Haridwar
7	Nainital
8	Pauri
9	Pithoragarh
10	Rudraprayag
11	Tehri
12	Udhamsingh Nagar
13	Uttrakashi

Source: Uttarakhand Organic Commodity Board (UOCB)-annual plan 2011-12

FUNCTIONS OF UOCB

1. The 'Fill in the Blank' Service
   UOCB assists organic farmers to become Organic Producer Groups and links them to market by developing production plans based on market response.
2. Prime mediator for the Internal Control System
   UOCB compiles the data generated by the investigators and workers for commodity production projection of the coming season to facilitate forward linkage processes. The availability of updated data at a single window helps the marketing cell to plan for the supply chain.

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3. The resource center
    UOCB provides updated technical inputs for the organic production which can be used as per standards. The technologies compiled by the board are passed on to the different stake holders in the state.
4. Resource Generator
    UOCB generates resources in the form of finances, human resources and building patronage for the Organic development.

UOCB has been playing a key role in spreading awareness among farmers about the prospects and benefits of organic farming in Uttarakhand. Table-3 shows that UOCB enjoyed maximum response (68.47%) from the farmers.

TABLE-3: AWARENESS ABOUT BIO-FERTILIZERS AND BIO-PESTICIDES

Aware Since	%response	Who Motivated	% response
2002	18.81	Central Himalayan Environmental Association (CHEA)	5.76
2003	45.54	Agriculture Department	1.02
2004	33.17	Already Knew	0.68
2005	21.78	Fellow Farmers	7.12
2006	14.85	Through training	1.69
2007	15.35	UOCB	68.47

Source: Impact assessment study of Center of Organic Farming I and II, Uttarakhand State, Dec. 2009

UOCB has been promoting sale of organic products. The available data show a constant increase in the sale of organic farming products since 2003-04. The data given in the Table-4 show that there has been a sharp increase in the sale of organic products facilitated through UOCB in 2007-08 which can be attributed to increase in the number of bio-villages during this year.

TABLE-4 SALE OF ORGANIC PRODUCTS FACILITATED THROUGH UOCB

Sr. No.	Year	Amount (Rs in Lacs)
1	2003-04	16.7
2	2004-05	62.8
3	2005-06	79.5
4	2006-07	201.3
5	2007-2008	518
6	2008-2009	657.88
7	2009-2010	933
	Total	2469.18

Source: Uttarakhand Organic Commodity Board (UOCB)

FIG. 1
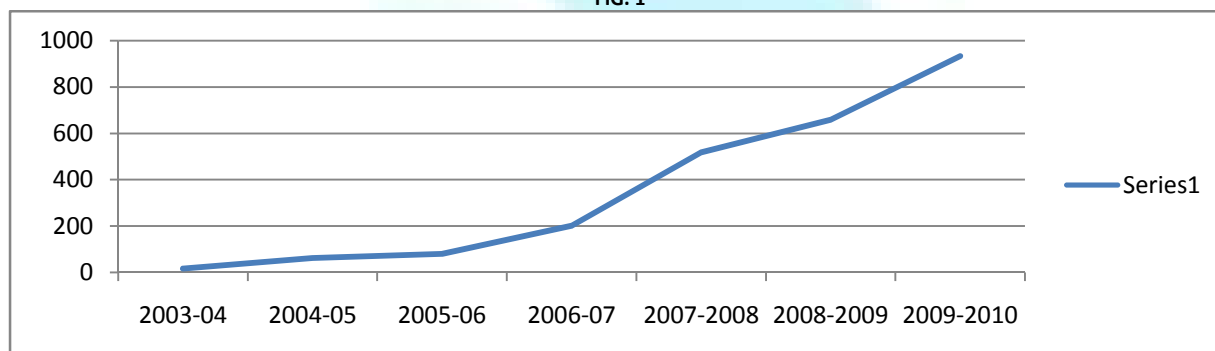
PROBLEMS FACED BY ORGANIC FARMERS

According to a report by UOCB, following problems were faced by organic farmers:

1. Market related problems
*   68% of farmers felt that market uncertainty was a major problem.
*   Lack of a local market.
*   Total dependence on a small number of buyers.
2. 64% felt that the price obtained for organic basmati rice was too low.
*   Price declined in recent years.
*   Premium not enough to compensate for loss of income from wheat.
3. Delays in procurement and payment.
*   Small farmers consider this to be very important.
4. Pests and Diseases
*   55% of the farmers reported pests and diseases to be an important problem.
*   Udhamsingh Nagar district (70%). 15% crop lost. Use of chemical inputs more widespread, leading to resistance etc.
*   Dehradun district (40%)
5. Incidence of pest and disease attack more common in organic farming.
*   Organic: 183 incidences
*   Conventional:107 incidences

As farmers face these problems, it is difficult for organization to convince farmers to adopt organic farm practices. Some of the major constraints faced by UOCB are as follows:

1. Convincing the farmers in new areas were they are already using extensive chemical fertilizers and pesticides is quite difficult because various government and private agencies distribute to the farmers free seeds, fertilizers and pesticides along with monitoring help.
2. Another hampering factor is the shift of government policies to corporate farming, which is further marginalizing small farmers.

3. Time required to conversion to organic is a major issue, since it is observed that in the first two years of transition phase, productivity goes down between 15-20 %. In the worst conditions the loss may go up to 40 % in terms of yield, but in most cases the loss in yield is compensated by the money saved on inputs.
4. The legislative framework is still promoting conventional farming and discriminating against organic farmers. By subsidizing conventional farming to keep artificial level of profit.
5. Farmers adopting organic production methods in India have difficulties to get certification due to high cost and inability to match the standards of certified organic production.
6. Traders and producers of agrochemicals see their markets endangered and therefore put a lot of effort into discrediting organic farming by carrying out anti-organic campaigns.
7. Lack of detailed understanding of various aspects of agriculture and the organic production cycle among farmers does not allow them to extract maximum benefit out of organic farming.
8. Many consumers in India are not aware of the benefits of organic food in terms of quality and taste, health aspects and environmental benefits.

RECOMMENDATIONS/SUGGESTIONS

1. There is an urgent need to develop market for organic wheat to increase the overall profitability of organic farming as wheat is one of the important food crops of the state.
2. Inform farmers about the profitability of Organic farming vis-à-vis conventional or modern farming through awareness programs organized by government and non-government organizations.
3. Provide better technical support to control pests and diseases. Presently, their ability to control some of the pests such as stem borer is very limited.
4. Credit facility to farmers to have access to biocontrol agents through board.
5. Providing funds to board to promote organic farming practices.
6. The farmers' awareness of the certification process should be increased along with enhancement of their capability to fill documents etc. necessary for the ICS Programme.
7. Communication between the Board, federations and farmers should be improved. Farmers are most interested in market and price related matters.
8. Increasing the efficiency of transportation and procurement system to reduce loss of product due to these inefficiencies.

CONCLUSIONS

Organic Farming has strong potential in India especially in state of Uttarakhand where conventional farming is still not widespread. Since most of the agriculture is rain-fed, the agriculture of Uttarakhand can be called 'Unintentionally Organic'. UOCB is playing a crucial role in the promotion of organic farm practices and motivates farmers through awareness programs. However, being a long term investment project and a higher density of small and marginal farmers in Uttarakhand; organic farming faces a lot of constraint and limitations. There is a need to construct infrastructure both technical and financial to motivate farmers to switch to organic farm practices.

LIMITATIONS

Due to lack of time and resources, secondary data have been used. The results may variate, if study is done based on primary data.

SCOPE FOR FURTHER RESEARCH

Organic farming is a new concept and most of the studies have focused on the environmental aspect of Organic farm practices. Very few research as been done to study the economics of Organic farming. Organic farming can be studied as a strong link that associates environment with economy.

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RESEARCH ON THE VARIABLES THAT HAVE AN IMPACT ON EMPLOYEE SATISFACTION AND TURNOVER INTENTION

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ABSTRACT

A lot of research has been done on turnover intention and it has been a keen interest for the managers and researchers for a long period. This paper highlights and defines basic concepts of Job satisfaction and its impact on Employees turnover intention. It specifically considers satisfaction with Organizations justice, Locus of Control, Organizational Commitment that affects Turnover Intention. To achieve the objective, a survey method of questionnaire was conducted. A total 120 respondents were randomly selected as the sample of study, data was analyzed by SPSS and Regression analysis technique was used. Findings supported the entire four hypotheses. Organizations justice, Locus of Control, Organizational Commitment had a positive relationship with Job Satisfaction, whereas Turnover Intention had a negative relationship with job satisfaction. Furthermore, the employees that are unsatisfied with their job progressively have a higher intention to quit the job than the stabilized job satisfied employees do.

KEYWORDS
Cronbach Alpha, Job Satisfaction, SPSS (regression) Analysis, Turnover Intention.

1.   INTRODUCTION
Employee turnover has long been a topic of interest to academicians and practitioners because of the negative consequences of turnover (Cotton and Tuttle, 1986; Mowday et al., 1982; Hom and Griffeth, 1995; Griffeth et al., 2000 Hayes et al., 2006).
Organizations bear a lot of cost regarding turnover as they obtain significant costs, both direct (costs of recruitment and selection, training, orientation and development, etc.), and indirect (commitment of employee, service/product quality, productivity and profit) (Kinicki et al., 2002). Studies have been conducted from numerous perspectives, with respect to the reason and connection of employee turnover.
Cotton and Tuttle (1986) recognized three types of causes of employee turnover:
(1) Individual factors (age, education, gender, job possession);
(2) job-related factors (job satisfaction, pay, performance, Organizational commitment); and

(3) External factors (unemployment rates, employment opinion, Union occurrence).

Job satisfaction has been mainly studied work/job-related sign of turnover, which has usually been treated as a major variable. Job satisfaction refers to the feelings one has about one's job on which most researchers agree. Moreover, numerous western studies have generally maintained a negative relationship between job satisfaction and employee turnover (Griffeth et al., 2000; Price, 1977, 2001; Kinicki et al., 2002), although in some cases, it is not strongly related (Mobley et al., 1979; Wong et al., 2001).

Higher levels of organizational performance lead to lower turnover. Determinants of job satisfaction may be different between countries and cultures, although there is a well-established negative link between job satisfaction and employee turnover, some researchers have quarrel that, hence affecting the relationship with employee turnover intention (Kirkman and Shapiro, 2001). Further aspects that contribute to turnover decisions are level of occupation, labor market situation, worker's age, probability of acquiring other employment and financial tasks. Relationship between job satisfaction and turnover one may expect in common, to accept this in certain situations is important as this connection would not be achieved because of the above-mentioned factors.

Affective organizational commitment has revealed an important forecaster of organizational outcome when we focus on the link between attitude and performance. The similar relation with organizational outcome can be established from job satisfaction. However it is further indirect the relation to organizational outcome.

For both the want for internal or external control strengthening an individual's hope is measured by Locus Of Control. Specifically, it is the level to which people believe that the external factors, like chance and powerful others are in control of the events that control their lives. Organizational justice is connected with organization. Justice in an organization includes matter related to idea of fair pay equal opportunities for promotion and personal selection procedure.

Job Satisfaction relates that how people experience, distinguish and think about their jobs. This meaning may be heading for that how employee's approach and behaviors towards their jobs. When the importance is given expectations towards satisfaction is wished, it is important to judge job satisfactions predictor to equilibrium existing factors to get insight into employee attitudes and behaviors. Job satisfaction is the degree to which a person reports satisfaction with extrinsic and intrinsic attributes of job. Furthermore, Job satisfaction decreases the cost of employing new employees and develops the preservation level of employees. However, before complete knowledge of Job Satisfaction can be obtained many factors are to be included. It may include factors such as age of employee's, health, level and desire of ambition. In addition, an employee's relationships with family, social status, recreational outlets, activity in the organization etc. also add eventually to job satisfaction. When comparing meaning of job satisfaction factors and their impact of Job Satisfaction of officers must furthermore be considered. The impacts like age, sex dissimilarity and work experience on the feelings towards satisfaction should also be considered. Most significant factors that add a lot to Job Satisfaction are the result of these impacts, which are efficiency in work, salary, fringe benefits and co-worker relations. Private sectors have high level of Satisfaction than different factors have impact on job satisfaction like promotion, pay, safety of job, working conditions, relationship with co-worker and supervisor. The positive or negative feeling with which the employee visions his work is known as Job Satisfaction in which agreement between rewards that job provides and ones expectation of the job is stated. The nature of one's impression of job is a significant part of life as Job Satisfaction influences one's general life satisfaction. The result of different approaches possessed by an employee is job satisfaction. Those attitudes that are linked to the jobs under condition by an employer in a constricted sense are factors such as wages, forms of work, supervisors of employment, quick resolution of grievances, social relationship on the job and fair treatment by employer.

Persons from public sectors have the benefit of better facilities and encouraging work environment. Minor level of impact is on sex and age dissimilarity. The overall job satisfaction of the employee is at positive level.

The determinants of job satisfaction have been:
➢ Individual differences such as self-esteem & need for achievement,
➢ Factors such as authority division & centralization and,
➢ Organizational reward Systems.

Main objectives of this research are:
• To Check the impact of organizational commitment on employee turnover,
• To Check the impact of LOC on employee turnover,
• To assess the impact of organizational justice on employee turnover and whether it is properly implemented and executed.

This research may answer the following questions:
❖ What is the impact of organizational commitment on employee turnover?
❖ What is the impact of (LOC) on employee turnover?
❖ Is organizational justice helpful in satisfying the employees and reducing turnover?

2. LITERATURE REVIEW

2.1 EMPLOYEE TURNOVER INTENTION

Theory and empirical outcome both specify that job satisfaction plays an important role in explaining intention to quit (Griffeth et al., 2000) and employee turnover (e.g. Bluedorn, 1982). Study by Chen et al. (2008) and Duraisingam et al. (2009) concluded there is a well-established negative connection between job satisfaction and turnover (McCulloch and Turban, 2007; Griffeth et al, 2000; Hayes et al., 2006; Lee and Rwigema, 2007).

Logically, giving up precedes intent to quit; Meyer and Tett (1993) found that reason to give up was significantly and negatively related to job satisfaction. The two most cited meta-analysts on reasons and link of turnover, Tuttle and Cotton (1986) and Griffeth et al. (2000), both revealed, a moderate to strong relationship between job satisfaction and turnover. While Tuttle and Cotton and (1986) recommended a considerable negative relationship between satisfaction with turnover and pay, Griffeth et al. (2000) later only found a weak negative relationship between the two.

One possible explanation for the difference in the withdrawal behavior is individual perception of people about different cultural principles is that what it means to be an individual in a particular culture and for that cause gives us the ways of assessing and evaluating managerial practices in connected to their level of contentment and motivation which in return affects employee' behaviors and attitudes. To assess the reason of job satisfaction on employee turnover intention in order to achieve a hint of the generality of the hypothesized negative affiliation between satisfaction and turnover is therefore the idea of this study.

Many studies support the negative relationship between employee turnover and job satisfaction. Lam et al. (2001), for example, when we study managerial job satisfaction and turnover intention we come to the result that when the job satisfaction is high employee turnover intention will be low.

In forecasting both, job satisfaction and turnover intention organizational commitment plays an important role. Therefore (Wong et al., 2001), states the argument is carried out that cultural or traditional values (loyalty and personal networks) still play an essential role in persuading and enhancing employee work-related attitudes and behaviors.

2.2 ORGANIZATIONAL COMMITMENT

"The strength of feelings of responsibilities that an employee has on the way to the mission of the organization is known as "Organizational commitment."

As (Meyer and Allen; 1991) describes, commitment consists of three aspects which are *affective, normative and continuance commitment*. The relative strength of an individual's identification with and dedication to an organization is explained as Affective organization commitment.

Affective commitment is characterized into three aspects: The acceptance of organizational goals and values, the willingness to exert effort on behalf of the organization and the intention to stay in the organization (McCaul et al; 1995).

Continuance commitments is the commitment employee's experiences towards the organization because of investment they have made or because of costs associated with leaving the organization (Dipboye et al, 1994).

Commitment's feeling to remain in the organization is described as Normative Commitment. Common object about these dimensions is that they all are sign of to the degree to which employees are willing to remain in the organization. We adopted these three aspects because they are surrounded near to our study as it is also often used in the defining organizational commitment.

Prior researches indicate there is a lot of involvement between organizational commitment and job satisfaction concept (Tett and Meyer; 1993,1997; Sagie; 1998; Dipboye et al; 1994) However the two work thoughts are regarded as separate construction(Price and Russell, 1988). Referring to an emotional state of mind that reflect an affective reaction to the job and the work situation is Job Satisfaction, while the focus of organization commitment is on a more universal reaction(emotional or non-emotional) to the whole organization (Russell and price ,1988; ; Lance.1991; Farkas and Tetrick,1989; Dipboye et al,1994;).

H1: Organizational commitment is positively related to job satisfaction.

2.3 LOCUS OF CONTROL (LOC)

(Rotter; 1966) describes LOC as "it determines an individual's expectations for either the need for internal or external control of strengthening".

As one feature of personality, a person's expectations for both the need for internal or external control of reinforcement is measured by LOC. Persons with low LOC score have an internal (LOC) and consider that their own performance, ability, or attributes decide the return that they achieve. Individuals with a high (LOC) score have an external (LOC) and believe that whether they receive rewards in life is generally outside of their control (Rotter; 1966). Specifically, studies have identified a contact between locus of control and job stress, job performance and job satisfaction (Rahim, Daniels & Guppy).

(LOC) is an significant interpreter of Job Satisfaction. Person's report higher levels of job satisfaction having internal (LOC). An increase in job satisfaction leads to employee satisfaction, which is supplementary a key which adds an increase in employee productivity and performance.

H2: Employees with internal (LOC) would report high job satisfaction than those with external (LOC).

2.4 ORGANIZATIONAL JUSTICE

"Greenberg (1986) introduced organizational justice with view to how an employee judges the manners of the organization, their resulting attitude and behavior that comes from this.

Moreover, in 1990 he explains that the word organizational justice involves where fairness is being considered in the organization.

There are particularly three types of justice in which human beings are interested in according to the literature. First is the one who deals not just with the perceived fairness of the outcomes or allocations that individuals in organizations receive but also with "What the decisions are" which is the distributed justice (Cropanzan and Folger 1998). Second is procedural justice, which deals with the fairness of process used to decide outcomes and addresses fairness issues regarding the mechanisms and methods and process used to decide those outcomes (Cropanzan and Folger 1998). Procedural justice refers to the process of fairness or "how decisions are made" (Sarfied-Baldwin and Tang 1996). Interactional justice is the third type which clears about the fairness of the interpersonal behavior and communication that they received (Ambrose et al, 2002,).

It is important to state that interactional justice focuses how proper agents of the organization treat those who are subject to their authority decision and actions (Obb et al 1995).

H3: Organizational justice is positively related to job satisfaction.

2.5 EMPLOYEE JOB SATISFACTION

(Spector; 1997) stated, "Employee Job Satisfaction is related to how people think, feel and perceive their jobs. (Chang; 1999) states that it is broadly used in the field of human resources expansion where it is believed that employee reports satisfaction with intrinsic and extrinsic aspects of job. The satisfying emotional situation resulting from appraisal of one's job or job experience is Job Satisfaction (Locke; 1976). According to (Rainey; 1997), Job satisfaction is mostly studied variable in organizational study which is related that how people feel about their job and different aspects of their job. It is really extent to which people like or dislike their job (Spector; 1997).

H4: Job satisfaction has a negative relationship with turnover intention.

PROPOSED MODEL
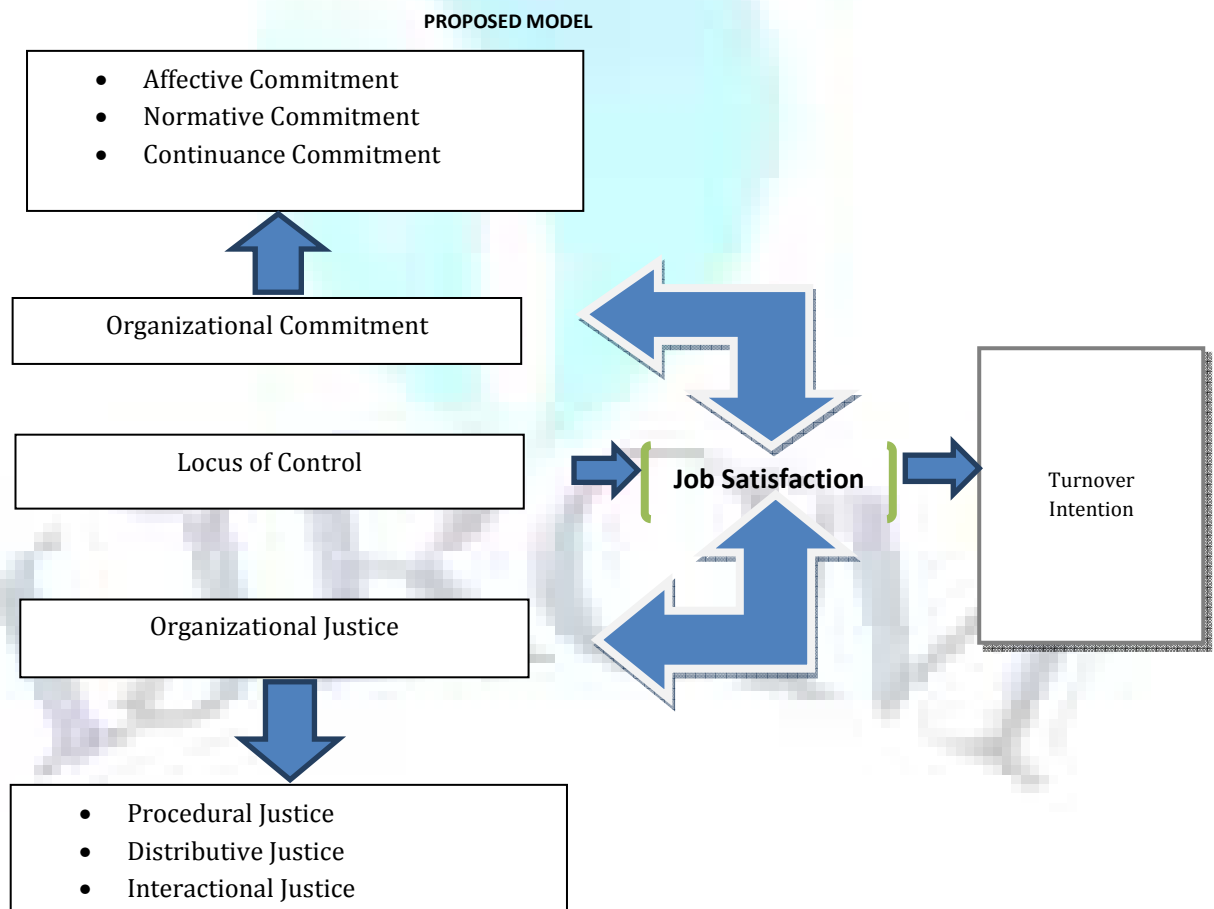
3. RESEARCH METHODOLOGY

The current research is descriptive in its nature. The main objective of this kind of research is to illustrate the data and characteristics' regarding what is being studied. The study of the existing certain happening is described as descriptive research. Descriptive researchers are those researches that describe the existing

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situation instead of interpreting and making judgments (Creswell, 1994).This type of research provides information about the current scenario and focus on past or present for example quality of life in a community or customer attitudes towards any

3.1. SAMPLE/DATA

The current study utilizes the convenience sampling which is a non-probability sampling method in which those subjects are chosen because of their accessibility and closeness to the researcher. Convenience sampling is used normally for collecting a large number of completed surveys speedily and with economy.

We select these sample members from different organization in Bahawalpur, Pakistan. Two main clusters will target to collect the sample data like teachers and working professionals. The selection of teachers and working professionals are based on the previous results of the studies on job satisfaction.

