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RELATIVE POVERTY AND INEQUALITY – A STUDY OF HIMACHAL PRADESH

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ABSTRACT

This study examines the incidence of poverty and inequality in Himachal Pradesh based on the first hand information. The issues of poverty and inequality are examined in a multidimensional perspective. This study shows that there is poverty as well as inequality prevalent in the study area and the inequality of income is higher among all households as compare to poor households. This study also indicates that the income of the poorest among the poor is very low mainly due to their small size of holding, lack of regular farm and non-farm employment and higher level of dependency. There is a need for greater and more effective fiscal intervention for poverty reduction and employment generation.

KEYWORDS

household, man days, consumer unit.

INTRODUCTION

However during last about the decade, several significant changes have been taken place in the poverty scenario due to Government programme & policies to empower the poor, continuous affords of voluntary organizations and civil society groups etc. They lobby for more resources for the poor, make poor aware about their rights and entitlements and mobilize the poor for collective action to promote their own development and to counter their oppressors. All these efforts have positive impact but are not trustful enough to put the poor in development orbit. Generally there are two broad concepts of poverty: relative and absolute poverty. Relative poverty arises entirely as consequences of an unequal distribution of income irrespective of what the income level or the corresponding state of deprivation of the people of the bottom end of the income scale might be. Absolute poverty on the other hand expresses a collective view on deprivation in its somewhat physical manifestation. Therefore, relative poverty is measured in terms of inequality in the distribution of income and absolute poverty depends on an exogenously determined standard or poverty line, which represents a socially acceptable minimum level of living. In the present study relative poverty or income inequality with the help of 'positive approach' has been worked out because absolute measure may tell us something important about the condition of a society at a particular point of time and over a stretch of time. But it has no argument against those measures to say that they tell us little about inequality or about relative deprivation, it is not designed to tell us about them. But on the other hand relative measure tells us about inequality or the deprivation among the poor and also tells how wide is the gap between the income of the 'poor' and the income of those who are 'not poor'. Relative poverty or income inequality has been worked out with the help of 'positive approach' by adopting Head Count Ratio, Gini –coefficient, Income Gap Ratio and Sen's measures of poverty 1973, 1976 and 1981.

REVIEW OF LITERATURE

A number of studies revealed that the extent of poverty is higher in rural areas than in urban areas. A study by Minhas (1970) revealed that the extent of rural poverty was very high during 1956-57 i.e. 65 percent and this has been reduced to 56.6 percent during 1967-68. Ojha (1970) findings revealed that 51.8 percent of rural population was below poverty line during 1960-63 at calorie norm of 2250 per capita per day. Bardhan (1970) estimated that 38 percent during 1960-61 and 54 percent of the rural population was below poverty line during 1968-69. Dandekar and Rath (1971) by applying the minimum calories norm of 2250 per capita per day consumption expenditure during 1960-61, concluded that about 40 percent rural and 50 percent urban population falls below the poverty line. Hashim and Padam Singh (1986) studied the extent of rural poverty during 1960-61 to 1983-84. Their findings revealed that 55.50 percent of rural population was below poverty line during 1960-61 and 44.98 percent were below poverty line during 1970-71. This figure came to 40.40 percent during 1983-84. According to the Planning Commission of India the extent of poverty in rural India was 28.2 percent during 1989-90. Krishna (2003) found that a number of households had climbed out of poverty in the past 25 years. Simultaneously, however, a large number of previously non-poor households had also fallen into poverty, resulting in a rather small net improvement in the poverty situation in this area. Since the reasons for people overcoming poverty are quite distinct from the reasons why they succumb to it. Dev and Mahajan (2003) observed that employment growth recorded a drastic decline during 1993-94 to 1999-2000 as compared to the period of 1983-84 to 1993-94. Bhalla and Hazall (2003) on the basis of NSS data found that there were 3.98 million unemployed in India in 1973-74 and their number had increased to 7.49 million by 1993-94 and to as much as 9.15 million by 1999-2000. In the meantime the incidence of unemployment had increased from 1.64 percent in 1973-74 to 1.96 percent in 1993-94 and to 2.25 percent in 1999-2000. S. Mahendru et al.(2007) and Himanshu (2007) by using the NNS data concluded almost same that in spite of higher overall growth, the extent of decline in poverty in the post reform period (1993-2005) has not been higher than in the pre-reform period (1983-1993), further they concluded that the inequality has increased significantly in the post reform period and seems to have slowed down the rate of poverty reduction but the extent of decline in 1995-05 seems to have been higher than in 1993-2000 in spite of slower growth in agriculture in the latter years. Datta (2008) worked out that the estimate of Head count ratio of poverty for 2005-06 to 2004-05, the decline in the Head count ratio between two years is 1.4 to 1.6 percent due to higher rate of economic growth rate accompanied by the impressive growth in the agriculture sector while the trend rate of decline between 1993-94 and 2004-05 was 0.8 percent. Martin (2008) in his article discussed that in 2005, 40 percent of India's population lived below poverty line whose consumption is less than \$1.25 a day. While 25 years earlier 60 percent of India's population lived below the same real line. This is clear progress. India's long term pace of poverty reduction by this measure is no more than average for the developing world excluding China. Himanshu (2010) studied that estimates of the incidence of rural poverty show a head count ratio of 41.8 percent for 2004-05 as against the official estimate of 28.3 percent. The estimates reveal much larger rural-urban differences but less concentration of either rural or urban poverty in few states. In Himachal Pradesh 34.1 percent of population was living below the poverty line According to the study conducted by the federation of Chambers of Commerce and Industry in 1972. The extent of rural poverty in Himachal Pradesh on the basis of the value of poverty index for 1972-73 and 1973-74 has been calculated equal to 31.53 percent and 47.01 percent respectively (Sharma, 1982). Thakur (1985) concluded that on the basis of the value of poverty index the percentage of poor has been worked out 71.06, 50.65 and 26.34 percent on the marginal, small and medium size of holdings respectively. Ramna et al. (2008) worked out that the Percentage of poor on the marginal, small, medium and all holdings together are 43.46, 29.89, 20.17 and 33.53 percent respectively.