3.2 INSTRUMENT AND MEASURES

The survey instrument of the current study address two major purposes: First purpose is to analyze the relationship of different variables in job satisfaction .And the second is to collect information about the different characteristics of the respondents that can be used to understand the variations in different categories.

The survey instrument contains two sections. Section 1 includes different personal and demographic variables. This section will obtain the respondent's information about gender, age, income, education, status.

Section 2 includes the latent variables that are important in the current studies. These variables includes locus of control, organizational commitment, organizational justice, and turnover intention towards job satisfaction. This part of the study is developed based on the past literature and already used questionnaires.

The scales of the study were adopted from the previous literature and published studied. The first variable of the study, which is Locus of Control, has 17 items and these were taken from (Craig, A. R., Franklin, J. A., & Andrews, G. (1984). *British Journal of Medical Psychology, 57*, 173-180).Second variable is Organizational commitment, which is further subdivided into three components. ***Affective Organizational Commitment*** having four items. ***Normative Commitment*** having five items*.* ***Continuance Commitment*** having three items and these items are taken from (Meyer and Allen, 1991) .Third variable is Organizational Justice which is also further subdivided into three items which are ***Distributive Justice*** having four items. ***Procedural Justice*** having five items and these are taken from. ***Interactional Justice*** having nine items. Fourth variable is Job Satisfaction having three items which are taken from (Hackman and Oldham, 1975) and fifth variable is Turnover Intention having four items, which are taken from (Seashore *et al.,* 1982).

No.	Variable	Items	References
1	Locus of control	1. I can anticipate difficulties and take action to avoid them 2. A great deal of what happens to me is probably just a matter of chance 3. Everyone knows that luck or chance determine one's future 4. I can control my problem(s) only if I have outside support 5. When I make plans, I am almost certain that I can make them work 6. My problem(s) will dominate me all my life 7. My mistakes and problems are my responsibility to deal with 8. Becoming a success is a matter of hard work, luck has little or nothing to do with it. 9. My life is controlled by outside actions and events. 10. People are victims of circumstance beyond their control. 11. To continually manage my problems I need professional help 12. When I am under stress, the tightness in my muscles is due to things outside my control. 13. I believe a person can really be a master of his fate. 14. It is impossible to control my irregular and fast breathing when I am having difficulties. 15. I understand why my problem(s) varies so much form one occasion to the next. 16. I am confident of being able to deal successfully with future problems. 17. In my case maintaining control over my problem(s) is due mostly to luck	**Craig, A. R., Franklin, J. A., & Andrews, G. (1984).**
2	Organizational commitment	**Affective Organizational Commitment** **1.** I do not feel like "part of the family" at the organization. **2.** The organization has a great deal of personal meaning for me. **3.** I do not feel "emotionally attached" to the organization. **4.** I feel a strong sense of belonging to the organization. **Normative Commitment:** **1.** I would feel guilty if I left this hospital now. **2.** Even if it was to my advantage, I do not feel it would be right to leave this organization. **3.** This organization I deserves my loyalty. **4.** I would not leave this hospital right now because I have a sense of obligation to the people in it. **5.** I owe a great deal to this organization. **Continuance Commitment:** **1.** It would be very hard for me to leave this hospital right now, even if I wanted to. **2.** There would be too many disruptions in my life if I decided I wanted to leave this hospital now. **3.** I feel that I have too few options to consider leaving this hospital.	**(Meyer and Allen, 1991):**
3	Organizational Justice	**Distributive Justice:** 1. M work schedule is fair. 2. I think that my level of pay is fair. 3. I consider my workload fair. 4. Overall, the rewards I receive here are quite fair. **5.** I feel that my job responsibilities are fair. **Procedural Justice:** 1. Job decisions are made by the manager in an unbiased manner. 2. My manager makes sure that all employee concerns are heard before job decisions are made. 3. To make job decisions my manager clarifies decisions and provides additional information when requested by the employee. 4. All job decisions are applied consistently across all affected. 5. Employees are allowed to challenge or appeal job decisions made by the manager.	

		Interactional Justice:	
		1. When decisions are made about my job, the manager treats me with kindness and consideration.	
		2. When decisions are made about my job, the manager treats me with respect and dignity.	
		3. When decisions are made about my job, the manager is sensitive to my personal needs.	
		4. When decisions are made about my job, the manager deals with me in a truthful manner.	
		5. When decisions are made about my job, the manager shows concern for my rights as an employee.	
		6. Concerning decisions made about my job, the manager discusses the implications of the decisions with me.	
		7. The manager offers adequate justification for decisions made about my job.	
		8. When making decisions about my job, the manager offers explanations that make sense to me.	
		9. My manager explains very clearly any decision made about my job.	
4	Job Satisfaction	1. You are satisfied with your job. 2. Your work environment is pleasant. 3. You are extremely glad that you chose this company to work for, over other organizations.	(Hackman and Oldham,1975)
5	Turnover Intention	1. You are very likely to stay in this company for the next five years. 2. For you, it 3. For you this company is the best of all possible organizations to work for. 4. You will not give up this company easily. 5. You seldom hear about or are exposed to jobs outside your company that interest you.	(Seashore *et al.,* 1982)

3.3 PROCEDURE

The questionnaire was distributed among 150 respondents in Bahawalpur. These respondents are selected based on the criteria above mentioned. Before giving the questionnaire, the purpose of study and questions were explained to the respondents so they can easily fill the questionnaire with relevant responses. A total of 150 questionnaires were selected and rest of the questionnaires was not included in the further analysis due to lack of responses. After collecting the completed questionnaires ,these questionnaire were coded and entered into SPSS sheet for regression analysis.

3.4. RELIABILITY

Overall cronbach's alpha of Job Satisfaction questionnaire items were .This shows that all the 27 items were reliable and valid to measure the opinions of consumers towards Job Satisfaction.

TABLE 2: RELIABILITY OF MEASUREMENTS INSTRUMENT

Scales	Items	Cronbach Alpha
Locus of Control	17	0.626
Organizational Commitment	12	0.792
Organizational Justice	19	0.879
Job Satisfaction	3	0.763
Turnover Intention	4	0.646

4. RESULTS AND ANALYSIS

4.1. PROFILE OF THE RESPONDENTS

Personal and demographic information such as gender, age, income, education level and status of the employees are presented in the following table.

Variable	Category	Frequency	Percentage
Gender	Male	55	45.8
	Female	65	54.2
Age	15-20 Years	14	11.7
	20-25 Years	57	47.5
	25-30 Years	22	18.3
	30-35 Years	12	10.0
	35-40 Years	3	2.5
	Above 40 Years	12	10.0
Income	Below 15000	43	35.8
	15000-25000	31	25.8
	25000-35000	12	10.0
	3500045000	8	6.7
	45000-55000	11	9.2
	Above 55000	15	12.5
Education	Matriculation	-	-
	Inter	1	.8
	Bachelor	31	25.8
	Master	70	58.3
	MS/M.Phill	17	14.2
	PHD	1	.8
Status	Student	5	4.2
	Employed	114	95.0
	Unemployed	-	-
	Businessman	1	.8
	Housewife	-	-

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4.2. HYPOTHESIS TESTING

4.2.1. ORGANIZATIONAL JUSTICE, LOCUS OF CONTROL, ORGANIZATIONAL COMMITMENT AND JOB SATISFACTION

According to the outcome of the study, all of the three variables of Organizational Commitment, Locus of Control and Organizational Justice have a significant positive relationship with job satisfaction. Particularly, Organizational Justice has a significant positive relationship with job satisfaction with (β=.559) and (ρ< 0.000). That means organizational justice contributes more than 55% to job satisfaction. In addition, Organizational Commitment also has a positive relationship with job satisfaction with (β=0.209) and (ρ=0.003). That means Organizational Commitment contribute more than 20% to job satisfaction. Locus of Control contribute more than 19% to job satisfaction with (β=.191) and (ρ=.004).

4.2.2. JOB SATISFACTION WITH TURNOVER INTENTION

Job satisfaction has a negative relationship with Turnover Intention with (β=-.470) and (ρ=.000). That means job satisfaction contributes more than 53% in reducing the Turnover Intension of the employees of the organization. The more satisfied are the employees with their jobs the less would be the Turnover Intention. The regression results of Job Satisfaction with Turnover Intention also shows a negative relationship with (β=-.470) and (ρ= .000).

4.3. REGRESSION RESULTS

H	Model Variables			B	S.E	C.R	P	Results
H1	Job Satisfaction	←	Organizational Commitment	.209	.067	3.069	.003	Supported
H2	Job Satisfaction	←	Locus of Control	.191	.082	2.964	.004	Supported
H3	Job Satisfaction	←	Organizational Justice	.559	.061	8.310	.000	Supported
H4	Turnover Intention	←	Job Satisfaction	-.470	.093	-5.779	.000	Not supported

4.4. STRUCTURAL MODEL RESULTS

5. DISCUSSION

The idea of this study is to study the relationship between Job Satisfaction and Turnover Intention and to examine the impact of both on organizational success. This study examines the different factors of organization, which affects the Job Satisfaction. Qualitative research methodology was used in this group study. Self-administered questionnaire was used to collect data.

There is a high significant link between Organizational Commitment and Job Satisfaction previous studies has confirmed that (Meyer, 1993; Tett and Meyer, 1997; Dipboye et al, 1994). Based on the result of current study, the organizational commitment are important for the enhancing the favorable attitude of the employees towards the job satisfaction. If employees are more committed with their job, the level of job satisfaction is increased. Current study also finds a significant positive relationship between Job Satisfaction organization commitments. This study is consistent with the previous studies that high organization commitment the results in high job satisfaction. Every characteristic of organizational commitment relates a lot among job satisfaction which does not mean that an aspect of organizational commitment does not moderate the connection between Job Satisfaction and Turnover Intention. Normative commitment temperate the relationship between job satisfaction and turnover intention from the results we conclude. Even the sample size of our study is not much large, the effect became considerable. Similarly, the relationship between Job Satisfaction and Turnover Intention is high for low organization commitment as compare for high organization commitment. In addition, to explore the Performance Appraisal elements that relates to organizational justice is the idea of this research. The achievement of appraisal systems may well depend on rates, perception of fairness as supported by Jawahar (2007). Research on Performance Appraisal focuses on the link between employee satisfaction and perceived purpose.

From the result of the current study, we observe that there is an important connection between the three types of justice and satisfaction. Employee satisfaction is positive linked to procedural justice. We find well-built relationship between distributive justice and satisfaction. Regarding satisfaction we also find that it is positively linked to distributive justice. Previous studies shows that satisfaction with ratings is only related to distributive justice (Jawahar, 2007; Sweeney and McFarlin, 1993; Colquitt *et al.*, 2001). It may be that an important part of the population of our sample reveals on that if the procedure used for Performance Appraisal is fair, the probability of a fairness will increase, utilization of the Performance Appraisal results in factors like compensation and promotion for organizational purpose. We find only positive relationship among interactional justice and satisfaction to a certain extent. We found a relationship between the procedural justice and satisfaction with feedback, confirming with previous research (Sweeney and McFarlin, 1993; Jawahar, 2007). We also find a positive relationship between distributive justice and satisfaction with response, which verify earlier findings. This signifies the importance of explaining the Performance Appraisal result and response as well as significance of individual in organizations.

Another antecedent of Job Satisfaction and Turnover Intention is LOC which measures an individual's hope for either the need for internal or external control of reinforcement as one aspect of personality (Rotter, 1996).As stated by" (Firth et al, 2004), "the extent to which people believe they or external factors, such as chance and powerful others, are in control of the actions that influence their lives. Previously LOC was conceptualized as one-dimensional as Internal or External but the scale was revised and Externals are further classified into two categories (Levenson, 1974). These categories were Powerful Others (PO) and chance (CLOC). Powerful other believes that the powerful people in the world control the others and the world is ordered. While chance externals believe that, the non-human factors control the events such as chance or fate and the world is unordered (Levenson, 1974).

In the current study, internal locus of control verifies to be an important indication to Job Satisfaction and Turnover Intention. Previous studies suggest that people with internal locus of control are able to effectively deal with problems, more cognitively able, motivated and prone to learning new things as compared to individuals having external locus of control (Howard, 1996). Thus, according to the results of the study internal locus of control is a major personality trait that influences the perception of Turnover Intention and Job Satisfaction of the employees. (Martin et al, 2005) stated that a number of studies have been conducted on types of LOC and its impact on such job aspect as stress, satisfaction, organizational justice and commitment. Employees with internal LOC reported high job satisfaction than with external LOC. Respondents reported higher levels of job satisfaction and job performance that had an internal LOC and recognized lesser

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levels of job stress. Based on individual responses, the result indicates that low performance firms probably have more external LOC individuals than high performance firms. High performance firms have internal LOC. The mainly considered job-related antecedent of turnover has been job satisfaction. The job satisfaction is essential in explaining employee turnover (Bluedorn, 1982) and intention to quit (Griffeth et al, 2000)

There are two major issues concerning job satisfaction and turnover, first is that the impact of job satisfaction on employee turnover as turnover is particularly acute while experience is an essential requirement for successful performance and replacement is costly (Alas, 2008). There is deep-rooted negative link between job satisfaction and employee turnover. The second affect that is concerning is that the potential effect of occupational level on job satisfaction, turnover intention and the job satisfaction-turnover objective relationship. It represents that satisfaction may be the answer to problem of turnover. Other factors also include such as level of occupation, the condition of labor market, worker's age, financial tasks all add to turnover decisions. Herzberg (1996) and Clegg (1983) had found that job satisfaction is one of those variables having the strongly zero-order relationship to turnover.

6. LIMITATIONS AND FUTURE RESEARCH

This study has constraint that it cannot be widespread as it is based on the responses from a particular region. Relative study to know the differences in the assessment of job satisfaction of the employees working in different organizations in various geographical areas is in progress. In, addition, the replication of this type of research in other countries would help establish the generalizability of these findings for employees and organizations.

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THE DETERMINANTS OF LEVERAGE OF THE LISTED COMPANIES IN SRI LANKA: AN EMPIRICAL STUDY

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ABSTRACT

The role of financial leverage in magnifying the return of the shareholder is based on the assumptions that the fixed charges fund. A company increases its leverage because it can invest in business operations without increasing its equity. Leverage is not always bad, however it can increase the shareholder's return on their investment and often there are tax advantages associated with borrowing. The purpose of present study is to investigate the determinants of leverage (or capital structure) decision of Sri Lankan firms based on a panel data set over a period of five years from 2007-2011 comprising of 60 companies..This study examines the impact of five firm specific factors – firm size, firm growth rate, profitability, and asset tangibility, on the leverage decision of listed companies in Sri Lanka. The results show that financial leverage of Sri Lankan firms is influenced by firm size , firm growth rate and profitability .This study contributes to the literature on the factors that influence financial leverage of the firm.

KEYWORDS

financial leverage, firm size, firm growth rate, profitability, and asset tangibility.

BACKGROUND OF THE STUDY

A company can finance its investments by debt or Equity. The modern theory of capital structure began with the landmark paper of Modigliani and Miller published in 1958. In this paper, they argued the irrelevance of capital structure to the value of firm under certain restrictive assumptions – no transaction costs, the equality of lending and borrowing rates, no bankruptcy costs, and absence of corporate taxes. The theoretical and empirical literature developed over a period of time suggests that, once the restrictive assumptions are relaxed, firms are able to change their value by altering their leverage or debt-equity ratio. The research in the capital structure field is dominated by two principal theories (1) the trade-off theory and (2) pecking-order theory. The trade-off theory of capital structure is established around the concept of target capital structure that balances between the benefit of debt-tax shields and cost (excess risk taking by shareholders) of debt financing. In contrast, the pecking-order theory, developed by Myers and Majluf (1984), suggests that managers do not seek to maintain a specific capital structure. Firms prefer to issue debt rather than equity if internally generated cash flows are not sufficient; external equity is offered only as a last resort when company runs out of its debt capacity as informational asymmetry between managers and investors make it costly to raise funds through equity. Asymmetric information term indicates that managers and other insiders have more information about the firms' prospects and risks than do outside investors. Investors, realizing this, judge that managers are more likely to offer equity when shares are over-valued. Due to this, investors price equity issues at a discount. Thus, according to pecking-order theory, in general it will be the cheapest for a firm to use from the least to the most expensive source of finance in the following order: internal financing, bank debt, bond market debt, convertible bonds, preference capital, and common equity (Myers, 1984). Much of the empirical research on the determinants of leverage has been directed largely towards companies listed in developed companies. There is very few published work on determinants of leverage in Sri Lankan companies and this paper intends to contribute further evidence to this debatable topics. So The purpose of present study is to investigate the determinants of leverage (or capital structure) decision of Sri Lankan firms based on a panel data set over a period of five years from 2007-2011 comprising of 60 companies.

LITERATURE REVIEW

Colombage(2005) empirically investigates the capital structure of Sri Lankan companies and find the financing trend of Sri Lankan firms confirms the pecking order hypothesis to a greater extent that predictions of information asymmetry and static tradeoff consideration.

Champika and Gunaratne(found that Sri Lankan firms demonstrated a market timing behavior in adjusting their capital structure. They also revealed that profitable firms are particularly very much reliant on internal financing.

Samarakoon (1999) examines the use and the determinants of leverage in a cross- section of quoted companies in Sri Lanka using a sample of firms listed in the Colombo stock exchange. The results indicate that the use of long term debt is relatively low. The tangibility and growth opportunities are not related to leverage.

At the outset, it is worth reviewing the previous studies on Sri Lankan companies that are related to leverage and capital structure. Samarakoon(1997) investigated the ability of market beta, book-to-market equity.

Senerathne (1998) tested the applicability of pecking order theory of financing in Sri Lanka. The results suggested that Sri Lankan companies follow the pecking order partially.

Diamond (1989), Bender et al. (2005), Campbell and Kracaw (1990) introduced the concept that management, which is actually working for the best interest of shareholders, may wish to limit the asset substitution. Nevertheless, practically, optimal leverage instability choice has never been considered through the use of derivatives in which it can be controlled continuously. Similarly, Myer's (1984), worked on role of dividend policy and underinvestment issue in enabling a firm. Fan and Sundaresan (1997); Zweibel (1996) and Paul (1997) all have considered the levered firm and optimal dynamic dividend policies for them. From all these recent papers, Zweibel (1996) have addressed the agency problem of dividends. Many papers have focused on financial policy. Until today, there are three major classes of models, the agency, the trade-off theory and the pecking order hypotheses. The agency hypothesis states that firms also face the cost of financial distress due to divergence in the utility function of stakeholders and informational irregularities but in this situation, the level of debt becomes a governance device for a firm. Similarly, the trade-off hypothesis says that the optimal financing policy consists of adjustment towards the target debt level. The target leverage ratio balances the marginal financial distress cost of debt with marginal tax benefit. Pecking order hypothesis talked about the firm value, which is affected by informational irregularity bias investment policy. The unfavorable selection discount leads to rejecting the positive NPV projects. The optimal financial policy in a result, firstly, tires out the least sensitive financing source, i.e. internal financing, then debt and as a last resort, equity. Although many variables affect the capital structure systematically, but they are also failed to distinguish between the above three hypotheses.

Bender et al. (2005) indicated that in the understanding process of financial policy, neither a simple pecking order nor a simple trade-off model is adequate; they also highlighted the timing issues and agency problem impacts upon capital structure. For the debt ratios, they figure out that firms limit themselves only to an upper barrier. As per pecking order theory also, firms prefer to issue equity or repayment of debts rather than to increase the debts level. Debt- equity choice is affected by both market and operating performance since debt limit the managers for cash payout and because of this reason during a lot of opportunity windows, equity may become cheap.

PROBLEM STATEMENT

Most companies use debt to finance operations. By doing the primary motive of a company in using financial leverage is to magnify shareholder's return under favorable economic conditions. The role of financial leverage in magnifying the return of the shareholder is based on the assumptions that the fixed charges fund. A company increases its leverage because it can invest in business operations without increasing its equity. The degree to which an investor or business is utilizing borrowed money companies that are highly leveraged may be at risk of bankruptcy if they are unable to make payments on their debt. They may also be unable to find new lenders in the future. Leverage is not always bad, however it can increase the shareholder's return on their investment and often there are tax advantages associated with borrowing.

There is no exact formula available for the establishing optimal target debt and equity, empirical studies indicate that Size of the company, growth of the company, Non-debt tax shield , profitability and tangibility should be considered when formulating capital structure policy. Does an optimal leverage exist? To what extent the exploratory variables (Size of the company, growth of the company, Non-debt tax shield, profitability and tangibility) impact on leverage of listed companies in Sri Lanka. These are the questions to be answered by a researcher.

However most of the research work carried out in developed countries and very little is known about the determinants of leverage of firms in developing economies. Thus this study intends to fill this research gap.

RESEARCH METHODOLOGY
THE DATA COLLECTION AND SAMPLING
This study investigates the impact of five firm-specific variables on firms' leverage choice decision. The sample of study contains 60 Sri Lankan companies listed on the Colombo Stock Exchange (CSE) whose published financial information for the period 2007-2011. The panel data analysis is done for observations of five consecutive years starting from 2007-2011. In this way, the sample of the study consists of 300 firm-year observations.
VARIABLES USED IN THIS STUDY
Literature on the subject matter suggests a number of factors, which may affect firms' financing decision. This study examines the impact of five firm specific factors – firm size, firm growth rate, non-debt tax shields, profitability, and asset tangibility, on the leverage decision of listed companies in Sri Lanka . While dependent variables are leverage ratios such as Debt to Equity ratio and Debt to Total Asset Ratio .

DEBT TO EQUITY RATIO is a measure of a company's financial leverage calculated by dividing its total liabilities by stockholders' equity. It indicates what proportion of equity and debt the company is using to finance its assets.

DEBT TO TOTAL ASSET RATIO: A measurement representing the percentage of a firm's assets that are financed with loans and financial obligations lasting more than one year.

Independent variables are defined as

Firm size is measured by taking the natural logarithm of the total assets.

Growth is measured as the change in total assets between two consecutive years divided by previous year total assets.

Non-debt tax shield (NDTS) is defined as a ratio of total annual depreciation to total assets.

Profitability is defined as earnings before interest and taxes scaled by k value of Sales

Tangibility is measured as a ratio of net fixed assets divided by total assets.

After careful study of the review of literature, the above conceptual model was developed by the researcher.
HYPOTHESIS
The hypothesis of the research paper are given below

H1: There is a relationship between size and leverage of Sri Lankan firms.
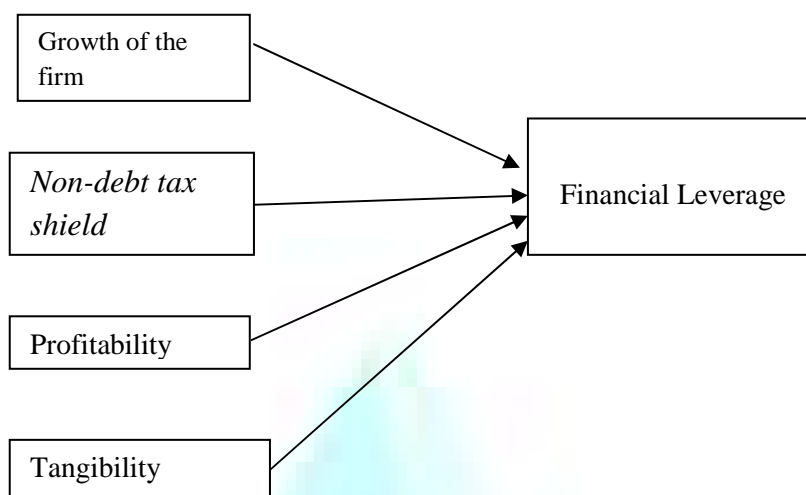
H2: There is a relationship between firm growth rate and leverage of Sri Lankan firms.