DATA SOURCE & METHODOLOGY

This study has been conducted in Himachal Pradesh, which has different cropping pattern due to varying altitude. Therefore, on the basis of altitude the cultivated land in the State has been categorized into three zones, viz., (a) low- hill zone ranging between 1200- 3000 feet, (b) mid- hill zone from 3000-5000 feet and (c) high- hill zone of 5000 feet and a above. In the low- hill zone, the main agricultural products are food grain, i.e., wheat, maize, paddy, pulses, sugarcane, oilseeds etc., whereas due to suitable topography and climatic conditions, the high- hill zone of the state is widely known for horticultural products, viz., apple, seed potato, apricot, grapes, ginger, dry fruits etc. The agricultural activities in the mid-hill zone bear similarity in some areas to that of low-hill zone while in

other areas to high- hill zone. Therefore present study is conducted in the mid- hill zone of the State, so the topography, climatic conditions, access to resources as well as cropping, income, consumption and employment pattern in the study area bear similarity to some area of low- hill zone while, other area to high- hill zone of the state. A sample of 200 households consisting of 90 marginal size of holding having land <1 hectare, 70 small size of holding having land 1-2 hectares and 40 medium size of holding having land above 2 hectares have been selected with the help of multistage random sampling. The required information has been collected from the sample households with the help of pre-tested schedule during 2002-03. After tabulating the data in homogenous categories and working out the averages and percentages, the following methods are applied with a view to find out the magnitude of poverty/ unemployment. In the present study 'poverty line' has been determined on the basis of the value of minimum nutritional requirements, i.e. 2400 calories per consumer unit per day as has been suggested by the Government of India, Planning Commission and Indian Council of Medical Research. Once the poverty line is determined, the second step is that of determining an 'Index of Poverty'. The value of minimum per consumer unit per day consumption basket (i.e. both out of home grown stock as well as out of purchases) has been calculated by multiplying quantities of different food items by their respective actual retail prices prevailing in the sample area during the period of investigation i.e. 2002-03. The total number of males, females and children of varying age have been converted into 'Standard Consumer Units' or 'adult male value' by applying the scale of coefficient suggested by the Indian Council of Medical Research, e.g. a family consisting of father, mother and three children aged 10, 8, 6 years has an 'adult male value' or consumption units of 4.9 (i.e. 1.6+1.2+0.8+0.7+0.6). In order to work out the value of 'poverty line' allowances have also been made to the minimum non-food requirements by working out the ratio of total non-food expenditure to the total food expenditure for each holding group.

RESULTS & DISCUSSION

The extent of relative poverty and inequality in the study area has been measured with the help of Head Count Ratio, Gini-coefficient and Sen's measures of poverty (1973, 1976 & 1981) as follows:

HEAD COUNT RATIO

Let n denote the total number of people in the community and q^* the number of people below the poverty line. The 'Head Count Ratio' (Hp) is then:

$$Hp = q^* / n$$

$$q^* = 234.6, n = 1448.5$$

$$\text{Therefore: } Hp = 234.6 / 1448.5 = 16.19 \text{ percent}$$

The percentage of poor comes out to 16.19 percent on the basis of 'Head Count Ratio'. But as a measure of poverty head count method is considered insensitive to the extent of aggregate shortfall in income from the poverty line as well as to the distribution of income amongst the poor.

THE LORENZ CURVE AND GINI-COEFFICIENT

Table- I shows the Distribution of monthly income among the sample households. To find out the extent of income inequality in the Lorenz curve technique the size of items and the frequencies are both cumulated and taking the total as 100, than percentages are calculated for the various cumulated values. Their percentages are plotted on a graph paper. If there were proportionately equal distribution of the frequencies over various values of a variant, the points would lie in a straight line. This line is called 'line of equal distribution'. If the distribution of items is not proportionately equal, it indicates variability and the curve would be away from the line of equal distribution. The farther the curve is from this line the greater is the variability in the series. A higher Lorenz curve implies more social welfare for the same total of income. The cumulated percentages of income and population of sample households when plotted on a graph paper and the resultant shape of the Lorenz Curve (see diagram -1) clearly indicates that the bottom 32.83 percent of the population is sharing about 11.26 percent of the total income at the one end and at the other end 46.76 percent of the total income is shared by the 70.04 percent of the population

TABLE- I: DISTRIBUTION OF MONTHLY INCOME AMONG THE SAMPLE HOUSEHOLDS

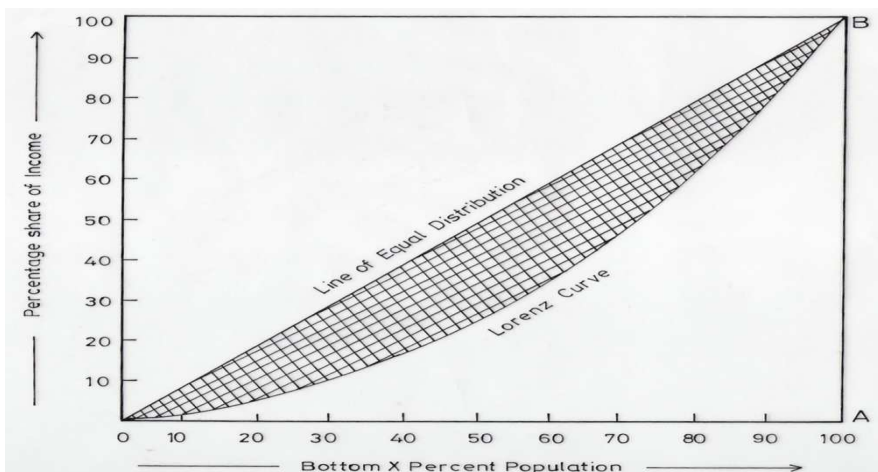
Income Classes (Rs.)	Monthly Household Income (Rs.)	Cumulated Income (Rs.)	Cumulated Percentage	No. of Persons	Cumulated Number	Cumulated Percentage
0-200	4791.67	4791.67	0.26	35.6	35.6	2.46
200-300	20815.84	25607.51	1.41	83.3	118.9	8.2
300-400	41050.56	66658.07	3.67	115.7	234.6	16.2
400-500	30030.4	96688.47	5.33	66.9	301.5	20.81
500-600	22612.5	119301.0	6.57	40.8	342.3	23.63
600-700	25602.3	144903.3	7.98	39.5	381.8	26.36
700-800	59476.17	204379.4	11.26	93.8	475.6	32.83
800-900	68541.6	272921.0	15.04	80.0	555.6	38.36
900-1000	43591.65	316512.7	17.44	45.1	600.7	41.47
1000-1100	66368.33	382881	21.09	63.8	664.5	45.88
1100-1200	122532.5	505413.5	27.85	106.3	770.8	53.21
1200-1300	76299.16	581712.7	32.05	61.3	832.1	57.45
1300-1400	89337.5	671050.2	36.97	64.5	896.6	61.9
1400-1500	82726.66	753776.8	41.53	57.1	953.7	65.84
1500-1600	94931.25	848708.1	46.76	60.8	1014.5	70.04
1600-1700	84218.33	932926.4	51.4	51.5	1066.0	73.59
1700-2000	128045.0	1060971	58.45	106.0	1172.0	80.91
2000-3000	470286.6	1531258	84.36	198.3	1370.3	94.6
3000-above	283790	1815048	100.0	78.2	1448.5	100.0

The income of the poorest among the poor is very low due to their small size of holdings and lack of regular non-farm employment opportunities.

The value of Gini – coefficient of the income distribution among all households has been calculated as follows:

Let Z be the mean income, Yi be the income of the ith person when income arranged in ascending order, so that $Y_i \leq Y_{i+1}$ for all i and n be the total number of people in the community.