H3: There is a relationship between non-debt tax shields and leverage of Sri Lankan firms.

H4: There is a relationship between profitability, and leverage of Sri Lankan firms

H5: There is a relationship between asset tangibility and leverage of Sri Lankan firms.

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FIGURE 1 : CONCEPTUAL FRAME WORK

STATISTICAL TECHNIQUE USED IN THIS STUDY

This paper uses panel data set over a period of five years between 2007-2011 to investigate the linkage between leverage and the firm specific factors. The fixed effects test is employed to test the hypotheses. The fixed effects regression equation can be expressed as:

MODEL 01

Debt to Equity i t = α i + β1 Size i t+ β2 Growth i t+ β3 NDTS i t+ β4 Profitabilityi t+ β5 Tangibility i t + ε i t

Where i =1, 2, 3,…, 60 for the sample companies

t = 1, 2, 3, 4, 5 (time period).

α is the intercept of the equation

β1, β2, β3, β4, β5 = are the coefficients for the five explanatory variables in the model.

MODEL 02

Long Term Debt Ratio i t = α i + β1 Size i t+ β2 Growth i t+ β3 NDTS i t+ β4 Profitabilityi t   + β5 Tangibility i t + ε i t

Where i =1, 2, 3,…, 60 for the sample companies

t = 1, 2, 3, 4, 5 (time period).

α is the intercept of the equation

. β1, β2, β3, β4, β5 = are the coefficients for the five explanatory variables in the model.

ANALYSIS AND DISCUSSION OF RESULTS

Table 1 summarizes the statistics for the selected variables and leverage measures for the whole sample of Sri Lankan companies.

TABLE 1: DESCRIPTIVE STATISTICS

	MINIMUM	MAXIMUM	MEAN	STD. DEVIATION
LEVERAGE(DEBT/EQUITY)	0.43	19.43	3.2778	.821
SIZE	8	11	9.16	11.31233
GROWTH	-122.37	.91	-2.0680	4.35556
DEBT /TA	0.21	0.92	0.1088	.62009
NET FIXED ASSET/TA	0.32	0.88	1.2015	4.60875
DEBT	8667700300	215938000000	12007005501.03	35369796768.88996
EQUITY	67670290	31029565	2088189711.6667	4497617200.68848
VALID N (LIST WISE) 300				

Source: Survey data

According to the Table 1 the minimum value of the Debt to Equity ratio is 0.43 and the maximum value is 19.43. The mean value of the debt to equity ratio is 3.2778 and its standard deviation is .821. Regarding the size of the companies, the minimum and maximum values are 8 and 11 respectively. The mean value is 9.16 and it's standard deviation is 11.31233.

When the firm's growth values are considered the minimum value is -122.37 and the maximum value is 0.91. The minimum and the maximum values of debt to total assets are 0.21 and 0.92 respectively. Its standard deviation value is 0.62009. When we consider the fixed assets to Total assets ratio the minimum value is 0.32 and the maximum value is 0.88. The standard deviation for the above is 4.60875.

EMPIRICAL RESULTS

To find the determinants of leverage of listed Sri Lankan companies, fixed effect regression

The estimation using Eviews 6 in Table 02 indicate that estimated coefficients of all the five explanatory variables used in the model- firm size(Ln assets) ,Growth of the firm, non-debt tax shield, EBIT and asset tangibility. All variables are significant at 1 percent significance. In this model R2 value is 0.731. The R2 statistics shows that approximately 73percent of variation in the firm's leverage can be explained by movements in the vale of independent variable used in the model and the rest of 27 percent is due to the extraneous factors. F statistics indicates that overall significance or goodness of fitness of the model is very high.

Firm size has a positive impact on leverage .The Beta Value of the firm size is 3.469 and the P value is .000. So this is significant at 1 percent significance. So Hypothesis H1 is accepted. We can say that the size of the company significantly affect the leverage of the firm. This finding reveals that larger companies in Sri Lanka use more debt as compared to small companies.

The relationship between leverage and growth in total assets is found to be negative .The beta value of the growth in total assets is -0.017 and p value is 0.010. So H2 is accepted. That is growth of the firm significantly impact on leverage. This results indicates that growing firm in Sri Lanka rely on less on debt and more on retained earnings or equity to finance their new investment opportunities.

The non – debt tax shields are positively related to leverage . Non tax Beta value is 15.118. and P value is 0.000. So H3 is accepted . This finding is consistent with other studies smith and watts(1992) and Liaqal Ali(2011) .

Profitability to Total assets is estimated to have negative impact on leverage. The Beta value of the profitability is -1.647 and the P value is .000.Then H4 is accepted. This finding suggests that Sri Lankan firms prefer to finance new investment using equity funds.

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Tangibility of assets to Total assets is positively associated with the leverage. The beta value of the tangibility is 0.018 and the P value is .000. Then H5 is accepted .This results indicates that with a 1 percent increase in the firm's net assets , relative to total assets, there is 0.018 percent rise in debt- equity ratio or leverage ratio of firm.

REGRESSION RESULTS (MODEL 1)

TABLE 02

PREDICTORS	COEFFICIENT	STD.ERROR	T-STATISTIC	P-VALUE
CONSTANT	-27.818	.311	-8.403	.000
SIZE(LN ASSETS)	3.469	.362	9.581	.000
GROWTH	-0.017	0.023	-2.611	0.010
NDTS	15.118	2.979	5.075	0.000
PROFITABILITY	-1.647	0.404	-4.076	0.000
TANGIBILITY	0.018	0.019	.927	.000
NO. OF OBSERVATIONS	300			
R2	0.731			
F-STATISTICS	53.392			
PROB(F-STATISTICS)	0.000			

Dependent Variable (Debt to Equity Ratio)

REGRESSION RESULTS (MODEL 02)

TABLE 03

Predictors	Coefficient	Std.Error	t-statistic	p-value
Constant	-30.706	.1357	-2.262	.025
Size(Ln assets)	3.548	1.539	2.306	.022
Growth	-0.254	0.231	-1.100	.0273
NDTS	8.513	0.470	.836	.0404
Profitability	-0.299	1.349	-.221	0.0825
Tangibility	0.071	0.010	7.396	.000
No. of Observations	300			
R2	0.537			
F-Statistics	14.853			
Prob(F-Statistics)	0.000			

DEPENDENT VARIABLE (DEBT TO TOTAL ASSET RATIO)

In this model R2 value is 0.537. The R2 statistics shows that approximately 54 per cent of variation in the firm's leverage can be explained by movements in the changes of independent variable used in the model and the rest of 46 percent is due to the extraneous factors. F statistics indicates that overall significance or goodness of fitness of the model is very high.

Firm size has a positive impact on leverage .The relationship between leverage and growth in total assets is found to be negative .The beta value of the growth in total assets is -0.254 and p value is 0.0273. So H2 is accepted.

The non – debt tax shields are positively related to leverage . Non tax Beta value is 8.153. and P value is 0.0404. So H3 is accepted . Profitability to Total assets is estimated to have negative impact on leverage. The Beta value of the profitability is –0.299 and the P value is .0825.Then H4 is accepted.

Tangibility of assets to Total assets is positively associated with the leverage. The beta value of the tangibility is 0.071 and the P value is .000. Then H5 is accepted .

CONCLUSION

This paper examined the impact of five firm specific factors – firm size, firm growth rate, non-debt tax shields, profitability, and asset tangibility, on the leverage decision of listed companies in Sri Lanka The results of the study based on the fixed effect estimation show that the explanatory variables in the model 01 and 02: firm size, growth, non-debt tax shields, profitability and tangibility have strong significant influence on firm's leverage. This paper support for existing literatures such as Samarakoon P(2009) Liaqal Ali(2011) , smith and watts(1992),and Fan, H. Sundaresan. S. (1997) . The objective of an investment is to maximize the wealth of owners. In order to achieve this objective investors should select the shares of companies which have higher profitability. Therefore the findings of this research will help investors in selecting profitable shares by considering their capital structure and to maximize their return. Companies can alter their capital structure according to their needs. The findings of this study will also help to companies to determine the optimum leverage which maximizes their profitability. By increasing their profitability companies can also increase the market values of their shares.

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THE IMPACT OF COMMERCIAL BANKS' ACTIVITIES ON RURAL ECONOMIC DEVELOPMENT IN NIGERIA

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ABSTRACT

Despite the countless numbers of rural development policies introduced at different times by successive governments coupled with the huge financial and material resources employed, little or nothing is felt at the rural level as each policy has often died with the government that initiated it before it starts to yield dividend for the rural dwellers. It is against this backdrop that this paper examines the impact of commercial banks activities on rural economic development and; also to determine the relationship that exists between various activities of commercial banks and the development of the rural economy and its populace. In line with the objectives, two hypotheses were formulated. The population and the sample of the study were all the Commercial banks in Nigeria. The study utilized data from secondary source. Data were obtained from the Central Bank of Nigeria's (CBN) Statistical bulletin. The time frame for the study is twenty-eight years, covering the period of 1982 to 2010. The technique of analysis used in the data was Linear Regression Analysis. We concluded that even though commercial banks activities such as giving out loans and receiving deposit has positive impact on the rural economy, there is room for the Commercial banks to gear more of its activities towards the development of the rural economy. The study calls on appropriate authority such as the government to ensure the consistency of policies that will enhance rural development. Similarly, Bankers Committee to encourage activities by Commercial banks towards the development of rural economy.

KEYWORDS

Commercial Banks, Banks Activities, Rural Areas, Economic development.

1.0 INTRODUCTION

There is an overwhelming need to accord rural development a priority on the 'must-do-list' of government at different levels, if the rural communities must contribute meaningfully to the social, cultural and economic development of Nigeria. A bulk of the Nigeria wealth is derived from agriculture, and oil which lies in abundant quantity in rural communities. Current estimates put the rural population at over 80% of the entire population of almost 140 million people. So far, not much in terms of infrastructural development has been done to bring this bulk of concentration of both human and material resources to contribute optimally to national economy. The neglect has resulted to the mass exodus of rural dwellers and in turn has made the rural area qualitatively and quantitatively depopulated, and progressively less attractive for socio-economic investment.

The challenges and prospects of rural development in Nigeria have been of great concern to the different tiers of government due to the rate of rural-urban migration. Rural development is faced with the paradox that the production oriented rural economy relies heavily on non-productive people who are ill-equipped with outdated tools, technical information, scientific and cultural training and whose traditional roles and access to resources pose problems for their effective incorporation into modern economic systems, whereas the consumption oriented urban economy is flooded with many (people) of who are either unemployed or unemployable, or marginally employed or underemployed in the urban centers where they choose to live, Onibokun (1987). As a result of this mass exodus, the rural areas have become qualitatively depopulated and are progressively less attractive for social and economic investments while the urban areas are becoming physically congested, socially unhealthy and generally uneconomic to maintain.

Economic development is about enhancing capacity of an economy by using available resources to reduce risk, remove impediments which otherwise could lower costs and hinder investments (Sanusi, 2011). It is pertinent to note that rural development plays an important role in the Nigerian economic development both at the micro and macro level. Overtime, successive government have embarked on several programmes targeted at rural development, other approaches have been by Non-Governmental Organizations (NGO), corporations, individuals through private initiatives, corporate bodies as well as international organizations, (Ogidefa, 2010). The various programmes targeted at rural sector by government include National Accelerated Food Production Programme (NAFPP), River-Basin Development Authority (RBDA), Agricultural Development Programme (ADP), Operation Feed the Nation, The Green Revolution, Agricultural Credit Guarantee Scheme (ACGS), Directorate for Food, Road and Rural Infrastructure (DFFRI), Better Life for Rural Dwellers (BETTER LIFE), National Agricultural Insurance Corporation (NAIC), National Directorate of Employment (NDE), National Agricultural Land Development Authority (NALDA), National Poverty Eradication Programme (NAPEP), National Rural Roads Development Fund (NRRDF), Rural Banking Scheme (RBS), Family Support Programme (FSP), Universal Basic Education (UBE), Rural Infrastructure Development Scheme (RIDS) among others in other to provide financial services to the poor and rural dwellers that are traditionally not served by the conventional financial institutions, the micro finance bank started operation in Nigeria in 1990.

Policies like Commercial Bill Financing Scheme (1962) was introduced, the Small and Enterprise Equity investment scheme, a voluntary initiative of the Bankers' Committee approved at its 246th meeting held on 21st December, 1999 a scheme that requires all banks to set aside ten (10) percent of their Profit after Tax (PAT) for equity investment and promotion of small and medium enterprise as the banking industry's contribution to the Federal government's effort towards stimulating economic growth, developing local technology and generating employment. The concept of rural development include resettling displace communities or adopting new types of housing unit, rural development should include alongside land-use development, economic factors such as land carrying capacity for each area it farm land, irrigation, improved farming method and finance(Adelemo, 1987).

Commercial Bank, according to Banks and Other Financial Institution Act (1991) is any bank whose business includes the acceptance of deposits withdrawable by cheque. It is a bank with the power to make loans that, at least in part, eventually become new demand deposit. Commercial Bank is a financial institution set up to provide banking services to the general public without any restriction including high and low income earners, (Oluyombo, 2006), it is also a bank that sells deposits and makes loans to businesses and individuals (Rose *et. al.*, 2008). Commercial banking started in Nigeria before 1892; it pre-dates central banking and laid the foundation of the Nigeria financial system as far back as the nineteenth century, (Ademu, 2004). The first commercial bank in Nigeria was the African Banking Corporation which opened its First bank in Lagos 1892.

The Banking system is an essential ingredient in the development of any national economy. The traditional business of banking is financial intermediation between surplus and deficit spending segments of the economy. Commercial banks operate with a number of branches at the urban and rural areas. At the rural areas, the rural branches are intended to mobilize savings from the rural people dwellers and bring development to these rural communities this trying to halt rural-urban drift.

In 1976, the government appointed a committee to review the Nigeria financial system under the chairmanship of Pius Okigbo. The committee, which saw nothing wrong in the nationalization policy of the government, identified the socio-economic objectives for commercial banks. The banks should actively facilitate the transformation of the rural environment by promoting the rapid expansion of banking facilities and services and banking habit in the rural and near rural communities. They will thus serve as paying and receiving stations for hand- to-hand currencies and provide facilities for remittances for their customers and thereby help to mobilize rural savings. Most important of all, they will serve as vehicles for the creation of credit in the rural areas; this credit will take the form of equity and loans for small scale farmers and entrepreneurs. The rural banking scheme was introduced in 1977. Government through the rural banking scheme had made it compulsory for banks to market their services in the rural areas. In 1990, it was mandatory for commercial banks to extend a minimum amount of 15 percent and 35 percent of their total credit to agricultural production and manufacturing enterprise respectively. It is against this background that this paper attempts to examine the impact of Commercial Banks' activities on rural economic development in Nigeria. To this end, the paper is structured into four major parts. Section one is the Introduction, section two which follows this introduction present, the literature review, section three discusses the methodology, while section four presents the conclusion and some recommendations.

1.1 STATEMENT OF PROBLEM

In terms of level of economic development, quality of life, access to opportunities, facilities and amenities, standard of living and general livability, the gap between the rural and urban areas in Nigeria is very wide. Despite the various programmes initiated and chiefly targeted at the rural sector by the government, the rural sector by the rural urban dichotomy still exist. The various policies of the Nigerian government on rural development meant to improve the living condition in the rural areas with a view to curbing the streaming rural-urban migration. Despite the countless numbers of rural development policies introduced at different times by successive governments coupled with the huge financial and material resources employed, little or nothing is felt at the rural level as each policy has often died with the government that initiated it before it starts to yield dividend for the rural dwellers. Not minding the lofty objectives (policies and government initiatives) such efforts never endured beyond the government that initiated the schemes (Onuorah, 2006).

Rural development is faced with challenges which have made the effect of government's efforts at different levels, NGOs, private initiatives and international involvement not felt by the intended beneficiaries (Umebali *et. al.,* 2006). Some of them include vicious cycle of poverty, poor infrastructure, high population density, high level of illiteracy, low social interaction and local politics and Rural-urban migration. A major challenge is that the hypothetical rural dweller who is the thermometer through which one determines the impact of rural development continues to give negative readings as he is seen to be ravaged by an excruciating poverty, ignorance and disease (Chinsman, 1997). A lot of rigours, bottlenecks and unnecessary bureaucracy are often attached to rural development process. This evident in the history of most of the rural development programmes which are often saddled with disappointments.

Another challenge is the issue of proliferation of development programmes. Some are so superficially implemented that the average targeted population (rural dwellers) doubt the sincerity of the initiators. Such proliferation can easily be noticed from the many numbers of such that died with successive government that initiated them. The problem of implementation is another glaring challenge. Development policies geared towards the improvement of the rural dwellers remained almost a house-hold word without corresponding success especially at the implementation states (Obot, 1989).

To this end, some of them are haphazardly implemented as a result of poor supervision. Perhaps, this is why water taps abound in so many rural communities but without water since their installation. Also, most of the low cost housing estate built by some state government during the 2nd republic is yet to be completed and handed over to the intended beneficiaries 25 years after. This may also be the reason why the Community and People's Banks system failed. It is the backdrops that this research work seeks to determine the impact of commercial banks' activities on rural economic development in Nigeria.

2.0 CONCEPTUAL FRAMEWORK

The concept of rural development in Nigeria lacks a unified definition as different scholars tend to view it from varying perspective. Some scholars look at rural development from the aspect of education or training like Haddad (1990), and Hinzen (2000).

Rural development is viewed to involve creating and widening opportunities for (rural) individuals to realize full potential through education and share in decision and action which affect their lives (Obinne 1991). He view efforts to increase rural output and create employment opportunities and root out fundamental (or extreme) cases of poverty, diseases and ignorance. Rural development is also a means for the provision of basic amenities, infrastructure, improved agriculture productivity and extension services and employment generation for rural dwellers (Olayide *et. al.,* 1981).

An understanding of the concept of development will give a clearer picture of rural development. Development is the gradual growth of something so that it becomes more advanced, stronger, etc; the process of producing or creating something new (Hornby 2000). This definition implies that development involves a gradual or advancement through progressive changes.

The changes should be seen to be multi-dimensional involving changes in structures, attitude and institutions as well as the acceleration of economic growth; the reduction of inequality and eradication of absolute poverty (Umebali, 2006). He asserts that development involves economic growth component, equality or social justice component, and socio-economic transformational component which are all on a self sustaining basis.

Viewing the concept differently, development is an improvement in quality of life (not just material standard of living) in both quantitative terms (Simon, 2004). He opines that development must been seen as actually and temporally relative, needing to be appropriate to time, space, society, and culture.

From the foregoing, it is obvious that rural development is not a one-off thing or an immediate and snap phenomenon. Rather, it is a gradual and progressive towards perfection having a set standard in mind. Rural development has variously been defined. Rural development is a process whereby concerted efforts are made in order to facilitate significant increase in rural resources productivity with the central objective of enhancing rural income and creating employment opportunity in rural communities for rural dwellers to remain in the area (Olayide et al 1981). It is also an integrated approach to food production, provision of physical, social and institutional infrastructures with an ultimate goal of bringing about good healthcare delivery system, affordable and quality education, improved and sustainable agriculture etc. As it is today, rural development needs to be given priority attention. Several reasons for such urgency include high and unacceptable rate of poverty, poor access to social and economic infrastructure and services such as access to safe drinking water supply and sanitation, higher rate of health indicator such as infant mortality rate, malnutrition and disease prevalence and lower enrolment of children in school.

Rural development achievement could be measured in the areas of roads, water supply, housing, electricity, building of model communities, access to quality education, improved health care delivery and availability of food and agricultural products for the rural settlers (Obot, 1987).

The objective of the National Policy on Rural Development encapsulates an ideal situation of an acceptable level of development in the rural area (Ogbazi, 1992). These objectives can be paraphrased to include:

a)   Promotion of the social, cultural, educational and economic well being of the rural population

b)   promotion of sustained and orderly development of the vast resources in the rural areas for the benefit of the rural people,

c)   increase in and diversification of job opportunities and improvement of income in the rural areas,

d)   mobilization of the rural population for self-help and self-sustaining programme of development, and

e)   Up-lifting of the technological based industries in the rural area.

2.1 FACTORS THAT FACILITATE ECONOMIC GROWTH OF RURAL AREAS

Many of government specific programmes had some positive effects on rural development although Obadan (2002) says the target population for some of them was not specified explicitly to be poor people (rural dwellers). Examples of such are the River Basin Development Authority (RBDAs), Agriculture credit Guarantee Scheme (ACGS), Rural Banking Scheme (RBS), etc., which were designed to take care of such objectives as employment generation, enhancing of agricultural output and income, and streaming rural-urban migration, which no doubt impair rural development. Discussed below are the main factors that do facilitate rural development.

2.1.1 THE AGRICULTURAL PERSPECTIVE

Agriculture and oil which lie in large reserves below the Niger-Delta, which is dominated by rural communities, propel the Nigerian economy. Regrettably, oil and agriculture wealth which is derived from the remotest parts of the rural areas and those of the Niger-Delta has been used by successive governments to finance major investment in the country's infrastructure to the detriment and perhaps, underdevelopment of the rural area and its dwellers. As a result of the neglect of agriculture and the rural areas, Nigeria now imports farm products to feed its (her) people with untold hardship on the rural people. He continues that Nigeria remains one of the world's poorest countries in terms of per capita income and rural development. Note that oil exploration and agricultural activities are carried out in rural areas and both yield the highest revenue for the nation (Umebali *et. al.,* 2006). Interestingly, literature shows that greater percentage of the total population live in rural areas and most of them are enhanced in agriculture (Umebali 2004).

If we must make the rural areas attractive to live, then meaningful effort geared towards sustainable rural development must be aggressively and vigorously pursued as this will alter the certainty of poor quality of life in the rural areas which has been seen to be the main phobia that has often pushed migrants to the perceived opportunities in the urban centers (Adalemo 1987).

2.1.2 OTHER PERSPECTIVES

There is this erroneous misconception by successive governments that rural development is synonymous with agricultural development only. Efforts by such governments to pump money into agricultural development did not yield the meaningful change desired hence efforts should be made to include provision of modern infrastructure, primary health care, food and shelter, employment opportunities, recreational facilities, affordable and compulsory primary and secondary education, loans and other incentives, to be part of rural development for the benefits of rural dwellers. Listed below are other factors that if put in place will enhance or facilitate the growth and development of the rural areas.

a.   Establishing a policy framework that maximizes the incomes of the working rural dwellers through policies to promote rural self-employment and reliability.

b.   Encouraging and strengthening cooperative and community based initiatives in the formulation and management of rural development programmes, in liaison with available NGOs and the three tiers of government to avoid duplication of efforts, while fostering effective coordination; this includes increased access to micro-credit facilities through the establishment of more cooperative, community and micro-finance banks in the rural areas.

c.   Effective human capital development in the form of skills development, provision of healthcare delivery, and other social and educational services,

d.   Providing additional and maintenance of existing infrastructural facilities as earlier listed above,

e.   Encouraging the principle of continuity whereby successive governments adopt the viable rural development programmes initiated by their predecessors,

f.   Carrying out periodic surveys, the rural dwellers' development priority in order to ensure that they are carried along in efforts to better their lives; and

Tackling and curbing crime, violence and youth restiveness, which according to Osaloye (2008) could be through better policing and creation of recreational facilities in the rural areas.

2.3 IMPACT OF COMMERCIAL BANKS ACTIVITIES ON ECONOMIC DEVELOPMENT OF RURAL AREAS

Commercial banks play an important and active role in the economic development of a country and in particular the rural areas. If the banking system in a country is effective, efficient and disciplined it brings about a rapid growth in the various sectors of the economy. The following is the significance of commercial banks in the economic development of rural areas, Slideshare Inc (2011):

i.   Banks promote capital formation
ii.   Investment in new enterprises
iii.   Promotion of trade and industry
iv.   Development of agriculture
v.   Balanced development of different regions
vi.   Influencing economy activity
vii.   Monetization of the economy
viii.   Granting of credit facilities
ix.   Business and advisory services

i. BANKS PROMOTE CAPITAL FORMATION

Commercial banks has branches in the rural areas that accept deposits from individuals and the small scale businesses, these deposits are then made available back to the businesses in form of loans and they make use of them for productive purposes in their vicinity.

The banks are, therefore, not only the store houses of deposit, but also provide financial resources necessary for economic development.

II. INVESTMENT IN NEW ENTERPRISES

Small scale businessmen normally hesitate to invest their money in risky enterprises. The commercial banks generally provide short and medium term loans to entrepreneurs to invest in new enterprises and adopt new methods of production. The provision of timely credit increases the productive capacity of the economy.

III. PROMOTION OF TRADE AND INDUSTRY

With the growth of commercial banking, there is vast expansion in trade and industry. The use of bank draft, check, bill of exchange, credit cards and letters of credit etc has revolutionized both national and international trade.

IV. DEVELOPMENT OF AGRICULTURE

The commercial banks particularly in developing countries are now providing credit for development of agriculture and small scale industries in rural areas. The provision of credit to agriculture sector has greatly helped in raising agriculture productivity and income of the farmers.

V. BALANCED DEVELOPMENT OF DIFFERENT REGIONS

The commercial banks play an important role in achieving balanced development in different regions of the country. They help in transferring surplus capital from developed regions (urban areas) to the less developed regions (rural areas). The traders, industrialist etc of the rural areas is able to get adequate capital for meeting their business needs. This in turn increases investment, trade and production in the economy.

VI. INFLUENCING ECONOMIC ACTIVITY

The banks can also influence the economic development of rural areas through its influence on

a. Availability of credit
b. The rate of interest

If the commercial banks are able to increase the amount of money in circulation through credit creation or by lowering the rate of interest, it directly affects economic development. A low rate of interest can encourage investment.

VII. MONETIZATION OF THE ECONOMY

The commercial banks by opening branches in the rural and backward areas are reducing the exchange of goods through barter. The use of money has greatly increased the volume of production of goods. The non monetized sector (barter economy) is now being converted into monetized sector with the help of commercial banks.

The commercial banks are now considered the nerve system of all economic development in the country.

VIII. GRANTING OF CREDIT FACILITIES

Credit facilities of short term, Medium term and long term durations are granted by commercial banks to their customers in form of overdraft and loans. A loan arrangement is sourced from the bank and tailored towards the peculiar needs of the borrower while an overdraft is a situation whereby a current account holder with a bank is allowed by the bank to withdraw money more than what is in the account at a particular period.

IX. BUSINESS AND ADVISORY SERVICES

Due to the dynamic nature of business environment and the constant change in the economy, commercial banks do provide business advisory and investment advice to their customers. The services include how best to manage their fund and the actual management of customer's portfolio of investment within and outside the bank.

3.0 METHODOLOGY

This work discloses the research method adopted in conducting the research. The research methodology refers to the methods and procedures used from which finding and conclusions are drawn. It therefore deals with method used, the sources of data, criteria for selection of respondents and treatment of data. This chapter will specifically cover: research design, type and source of data, instrument of collection, problem of data collection, actual fieldwork, validity test, and reliability test, method of presentation and method of data analysis. It also, deals with the techniques and method used in carrying out the research study. It enhances the specifications of the procedures employed in putting together the raw facts and on facts and for processing.

The population of this study is the 21 quoted banks on the floor of the Nigerian stock Exchange and this research work covers three banks in the banking sector which are: United Bank of Africa plc, First Bank of Nigeria and Oceanic Bank which are selected as sample size of the study. The sample size is the branches of the banks selected as case study in Oyo town. First Bank, Oceanic Bank and United Bank of Africa were estimated to have fifty, thirty and twenty-eight staffs respectively in Oyo Town. In respect to this, a total of 100 questionnaires were distributed in the proportion of fifty (50) to First Bank and twenty-five (25) each to Oceanic and United Bank of Africa. The sampling technique adopted is judgmental sampling which is non probability sampling method which gives the researcher opportunities to use its opinion based on convenience to select sample elements which has been considered best to provide good outcome from a given population considering the relevance of the research work.

The first hypothesis and the second hypothesis: Commercial Banks' activities have not enhanced Rural Economic Development and Governmental policies have not played a significant role in enhancing Rural Economic Development will be tested using regression analysis. Regression analysis is used to determine the effect of a independent variable say X on dependent variable say Y. Regression analysis is a statistical tool for the investigation of relationships between variables it seeks to ascertain the causal effect of one variable upon another. We have different variant of regression techniques which are Linear Regression, Non- Linear Regression, Multiple Regression, Regression Model for time series Analysis, but this research work will use Linear Regression. The regression standard formula is given below:

$Y = a + bx + \mu$

μ = Standard error

Where 'a' = $\dfrac{\pounds y - b\pounds x}{n}$

$b = \dfrac{n\pounds xy - \pounds x\pounds y}{n\pounds x^2 - (\pounds x)^2}$

$y^1 = a + bx$

$Syx = \dfrac{\pounds y^2 - a(\pounds y) - b(\pounds x\pounds y)}{n-2}$

Where a = the y intercept

b   = the slope i.e. the gradient of the regression line which is the regression co- efficient

x   = is the independent variable

y   = is the dependent variable

μ = error factor usually assumed as equal to zero

Syx   = standard error of the estimate which measures the variation around the regression line.

y^1 = estimate of the value of y given x

Lastly, the third hypothesis: Rural Populace has not derived any benefits from banks' activities, will be tested using Analysis of Variances. Analysis of Variance (ANOVA) is a tool used in determining whether the difference in the means is significant enough to support the hypothesis of the study in preference to accepting the sample error or chance caused the difference in the more than two means obtained by the two groups (Owojori, 2002).

Analysis of Variance was adopted because it enabled a multi-group comparison that is it enhances simultaneous testing of differences between groups. The decision rule under analysis of variance is that the null hypothesis will be rejected if the calculated value is greater than the critical value. It is also adopted because it is more compatible and appropriate with the survey research design. The formula for the one way ANOVA is stated below:

$F = \dfrac{MSB}{MSW}$

Where F= ANOVA,   MSB= means of between group,

MSW= means of within group.

The ratio of MSB/MSW is the ratio of variances which results in the test statistics (i.e. F statistics), needed to carry out the test.

ANALYSIS OF LINEAR REGRESSION

Presented below are the individual analyses conducted showing the sequence of response collated during the research through the instrument used.

TABLE 4.1: GROSS DOMESTIC PRODUCT AT CONSTANT PRICES VERSUS DEPOSITS AND LOANS OF RURAL BRANCHES OF COMMERCIAL BANKS

Year/Quarter	Gross Domestic Product at constant prices (N' Million)			Deposit and loans of rural branches of commercial banks		
	Agriculture	Industry-Solid minerals	Services-Utilities	Deposits	loans	Ratio 1/
1982	54,450.83	2,245.22	1,116.42	111.7	35.9	32.1
1983	59,009.56	1,712.37	1,276.39	131.2	44.2	33.7
1984	55,918.17	1,471.76	1,235.55	276.6	58.2	21.0
1985	65,748.44	913.02	1,225.59	311.4	114.9	36.9
1986	72,135.23	487.29	892.19	873.5	373.6	42.8
1987	69,608.06	540.05	940.91	1,229.2	492.8	40.1
1988	76,753.72	595.01	984.50	1,378.4	659.9	47.9
1989	80,878.04	638.24	1,066.92	5,722.0	3,721.1	65.0
1990	84,344.61	665.61	1,177.99	8,360.1	4,730.8	56.6
1991	87,503.53	688.64	1,192.69	10,580.7	5,962.1	56.3
1992	89,345.43	711.13	1,310.08	4,612.2	1,895.3	41.1
1993	90,596.51	745.99	1,354.96	19,542.3	10,910.4	55.8
1994	92,832.95	768.86	1,433.93	4,855.2	1,602.2	33.0
1995	96,220.67	789.80	1,422.10	8,807.1	8,659.3	98.3
1996	100,216.18	799.78	1,447.76	12,442.0	4,411.2	35.5
1997	104,514.00	849.94	1,448.19	19,047.6	11,158.6	58.6
1998	108,814.07	900.57	1,387.39	18,513.8	11,852.7	64.0
1999	114,570.71	934.71	1,413.68	15,860.5	7,498.1	47.3
2000	117,945.07	970.20	1,448.86	20,640.9	11,150.3	54.0
2001	122,522.34	1,066.08	12,172.92	16,875.9	12,341.0	73.1
2002	190,133.40	1,112.07	13,842.74	14,861.6	8,942.2	60.2
2003	203,409.87	1,172.48	16,166.56	20,551.8	11,251.9	54.7
2004	216,208.47	1,379.34	18,881.89	64,490.0	34,118.5	52.9
2005	231,463.61	1,510.84	20,135.29	18,461.9	16,105.5	87.2
2006	248,598.96	1,666.04	21,115.77	3,118.6	24,274.6	778.4
2007	266,477.18	1,878.47	22,156.63	3,082.3	27,263.5	884.5
2008	283,175.43	2,118.26	22,984.69	13,411.8	46,521.5	346.9
2009	299,823.86	2,374.20	23,728.18	3296.2	15,590.5	472.98
2010	316,728.70	2,665.81	24,516.47	20.8	16,556.0	79,596.15

Source: CBN Statistical Bulletin, 2011

1/: Ratio of loans to rural customers deposit mobilized with the rural branches.

Table 4.1 was used to test the first hypothesis: Commercial Banks' Activities have not enhanced Rural Economic Development. A major part of Commercial Banks' Activities which is loan giving will be tested with a major factor that signifies the economic growth of rural areas which is their deposit level with the banks, to determine their relationship and if the hypothesis will be accepted or not. The table covers data from 1983-2009 which is deemed adequate for the testing of the first hypothesis.

In testing the hypothesis, Rural Economic Development was measured with the Gross Domestic product at constant prices (Agriculture) while Commercial Banks' Activities was measured with Bank Deposit of Rural Dwellers and Loans given by commercial banks to rural dwellers.

Using regression, the following important factors are represented with the following variables:

RECD – Rural Economic Development

BLN- Banks' loans

BDP – Bank Deposit

Thus we can say that,

RECD = f (Commercial Banks Activities)

RECD = f (BDP, BLN) i.e. Rural Economic Development is a function of Bank Deposit and Bank loan.

TABLE 4.2: REGRESSION ANALYSIS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.848[a]	.719	.697	45,272.56853	1.358

a. Predictors: (Constant), BLN, BDP

b. Dependent Variable: RECD

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	82428.016	12228.856		6.740	.000
	BDP	-1.465	.773	-.226	-1.895	.069
	BLN	6.790	.866	.935	7.844	.000

a. Dependent Variable: RECD

Source: Regression Analysis Result using SPSSWIN

From the result above,

R^2 =0.72 $\bar{R}^2$= 0.697   F=33.209   DW = 1.358

RECD = 6.74-1.465BDP+ 7.844BLN

Table 4.2 above presents the result of the regression analysis:.

Thus,

i. For every one million naira increase in rural deposit to commercial banks, rural economy development increases by N1.465 Million

ii. For every one million naira increase in loans given by commercial banks to rural dwellers, rural economy increases by N7.844 Million.

Based on our findings above, the t tabulated for BDP is 1.89 and that of BLN being 7.84 while the t calculated is 1.703 at 10% significant level. Since the t tabulated is greater than the t calculated, we can then conclude that commercial banks activities (rural dwellers deposit to commercial banks, bank's loans to rural dwellers) have impact on rural economic activities (GDP-agriculture). Therefore we reject the null hypothesis and accept the alternative hypothesis that commercial bank's activities have impact on rural economic development.

FINDINGS

The linear regression analysis was used to test hypothesis one and was also used to check the application of the commercial banks' activities has any impact on rural economic development in Nigeria. This was tested empirically to buttress hypothesis one. The result showed that commercial banks activities actually have impact on the development of the rural economy in Nigeria.

4.0 CONCLUSION

Sustainable development is human focused, long-term and enduring, and not a quick fix (Odigbo and Adediran, 2004). Government has a chief role of building and financing an enduring political, social, cultural and environmental structure on which rural development can thrive, through the encouragement and recognition of the roles of cooperatives, Non-Governmental Organizations, and private initiatives as their grass root appeals promote sustainable rural development. This work strongly recommends the need for government to concentrate its efforts to the encouragement of private initiatives, teaching and propagation of cooperative philosophy and peaceful coexistence to the rural dwellers; as such education forms the bedrock for rural development. By this, the rural dwellers who are the principal target of rural development will be taught 'how to fish instead of being given fish' through guided efforts, to initiate, participate and executive desirable projects in their communities. The Commercial Banks who are the prime mover of any economy should also be greatly encouraged to help and participate in the development of these rural areas in Nigeria.

Rural development is all encompassing and so, cannot be taken piece-meal (Adalemo, 1978). A relegation of an integral part (housing, education, infrastructure, healthcare delivery, agriculture and food security, cooperatives, employment and optimal utilization of the potentials of the rural dwellers etc.) may easily rubbish and erase the seeming gains of others. In order to ensure improved and sustainable rural development, the following salient points need to be religiously pursued and implemented by government, Commercial Banks and stakeholders:

i. Commercial banks should strategize on how to attract and retain more deposits so as to further improve on their lending performance towards the rural dwellers.

ii. There should be closer consultation and cooperation between commercial banks and the regulatory authorities so that the effect of regulatory measure on commercial banks that will affect its activities towards rural development will be taken into account at the stage of policy formulation.

iii. Establishing a policy framework that maximizes the incomes of the working rural dwellers through policies to promote rural self-employment and reliability.

iv. Encouraging and strengthening cooperative and community based initiatives in the formulation and management of rural development programmes, in liaison with available NGOs and the three tiers of government to avoid duplication of efforts, while fostering effective coordination; this includes increased access to micro-credit facilities through the establishment of more cooperative, community and micro-finance banks in the rural areas.

v. Effective human capital development in the form of skills development, provision of healthcare delivery, and other social and educational services,

vi. Providing additional and maintenance of existing infrastructural facilities as earlier listed above,

vii. encouraging the principle of continuity whereby successive governments adopt the viable rural development programmes initiated by their predecessors,

viii. Carrying out periodic surveys, the rural dwellers' development priority in order to ensure that they are carried along in efforts to better their lives; and

ix. Tackling and curbing crime, violence and youth restiveness, which could be through better policing and creation of recreational facilities in the rural areas should be adopted.

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THE PERFORMANCE OF SMALL MEDIUM ENTERPRISES (SME's) OPERATED BY WOMEN AND MEN IN THE NON AGRICULTURE ROLE ENTERPRISE IN NANDI COUNTY, KENYA

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ABSTRACT

Entrepreneurship development is increasingly becoming important in economic growth in many countries. The majority of workers in the developing World cluster in small and micro enterprises in the private sectors. They may be on account workers in services or employees in small and medium-sized firms in manufacturing. Entrepreneurship and investment influences the rate and linkages, which develop in an economy, the labor demanded and the human capital investment required meeting these labor demands. Rapid growth can contribute to poverty reduction. Although there are variations across countries, social norms strongly influence men's and women's work and working environments. Some tasks and jobs are considered more appropriate for men or women and covert screening filters out applicants who defy these norms. These gender norms frequently underpin sex-segmented labor markets typically confine women workers to low-wage, low productivity employment and can limit the responsiveness of labor to new demands for high skilled workers. Sluggish labor markets can impede adjustment, distort human capital investment and inhibit a firm's ability to switch to new activities and compete in a dynamics and globalizing market. Development occurs within an institutional and economics environment that is similarly shaped by customers, social norms, implicit and explicit codes and conduct. The study sought to establish the impact of gender on micro-enterprises performance. The main objective was to establish the differences in the constraint facing female and male owned micro-enterprises respectively in Nandi County in Kenya. Data from a survey of 180 micro-enterprises were used in the modified ordinary least square (OLS).

KEYWORDS

Labour Demand, Capital investment, entrepreneur and Small and Medium enterprise.

INTRODUCTION AND BACKGROUND INFORMATION

The role of women in economic development cannot be understated. Jiggins (1989) notes that about 30% of rural households in the world are headed by women, and that women contribute about 80% of agricultural labor, produce almost 60% of the food that is consumed by rural households and generate more than one third of all households' incomes, mainly through small scale agro-industry, trading, craftwork and casual labor. In Kenya, about 59% of the female proprietors said that 50% or more of their household income come from their enterprises (Daniels and Ndegwa, 1993). Concern about women participation in economic development is relatively new. Lele (1986) notes that the frequently debated questions are whether women have adequate opportunities to participate in the productive processes or whether they are just beasts of burden, the primary victims of exploitation. However, Heilbrunn (2004) asserts that, over time, the numbers of female owned businesses all over the world has been rising and that in the past decade women have begun to be recognized as successful entrepreneurs.

The small and Micro enterprises (SME's) sector plays an important role in Kenya. The official definition of an SME's is based on employment and annual turn over (Government of Kenya, 1999). Micro enterprises employ up to four persons and have a turnover of up to Kshs,67,000 while small enterprises employs between 6 and 20 persons and have a turnover of up to Kshs. 2.2 million. SME's have been increasing especially due to the availability of credit, both from private banks and from the government. However, the role of women in SME's has significantly improved in Kenya. At independence, the economy was dominated by Europeans specializing in manufacturing and Asians specializing in commerce. In the post independence era, there have been many policy charges and this has contributed to the development of local and female enterprises in 1987, it was found that only 7% of the sampled enterprises were owned and operated by women (Kenya/United States Agency for International Development 1987). However, the increasing importance of women in business enterprises was reviewed in latter studies. In the 1992 survey of Micro, Small and Medium scale enterprises, about 46% of proprietors in Kenya were women (Daniel and Ndegwa 1993). A recent growth and equity through micro enterprise investment and instructions (GEMINI) study further reveals that 34% of SME's were owned by women, 35% by men and 30% by married couples (ECI and NSO, 2000). Because of its potential for reducing its poverty, the SMEs sector is receiving focus in development policies. In Kenya Poverty reduction Strategy Paper, it is singled out as one of the sectors that could achieve pro poor growth in which women will play a significant role (Government of Kenya, 2002).

PROBLEM STATEMENT

The present study assesses the relative performance of SME's operated by women and men in non -agricultural enterprise in Kenya. It attempts to answer two questions. First, what are the factors that explain the performance of SME's and what role does the gender of the owner play? Secondly, do female owned enterprises face different constraints from those faced by men owned enterprises and are there differences between the factors that affect female owned and male owned enterprises.

OBJECTIVES

i)   To find out whether male owned enterprises perform better than female owned enterprises in Nandi County
ii)   To find out the role of gender on the performance of SME's in Nandi County
iii)   To find out the differences in constraints facing female owned and male owned SME's in Nandi County

HYPOTHESIS

i)   Male owned enterprises perform better than female owned enterprises in Nandi County
ii)   Gender plays no role on the performance of SME's in Nandi County
iii)   Both male and female entrepreneurs in Nandi County face similar constraints.

SCOPE AND LIMITATIONS OF THE STUDY

This study uses primary and secondary information from a recent growth and equity through micro enterprise investment and institutions. Owing to the institutional weaknesses in data collection and presentation by the study, the data used was assumed to be representative and objective. Any gaps and weaknesses in the available data may lead to wrong conclusions

LITERATURE REVIEW

The marginalization of women in economic activities is well documented. Morser (1989) argues the women to perform three roles in society: reproductive and community management – but for a long time, only the reproductive role has been emphasized because women have been seen primarily as home makers. They have been marginalized by unequal economic opportunities and inequalities of access to productive resources such as capital and control over their own labor, and by differences in human capital leading to differences managerial and technical skills (Loscocco et al, 1991). Abor and Biekpe (2006) provides evidence from Ghana that suggest female owned small and medium-sized enterprises are likely than their male counterparts to employ debt financing due to loan facilities, and McCormick et al (1997) finds that women entrepreneurs are over represented in mini-manufacturing enterprises, under-represented in contract workshop and totally absent in mass production in the garment industry but there is a more balanced gender mix in custom tailoring. Others urge that women are likely to operate in low risk and low technology industries such as petty trading and that the gender division of labor and gender stereotypes tend to push women into low-income activities (e.g. Von Maffow, 1999, Mutiso, 2003). As a result women tend to be employed in small, home based low capitalized enterprises that supply goods and commodities for low income consumer commodities, particularly in urban areas.

Loscocco et al. (1991) argue that the differences between men's and women's socialization, training and other experience may lead to different outcomes in business performance- female owned enterprises generally perform worse than male owned once. In a study of small businesses in the US, Merrett and Gruidl (2000) find that the rural female entrepreneurs face more obstacles to business success than their male or female urban counterparts; and in summary of the literature on the gender and performance, Zinger et al. (2005) note that female owned SMEs levels of performance are more modest than those of male owned ones. Other studies also tend to support the view that female owned enterprises perform worse than those of male owned ones in terms of sales, revenue, assets, profit margins and likelihood of survival (Loscocco et al, 1991; Rosa et al 1996; McPherson 1996; Daniels and Maede, 1998; Maede and Liedholm , 1998; Daniels 1999; Kimuyu, 2002). The relatively poor performance of female operated enterprises is attributed to many factors: inaccessibility to credit from the formal financial system, lack of procurement problems, unfavorable legal systems, competition from state enterprises, diversion of business capital to men, poor government policies and inadequate institutional framework (Berger 1989; Jiggins 1989; Daniels and Ngerwa 1993).

METHODOLOGY

The study utilized a survey which took the form ex-post-fact design in order to establish cause-effect of gender on performance of SME's in Kilibwoni division Nandi Central District. The study target only small and micro-enterprise which had benefited from credit from MFI'S. The targeted population was 2210 entrepreneurs but 180 small scale entrepreneurs were randomly selected and include in the study. The data was collected using self administered questionnaires which contained both open and closed ended questions. A pilot study was done on the 10 questionnaires to ensure reliability and validity. The analysis was by descriptive and inferential statistics. The modified ordinary least square (OLS) used took the form of:

$Y = B_O + B_1 X_1 + B_2 X_2 + B_3 X_{+3} - - B_n X_n + e$

Where

Y= Is the performance indicator (i.e. profitability and employment growth) for enterprise.

B_O =Y intercept

B_1- -B_n entrepreneur characterizing including age, education skills, training and business experience.

$X_1 – X_N$ – Business characteristics including significant of the business main market for the product and sector.

e – The error term.

C_V – Control variable such as access to credit membership of business association stratum of the enterprise (urban small centre or urban) ours the business is opening during the days.

FINDINGS AND ANALYSIS

Table one presents the descriptive statistics of the variables used in the regression models. The average profit margin is 56.8% and female owned enterprises generate more profits (57.7%) than male owned ones (55.6%) ,while mixed gender owned enterprise generate the lowest profits (55.6) , although these differences are marginal . similarly , female owned enterprise tend to grow faster in terms of employment (11.6% per annum) than male owned ones (6.5%per year). There are gender differences in entrepreneurial characteristics and other control variable, for instant, most female entrepreneur. lack business skills training (informal and formal) and have less business experiences than male entrepreneur, while differences in education are marginal .the descriptive statistics also show that higher proportion of female entrepreneur (17.1%)own more than enterprise than one enterprise than male entrepreneur { 8.4%} . In terms of location of business, a higher proportion of female owned SMES are home based than male owned ones, which tend to be located in high demand environments. Female entrepreneur also tend to operate more in food processing, beer brewing, retail of food and beverages, and bars and restaurants than were male counter parts. For instance , 13.6% of female entrepreneurs are in the food processing industry compared with only 3.9% of male ones; while 1`3% of male entrepreneurs operate in the manufacturing retail trade compared with only 2.4% of female ones . Gender biases are also review in access to credit with 14.9% of female entrepreneurs having accessed credit to support their business operation, compared with only 7.7% of male entrepreneurs. The reason for this positive bias in access to credit is that most microfinance institution that operates in urban, per-urban and un-rural areas tends to lead to women. There is, however, no significant difference in the proportion of male and female entrepreneurs belonging to business association. Overall, only 3% of entrepreneur belongs to these.