DIAGRAM -1: LORENZ CURVE OF THE INCOME DISTRIBUTION OF ALL HOUSEHOLDS



$$G(y) = 1 + \frac{1}{n} - \frac{2}{n^2 z} \sum_{i=1}^n (n+1-i)Y_i$$

, where

G(y) = Gini-coefficient of the income distribution of all households
 n= population size (1448.5), z= mean income (1303.80)

$$\sum_{i=1}^n (n+1-i)Y_i = 863760661$$

, thus

$$G(Y) = 1 + \frac{1}{1448.5} - \frac{2}{(1448.5)^2 \times 1303.80} \times 863760661$$

$$1.00069 - 0.000000007311 \times 863760661$$

$$1.00069 - 0.6315 = 0.36919$$

$$= 36.92\%$$

The value of Gini-coefficient of the income distribution among the poor has been calculated as follows:

$$G(Y) = 1 + \frac{1}{q} - \frac{2}{q^2 z} \sum_{i=1}^q (q+1-i)Y_i$$

G(y) = Gini-coefficient of the income distribution of poor households
 q = number of poor below the poverty line (234.6), z = mean income of the poor (284.13)

$$\sum_{i=1}^q (q+1-i)Y_i = 6294820$$

Thus

$$G(Y) = 1 + \frac{1}{234.6} - \frac{2}{(234.6)^2 \times 284.13} \times 6294820$$

$$1.0043 - 0.000000128 \times 6294820$$

$$1.0043 - 0.80508 = 0.1992$$

$$= 19.92\%$$

The value of the Gini-coefficient of the income distribution of all household (i.e., 0.3691) if compared to the value of Gini-coefficient of the income distribution among the poor (i.e., 0.1992) clearly indicate that the inequality of income is higher in the former case as compared to the later because in the former case comparatively the value of Gini-coefficient is higher which shows relatively more skewed income distribution. The income of the poorest among the poor is low due to their small size of holding, higher the dependency ratio and lack of regular non-farm employment opportunities.

The value of Gini-coefficient for the consumer expenditure distribution on food items by all households has been worked out as follows:

$$G(c) = 1 + \frac{1}{n} - \frac{2}{n^2 z} \sum_{i=1}^n (n+1-i)c_i$$

G(c)= Gini-coefficient of the consumer expenditure on food items by all households
 n= total consumer units (1448.5), z= mean consumption expenditure (394.94)

$$\sum_{i=1}^n (n + 1 - i)ci = 337679020$$

ci= consumer expenditure on food items by the ith consumer unit , Thus

The value of Gini-coefficient for the consumer expenditure distribution on food items by poor households has been worked out as follows:

$$G(c) = 1 + \frac{1}{1448 .5} - \frac{2}{(1448 .5)^2 \times 394 .94} (337679020) \quad G(c) = 1 + \frac{1}{q} - \frac{2}{q^2 z} \sum_{i=1}^q (q + 1 - i)ci$$

$$\begin{aligned} &= 1 + .00069 - 0.815022 \\ &= 1.00069 - 0.815022 = 0.1857 \\ &= 18 .57 \% \end{aligned}$$

G(c) = Gini-coefficient of the consumer expenditure on food items by poor households
q= number of poor consumer units (666.2), z = mean consumption of the poor (281.83)
ci = consumer expenditure on food items by the ith poor consumer unit

$$\sum_{i=1}^q (q + 1 - i)ci = 54508260$$

, thus

$$G(c) = 1 + \frac{1}{666 .2} - \frac{2}{(666 .2)^2 \times 281 .83} (54508260)$$

$$\begin{aligned} &1 + 0.0015 - 0.000000159 \times 894 \times 54508260 \\ &1.0015 - 0.87155 = 0.12995 \end{aligned}$$

$$= 12 .99 \%$$

The value of Gini-coefficient of the consumer expenditure on food items of all households (i.e. 0.1857) if compared to the value of Gini-coefficient of the income distribution among the poor (i.e. 0.1299) also clearly shows that the inequality of consumer expenditure on food items is higher in the former case as compared to the later. But when the value of Gini-coefficient of income distribution (among all and poor also) is compared to the value of Gini-coefficient of the consumer expenditure on food items (by all and poor households) shows that the value of Gini-coefficient is higher in the former case as compared to the later mainly due to the reason that food being the bare necessity of life so a minimum amount of income has to be spent on it.

Distribution of monthly consumer expenditure on food and non-food items

The percentage expenditure on food and non-food items shows that the poor households spend most of their income on food items and a very little is left for meeting out the non-food requirements where as the 'not poor' household spend comparatively less on food items and proportionately higher amount on non-food items.