TABLE 1: DESCRIPTIVE STATISTICS OF VARIABLES IN THE MODEL

Variables	Gender of owners			
	SME's	FEMALE	MALE	MIXED
Dependent variables				
Profit margin %	56.813{25.96}	57.738{23.88}	56.572{27.49}	55.593{25.67}
Employment growth	0.084{0.44}	0.116{0.63}	0.065{0.30}	0.069{0.20}
Independent variables				
Gender				
Female owned (1,0)	0.359			
Male owned (1,0)	0.475			
Mixed owned (1,0)	0.166			
Entrepreneurial characteristics				
Age in years	33.046{11.62}	34.027{11.25}	31.803{11.77]	34.483[11.58]
Married (1,0)	0.764	0.652	0.777	0.972
Some primary education (1,0)	0.460	0.438	0.489	0.422
Completed primary education (1,0)	0.069	0.218	0.253	0.230
Some secondary education (1,0)	0.112	0.109	0.108	0.130
Completed secondary education (1,0)	0.069	0.058	0.071	0.084
Higher education (1,0)	0.022	0.024	0.018	0.031
Informal business skills training (1,0)	0.135	0.079	0.185	0.114
Formal business skills training (1,0)	0.142	0.084	0.164	0.200
Business experience (years)	6.342[7.66]	5.236[6. .69}	122.385{316.2}	89.520{227.3}
Business experience squared	98.833{269.7}	72.06{212.3}	122.385{316.2}	89.520{227.3}
Business characteristics				
Ownership of multiple SME's (1,0)	0.138	0.171	0.084	0.222
Traditional market place (1,0)	0.140	0.181	0.162	0.202
Mobile market (1,0)	0.073	0.992	0.098	0.049
Roadside/path market (1,0)	0.268	0.188	0.352	0.200
Commercial / industrial (1,0)	0.119	0.063	0.155	0.138
Consumer market (1,0)	0.984	0.992	0.982	0.974
Manufacturing: food processing (1,0)	0.079	0.136	0.039	0.073
Retail: general merchandise/grocery (1,0)	0.231	0.149	0.264	0.314
Bars, restaurants and hotels (1,0)	0.039	0.034	0.023	0.094
Services (1,0)	0.076	0.034	0.116	0.049
Control variable				
Credit access(1,0)	0.105	0.149	0.077	0.094
Business association (1,0)	0.029	0.028	0.027	0.037
Urban (1,0)	0.568	0.572	0.616	0.424
Small town(1,0)	0.225	0.193	0.211	0.073
Hours business is open	246.74{11.1}	237.55{118.20}	249.20{91.74}	259.70{140.90}
Number of enterprise	180	110	70	76

Note: Data in parentheses represents dummy variables equal to 1 for reference category, other wise equal to 0, and the means are proportion for the reference category. Figures in backers are standards deviations for continuous variables.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The development of SME's is seen as one instruction for addressing the problems of poverty in developing countries. Women are also increasing participating in the ownership of SME's in developing country. In Kenya, 34% of SME's are owned by women, compared with 355 owned by men and 31% owned by mixed gender, implying that women were involved in 65% of SME's [ECI, 2000] using profitability and employment growth as indicator of enterprise performance. The evidence for the first proposition – the female owned SME's performance worse than male owned ones – is mixed and sensitive to the measure of performance of SME's. In terms of profitability performance, we find the filling has no evidence of significant differences in the performance of female owned SME's. Hence, we reject the proposition that they perform differently. However, the proposition that female owned and male owned SME's. Performed differently is accepted in terms of employment growth, in which female owned enterprise grow at a faster rate than the male owned ones This is partly due to the relative access to credit facilities from micro finance institutions that mostly target female entrepreneur and partly due to the marginal impact of education.

With respect to the second proposition whether there are gender based differences in factors influencing performance the study provides support for the view that female owned and male owned SME's face different constraints on business performance. One interesting results is that the impact of education on performance is more pronounced in female owned businesses than in male owned ones, although male entrepreneurs are slightly better endowed in human capital than female ones. Attainment of some secondary education and higher education are positively related to profitability among female owned enterprises, while none of the education variables are statistically significant among male owned enterprises. Similarly, at least one education category (completion of secondary education is statistically significant among female entrepreneurs in employment growth, compared with none among male entrepreneurs. We find that access to credit is more productive in female owned enterprises. Female owned enterprises that have access to credit tend to perform better in terms of profitability and employment growth than male owned ones. This suggests that gender biases against women's access to capital and finance may impede the growth of SME's which supports proposition of the gender and development theorists. Credit in male owned enterprises is not productively used, and, although this is not statistically significant, it does not reduce the profitability of male owned SME's.

The other factors that lead to differential performance of female owned and male owned SME's are that economic sectors within which the enterprises operate. Sectors that are gender neutral and in which profit margin are lower include textiles and leather manufacturing, wood and pottery products manufacturing, bars, restaurants and hotels, and services. However, female owned enterprises achieved higher rate of profits than male owned ones in sectors such as retailing of food, beverages and tobacco, retailing of garments and foot wear and retailing of general merchandise. We also find no significant differences in the extent to which business problems affects the gender based performance of SME's. All of the business problems retard the revealed growth in sales, also these problems

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are pronounced in the case of female owned enterprises. The most important problem that affects the profitability of revealed decreases in sales for both female and male owned enterprises related to marketing, followed by competition in female owned enterprises and finance in male owned enterprises.

RECOMMENDATIONS

The research in the present points to several policy issues. First, with respect to differential performance between female owned and male owned SME's, the results suggests the need to promote female entrepreneurship as a way of generating paid employment. Secondly, the differential factors that affect the performance of female and male SME's suggests that intervention in the SME's sector may require gender specific intervention since different factors affect the performance of female owned and male owned enterprises in varying ways. For instance, the relative performances of education in the female owned enterprises suggest the need to increase human capital investments in women. Investment in female education as the effect of not only improving the profitability of their enterprises, but also generating paid employment opportunities. Similarly, increasing female entrepreneurs' access to credit facilities is more productive than increasing this access for male entrepreneurs. There is a need therefore to promote micro-finance institutions that targets financing of non-farm economic activities, with a deliberate bias towards providing credit to women entrepreneurs.

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ACCESS TO AND IMPACT OF CREDIT ON HOUSEHOLDS WELFARE IN NIGERIA

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ABSTRACT

This study investigates the factors that constrain households' access to credit in Nigeria and impact of credit on household welfare. The Nigerian Living Standard Survey was used for this study. The study employed discrete econometric model such as the Probit and Tobit models estimated using the method of maximum likelihood to ascertain the determinants of credit access by households in Nigeria. The method of Ordinary Least Squares regression method was applied in determining the impact of Access to Credit on household welfare in Nigeria. Our results show that access to credit has positive impact on household welfare. Households that live in urban area have more chances of accessing credit facilities in Nigeria than those that live in rural areas. Savings have positive impact on access to credit in Nigeria. Occupation group and Age in years are positively related to access to credit in Nigeria. Education level of the households has positive impact on access to credit in Nigeria. Insufficient income, insufficient collateral, inappropriate purpose and others have negative impacts on access to credit.

KEYWORDS
Access, Credit, Household, Impact, Nigeria, Welfare.

INTRODUCTION

Access to credit has been identified as one of the key factors required to accelerate growth and improve welfare in developing countries. There is need to intensify efforts in making credit accessible to households, since such strategy will liberate greater percentage of the population from poverty, encourage savings, and improve investment in physical and human capital which promotes economic growth. The latent capacity of the poor for entrepreneurship would be significantly enhanced through the provision of credit facilities to enable them engage in economic activities and be more self-reliant; increase employment opportunities, and create wealth (CBN, 2005). Lack of adequate access to credit is believed to have significant negative consequences for various aggregate and household-level outcomes, such as technology adoption, agricultural productivity, food security, nutrition, health, and overall household welfare (Diagne and Zeller, 2011). Improved access to credit will help poor rural households engage in more productive income-generating activities that will raise their living standards.

Access to credit has the capacity to transform the poor through acquiring productive capital, which improve their capacity to generate income, savings and investment for better welfare (Beck and Demirguc-Kunt, 2005). Credit is required to finance working capital and investment in fixed capital, particularly among households too poor to accumulate much saving (Ghosh, Mookherjee and Ray, 1999). Credit is an important instrument for smoothing consumption, in a context where incomes typically experience large seasonal fluctuations. Incomplete market and imperfect information is considered in literature as a serious challenge for the functioning of the credit market in developing economies like Nigeria (Stiglitz and Weiss, 1981). The small scale businesses and poor households are constrained to credit access because formal financial institutions in developing countries are characterized by persistent market imperfections, arising from problems linked with adverse selection, moral hazard and enforcement of credit contract. Credit market imperfections have serious implications for the economies of most developing countries especially Nigeria. These impacts limit households' investment in both physical and human capital. If parents cannot borrow to finance their children's education, health and other welfare needs, chances is that they could be trapped in the vicious circle of poverty ,hence compromising the potentials of future leaders. Many development professionals believe that this lack of credit has negative consequences for poor people's agricultural productivity, food security, health, and overall household welfare (Khandker and Faragee 2003).

Consequent upon the failure of formal financial institutions (commercial banks) to make credit accessible to households and the inefficiency of government sponsored development financial schemes; micro financing was adopted by most developing countries. Microfinance movement was born of the idea to create new banks that will make credits available to households and SMEs, in recognition that traditional commercial banks have no interest in lending to poor rural households because of their lack of viable collateral and the high transaction costs associated with the small loans (Armendariz and Morduch 2005). Microfinance is generally an umbrella term that refers to the provision of a broad range of financial services such as deposits, loans, payment services, money transfers and insurance to poor and low-income households and their micro-enterprises (Isern et al., 2009).

LITERATURE REVIEW

Adeoti and Raji (2010) studied the determinants of commercial banks agricultural credit rationing in South-Western Nigeria using Logit model; farm size, previous year's income, enterprises type, household net worth and level of household agricultural commercialization were found to be significant but negative factors influencing bank's decision to ration credit.

Ajani, Lawal, and Omonona, (2009) studied the Determinants of Credit Constraints among Cocoa Farming Households in Osun State, using descriptive statistics, social capital indices and censored Tobit regression model. They found Social Capital index to be 25.81% indicating low level of Social capital among the cocoa farmers.

Okurut (2009) applied Heckman Probit and Two step selection model in determining the impact and intensity of credit rationing on Microenterprises in Botswana. He found that both formal and informal credit markets are significantly influenced by the collateral offered, business experience, and enterprise earnings.

Zeller (1994), in a study of the determinants of informal credit rationing in Madagascar, using Probit model, finds that the probability of being credit rationed is positively and significantly influenced by age, debt-income ratio and education level.

Daigne and Zeller (2001) in a study of access to credit and impact of credit on household welfare in Malawi applied simultaneous equation model based on credit limit and choice-based sampling They found that access to formal credit, has marginal beneficial effects on household annual income.

Oboh and Kushwaha (2009) applied multiple regression analysis in the study of Economic Determinants of Farmers loan size in Benue State Nigeria, using cross-sectional data, they found that the coefficients of annual income, distance, farm size and previous loan status, showed positive signs and were significant, indicating that all the variables encouraged larger loan size to farmers

Okurut (2009) applied Heckman Probit and Two step selection model in determining the impact and intensity of credit rationing on Microenterprises in Botswana, using the 2007 Informal Sector Survey. He found that both formal and informal credit markets are significantly influenced by the collateral offered, business experience, and enterprise earnings.

IMPORTANCE OF THE STUDY

Access to credits is one of the core factors considered in determining the level of inequality and poverty especially in developing countries. Improved access to credit will help poor rural households engage in more productive income-generating activities that will improve their living standards. The Nigerian Vision 2020 and the Millennium Development Goals seems like an illusion as a result of high level of inequality and poverty in Nigeria.

The enhanced bank credit access will promote the growth of microenterprises thereby creating employment opportunities, increasing household incomes, and contributing to poverty reduction in line with the vision 2020.

Given the various socio-economic problems associated with credit constraints it becomes pertinent to investigate the factors responsible for inaccessibility of formal credit among households. Such study will provide useful empirical information to the Government and policy makers, which will guide them in formulating robust financial reforms taking cognizance of socio-economic and welfare implication of credit constraint.

STATEMENT OF THE PROBLEM

The high level of inequality and poverty in Nigeria might debar her from attaining the Vision 2020 and the Millennium Development Goals (MDGs). With a population of 140 million people, 55% of which are living below the poverty line (NLSS, 2004), Nigeria is not on track to meet the first Millennium Development Goal (MDG) since greater percentage of her population are poor. The United Nations placed Nigeria the 13th poorest nation in the world with about 70% of the population living on one dollar per day (UN, 2005). About 55 percent of Nigeria's population of 140 million lives below the poverty line and the percentage of the population with access to formal financial services are among the lowest of African countries (Fuchs and Radwan, 2009).

In 2005, the CBN estimated that approximately 35 percent of the economically active population had access to formal financial services, of which less than two percent of rural low-income people had access to formal financial services. As in many countries in Sub-Saharan Africa the formal financial system services only a small minority of enterprises and households (Isern, Agbakoba, Flaming, Mantilla, Pellegrini and Tarazi, 2009).

After the deposit money banks capitalization, the banks were relatively liquid during the mission in September 2008. Based on international experience, high levels of liquidity often translate into increased retail lending, with consumer lending and mortgage lending leading the way. This has not been the case in Nigeria, as consumer loans are the smallest loan sector, with only around 5 percent of assets in mortgages and auto loans *(Isern et al., 2009).*

OBJECTIVES OF THE STUDY

The core objective of the study is to investigate the level of household access to formal credit and its impact on their welfare in Nigeria. Specifically, the study aims to achieve the following goals:

(A). Analyze households socioeconomic characteristics that determine access to credit in Nigeria.

(B). Determine the effect of access to credit on household's welfare outcomes such as income, expenditure and food security in Nigeria.

STATEMENT OF HYPOTHESIS

The study will be guided by the following research hypothesis:

(I). Household socioeconomic characteristics do not affect access to credit in Nigeria.

(II). Access to credit does not significantly impact on household's welfare attributes such as income, expenditure and food security in Nigeria.

METHODOLOGY

ESTIMATION PROCEDURE

The empirical investigation on access to credit and the impact of credit on households' welfare in Nigeria will be based on the following Econometric models, as shown below:

MODEL I

Following Nuryartono, Zeller and Schwarze (2005), probit model was used to predict the determinants of access to credit.

$Y^* = \alpha_i x_i + v_i + \mu i$ .... (6.0)

Where:

Y^* = Access to credit.

Y is a dummy dependent variable that takes value of either 1, if the household accessed credit and 0 if otherwise.

x_i = a vector of explanatory variables which reflect household demographic, assets, and local market characteristics.

V_i = a vector of supply side (formal and informal lenders) characteristics. The supply side of credit depends on the credit limit (L_{MA}) of formal and informal lenders, terms of loan contracts, the availability of credit and competition for loans among borrowers (Quach, Mullineux, and Murinde, 2007).

α = vector of unknown parameters   = the error term which is normally distributed with zero mean and constant variance.

Model II

Following Tobin (1956), Tobit model used applied in estimating the determinants of credit in Nigeria.

The latent model = $L_{Ni}^* = x_i\beta + \mathcal{e}_i$ .... (7.0)

$$L_{Ni} = L_{Ni}^* = f \begin{cases} xi, vi & if\, yi^* > 0 \\ 0 & if\, yi^* \leq 0 \end{cases}$$

It is assumed that the error term $\mathcal{e}_i$ is normally distributed ($\mathcal{e}_i$ ~ N $(0, \sigma^2)$)

If the above parameters (β) are estimated by regressing the observed L_{Ni} on x_i and w_i the resulting ordinary least squares regression estimators will be biased. Maximum likelihood estimation has been proved to be a consistent and efficient estimating method for limited dependent variable regression (Tobin, 1956). Hence, the method of Maximum Likelihood Estimation was adopted. Below are the likelihood and Log likelihood functions for the above type 1 Tobit model:

$$L = \prod_{L_{Ni}=0} \left[1 - \theta\left(\frac{xi\beta}{\sigma}\right) \right] \frac{\Pi}{L_{Ni} > 0} \frac{1}{\sigma}\phi\left(\frac{L_{Ni} - xi\beta}{\sigma}\right)$$ .... (7.1)

$$InL = \sum_{L_{Ni}=0}^{In} \left[1 - \theta\left(\frac{xi\beta}{\sigma}\right) \right] + \sum_{L_{Ni}>0} In\left[\frac{1}{\sigma}\phi\left(\frac{L_{Ni} - xi\beta}{\sigma}\right) \right]$$ .... (7.2)

Where θ = the standard normal cumulative distribution functions; ϕ = the standard normal probability density function.

From (7.0) L_{Ni}* = latent or unobserved variable,

L_{Ni} = the amount of credit that one household receives from the source which equals 1 if household receives loans and 0 otherwise (*i* = source of credit such as formal, informal or total credit etc)

x_i = a vector of explanatory variables which reflect household demographic, assets, and local market characteristics.

w_i = a vector of supply side (formal and informal lenders) characteristics.

β = vector of unknown parameters,

e_i = disturbance term.

This model answer Research Question I

Model III

This model follows Robust Ordinary Least Square as adopted in Wooldridge (2003), Grene (2002) and Huber (1981). In this section the effect of access to credit on household welfare in Nigeria will be estimated.

Consider the reduced form of household welfare equation, as follows:

$W = β_i x_i + α_2 v_i + e_i$ .... (8.0)

The dependent variable (W) = log of household welfare variable (per capita expenditure which comprises per capita expenditure on food and per capita expenditure on non food)

X_i = vector of household demographics, assets, community characteristics, and prices;

Education levels and occupation groups of households are decomposed to ascertain the impact of each group on the welfare of the households.

V_i = vectors of supply side characteristics (formal and informal lenders);

β, and α = parameters to be estimated.

e_i = error term.

DATA FOR THE STUDY

The National Living Standard Survey Data (NLSS 2004) was used for the study. The National Standard Living Survey lasted for 12 months, and covered the 36 states of the Federation including the Federal Capital Territory. The National Living Standard Survey covered the following topics, namely; demography, education, health, employment and time use, migration, housing, social capital and community participation, agriculture, household expenditure, non-farm enterprise, credit, assets and saving, income transfer and household income schedule.

EMPIRICAL FINDINGS

DETERMINANTS OF ACCESS TO CREDIT IN NIGERIA

Probit Model was applied on a sample of 435 households. The dependent variable is Credit Access and the results are interpreted based on marginal effects .The explanatory variables are households demographic characteristics such as sex, marital status, household size, age in years; socioeconomic characteristics such as, occupation group, per capita expenditure, location, household savings; reasons for loan refusals; level of education and etc.

Residing in rural area is negatively related to access to credit, living in rural area decreases the probability that the household will obtain credit by 4.9 percent relative to households that live in urban areas. Savings of the households has positive impact on access to credit, though not a significant determinant of access to credit. Sex is positively related to credit access in Nigeria but not a significant determinant. Marital status and household size have positive impact on accessing credit, both are not statistically significant.

Education level attained has a positive impact on access to credit, though not significant but have different effects when decomposed into different levels. Attaining Primary education increases the chances of accessing credit by 9.5 percent, secondary education increase the probability of credit access by 8.7 percent; tertiary education increase probability of credit access by 20 percent, while other forms of education has 12 percent chances of increasing the probability, all relative to households in which the head has no education.

Type of dwelling have negative, though do not have significant impact on credit access in Nigeria, living in a single room reduces the probability of credit access by 0.2 percent relative to households that dwell in duplex or whole house. This implies that richer households have more access to credit in Nigeria than their poor counterparts.

Reasons for loan refusals such as insufficient income, insufficient collateral, inappropriate purpose and others have negative impacts on access to credit. Amongst these reasons insufficient collateral is more statistically significant; insufficient collateral reduces the probability of access to credit by 63 percent. This means that greater number of people is constrained from accessing credit in Nigeria because of lack of collateral.

DETERMINANTS OF ACCESS TO CREDIT IN NIGERIA

Two-Step Tobit Selection Model is the second test applied in determining Access to Credit in Nigeria. A sample of 233 households was used for the study. Credit Access and amount of credit borrowed are the dependent variables, the explanatory variables are sex, household size, age in years, occupation group, urban, household savings; reasons for loan refusals such as insufficient income, insufficient collateral, inappropriate purpose and others; level of education such as primary education, secondary education, tertiary education and others.

Residing in urban area increases amount of credit borrowed by N14232.2, relative to those that live in rural area. At the same time, living in urban area increases the probability of accessing credit by 86.4 percent more than rural dwellers.

Reasons for loan refusals have negative and significant impact on both amount borrowed and access to credit. Insufficient collateral reduces amount of credit borrowed by N143506.7. The probability of households accessing credit facilities in Nigeria as result of isufficient collateral reduces credit access by 367 percent. Inappropriate purpose reduces the amount of credit borrowed by N74432.3. The chances of households with inappropriate purpose access credit facilities in Nigeria are reduced by 167 percent. Education level of household has positive and significant impact on access to credit in Nigeria.

IMPACT OF CREDIT ON THE WELFARE OF HOUSEHOLDS

In order to determine the effect of access to credit on household's welfare outcomes in Nigeria, Ordinary least Square method of estimation (OLS) was adopted with a sample of 655 households. To control for an arbitrary heteroscedasticity the model was extended with the robust option. The dependent variable is per-capita expenditure (this comprises per capita expenditure on food and per capita expenditure on non-food). Per capita expenditure is a proxy representing household welfare.

The results show, however, that access to credit in Nigeria impacts positively on households' welfare outcomes but not significantly. Savings of the households is not a significant determinant of welfare, though it has a positive impact on household welfare. Sex impacts negatively on household welfare in Nigeria, but not statistically significant. Marital status has a positive impact on household welfare in Nigeria. Household size have negative impact on household welfare in Nigeria, it is statistically significant. The higher the size of household the lower the welfare outcome. Education level attained has a positive impact on welfare, though not significant but have different effects when decomposed into different levels. Primary educations, secondary education, other forms of education have positive impacts on welfare. Being in professional and technical group contributes positively to households' welfare in Nigeria.

RECOMMENDATION

Based on our findings the following recommendations are important: Education plays indispensable role in improving the welfare of individuals and also facilitates households' access to credit in Nigeria. Policy makers should give priority to programmes that will encourage poor households to be educated through mass literacy programmes, free adult education and etc. Government should encourage financial institutions especially microfinance banks to grant micro-credit to poor households with little or no collateral. This can be done using their local government's councils, communities, churches, unions or age grade

association as guarantors for such loans. Households should be encouraged to imbibe the habit of savings, and enlighten more on how best to use different services of microfinance institutions.

CONCLUSION

This work concludes that household characteristics such as education, housing, occupation, location play important roles in accessing microcredit in Nigeria. More specifically, households with tertiary education have more access to credit than their counterparts with other levels of education. Households that reside in better houses such as duplex and apartments have more access to credit than those living in single rooms. Households that have assets that could be used as collateral by lenders have more access to credit in Nigeria than poor households that have nothing to offer as collateral. The work also concludes that a good number of households that have serious need for loan are constrained from accessing formal credit in Nigeria because of lack of collateral. Informal lenders thrive in Nigeria irrespective of their high rates of interest, because they grant loans to households that were constrained from accessing loan by formal lenders. Hence lenders in Nigeria consider the social status or class of households when making credit decisions; thus widens inequality gaps in Nigeria. This study recommends that future surveys should give adequate attention to credit and its characteristics so that research would be much more revealing.