The value of Gini-coefficient for the distribution of consumer expenditure on food & non-food items by all households has been calculated as follows:

$$G(c) = 1 + \frac{1}{n} - \frac{2}{n^2 z} \sum_{i=1}^n (n + 1 - i)ci$$

, Where

G(c) = Gini- coefficient of the consumer expenditure on food and non-food items by all households
n= total consumer units (1448.5), z= mean consumer expenditure on food and non-food items by all households (526.43), ci= consumer expenditure on food and non-food items by the ith consumer unit.

$$\sum_{i=1}^n (n + 1 - i)ci = 442943840$$

, Thus

$$G(c) = 1 + \frac{1}{1448 .5} - \frac{2}{(1448 .5)^2 \times 526 .43} (442943840)$$

$$\begin{aligned} &= 1 + 0.00069 - 0.80204 \\ &1.00069 - 0.80204 = 0.1987 \\ &= 19 .87 \% \end{aligned}$$

The value of Gini-coefficient for the distribution of consumer expenditure on food & non-food items by poor households has been calculated as follows:

$$G(c) = 1 + \frac{1}{q} - \frac{2}{q^2 z} \sum_{i=1}^q (q + 1 - i)ci$$

G(c) = Gini- coefficient of the consumer expenditure on food and non-food items by poor households
q = number of poor consumer units (461.9), z = mean consumer expenditure of poor households (326.66)

$$\sum_{i=1}^q (q + 1 - i)ci = 31142028$$

$$G(c) = 1 + \frac{1}{461 .9} - \frac{2}{(461 .9)^2 \times 326 .66} (31142028)$$

$$G(c) = 1 + \frac{1}{461 .9} - \frac{2}{69693436 .9} (31142028)$$

$$\begin{aligned} &1.0022 - 0.8937 = 0.10852 \\ &= 10 .85 \% \end{aligned}$$

The value of Gini-coefficient for consumer expenditure on food and non-food items by all households has been worked out to be 0.1987 which is higher to the value of Gini-coefficient of the consumer expenditure by all households on food items (i.e. 0.1857). Thus the value of Gini- coefficient in both cases further support the hypothesis that as the income of the people increases percentage expenditure on non-food items increased proportion at a higher rate as compared to the percentage expenditure on food items. This is why in the present study too the degree of inequality in the consumer expenditure is higher when the food and non-food items have been taken together than the degree of inequality when consumer expenditure on food items alone has been taken into consideration Gini-coefficient is more opaque since it measures the distance between the diagonal "line of equal distribution" and the Lorenz Curve. Unlike in Lorenz comparisons, the Gini- coefficient comparisons are always conclusive, since one real number must be greater than, equal to or less than another. The result of poverty based on these measures provides a scope for policy being concerned with the relatively richer among the poor, ignoring the poorest among the poor.

The poverty measure has been modified by A.K. Sen by taking into account the following two factors:

- (1) We should be concerned not merely with the number of people below the poverty line but also with the amounts by which income of the poor fall short of the specified poverty level, and
- (11) The bigger the shortfall from the poverty level, the greater should be the weight per unit of that shortfall in poverty measure.

Sen's Measure of Poverty (1973)

Sen (1973) suggested the following measure to find out the number of poor household falling below the poverty line as well as the extent of poverty.

$$Ps = \frac{2}{(q^* + 1)nz} \sum_{i=1}^{q^*} (z - yi)(q + 1 - i)$$

, Where

Ps = Sen's measure of poverty, q* = number of households below the poverty (34)
 n = total number of households in the community (200), z = value of the poverty index (387.45)

$$\sum_{i=1}^{q^*} (z - yi)(q^* + 1 - i) = 108535.1$$

$$\frac{2}{(34 + 1)(200 \times 387.45)} (108535.1)$$

$$= \frac{2}{35 \times 77490} (108535.1) = \frac{2}{2712150} (108535.1)$$

$$= 0.00000074 \times 108535.1 = 0.08031$$

$$= 8.031$$

Ps Thus according to Sen's measure of poverty (1973), 8.03 percent of the total sample households are falling below the poverty line.

Sen's Measure of Poverty (1976)