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BOARD GENDER DIVERSITY AND PERFORMANCE OF LISTED COMMERCIAL BANKS IN KENYA

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ABSTRACT

Board gender diversity is heralded by some academics and practitioners as the new mechanism of corporate governance and has gained prominence because of global financial crisis and major corporate failures that shocked major financial centers of the world. This paper investigates the impact of board gender diversity on firms' financial performance using five years data from the year 2007 to 2011 with a sample of nine Kenyan commercial banks. Two financial performance indicators such as return on asset and return on equity were used. The study controls the effect of size, capital and credit risks of banks. The study utilized explanatory research design. Document analysis was employed to collect secondary data. The regression results showed statistically insignificant positive relationship between board gender diversity and bank financial performance. The overall conclusion of the study shows that board diversity has no effect on performance of listed banks in Kenya. It was found that the percentage of female directors is very low and the boards are male dominated. The findings of the study have significant managerial and theoretical implications.

KEYWORDS

Board diversity, Corporate Governance, Commercial Banks, Gender diversity and Financial Performance.

1.0 INTRODUCTION

Board gender diversity has received new urgency because of global financial crisis and major corporate failures that shock major financial centers of the world. Board diversity has become an important factor in managing organizations in the current global and complex environment. Given the increased public scrutiny around boards and corporate governance, board composition in terms of gender diversity and the skill/experience mix is anticipated to shape corporate performance. (Imam and Malik, 2007).

Board gender diversity can be defined as the presence of women on the board of directors and is an important aspect of board diversity and corporate governance (Carter et al. 2003) .It follows that diversity of board members in terms of their skills, experiences and networks enhances decision making improving performance.

Gender diverse boards allocate more effort to oversight and monitoring. In particular, female directors improve board inputs, have higher board attendance, improve board attendance of male directors, are more likely to take up monitoring positions on audit, nominating and corporate governance committees rather than on the compensation committee, and are more likely to hold CEOs accountable for poor performance. (Adams and Ferreira 2008)

Globally, women are lagging far behind their male counterparts in board directorship especially in developing countries since the corporate boards are male dominated. However, the existing literature reveals a slow but steady rise in female presence on boards of directors of companies across the globe. Proposals for board reform have specifically argued that gender diversity improves board effectiveness and therefore have called for more female directors on the board. In their quest for board reform, Sweden has proposed to make 25% female directorship a legal requirement, Norway requires 40% representation by the end of 2008 and Spain requires 40% representation by the end of 2015(Higgs, 2003). In Kenya, corporate boards including those of commercial banks are said to be male dominated (Business Daily, 2010). The Institute of Directors of Kenya decries that this appointment process denies majority of the women the chance to be selected to the corporate boards hence depriving the organization this important resource. This therefore means the effect of a diverse board on firm value as pointed out by Carter et al. (2003), Kim and Rasiah (2010) may not be felt in the Kenyan context. However, this situation may not last especially with the passing of the new constitution which requires female participation in almost all spheres of life.

According to Farrell and Hersch (2005) who studied Fortune 500 and Service 500 companies to establish how gender influenced board selection found out that women were added to the board until the company's diversity goal was met and that once they were pleased that the bare minimum female board representation was ensured, they no longer looked to increase the number of female directors.

Lupu and Nichitean (2011) asserted board gender diversity of banks in developing economies is of even greater importance given the dominant position of banks as providers of fund. In developing economies banks are typically the most important source of finance for the majority of firms. A sound financial system is based on profitable and adequate capitalized banks. The performance of banks is affected by good corporate governance practice and policies. In Kenya, corporate boardrooms are not yet much diverse as far as gender is concerned because presence of women on boards of directors is limited. Despite this aspect, little attention has been paid to the research of gender diversity in less developed economies in general and particularly in Kenya. The present study examines whether gender diversity affects the financial performance of commercial banks in Kenya.

An Overview of the Commercial Banking Sector in Kenya

The commercial banks in Kenya are licensed and regulated pursuant to the provisions of the Banking Act and the regulations and prudential guidelines issued by the Central Bank of Kenya. According to the CBK (2011), the banking sector comprised 43 commercial banks, 1 mortgage finance company, 2 deposit taking microfinance institutions, 2 representative offices of foreign banks and 126 foreign exchange bureaus. In Kenya the corporate governance of banks is directed and supervised by the Central Bank of Kenya. The Central Bank of Kenya monitors and controls the banking business and functions as regulators of the country's money supply. Accordingly, CBK issues directives on the size, composition and competence of board of directors. According to the Banking Act, the CBK is responsible for issuing directives on the qualification and competency to be fulfilled by directors; the minimum number of directors in the membership of the board of a bank, the duties, responsibilities and good corporate governance of the boards of directors of bank and the maximum number of years a director may serve in any bank. The Kenyan banking system is well regulated with the CBK conducting off-site and on-site surveillance. Over the last few years, the Banking sector in Kenya has continued to growth in assets, deposits, profitability and products offering. The growth has been mainly underpinned by an industry wide branch network expansion strategy both, automation of a large number of services and a move towards emphasis on the complex customer needs rather than traditional 'off-the-shelf' banking products. Players in this sector have experienced increased competition over the last few years resulting from increased innovations among the players and new entrants into the market

The financial liberalization reform of 1995 allowed the participation of private financial institutions in the economy. Private Banks' participation has increased and hence the share of their banking assets to total commercial banking assets increases. The banking environment in Kenya has, for the past decade, undergone many regulatory and financial reforms. These reforms have brought about many structural changes in the sector and have also encouraged foreign banks to enter and expand their operations in the country. Kenya's financial sector is largely bank-based as the capital market is still considered narrow and shallow (Ngugi *et al*, 2006). Banks dominate the financial sector in Kenya and as such the process of financial intermediation in the country depends heavily on commercial banks. In fact Ngugi *et al*, (2006)describes the banking sector in Kenya as the bond that holds the country's economy together. Sectors such as the agricultural and manufacturing virtually depend on the banking sector for their very survival and growth. Key banking sector policy developments which have taken place include the introduction of credit reference bureaus, Islamic banking, agency banking and licensing of deposit taking microfinance institutions (CBK 2010). As in most developing countries, financial sector policy in Kenya aims at achieving more effective intermediation, and improving soundness and depth (Ngugi *et al*, 2006). According to (Ngugi *et al*, 2006)the Kenyan authorities have chosen to pursue these goals within a distinctive strategic framework for the financial sector, and emphasize the importance of further strengthening corporate governance and accountability of financial institutions. Ensuring better corporate governance of corporations, financial institutions and markets is increasingly recognized as a pre-condition for the economic development.

2.0 REVIEW OF LITERATURE

This section discusses the relationship between board gender diversity and firm performance. The justification for the inclusion of control variables is also presented.

2.1 BOARD GENDER DIVERSITY AND FIRM PERFORMANCE

While significant research has been conducted in the general areas of diversity, corporate boards and firm performance (Sanda et al, 2005; Aljifri and Moustafa, 2007; Sunday O, 2008; Lupu and Nichitean, 2011; Al-Hawary, 2011; Khan et al., 2011; Al Manaseer et al., 2012), relatively limited number of gender diversity studies has been undertaken. Further, studies on the relationship between gender diversity and firm performance have produced conflicting results.

Gender diversity is part of the broader concept of board diversity. Boards are concerned with having right composition to provide diverse perspectives. Greater female representation on boards provides some additional skills and perspectives that may not be possible with all-male boards (Boyle and Jane, 2011). Board diversity promotes more effective monitoring and problem-solving reducing information asymmetry. Boyle and Jane, (2011) suggest that female board members will bring diverse viewpoints to the boardroom and will provoke lively boardroom discussions.

Gender diversity in the boards is supported by different theoretical perspectives. Agency theory is mainly concerned with the monitoring role of directors. Representation from diverse groups will provide a balanced board so that no individual or group of individuals can dominate the decision-making of the board (Erhardt et al., 2003). The management may be less able to manipulate a more heterogeneous board to achieve their personal interests. Gender diversity is associated with effectiveness in the oversight function of boards of directors. The oversight function may be more effective if there is gender diversity in board which allows for a broader range of opinions to be considered.

The study undertaken by (Erhardt et al., 2003), provided evidence on the relationship between demographic diversity on boards of directors and firm financial performance. The relationship was examined using two years financial performance data and percentage of women and minorities on boards of directors for 127 US companies. Correlation and regression analyses indicate board diversity was positively associated with financial indicators of firm performance (return on asset and return on investment). According to Erhardt et al. (2003), diversity of the board of directors and the subsequent conflict that is considered to commonly occur with diverse group dynamics is likely to have a positive impact on the controlling function and could be one of several tools used to minimize potential agency issues.

Rose (2007) examined whether female board representation influence firm performance using all Danish firms listed on the Copenhagen Stock Exchange during 1998–2001 excluding banks and insurance companies with 443 firm-time observations. Its objective was to explore the impact of board diversity on firm performance. Cross sectional data analysis method was used. Tobin's Q was used as a measure of performance and board gender diversity were measured as percentage of female directors and using dummy variable. The study does not find any significant link between firm performance as measured by Tobin's Q and female board representation, However, many scholars now believe that an increase in board diversity leads to better boards and governance on the ground that diversity allows boards to tap on broader talent pools for the role of directors (Bathula, 2008).

Bathula (2008) studied the association between board characteristics and firm performance. Board characteristics which were considered in the research included; board size, director ownership, chief executive officer duality, gender diversity, educational qualification of board members and the number of board meetings. Additionally, firm age and firm size was used as control variables. Firm performance was measured by return on assets. To test the hypothesis a sample of 156 firms over a four year period data from 2004 to 2007 was used. The sample included all firms listed on New Zealand stock exchange. Empirical analysis was undertaken using Generalized Least Squares analyses. The findings of the study showed that board characteristics such as board size, chief executive officer duality and gender diversity were positively related with firm performance, whereas director ownership, board meetings and the number of board members with PhD level education was found to be negatively related. Firm age and firm size does not have significant influence.

Carter et al., (2003) examined the relationship between board gender- diversity and firm value for the Fortune 1000 firms. Using Tobin's Q as a measure of firm value, they found statistically significant positive relationships between the percentage of women on the board of directors and firm value as well as presence of women on the board of directors and firm value.

Zahra and Stanton (1998) examined the relationship between gender diversity and firm financial performance. They worked with 100 Fortune 500 firms and they used return on equity (ROE), profit, earnings per share, dividend per share and profit margin on sales as performance variables. They did not find a statistically significant relationship between gender diversity and firm financial performance.

Marinova and Remery (2010) built a case for the importance of corporate diversity. They believe that diversity affects a firm's financial value in both the short and long run. They postulated that: (a) corporate diversity promotes a better understanding of the marketplace; (b) diversity increases creativity and innovation; (c) diversity produces more effective problem solving; (d) diversity enhances the effectiveness of corporate leadership; and (e) diversity promotes effective global relationships. If one accepts that women add to the diversity of corporate leadership, then the proposed benefits can be reaped by having women in the boardroom.

Anastasopoulos, et al., (2002) found that gender diversity changed the functioning and deliberative style of the board in clear and consistent ways. Barontini and Caprio, (2006) found a positive relationship between the percentage of female board directors and market value added (MVA). He used MVA as a measure of financial performance. From stakeholders' theory, diversity also provides representation for different stakeholders of the firm for equity and fairness (Keasey et al., 1997). From resource dependency perspective, the board is a strategic resource, which provides a linkage to various external resources (Walt and Ingley, 2003). This is facilitated by board diversity.

2.2 CONTROL VARIABLES

2.2.1 Bank Size

The size of the bank is included as a control variable to account for size related economies and diseconomies of scale. Financial intermediation theory predicts the efficiency benefits related to bank's size, due to economies of scale. This could imply lower cost for larger banks that they may retain as higher profits if they do not operate in a very competitive environment (Flamini, et.al 2009). Moreover, Gul, et.al 2011) suggest that large banks have grater loans and greater product diversification and accessibility to asset markets, which may not be available for smaller banks.

2.2.2 Bank Capital

Capital plays a vital role in supporting safety and soundness of banks. Banks with higher capital to the assets ratio could be considered relatively safer in the event of loss or liquidation. Guru et al. (2000) indicated that capital adequacy requirement would increase the capital assets ratio and thus reduce the risk. This may induce banks to absorb more risk in their investment in the hope of maximizing return. Moreover, Naceur and Goaied (2001) suggest that the higher capital

to assets ratio, the lower the need for external financing and therefore, higher profitability. The study, therefore, uses the ratio of equity capital to assets as a proxy of bank capital (BCAP).

2.2.3 Credit risk

Credit risk is measured using the ratio of non-performing loans to total loans. Credit risk is a major source of loss. An increase of credit risk is normally associated with decreased bank profitability. Hence, banks improve profitability by minimizing the credit risk level through improving their appropriate lending policies (Flamini, et.al 2009).

3.0 IMPORTANCE OF THE STUDY

The results of this study will contribute to commercial banking firms by identifying relevant corporate board gender diversity mechanisms and how this affects financial performance. The result of this study contributes to the existing literature by providing evidence on the relation between board gender diversity and banks' financial performance. The empirical results would also be useful for regulators, policy makers, managers and business people in making policies and decisions. It can serve as a stepping stone for future researchers who want to conduct study on related topic. To the best of the researcher's knowledge no empirical study has been undertaken to ascertain the impact of board gender diversity on financial performance of commercial banks in Kenya The current study, therefore, seeks to fill this gap using panel data from the banking industry in Kenya.

4.0 STATEMENT OF THE PROBLEM

Board gender diversity has become an issue of global significance and has received new urgency due to various corporate scandals and failures. Female Board representation is hinged in on improving corporate governance practices promoting more effective monitoring and problem-solving reducing information asymmetry. Boyle and Jane, (2011) suggest that female board members will bring diverse viewpoints to the boardroom and will provoke lively boardroom discussions. Significant research and much anecdotal evidence suggest that superior corporate performance cannot be assumed to be an automatic outcome of board gender diversity mechanisms. The extent of success on the objectives and activities of these mechanisms are subject to the level of real changes brought on by the female directors. Simply the presence of female directors will not improve banks operation and performance unless they are qualified and competent depending on factors such as experience; education and assertiveness of female directors However, studies that critically assess the impact of board gender diversity and firm performance are, so far limited in the country. This is perhaps due to the fact that both board gender diversity and other corporate governance mechanisms are new, and it is only now that they are recognized as important strategies in the process of corporate policy development in Kenya.

5.0 OBJECTIVES

1.   To examine the association between board gender diversity and bank performance in Kenya
2.   To investigate the relationship between board gender diversity and bank profitability in Kenya
3.   To investigate the relationship between board gender diversity and bank efficiency in Kenya

6.0 HYPOTHESES

1.   There is a significant positive association between board gender diversity and financial performance of banks in Kenya
2.   There is a significant positive association between board gender diversity and profitability of banks in Kenya
3.   There is a significant positive association between board gender diversity and efficiency of banks in Kenya

7.0 RESEARCH METHODOLOGY

7.1 RESEARCH DESIGN

The study utilized explanatory research design with a mixed approach as it sought to identify and evaluate the causal relationships among the key study variables. Mixed methods research provides better inferences as it is able to capitalize the strength of quantitative and qualitative approach and remove any biases that exist in any single research method (Creswell, 2003). Finally, a panel data study design was used. The advantage of panel data analysis is that more reliable estimates of the parameters in the model can be obtained between the different variables under consideration (Gujarati, 2004).

7.2 SAMPLING DESIGN

The population of the study was all commercial banks operating in Kenya in the period 2007-2011. According to the information obtained from Central Bank of Kenya there were 43 registered banks operating in Kenya of which nine are listed in the Nairobi Securities Exchange. The sample size for the study comprised a total of nine commercial banks which were listed on the Nairobi Stock Exchange (NSE) during the study period. Purposive sampling was used to get the sample in order to include a representation critical to providing answers to the research hypotheses.

7.3 DATA SOURCE AND COLLECTION METHODS

The data for this study was collected from secondary sources. The secondary sources of data were the audited financial statements of the sample commercial banks over a period of five years (2007-2011). Data for the study were extracted from the annual reports of the nine listed banks. The website of each of the banks was visited to collect necessary data for the study. In all, 45 observations were obtained after editing the annual reports of the nine banks and were used for the study.

7.4 DESCRIPTION OF VARIABLES AND MEASUREMENTS

The independent variable of the study was board gender diversity (BGD). In line with the studies of Ibrahim et al., 2010; Adusei, 2011; and Al-Manaseer et al., 2012) board gender diversity was measured as the percentage of number of female directors divided by the total number of board members. The control variables were bank size (BSIZE); bank capital (BCAP); and the banks credit risk (BCR). The size of a bank is calculated as the natural logarithm of the total assets (Anderson and Reeb, 2003; Carter et al., 2003; and Barontini and Caprio, 2006). The bank capital is measured as the ratio of equity capital to assets as a proxy of bank capital. The banks' credit risk is measured using the ratio of non-performing loans to total loans. Two accounting measures were used as proxy measures for firm performance namely Return of Asset (ROA) and Return on Equity (ROE) which were the dependent variables. Return on Equity (ROE) measures a firm's financial performance by revealing how much profit a company generates with the money shareholders have invested. It shows how well the shareholders funds are managed and used to generate return. ROE is measured profit after tax divided by total equity. Return on Asset (ROA) measures the overall efficiency of management and gives an idea as to how   efficient management is at using its assets to generate earnings (Al-Manaseer et al., 2012). ROA is defined as profit after tax divided by total asset. The description of the study variables is presented in Table 1.

TABLE 1: DESCRIPTION OF VARIABLES

Variables		*Description*
Measures of bank performance(dependent variable)		
Return on Equity (ROE)		Profit after tax/Total Equity
Return on Asset (ROA)		Profit after tax/Total Asset
Measure of Board Gender Diversity (independent variable)		
Board gender diversity(BGD)		Proportion of female directors on the board
Control Variables		
Size of bank (BSIZE)		The natural logarithm of total assets
Bank Capital (BCAP)		Total Equity/ Total Asset
Bank Credit Risk (BCR)		Non-performing loans(NPL)/Total Loans

Source: Author's construction

7.4.1 SPECIFICATIONS OF EMPIRICAL RESEARCH MODEL

To estimate the impact of board gender diversity on the financial performance of sample commercial banks in Kenya the following general empirical research model is developed.

$Y_{it} = \beta_0 + \Sigma\beta KX_{it} + \varepsilon_{it}$ --- (1)

Where:

- Y_{it} represents the dependent variables (ROA and ROE) of bank *i* for time period *t*.
- β_0 is the intercept
- βK represents the coefficients of the X_{it} variables
- X_{it} represents the explanatory variables (BGD, BSIZE, BCAP and BCR) of bank *i* for time period *t*.
- ε_{it} is the error term

Therefore, the panel data models relating to the impact of board gender diversity on the firm's financial performance was stated as:

$ROE_{it} = \beta_0 + \beta_1(BGD_{it}) + \beta_2(BSIZE_{it}) + \beta_3(BCAP_{it}) + \beta_4(BCR_{it}) + \varepsilon_{it}$--------------------(2)

$ROA_{it} = \beta_0 + \beta_1(BGD_{it}) + \beta_2(BSIZE_{it}) + \beta_3(BCAP_{it}) + \beta_4(BCR_{it}) + \varepsilon_{it}$--------------------(3)

Where:

i denote banks ranging from 1 to 9 (cross-sectional dimension).

t denote years ranging from 2007 to 2011 (time-series dimension).

Dependent Variables

ROE*it*   Return on Equity for *i*th bank and time period *t*

ROA*it*   Return on Asset for *i*th bank and time period *t*

Independent variables

BGD*it*   Female Directors on the board for *i*th bank and time period *t*

Control variables

BSIZE*it*   Bank size for *i*th bank and time period *t*

BCAP*it*   Banks capital for *i*th bank and time period *t*

BCR*it*   Bank credit risk for *i*th bank and time period

DATA ANALYSIS AND PRESENTATION

Correlation and multiple linear regression analysis were employed to analyze data collected. The correlation analysis was used to identify the relationship between the independent, dependent and control variables using Pearson correlation analysis. The correlation analysis shows only the degree of association between variables and does not permit the researcher to make causal inferences regarding the relationship between variables (Marczyk et al., 2005). Therefore, multiple panel linear regression analysis was also used to test the hypothesis and to explain the relationship between board gender diversity and financial performance measures by controlling the influence of some selected variables. SPSS 17 software was used for analysis and the results were presented through tables.

8.0 RESULTS AND DISCUSSIONS

This section presents the correlation analysis and multiple linear regression analysis of the study variables.

Correlation analysis of Return on Asset (ROA) and board gender diversity

The Pearson's correlation matrix in Appendix 1 shows the relationship between the return on asset, board gender diversity, bank size, bank capital and bank credit risk. This table also shows the linear relationships between each independent variables and control variables used in this study.

The correlation analysis shows that board gender diversity and bank size are positively and significantly correlated at 1 percent significance level with return on asset. On the other hand, bank capital is negatively and significantly correlated at 5 percent significance level with return on asset. However, bank credit risk size shows insignificant correlation with return on asset. Even though it is not significant bank credit risk shows a positive coefficient as expected. The Pearson correlation coefficients of board gender diversity, bank size, bank capital and bank credit risk are 47.6 percent, 40.8 percent, -27.5 percent, 10.9 percent, respectively. From this it can be understand that board gender diversity and bank size have a strong association with return on asset.

Correlation analysis of Return on Equity (ROE) and board gender diversity

Appendix 2 presents the Pearson correlations among return on equity and board gender diversity as well as control variables of the study. The analysis show board gender diversity is positively correlated with return on equity of a bank. However, this is statistically insignificant. Bank size is positively related with return on equity at 1 percent significance level. While bank capital is positively correlated with return on equity at 5 percent significance level. But board gender diversity and bank credit risk do not have a significant relation with return on equity. Furthermore, the Pearson correlation coefficients of bank size is 43 percent, board gender diversity is 9.4 percent, bank capital is 25 percent, and bank credit risk is 17 percent with return on equity. This indicates that the association between board gender and bank credit risk shows a weak correlation with return on equity.

The Pearson's correlation matrices in appendices 1 and 2 below indicate that the degree of correlation between each pair of independent variables is low which suggests the absence of multicollinearity problem in the models. All the independent and control variables included in the two models are not strongly correlated with each other hence no multicollinearity problem since all the coefficients are lower than 0.8.

Regression Results and Discussion

Influence of the bank's board gender diversity on their efficiency (ROA)

To assess the impact of bank's gender diversity on their efficiency, the dependent variable return on assets was regressed on the independent variable (board gender diversity) controlling for other variables (bank size, bank capital and bank credit risk). The relevant results are presented in Appendix 3 below. The analysis in Appendix 3 indicates that the overall effect of the explanatory and control variables on the bank's profitability is statistically significant (overall p-value=0.001). The relationship between board gender diversity and the return on asset. (ROA**)** is insignificant (β=0.227, -value= .088) . However, it has a positive coefficient with return on asset. Bank credit risk has a positive and significant effect on the return on asset (β=1.046, -value= 0.015). Bank size has a positive effect on ROA although not statistically significant. Bank capital has a negative effect on ROA although this influence is not statistically significant.

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Influence of the bank's board gender diversity on their profitability (ROE)

To assess the impact of bank's gender diversity on their profitability, the dependent variable return on equity (ROE) was regressed on the independent variable (board gender diversity) controlling for other variables (bank size, bank capital and bank credit risk). The relevant results are presented in Appendix 4 below. The analysis in Appendix 4 shows that the overall effect of the explanatory and control variables on the bank's profitability is statistically significant (overall p-value=0.003). The relationship between board gender diversity and the return on equity (ROE) is insignificant (β=-0.018, -value= .466) and it has a negative coefficient with return on equity. Bank size (β=-0.031, -value= .001) and bank capital (β=-0.044, -value= .040) have a positive and significant relationship with the bank's profitability.