Sen (1976) though in the same general tradition, presented a somewhat different formulation of the poverty measure (Ps*) for a large number of poor as follows:

$$Ps^* = q [1 - \bar{y}^- / z + \bar{y}^- / z G]$$

Ps* = Sen's measure of poverty 1976, q = head count poverty ratio (0.1619), \bar{y}^- = mean income of the poor (284.13), z = value of the poverty index (387.45), G = Gini coefficient of income distribution of the poor (0.1992), Thus

$$Ps^* = 0.1619 [1 - 284.13 / 387.45 + 284.13 / 387.45 \times 0.1992]$$

$$= 0.1619 [1 - 0.733 + 0.733 \times 0.1992] = 0.1619 [1 - 0.733 + 0.146]$$

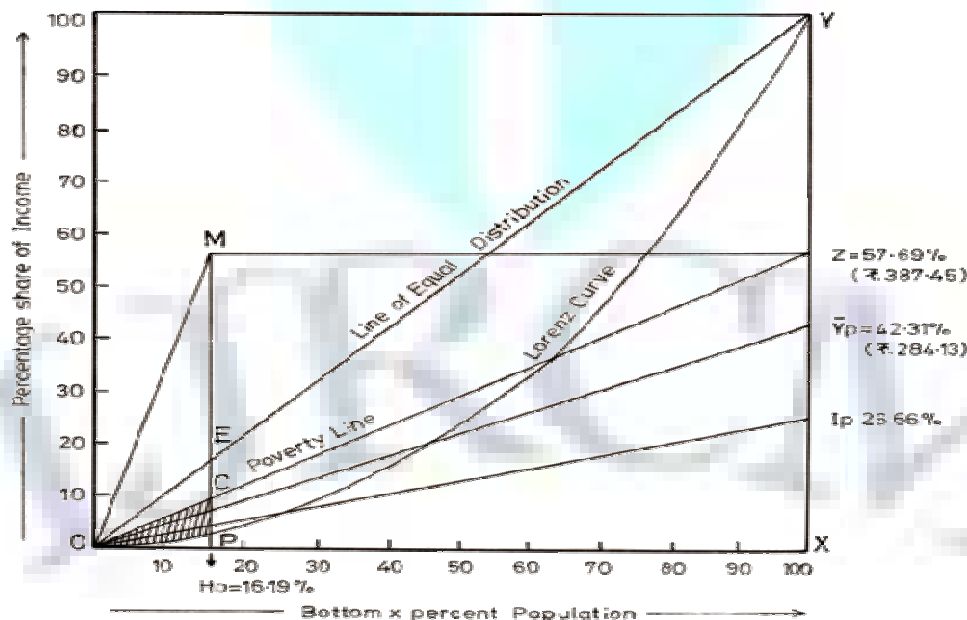
$$= 0.0669$$

In the present context the percentage of poor following below the poverty line according to Sen's measure of poverty (1976) has been worked out 6.69 percent.

Diagrammatic Representation of Poverty by Different Methods:

Diagrammatic representation of Gini – coefficient, Income Gap Ratio and Sen's poverty has been presented in diagram II. The rectangular arm OA and OY of the Lorenz triangle in diagram II measure the accumulative proportion of the number of recipients and that of income received by the poor households, when the individual income are arranged in ascending order. The arms usually equal as the scales for both the proportion are taken to be the same. The curve OPY represents the actual distribution of the cumulative proportions. The diagonal OY represents the line of equal distribution if the poor households receive income equal to \bar{Y}^- (i.e. Rs. 284.13). The ratio of the area OPY to the area OXY yields the Gini-coefficient of concentration of income among the households.

DIAGRAM –II: DIAGRAMMATIC REPRESENTATION OF GINI- COEFFICIENT, INCOME GAP RATIO AND SEN'S POVERTY



The proportion of people living below the poverty line is Hp (i.e. 16.19%) is shown in the diagram II by OD and after erecting a vertical line DPE with point P on the concentration curve and point E on the diagonal OY. The area of inequality is thus cut into two parts: (a) One concerning the poor and (b) the other concerning the non-poor when we join the points O and P, a straight line OP will represent the line of equality among the poor. The height DP is smaller than OD because P proportion of people (who are poor i.e. 16.1%) will have q proportion of total income (i.e. 284.13). The ratio of the area OMP to the area ODP gives us Gini-coefficient measure of inequality among the poor households.

$$Gp = \text{area OMP} / \Delta ODP$$

Where Z is the upper limit that a poor can have, it is greater than the mean income of the poor (\bar{Y}^-). In short $Z > z > \bar{Y}^-$ (where \bar{Y}^- is the mean income of the total sample population, Z is the poverty index of the poor and \bar{Y}^- is the mean income of the poor). If every poor were on the poverty line, the line of

cumulative distribution would some where between OE and OP. In the present study it is shown by OZ. Income gap ratio (Ip) in the present diagram .has been represented by line Olp. In diagram II if the line of cumulative distribution are (a) OC, there is no poverty and no inequality among the poor, (b) OP, there is no poverty and no inequality among the poor, (c) ODC there is absolute poverty but no inequality among the poor households and OMP, there is poverty as well as inequality among the poor.

Sen's Measure of Poverty (1981)

According to Sen the measure of poverty (1981) satisfies the monotonicity axiom, the weak transfer axiom and the focus axiom. Where as other measures of poverty satisfy only one or the other condition. Monotonicity axiom says that given other things, a reduction in income of someone below the poverty line must increase the poverty measure. Where as the weak transfer axiom says that a pure transfer of income to a poor person below the poverty line must reduce the poverty measure. The head count measure (Hp) violates both the monotonicity axiom and the weak transfer axiom. Hp is invariant with respect to both the fall of the income of a poor person and to transfer of the kind envisaged in the weak transfer, axiom. In fact, a reverse transfer, i.e. from the poor to some one richer, will either leave Hp unchanged or make it go down but will never make it go up. The income gap ratio (Ip) satisfies the monotonicity axiom, but violates the weak transfer axiom. The focus axioms is motivated by the view that the poverty measure is a characteristic of the poor and not of the general poverty of the nation. It does not however try to reflect the relative burden of poverty viz, what proportion of income of the rich would be needed to wipeout the poverty gap of the poor, since that is clearly caused by the rich being richer, even when all the poor remain just as poor and miserable.

Sen (1981) suggested the following measure to find out the number of poor falling below the poverty line.

$$P = H [1 - Y^* (1 - G) / \pi] \text{ Where}$$

P= Sen's measure of poverty (1981), H= Head count ratio (0.1619), Y*= Mean income of the poor (284.13)

G= Gini coefficient of the poor (0.1992), π = poverty line. (387.45),

$$P = 0.1619 [1 - 284.13 (1 - 0.1992) / 387.45]$$

$$P = 0.1619 [1 - 284.13 \times 0.8008 / 387.45] = 0.1619 [0.403] = 0.0652$$

According to Sen's measure of poverty (1981), 6.52 percent of the population falls below poverty line in the study area.

Income Gap Ratio (Ip)

Income Gap Ratio is a simple measure of poverty. It is related with the aggregate shortfall of income of the poor from the poverty line. It has been referred to as the 'income gap ratio' or 'poverty gap ratio'. The measure Ip is usually defined as:

$$Ip = z - \bar{y}^p / z = 1 - \bar{y}^p / z, \text{ Where}$$

Ip= Income gap ratio or poverty gap ratio, Z= poverty line of the sample households (387.45), \bar{y}^p = mean income of the poor (284.13). Therefore

$$Ip = 387.45 - 284.13 / 387.45$$

$$Ip = 103.32 / 387.45 = 0.2666 \text{ (i.e. 26.67\%)}$$

Thus the income gap ratio or poverty gap ratio for the sample households has been worked out 0.2666 i.e. 26.67 percent.

Different Estimates of Relative Poverty with the help of various measures among the sample Household

The value of poverty estimates worked out among the sample household with the help of different poverty measures, viz; Head Count Ratio (Hp), Gini-coefficient of income distribution among the poor (G), Income Gap Ratio (Ip) and Sen's measures of poverty 1973 (Ps), 1976 (Ps*) and 1981 (P) have been presented in table II.

TABLE – II: POVERTY ESTIMATES WITH THE HELP OF DIFFERENT POSITIVE MEASURES

S.No.	Poverty Measures	Percentage of poor
1	Head Count Ratio (Hp)	16.19%
2	Gini- Coefficient Poor (G)	19.92%
3	Income gap ratio (Ip)	26.67%
4	Sen's measure of poverty (1973) (Ps)	8.03%
5	Sen's measure of poverty (1976) (Ps*)	6.69%
6	Sen's poverty line (1981) (P)	6.52%

The value of poverty estimate varies with the help of different measures among the sample household in the present study. Ps* and P are considered more reliable due to the reason that these two measures take into consideration not only the number of people below the poverty line but also the amounts by which the incomes of the poor fall short of the specified poverty level.

CONCLUSION AND SUGGESTIONS

The consumption pattern in rural area varies from place to place and from one region to other therefore present study is based on the day to day information on consumption expenditure throughout the full agricultural year. Further the results of the present study clearly indicate that there exist a lot of variations in the poverty and income inequality among the sample households. Income inequality is higher among all households as compared to poor households and the income of the poorest among the poor is very low mainly due to their small size of holding, higher level of dependency and lack of regular farm and non-form employment. In the study area there is a great scope for providing income and employment generating opportunities by developing horticultural activities, development of cottage and small scale industries, art and craft industries such as wool based industries, bamboo based industries, leather processing units, rope making, saw mills etc. But it is also observed that economic growth by itself does not lead to the containment of poverty. Along with economic growth some favorable legal and political institutions are needed for the containment and reduction of poverty.