9.0 FINDINGS

Board gender diversity has an insignificant relationship with all the two financial performance measures used. However, it has a positive coefficient with return on asset but a negative coefficient return on equity. Hypothesis 1 predicts that the number of women directors on the board is positively associated with financial performance. The insignificant coefficient of the percentage of women directors does not support this hypothesis. Therefore, this study does not support the view that gender diversity leads to superior banks financial performance. This finding challenges the works of some previous studies documenting a positive effect of the role of women on boards in enhancing the quality of decision making and firm performance (Bathula, 2008; Erhardt et al., 2003). However, this study does not find a significant positive association between percentage of women directors and banks financial performance. This may be due to the relatively small proportion of board members who are women which does not permit them to be powerful enough to make a difference to monitoring. This result does not necessarily contradict the notion that women's presence on boards may be useful and positive in general. Nevertheless, the low number of women on the boards of sampled Kenyan commercial banks does not give them sufficient monitoring power. The result is not surprising because other studies that examined the association between proportion of women on boards and firm performance also found insignificant relationship (Rose, 2007; Habbash, 2010). Board gender diversity is important since almost half of the country's population is female. But, simply the presence of female directors will not improve banks operation and performance unless they are qualified and competent. Whether gender diversity helps improve banks operation and performance all depends on factors such as experience, education and assertiveness of female directors

Bank size has a positive relationship with the two financial performance measures, yet this is statistically significant only with return on equity with p-value < 0.05. The finding contrasts previous studies and arguments made in which bank size negatively influences performance (Sanda et al, 2005; Babatunde and Olaniran,2009); Amran, 2011; Al-Manaseer, et al, 2012). Al-Manaseer et al. (2012) found a significant negative relation between bank size and net interest margin but insignificant negative relation was found with return on asset and return on equity. It can be explained as large banks have economies of scale and scope from this point it is supposed to influence bank performance positively. However, at the same time agency problem increases and this may outweigh the efficiencies of large banks achieved through economies of scale leading to bank inefficiencies. Further, banks may not be able to fully control and monitor the business as the companies become larger in size. The result implies size of a bank measured by its asset enhances performance if this is put to efficient use. Therefore, sampled Kenyan banks are utilizing their size to enhance their financial performance.

Bank credit risk has significant positive influence on bank performance measured by return on asset (p-value< 0.05) and it is only marginally insignificant with return on equity. In addition, although no statistically significant relationship is detected, a positive directional sign of the coefficient is observed in return on equity. It implies that an increase in the risk is associated with increase in performance. The result indicates that banks with higher levels of non-performing loans. as a proportion of total loans perform better than those having lower proportion of non-performing loans.

According to the agency theory, the monitoring provided by debt financing reduces management's incentive to misuse free cash flows, and consequently leads to a better firm performance. The finding is consistent with the literature and with the study conducted earlier (Khatab, et al, 2011; Sanda et al., 2005; Babatunde and Olaniran, 2009).

Bank capital has significant positive influence on bank performance measured by return on equity and has an insignificant negative influence on return on asset. High cost of funds could be one of the factors that have accounted for this. High cost of funds can negatively affect profitability if a bank is unable to lend the funds for higher returns after acquiring them.

10.0 RECOMMENDATIONS

This study examined the impact of board gender diversity on firms' financial performance by taking evidence from selected commercial banks in Kenya. On the basis of the findings and conclusions reached, the following recommendations were forwarded.

This study revealed that the boards of banks are dominated by male and board gender diversity is very limited in Kenyan commercial banks. Thus, a lot needs to be done to improve the gender balance of boards in Kenyan banks with a great care about their qualification and competency to effectively monitor managers and help to improve bank performance.

11.0 CONCLUSION

Based on the findings of this study, the following conclusions have been reached. There is evidence to conclude that no statistically significant relation was found between percentage of female directors and financial performance. However, this is due to very small numbers of female directors which does not permit them to be powerful enough to make a difference to monitoring. However qualified and competent female directors may help improve banks operation and monitoring performance. Therefore, only the presence of qualified and competent female directors helps improve banks performance. Therefore, board gender diversity does not increase the performance of listed banks in Kenya. Majority of the banks had no female director on their boards. And for those who had female directors on their boards the number was so small.

12.0 SCOPE FOR FURTHER RESEARCH

Based on the outcomes of this study, the following issues are suggested for further research.

- First, increasing the study population and the sample size to the whole financial sector.
- Second, by taking evidence from other industries and increasing the number of observations through the use of large sample size and long years data.
- The relationship between board gender diversity and firms' financial performance can also be further explained if future researchers conduct study including more gender diversity variables.

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APPENDICES

APPENDIX 1: CORRELATION ANALYSIS OF RETURN ON ASSET (ROA) AND BOARD GENDER DIVERSITY

CORRELATIONS

		RETURN ON ASSET	BOARD GENDER DIVERSITY	BANK SIZE	BANK CAPITAL	BANK CREDIT RISK
RETURN ON ASSET	Pearson Correlation	1	.476(**)	.408(**)	-.275(*)	.109
	Sig. (1-tailed)	.	.000	.003	.034	.237
	N	45	45	45	45	45
BOARD GENDER DIVERSITY	Pearson Correlation	.476(**)	1	.571(**)	-.345(*)	-.188
	Sig. (1-tailed)	.000	.	.000	.010	.108
	N	45	45	45	45	45
BANK SIZE	Pearson Correlation	.408(**)	.571(**)	1	-.216	-.311(*)
	Sig. (1-tailed)	.003	.000	.	.077	.019
	N	45	45	45	45	45
BANK CAPITAL	Pearson Correlation	-.275(*)	-.345(*)	-.216	1	.410(**)
	Sig. (1-tailed)	.034	.010	.077	.	.003
	N	45	45	45	45	45
BANK CREDIT RISK	Pearson Correlation	.109	-.188	-.311(*)	.410(**)	1
	Sig. (1-tailed)	.237	.108	.019	.003	.
	N	45	45	45	45	45

**   Correlation is significant at the 0.01 level (1-tailed).
*   Correlation is significant at the 0.05 level (1-tailed).

APPENDIX 2: CORRELATION ANALYSIS OF RETURN ON EQUITY (ROE)AND BOARD GENDER DIVERSITY

CORRELATIONS

		RETURN ON EQUITY	BOARD GENDER DIVERSITY	BANK SIZE	BANK CAPITAL	BANK CREDIT RISK
RETURN ON EQUITY	Pearson Correlation	1	.094	.433(**)	.251(*)	.011
	Sig. (1-tailed)	.	.270	.001	.048	.471
	N	45	45	45	45	45
BOARD GENDER DIVERSITY	Pearson Correlation	.094	1	.571(**)	-.345(*)	-.188
	Sig. (1-tailed)	.270	.	.000	.010	.108
	N	45	45	45	45	45
BANK SIZE	Pearson Correlation	.433(**)	.571(**)	1	-.216	-.311(*)
	Sig. (1-tailed)	.001	.000	.	.077	.019
	N	45	45	45	45	45
BANK CAPITAL	Pearson Correlation	.251(*)	-.345(*)	-.216	1	.410(**)
	Sig. (1-tailed)	.048	.010	.077	.	.003
	N	45	45	45	45	45
BANK CREDIT RISK	Pearson Correlation	.011	-.188	-.311(*)	.410(**)	1
	Sig. (1-tailed)	.471	.108	.019	.003	.
	N	45	45	45	45	45

** Correlation is significant at the 0.01 level (1-tailed).

* Correlation is significant at the 0.05 level (1-tailed).

Source: SPSS correlation result based on the data obtained from sample commercial banks.

APPENDIX 3: SUMMARY OF REGRESSION RESULTS: RETURN ON ASSET (ROA)

MODEL SUMMARY (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.608(a)	.370	.307	.06280	.918

a Predictors: (Constant), BANK CREDIT RISK, BOARD GENDER DIVERSITY, BANK CAPITAL, BANK SIZE

b Dependent Variable: RETURN ON ASSET

ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.093	4	.023	5.864	.001(a)
	Residual	.158	40	.004		
	Total	.250	44			

a Predictors: (Constant), BANK CREDIT RISK, BOARD GENDER DIVERSITY, BANK CAPITAL, BANK SIZE

b Dependent Variable: RETURN ON ASSET

COEFFICIENTS (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.162	.221		-.735	.466		
	BOARD GENDER DIVERSITY	.227	.130	.280	1.749	.088	.616	1.623
	BANK SIZE	.090	.046	.305	1.927	.061	.628	1.593
	BANK CAPITAL	-.200	.110	-.262	-1.809	.078	.753	1.329
	BANK CREDIT RISK	1.046	.410	.364	2.549	.015	.772	1.295

a Dependent Variable: RETURN ON ASSET

Source: SPSS regression results based on the data obtained from sample banks

APPENDIX 4: SUMMARY OF REGRESSION RESULTS: RETURN ON EQUITY (ROE)

MODEL SUMMARY (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.567(a)	.322	.254	.01182	.937

a Predictors: (Constant), BANK CREDIT RISK, BOARD GENDER DIVERSITY, BANK CAPITAL, BANK SIZE

b Dependent Variable: RETURN ON EQUITY

ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.003	4	.001	4.749	.003(a)
	Residual	.006	40	.000		
	Total	.008	44			

a Predictors: (Constant), BANK CREDIT RISK, BOARD GENDER DIVERSITY, BANK CAPITAL, BANK SIZE

b Dependent Variable: RETURN ON EQUITY

COEFFICIENTS (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.120	.042		-2.886	.006		
	BOARD GENDER DIVERSITY	-.018	.024	-.122	-.736	.466	.616	1.623
	BANK SIZE	.031	.009	.584	3.553	.001	.628	1.593
	BANK CAPITAL	.044	.021	.319	2.123	.040	.753	1.329
	BANK CREDIT RISK	.020	.077	.039	.263	.794	.772	1.295

a Dependent Variable: RETURN ON EQUITY

Source: SPSS regression results based on the data obtained from sample banks

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INDIAN TEA PRODUCTION: AN ANALYSIS

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ABSTRACT
The origin of tea, and whether a truly 'wild' plant still exists, is not clear. Camellia sinensis var. sinensis is probably native to western Yunnan, while Camellia sinensis var. assamica is native to the warmer parts of Assam (India), Burma, Thailand, Laos, Cambodia, Vietnam and southern China. 'Wild' tea plants can be found growing in forests, but these may be relics of past cultivation. The cultivation and brewing of tea in India has a long history of applications in traditional systems of medicine and for consumption. Research shows that tea is indigenous to eastern and northern India, and was cultivated and consumed there for thousands of years. However, commercial production of tea in India did not begin until the arrival of the British East India Company, at which point large tracts of land were converted for mass tea production. The credit for creating India`s vast tea empire goes to the British, who discovered tea in India and cultivated and consumed it in enormous quantities between the early 1800s and India`s independence in 1947. Major Robert Bruce discovered tea plants growing wild in the jungles of Assam in the 1820s. At this time, no one thought that tea exist in India; and it took some time to convince the pioneers that the native plant was real tea. Ironically, the native plants flourished, while the Chinese seedlings struggled to survive in the intense Assam heat and it was decided to make subsequent plantings with seedlings from the native tea bush. The first 12 chests of manufacture tea from Assam leaf were shipped to London in 1838 and were sold at the London auctions on 10 January 1839. This paved the way for the formation of `Bengal Tea Association` in Calcutta and a first Joint Stock Company, the `Assam Company` in London. On success of Assam Company several other Company was formed to take up the tea cultivation. India has the unique distinction of being one of the world`s largest producers of tea. Also acclaimed as the world`s second most popular beverage, tea gives morning the world over, their distinctive feel.

KEYWORDS
Tea area and production in India, Kerala, Idukki.

INTRODUCTION
The cultivation and brewing of tea in India has a long history. However, commercial production of tea in India did not begin until the arrival of the British East India Company, at which point large tracts of land were converted for mass tea production. At present India is the second largest producer of tea, the largest consumer and fourth largest exporter in the World. The major tea growing areas of India are West Bengal, Assam, Tamil Nadu and Kerala. Tea is also produced in smaller volumes in the states of Tripura, Arunachal Pradesh, Himachal Pradesh, Karnataka, Bihar, Nagaland Uttaranchal, Manipuri, Mizoram, Meghalaya, Orissa and Sikkim.

Tamil Nadu is the major tea growing state in South India with 76, 000 hectares under cultivation. Kerala has 37,000 hectares while Karnataka is a much smaller tea growing state with just 2000 hectares. The cultivation and marketing of tea involve greater amount of manpower and hence play a vital role in the economic activities of these regions. Even though India is the largest producer of Tea in the world, yield of tea in India is the lowest among the other Tea producing countries.

In Kerala, Idukki District is the largest producer of tea followed by Wayanad District. Congenial climate and suitability of soil are the main reasons for such concentration. Besides generating lucrative revenue to both Government and owners of the tea plantations, the industry provides large scale employment opportunities to the people of the district. However, in recent years, the owners of the tea plantations were unable to obtain optimum yield and return.

Large scale deforestation in the area followed by irregular monsoon, sporadic rainfall and frequent drought in recent years have severely affected the production of tea. The mounting cost of inputs such as labour, manures, fertilizers and other plant protection materials on the one hand and the spiraling marketing cost, increasing marketing margin, widening price spread and temporal variation in the price on the other hand have eroded the profitability of the tea plantations. Therefore a scientific study to identify the problems associated with production of tea in order to enlighten the people concerned about its inherent strength and weakness, opportunities and threat becomes relevant and socially significant.

The main objective of the study is to highlight the growth of tea production from 1990-91 to 2009-10 in India, Kerala, and Idukki District. For the present study secondary data were collected from the tea board statistics published by Tea Board of India, Kolkata, and Tea Research Institute, Delhi.

AREA AND PRODUCTION OF TEA IN INDIA
Area, production and Yield per hectare in India, Kerala and Idukki District are shown in Table 1. The yield has been calculated by using a simple formula of dividing total production by total area and multiplying the result by 1000 during a given year. This has been the practice of Tea Board also. The tea industry in India has small and big growers and Government plantations. Though the major plantations of tea production in India are highly concentrated in some specific region, they are scattered in different states. The area under Tea cultivation in India rose from 4,16,269 hectares in 1990-91 to 5,78,391 hectares in 2009-10 the increase being 28.03 per cent.

It is seen from the above table that Indian tea production had been fallen in 1999-2001 due to closing down of estates and the neglect of the existing plantations. No plucking was done in many of the small/medium gardens due to low profit. The unequal cost-profit ratio also lead the producers to neglect production. However, the tea industry in India overcame sluggishness in production and has been increasing production since 2002. Many tea gardens have also reopened. From the year 2003-2010 the cultivation and production of tea increased gradually over the years. India has mainly been known to produce black tea. However, there is shift in the trend now as many tea estate have started producing Green, White and Oolong teas. The considerable increase in the total area under tea production in India during the period of study may be attributed to the entry of large number of non-traditional growing regions like, Sikkim, Orissa, Meghalaya, and Mizoram. The average annual increase amounted to 8,10,031 Metric tonnes in 1997- 98 and annual production exceeded the average production and the highest quantity was recorded in the year 2007-08.

TABLE 1: AREA, PRODUCTION AND YIELD PER HECTARE OF TEA IN INDIA, KERALA AND IDUKKI DISTRICT FROM 1990-91 TO 2009-10

YEAR	INDIA			KERALA STATE			IDUKKI DISTRICT		
	Area (in Hectare)	Production (in Metric Tonnes)	Yield per Hectare in Kilogram	Area (in Hectare)	Production (in Metric Tonnes)	Yield per hectare in Kilogram	Area (in Hectare)	Production (in Metric Tonnes)	Yield per hectare in Kilogram
1990-91	416269	720338	1730	34612	66803	1926	23571	51507	2185
1991-92	420470	754192	1794	34708	54627	1582	23592	40023	1714
1992-93	420289	732322	1742	34525	62003	1788	23357	46370	1980
1993-94	418363	760826	1819	34688	63127	1715	23440	47641	1774
1994-95	425966	752895	1768	36817	64778	1761	26855	49473	1852
1995-96	427065	756016	1770	36775	61581	1675	26710	46434	1737
1996-97	431245	780140	1809	36762	69776	1895	26729	46434	1958
1997-98	434294	810031	1865	36817	65943	1794	26764	52394	1814
1998-99	474027	874108	1844	36752	66833	1814	26610	48254	1838
1999-00	490200	825935	1685	36762	68947	1866	26615	49042	1922
2000-01	504366	846922	1679	36940	65151	1764	26748	51406	1736
2001-02	509806	853923	1675	36967	57772	1563	26753	46439	1503
2002-03	515832	838474	1625	36967	58012	1569	26753	40207	1564
2003-04	519598	878129	1690	37107	62146	1675	26893	41848	1668
2004-05	521403	892965	1713	36772	58502	1591	27100	44861	1547
2005-06	555611	945974	1703	36236	59462	1641	27122	41932	1609
2006-07	567020	981805	1732	37137	55966	1507	27692	43639	1390
2007-08	578458	986427	1705	37137	70287	1893	27692	38484	1391
2008-09	579353	980818	1693	36785	61155	1662	24596	46415	1887
2009-10	578391	966403	1693	36964	57106	1545	24647	44192	1793
Constant (SE)	12.88 (0.013)	13.46 (0.013)	7.49 (0.014)	10.470 (0.009)	11.073 (0.035)	7.501 (0.032)	10.113 (0.025)	10.797 (0.038)	7.581 (0.045)
Trend Co-fficient (SE)	0.021 (0.001)	0.017 (0.001)	-0.003 (0.001)	0.003 (0.001)	-0.003 (0.003)	-0.006 (0.003)	0.005 (0.002)	0.006 (0.003)	-0.012 (0.004)
R²	0.953	0.933	0.307	0.502	0.058	0.192	0.244	0.189	0.353
Adjusted R²	0.950	0.929	0.307	0.476	0.006	0.147	0.202	0.144	0.318
CGR	2.95	1.73	-0.340	0.312	-0.308	-0.558	0.496	-0.645	-1.177
Co-efficient of Variation	12.59	10.56	3.65	2.562	7.535	7.562	5.77	8.66	11.63

Source: Area and Production of Tea in India 2010-11, Tea Statistics,Tea Board of India, Kolkata.

Figures in brackets denote the Standard Error.

An analysis of yield per hectare revealed that there was an increase throughout the period except in 1994-95, 2002-03 and 2008-09. The reasons for such a low yield are continuous cultivation of poor yielding plants, existence of senile and unproductive plants, losses due to pest and disease attack and drought, non-adoption of appropriate agronomic practice and poor working conditions of workers and lack of training. Further Lack of health care facilities made workers incompetent and affected their yield as well. Unavailability of skilled labour and inefficient working conditions had a major role in the low production and yield in small tea segments as a whole. Incompetence of workers and low yield are the main challenges that the small tea sector face in competing at international standards and participating in fair trade and so on. The percentage analysis of changes in yield reveals that the increase was not significant during 1999-00 to 2003-04. Considering area, production and yield it appears that while there had been increase in area and total production there was not proportionate increase in the yield per hectare.

It is observed from the above table that the trend co-efficient is positive and significant at one per cent level indicating an increasing trend in the area, production and decrease in the yield of tea in India during the study period. The decadal analysis of data shows that the area and production was improving. There had been an increase in the production of tea by 1.73 per cent per annum, increase in area by 2.95 per cent per annum and decrease of yield by -0.34 per cent per annum due to high production cost, lack of infrastructure, unpredictable climatical conditions, lack of land for expansion, high labour cost, poor transport facilities in estates and frequent political agitation. The coefficient of variations in tea production recorded 10.56 per cent. This wide variation was accompanied by variations in area and yield, which were 12.59 per cent and 3.65 per cent respectively.

AREA AND PRODUCTION OF TEA IN KERALA

Kerala is the most suitable region in the country having the requisite agro-climatic conditions for tea cultivation. Tea is the important bush crop in Kerala. Idukki and Wayanad are the major districts for tea production in Kerala. The salient feature of the tea plantation in Kerala is the preponderance of the small and marginal holdings. The area under cultivation of tea in Kerala was 34,612 hectares in 1990-91 which increased to 36,964 hectares in 2009-10. However the increase was not constant throughout the period. There were annual fluctuations. Further there were also decreases in 4 years 1992-93, 1998-99, 2005-06 and 2009-10. The average annual increase works out to 117.6 hectares only. While at the national level there was an increasing trend throughout the study period the data for Kerala reveal a different picture indicating that additional area brought under cultivation was small.

An analysis of production of tea in Kerala reveals that the total production increased from 66,803 tonnes in 1990-91to 70,287 tonnes in 2007-08 and then decreased to 57,106 tonnes in 2009-10. Compared to the changes in area the production figures reveal a better trend. The yield of Tea in Kerala decreased from 1926 tonnes in 1990-91 to 1545 tonnes in 2009-10. The reasons for decrease in yield were the majority of the workers in small tea gardens were temporary and casual workers and most of them were migrants. So they were not properly trained. The wage rate was below the official minimum wage rate in all states except Kerala. However, in some regions of Kerala, the wage is fixed according to the weight of green leaves which workers collect each day rather than regular daily wage. It is reported that very often, they are paid less than the official minimum wage. In addition, payment is also irregular in many small tea gardens in India. Since the workers do not have any other alternative, they are forced to stay back in tea gardens. In many regions, workers are appointed only during the peak season and family labour replaces hired labour in the off season or when the price of green leaf is low. Further the yield was very low due to the small size of large number of holdings which made the application of advanced techniques not possible. Other reasons attributed to are the existence of old age plants, the use of uneconomic variety of plants and uneven climate.

It is seen that the trend co-efficient for production and yield of tea in Kerala are negative and not significant. The production of tea decreased by -0.31 per cent per annum from 1991-92 to 2009-10. There was also increase in area by 0.31 per cent and decrease in yield by -0.56 per cent per annum during the study period. Thus, the continued increase in area as well as yield contributed to the increase in production. Kerala recorded a variation of 7.53 per cent in tea production. This wide variation was accompanied by variations in area and yield, which were 2.56 per cent and 7.56 per cent respectively.

AREA AND PRODUCTION OF TEA IN IDUKKI DISTRICT

Idukki District is situated in the southern part of Kerala state. The district has the agro climatic conditions suitable for the cultivation of plantation crops and these includes tea, coffee, rubber, coconut, cardamom, and pepper. In this district tea gardens are in the north while major hilly areas have cardamom plantation. A major portion of the available land is unsuitable for cultivation because of hilly terrain, lack of proper irrigation facilities and accessibility. Out of the total area of about 5,10,522 hectare, 2,17,005 hectares comes under cultivation of tea, coffee, rubber, coconut, cardamom and pepper. Tea was cultivated 24,647 hectares in 2009-10. Idukki District is comprised of four taluks, namely Devikulam, Udumbanchola, Thodupuzha and Peermade produce tea. Larger part of the area under tea consist of small holdings.

The area under cultivation of tea in Idukki District in 1990-91 which was 23,571 hectares increased to 24,647 hectares in 2009-10. The unsustainable and highly fluctuating price and international market of tea forced planters to go for alternative crops in their gardens. The tea industry finds alternative cropping as a new business model within the existing plantation model. The recent move in different tea growing region is to diversify their focus on tea cultivation. Major tea plantations had decided to start cultivation of horticulture, floriculture, and cultivation of medicinal and aromatic plants and tea-based tourism. Most of the planters are of the opinion that relying on tea production alone cannot sustain in this uncertain tea market. They consider multi-crops system be an alternative factor to cope with price oscillation in the industry. The considerable increase in the total area under tea cultivation in Idukki District during the period of study may be attributed to new planting or replanting.

An analysis of yield per hectare revealed that there was a decrease throughout the period except 1992-93, 1996-97 and 1999-2000. The analysis shows that the increase was not significant during 1992-93. The incidence of pest and disease, fluctuations in price and unfavorable climatic conditions led the tea cultivators to switch over to other remunerative crops. Considering area, production and yield per hectare it appears that while there has been increase in area and total production there was not proportionate increase in the yield per hectare.

It is observed from the above that the trend co-efficient is positive and significant indicating an increasing trend in area, production and negative in yield of tea in the district. The area under tea increased by 0.47 per cent per annum and yield decreased by-1.18 per cent per annum contributing to an decrease in production by -0.65 per cent per annum. It is also observed that tea production experienced considerable variation of 8.66 per cent. For the same period, the rate of variation in yield and area were 5.77 and 11.63 per cent respectively.

CONCLUSION

Both in terms of average area of tea cultivation and production, India occupies the second place. But from the point of view of yield per hectare, India occupies the last position among the tea producing countries. The average tea yield among the major tea producing countries is 2235 Kg/ha, where as it is 1693 Kg/ha in India. India's exceptional geo-agro-climate situation has created unique conditions that are very suitable for growing a super fine quality of tea that cannot be replicated elsewhere. However, various constrains and weakness may jeopardize the future prospectus of the tea plantations unless due attention is paid and appropriate measures are taken in time.

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THE IMPACT OF THE BRAND TRUST, BRAND ATTACHMENT, BRAND COMMITMENT ON BRAND LOYALTY

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ABSTRACT

Although various research studies have been conducted to understand the concept of Brand Loyalty but still organizations are unable to capture those variables that affect the brand loyalty the most. The purpose of this study is to find out the factors that affect Brand loyalty and how much is the intensity. Specifically, we took brand trust, brand attachment as the antecedents to see their impact on Brand commitment and further the impact of Brand commitment on Brand loyalty. A questionnaire was developed in order to collect the data for understanding the brand loyalty level in various departments. Convenient sampling was used to collect the data and 150 questionnaires were filled from the students and employees.The research result shows that there is positive significant relationship of brand trust, brand attachment, brand commitment towards brand loyalty. But brand attachment has strong impact on brand commitment then other. This study helps the researchers and the marketers to better understand the key variables that affect brand loyalty.

KEYWORDS
brand trust, brand attachment, brand commitment, brand loyalty

1.   INTRODUCTION

Building a good quality relationship among a brand and consumer has definite to be a winning marketing strategy. Mitchell (1997), clarify high-quality relationship marketing as the act of meeting consumers very tightly around a brand, and building customer loyalty by focused on the wants of consumers. Brand exists along with the customer's cognitive arrangement as images all over labeling promotion and packaging. Branding creates product partition in order to sustain customer needs and wants according to the worldwide survey conducted by Kurt salmon connections about 62% of US consumers and 67% of UK consumers would go to another store if the brand they were looking for was not available at first place they distress. (reda ,1996).

Research on consumer purchase intention is the brand loyalty factors. Developments and risks in long-term relationships with clients are important for maintaining marketing managers. In this context, brand loyalty between consumers and brands, helps with a better understanding of the link. Especially for consumer goods marketing management, brand loyalty, is a strategic objective. Way of sanctions, the fact that first study, analysis of shopping behavior in reducing brand loyalty study.

According to study, loyal customers will be treated that way when you buy a brand. Consider creating a strong brand loyal customer loyalty system to create a marketing plan helps to create. On the other hand, cognitive loyalty marketing literature often reduce the complexity of the decision process (Dick and Basu, 1994) is part of the contact. Affective elements Aaker, (1991), McQueen et al. (1993) and Lacoeuilhe (2000) was introduced by. The former mainly deal with brand attachment elements.

A large number of studies focused on the customer brand loyalty and their super results (Russell Bennett et al, 2007 Oliver, 1999) have investigated the benefits possible to achieve. Some scholars oppose the marketing of brand loyalty slowly but surely time (Todd, 1984, Kapferer, 2006) in both the U.S. and Europe is falling.

East and Hammond (1996) shows that the ratio of buyers to change again, while Dekimpe et al, (1997) argue that the most listened to switch brand loyalty is very little support. Brand trust and brand loyalty brand of attachment factors under study is the literature of Service. This study mostly focuses on the cost of consumer orientation with these determinants on brand loyalty due to the perception of customer direction has evolved into the core of strategic marketing. To create a winning service marketing strategy in the Chinese markets, companies must a deeper understanding of how customer direction plays a major role in the relationship among Brand Loyalty and its determinants and how it translates into Brand Loyalty.

According to Keller (1993), the mass researches on brand have been so far paying attention on consuming goods particularly on understanding the effects of brand understanding. There is an increasing trend on branding which is as same as service reason in focused on added value processes. In such view, brand acting a broader role so it is connected not only to end users but also to firm, its human resources and its shareholders. Research papers call this broader view of branding as "service brand" (Brodie et, al,, 2009).

Barry's Advanced Research (2000), who created their personal experiences with service establishment's reason analysis, the way roles in a wide range of brands provides initial insights. Although Berry model still acknowledges that the company offers brand awareness affects brand equity, brand shows "value" that customers receive from their service experiences are more important. Therefore, Berry states that "the company" becomes the main brand quite than the product. Conducted studies have enclosed the ground to construct up this service branding model effectively. They indicate that brand creates an "experimental image", a "dedication to experience servicing" and "communicational self-confidence". Jointly these three studies emphasize the need to have a broader conceptualization when rethinking the usual picture and sign view of the brand (Berry 2000).

The objective of current study is to realize the nature of service brand by using a quantitative study.. Brand image, its dimensions and its insurance services using the same framework of quality and customer loyalty.

Amber and Styles (1996), a set of personality by a commitment to purchase "as, for example, the brand explains," I believe, logic, sensational, tangible or intangible. "To by providing a concept of commitment, Ballmer and Gray (2003) concluded that "the legal brand and most important stockholder core group consists of the strength of mind." in the light of globalization, products and large attention between competing economic alliance with immediate and widespread proliferation of Internet, many aspects of branding has become more important. Enter into the markets for the company or product names confirmed, the position of the trade to keep, and which markets characterized by intense opposition to maintain its existence.

Brand loyalty is the heavy price that the brand targeted specifically at the level of international business marketing and business world is one of the most important issues. In addition, brand loyalty from the viewpoint of marketing strategy is very important topic, especially large and deep enmity existing market through a high stage of his passing was marked by the purchaser brand it is important to keep loyal continued existence and continuity of the organization.

Brand-loyal consumers may be satisfying to pay more for a brand (Jacoby and Chestnut 1998; Pessemier 1959; Reicheld 1996). This strategy considered a more valuable and competent way than attracting a new consumer. In the same way, brand loyalty leads to larger market share when the same brand is frequently purchased by loyal customers (Assael 1998). Therefore, the brand is the single distinguishing factor between opposing and similar products. Furthermore, brand loyalty leading strength does not limited to be a marketing tool only, but also it goes away from this stage to get the goals and future visions to the product and company's completion and their continued existence in the market.

Even though the brand is not incorporated in the organization financial plan, some specialized advisor centers classify brand within the organization property as a part of such assets. Brand is able to conclude the organization's success in a extent that is better than the aptitude of a new plant or scientific development, while building a strong brand allows the organization, even in its toughest times, to sell its product at a high price In addition, opining an entirely new markets, new markets, especially when the organization's growth depends upon the speed is worth. The competitive brand environment variable determines the value of the organization is one. A Guestbook intangible asset as the company is one of the most valuable assets, and the last is the price for customers.

2.   LITERATURE REVIEW

Build brand loyalty based on customer behavior in response to both the current period and prior periods in time as well as psychological awareness (Dick and Basu, 1994) is determined by what is considered as. Evaluation of literature shows that brand loyalty to investigate two different approaches can be. Determinants of brand loyalty on an estimate of direct character appear. For example, Yoo et al. (2000) examined the impact of the marketing mix variables on Brand Loyalty.

In other determinants approach focuses on the direct impact on brand loyalty. The advertising products or services of the quality expected costs (Moorthy and Zhao, 2000, Kirmani and Wright 1989 Yoo ET al, 2000) influence, and its role will indirectly own brand ads saying that instead, brand loyalty is more serious in building customer awareness affects how. In this approach, for example, such problems are: How do customers see advertising firm. Brand loyalty is not the direct effect of ads that may be unnoticed? If the advertising product costs or consumer perceptions of service quality and brand loyalty is inextricably linked to the whole is, then, how these variables are related to each other throughout the set Copeland term coined by the idea of loyalty. Brand insisted method of customer demand for the product is the final step.

In this phase alternative customers do not recognize, products or services they choose to purchase. Copeland is the idea of brand loyalty and marketing study expansively customer behavior or performance as the two concepts into one complex. Guest (1942, 1944 and 1964) describes an approach to brand loyalty and shopping behavior and preferences of regular behavior is a calculated degree. The original purchase brand loyalty behavior (Farley 1964; Tucker 1964, coachman, 1970, Cunningham 1956) is based. Actual purchase behavior, purchase or acquisition of each class by the total number is one.

On the other hand, many relevance and brand loyalty are the result of education, and jacoby brand loyalty construct validity of the test, and four types of behavior such as brand loyalty, brand loyalty behavior, multiband as loyalty shown, and loyal to the brand. One of the most complete definition of brand loyalty was produced by Jacoby and Olson (1970). The non-random, prolonged survival as a result of treatment response defined brand loyalty and a certain mental Procedure purchase decision multiple units, which was created by brands to consider.

One of the most complete brand loyalty has been proposed by Jacoby and Olson (1970). Some researchers say the best way to measure brand loyalty, affective loyalty (Bennett and Rundle Thiele, 2000) is to measure by. Polygamous loyalty theory, which says that consumers are not just buying a brand (Dowling and

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uncle, 1997) are theories like. As Baldinger and Rubinson (1996) are indicated by, brand loyalty, affective loyalty and action loyalty covers. Groth and McDaniel (1993) believe that affective loyalty customer loyalty to a particular brand represents all kinds. Eisman (1990) regulates a specific brand of consumer satisfaction with the purchase process as described loyalty. 1993 Assael) repeatedly purchase the same brand shopping experience with their customer satisfaction on brand loyalty behavior as described.

Build brand loyalty based on user responses, both behavioral and psychosomatic view that is the current time period, as well as the first period, determined by these (Dick and Basu, 1994). In general, brand loyalty as "a deeply held or future repatronize rebuy favorite products/services is defined continuous commitment, as a recurring set of brand purchase brand produces the same or similar circumstances despite the hard work of marketing to influence the switching behavior "(Oliver, 1999, p 34) has the ability. Although behavioral loyalty and attitudinal loyalty between loyalty mechanism, Olsen (2002) could be the difference between points usually very attitudes that loyalty initiatives assessed by measures of behavior is.

The idea grew out of loyalty, Copeland (1923) has coined by resolution. Guests (1942, 1944, 1964) describes an approach to brand loyalty and purchase behavior, attitudes and preferences constancy of the measured level. The original purchase behavior is based on brand loyalty (Farley , 1964; Tucker, 1964 ; coachman, 1970; Cunningham, 1956).

2.1 BRAND COMMITMENT
A consumer wants to maintain a long term dealings with a given brand. The brand loyalty literature, the process of amalgamation better sympathizer part in the determination and definition of this aspect of the behavior (Samuelson and Sandivik, 1997) is far from spread. Commitment is usually a plan and continuity in relations concept as desired. Kiesler (1971) describe as "link, which is located between an individual and his actions."

There are two factors which brand commitment brand confidence and attachment is affected by it. Johnson (1973) as "the extent to which an operation is dedicated to the pursuit of a line." For this reason the concept of commitment, commitment to user cost changes and many sacrifices to maintain the relationship with the brand are ready to undergo. Recently, Gurviez and Korchia (2002) defines this concept as follows: "The idea of commitment clearly understood from the perspective of users or intends to maintain a lasting relationship is as described."

H1: Brand commitment has a significant positive impact on the brand loyalty

2.2 BRAND TRUST
Cognitive and affective: brand consumers trust the brand as being personified idea, commit yourself to a potential action, has two components. Cognitive component of trust is credibility.

H2: Brand trust has a significant positive impact on brand commitment.

2.3 BRAND ATTACHMENT
Explain the role of brand loyalty factors with different contrast, adjacent low purchasing behavior allows accounting for intentionality Carefully Brand as attachment "is a psychological variable in the direction of a lasting brand and inalterable (separation is painful) affective response means, and that the psychological closeness of the relationship" (Lacoeuilhe, 2000).

H3: Brand attachment has a significant positive impact on brand commitment.

FIGURE 1: PROPOSED MODEL

3.   RESEARCH METHODOLOGY
The current research is descriptive in its nature. Descriptive research can b explained as describing something, some phenomenon or any particular situation. Descriptive researches are those researches that describe the existing situation instead of interpreting and making judgment (Creswell, 1994). The main objective of the descriptive research is verification of the developed hypotheses that reflect the current situation. This type of research provides information about the current scenario and focus on past or present for example quality of life in a community or customers attitude towards any marketing activity (Kumar, 2005).

3.1 SAMPLE/DATA
In order to collect the data for understand the situation about adoption of Brand loyalty. A sample of 200 respondents will ask to participate in a self-administered questionnaire. The population of current research is Brand loyalty in Pakistan.

It has ensure that the sample members posses two main qualification to participate in the self administered survey. First, the sample member should be user of Brands and having enough knowledge about Brands. Second, they never purchase any item of any Brand.

We select these sample members from different metropolitan city of Pakistan. Two main clusters will target to collect the sample data like university student and working professionals. The selection of students and working professionals are based on the previous results of the studies on Brand loyalty.

3.2 INSTRUMENTS AND MEASURES
The survey instrument of the current study address two major purposes: first is to analyze the relationship of different variables in the adoption of Brand loyalty. Second, to collect information about the different characteristics of the respondents that can be used to understand the variations in different categories. The survey instrument contains sections. Section 1 includes different personal and demographic variables. This section will obtain the respondents information about gender, age, income, education. Section 2 includes the latent variables that are important in the current study.

These variables include Brand trust, Brand attachment and brand commitment towards Brand loyalty. This section of the study is developed based in the past literature and already used questionnaires (Table 1).The scale of the study was adopted from the previous literature and published studies. The first variable of the study is Brand loyalty. This variable has 7 items scales were taken from (Chaudhuri and Holbrook, 2001)**.** The next variable is Brand trust has 13 items scales taken from Gurviez and Korchia (2002). The 3rd variable is Brand attachment with 4 items scales taken from (Lacoeuilhe, 2000; Lacoeuilhe and Belaı¨d, 2007)**.** The last variable is brand commitment with 7 items scales taken from Fullerton (2005)

TABLE 1: SCALE OF THE STUDY

No.	variables	Items	References
1	Brand loyalty	I get good value for my money. I recommend this brand to someone who seeks my advice. I will continue to be loyal customer for this brand. I intend to buy this brand in the near future. I consider this brand as my first choice in this category. I intend to buy other products of this brand. I consider this brand my first choice in the next few years.	Chaudhuri And Holbrook, 2001
2	Brand trust	The products of this Brand bring me safety. I trust the quality of the products of this Brand. Purchasing products of this Brand is a guarantee. This Brand is sincere towards its consumers. This Brand is honest towards its clients. I found that this Brand renews its products to take into account research progress. I believe that this Brand tries to improve its response to consumer needs on an ongoing basis. I trust the manufacturer of the heavy equipment I am evaluating. I rely on the manufacturer of the heavy equipment I am evaluating. I trust this Brand. I rely on this Brand. This is an honest Brand. This Brand is safe.	Gurviez and Korchia (2002)
3	Brand attachment	I have a lot of affection for this Brand I am attached to this Brand I am attracted to this Brand Thinking about this Brand brings me a lot of joy, pleasure	(Lacoeuilhe, 2000; Lacoeuilhe and Belaı̈d, 2007)
4	Brand commitment	I like this Brand This Brand has a lot of meaning to me I am strongly related to this Brand. I am proud to tell others that I am part of this Brand It would take very little to cause me to leave this Brand. I really care about this Brand I would accept almost any type of job assignment in order to keep working for this Brand.	Fullerton (2005)

3.3 PROCEDURE

The questionnaire was distributed among 200 respondents in Bahawalpur. These respondents are selected based on the criteria above mentioned. Before giving the questionnaire, the purpose of study and questions were explained to the respondents so they can easily fill the questionnaire with relevant responses. A total 150 questionnaires were selected and rest of the questionnaires was not included in the further analysis due to incomplete or invalid responses. After collecting the complete questionnaires, these questionnaires were coded and entered into SPSS sheet for regression analysis.

3.4 RELIABILITY ANALYSIS

Overall Cronbach's alpha of the variable and more than acceptable and recommended value 0.50 by Nunnaly (1970) and 0.60 by Moss et al. (1998). This shows that all the 31 items were reliable and valid to measure the option of consumers towards Brand commitment.

TABLE 2: RELIABILITY OF MEASUREMENT INSTRUMENT

Scales	Items	Cronbach alpha
Brand loyalty	7	.754
Brand trust	13	.841
Brand attachment	4	.653
Brand commitment	7	.794

4. RESULT AND ANALYSIS

4.1 PROFILE OF THE RESPONDENT

Personal and demographic information such as gender, age, income, occupation, education of brand commitment and potential purchaser over the brands are presented in the following table (Table 3).

TABLE 3: PROFILE OF THE RESPONDENTS

Variable	Category	Frequency	percentage
Gender	Male	72	48
	female	78	52
Occupation	Student	135	90
	Employed	11	7.2
	unemployed	4	2.7
Age	15-20	41	27.3
	20-25	86	57.3
	25-30	19	12.7
	Above30	4	2.7
Income	Below 15000	48	32
	15000-20000	44	29.3
	20000-25000	33	22
	Above 25000	25	16.7
Education	Matriculation	7	4.7
	Inter	22	14.7
	Graduation	32	21.3
	Master	89	59.3

4.2 HYPOTHESES TESTING

4.2.1 BRAND TRUST, BRAND COMMITMENT

According to the result of the study, the variable of brand trust have a significant positive impact relationship with the brand commitment with (B=.312) and (p < 0.01). That means the brand trust contribute more than 31% to brand commitment. Results of the current study validate the H1.

4.2.2 BRAND ATTACHMENT, BRAND COMMITMENT

The regression result of the study confirm the significant positive relationship between brand attachment and brand commitment with (B=.399) and (p < 0.01). According to these results, brand attachment contributes more than 39% to brand commitment. Results of the current study validate the H2.
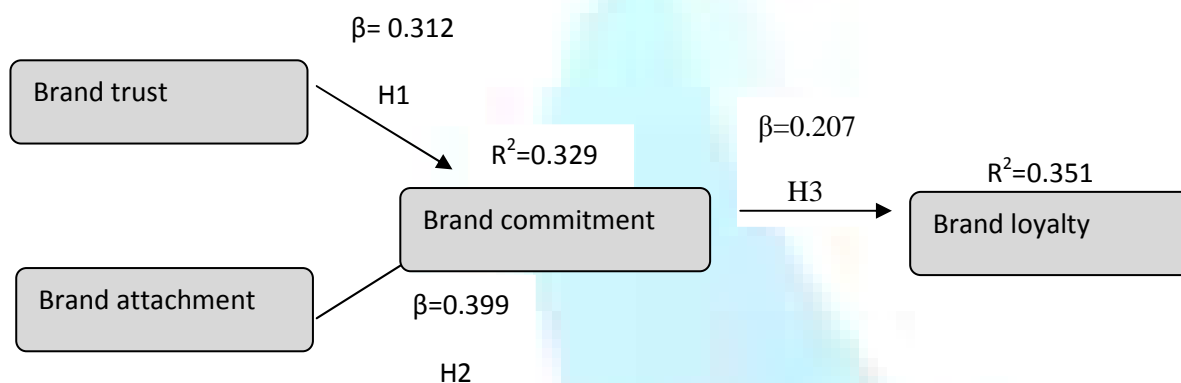
4.2.3 BRAND COMMITMENT, BRAND LOYALTY

Regression of the brand loyalty shows that there is significant positive relationship between brand commitment and brand loyalty with (B=.207) and (p<.05). The results suggest that the brand commitment contributes 20% to brand loyalty. Result of the study validates the H3.

TABLE 4: REGRESSION RESULT

Hypotheses	Model variables			ET.	S.E	C .R	P	Results
H1	B. commitment	←	Brand Trust	.312	.099	4.244	***	supported
H2	B. commitment	←	Brand Attachment	.399	.073	5.422	***	supported
H3	brand loyalty	←	Brand commitment	.207	.044	2.082	*	supported

FIGURE 2: STRUCTURAL MODEL RESULT

5. DISCUSSION

Brand attachment and brand loyalty brand defined to include strict confidence. Brand commitment (attitudinal brand loyalty factor) most of the brand purchase behavior (behavioral aspect of brand loyalty) it leads. Explanation approach adopted in this study as well as the behavior of traditional ideas accessible behavioral factors in determination theory takes reservations. Who knowingly committed whole different factors can explain the loyalty behavior is a necessary condition for identification. The opening of brand attachment as a predecessor of brand loyalty contributes to a better thoughtful of this phenomenon whose arrangement can be explained by touching motives.

Affiliate with brand commitment, trust, integrity and the relationship of this process helps to emphasize the double nature. The brand's commitment to reach real brand loyalty is an element. The concept of brand loyalty result in the need to integrate affective verification flow, the loyalty and commitment to the idea conceptualization and quantity appears in the middle of the Element of additional illustrations. Uncontrollable element of bias in the estimated model and brand committed to bringing its brand link between repeated purchase behaviors can change.

It is also nice-looking to notice that the level of loyalty would be tall if it is calculated, as in the current study, in a short period of time. In order to go away from these limits, it would be likely to use section data, to measure frequent buying behavior, completed with questionnaire to measure the other variables. Not only will this method guide to a better measure of behavioral loyalty, but it would also allow testing the evolution of the loyalty phenomenon over time, as well as the development of the involvement of its affective and cognitive antecedents.

It's a brand loyalty study on pattern of cognitive and affective background as an attempt to describe the effects should be considered. The results showed that between brands, brand attachment, brand, brand trust, commitment and time period affects the effect of brand loyalty. Brand loyalty (Amine, 1998) to be the difference between direct and indirect history can be. Include direct history of brand loyalty results of our study can improve.

The objective of this article is to present the role of brand attachment, brand trust and brand commitment as marketing tools for assuring brand loyalty through customer reaction in Bahawalpur from consumer's viewpoint. The Study of Relationship marketing literature, this research brand trust, brand attachment, brand commitment and brand loyalty into view. Brand trust, brand, attachment and commitment are very important for users to answer.

Questionnaire in two parts, demographic profiles and other brand trust, brand attachment, brand commitment and brand loyalty was part of the first part. Reliability and validity of the instrument was determined. Results indicate that brand trust, brand attachment, brand commitment and brand loyalty structure is valid and reliable tool. Data collected through questionnaire survey, SPSS >>> (statistics package for social sciences) using the analysis. Correlation and regression analysis is the study provides interesting results.

According to Study, we can conclude that first; the antecedents of brand loyalty are differences between trust and attachment. Both variables play an important role in brand loyalty seems to. The result of data study shows that trust and attachment in a brand is very important, and is an important factor in the growth of brand loyalty. This result is consistent with that of (Moorman, et.al 1992; Morgan and Hunt , 1994; Lau and Lee, 1999; Moorman, et.al 1992; Chaudhuri and Holbrook ,2001). Trust has been found to boost loyalty a study established the paths by which manufacturers build consumer trust and confirmed a path from consumer trust to loyalty in relationship exchanges (Sirdeshmukh, Singh, & Sabol, 2002).

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