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SUSTAINING EMPLOYEE ENGAGEMENT IN THE FACE OF CRISIS – A TEST OF LEADERSHIP AND INTRODUCTION OF A NEW MODEL

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ABSTRACT

Employee Engagement is ultimately an individual choice. It is entirely a personal decision on the part of an employee on whether to stretch himself (or herself) and offer an outstanding performance or to contribute at a minimum level, or be dysfunctional. The likelihood of employees remaining engaged and productive is more when the environment is relatively happy and stress free. At times of crisis however, the environment within the organization takes a turn for the worse, and it is during crisis period that leadership comes under stress. This paper analyses leadership and employee engagement and offers suggestions for better leadership strategies. This paper also introduces "Combo Leadership" as a possible strategy of customized leadership intervention, to reduce possible negativism in the organizational environment, in a situation where an external leader, brought in as a Change Agent in an ailing organization, causes the environment to not remain conducive to Employee Engagement, due to predominance in "Task Orientation" at the cost of "People Orientation". Combo Leadership proactively utilizes existing trust on an anchor and positive grapevine as means of establishing confidence within the organization.

KEYWORDS

Crisis, Combo Leadership, Engagement, Leadership.

INTRODUCTION

Rate of change today, in every sphere of life, continues to accelerate. With every passing day, organizations, world wide, are facing greater and greater complexity. Competition today has become relentless. The need for effective leadership therefore is critical for organizations to even sustain their effectiveness in the current scenario.

Most of the top management in the various organizations across the world are from the generation of "Baby Boomers" or early "Generation X", who have reached or are fast approaching the age of superannuation. A number of surveys across the world have indicated that most organizations have very little time to prepare and fill the void that would be inevitably created in a few years time, and that most organizations have shown little evidence that they will achieve it (RHR International 2005, Hay Group 2007, Wellins et.al. 2007).

The enormity of this problem becomes more compounded when you realize that the talent pool from which future leaders can be tapped is actually diminishing. In the book *War for Talent*, (Michaels et. al. 2001) it is opined that the number of 25-44 year olds has shrunk by 6%, but the overall employment numbers have increased by 12%. In a more recent update, McKinsey has asserted that the problems of the shortage of available talent are increasing (Axelrod et.al. 2001).

This brings us to the significance of the crisis. If there is a shortage of available leaders, how will organizations continue to have effective leadership?

This, coupled with the urgent need for organizations to be increasingly effective and competitive in delivering world class performance, while still controlling costs, it falls on the leaders to get more, more and even more from their staff.....not only in a cost effective way, but also in a way that does not reduce their motivation and well being. This is essential, not only from an ethical point of view, but also because, if productivity is at the cost of motivation or well being, the accruing benefits would definitely be short lived.

This raises the critical questions about the nature of leadership and the use of human and social capital in the organization.

It is perceived that the solution to this crisis is to capitalize on the social capital of the organization by leveraging employee engagement, by customizing leadership style to suit current and emergent organizational requirements.

NATURE OF LEADERSHIP

The word "Leadership" invokes a meaning in the mind and it has been used in three very different contexts. (Rost, 1993).

The first reflects the excellence theory of leadership. Leadership is "being the number one", leadership is "producing excellence". The second use of the word is as a substitute for "the collective leaders who are in office". Headline writers often use this. The third notion is that of one person directing other people, like the conductor exerting leadership over an orchestra.

Authors and Practitioners have defined leadership in very many ways right since the early 1900s. Most literature tends to focus on the psychological, personal and other characteristics that can make one person a more effective leader than another, including for example managerial mindsets and managerial roles.

Scherr and Jansen, 2007, in their research paper titled *A new Model of Leadership*, have defined leadership as that set of actions, including language actions (words), whether taken directly or by empowering others to act which fulfills visions, and produces results, outcomes, and consequences that otherwise would not have occurred.

They have modeled leadership on four aspects. A successful leader will create an environment or culture in which the four aspects of leadership are highly valued and are therefore nurtured, created, applied, and effectively implemented. The four aspects of leadership being as under:

- **VISION:** Creating a vision for the future – a vision that goes beyond what is predictably going to happen and therefore goes beyond what anyone now knows how to accomplish.
- **ENROLLMENT:** Enrolling sufficient numbers of others in making a voluntary and personal commitment to realizing the vision.
- **BREAKDOWN:** Creating systems that quickly identify and widely communicate the existence of breakdowns – any perceived gap between the committed vision and what predictably will be accomplished given current circumstances and knowhow that is seen as a threat to the realization of the vision. Widespread awareness of a breakdown increases the likelihood that a solution – a breakthrough – will be discovered or invented.
- **MANAGING BREAKDOWNS:** Creating an environment that successfully resolves the breakdowns. Such an environment supports people in the organization (on the team if it is a project) so they renew their commitment to the realization of the vision in the face of the breakdowns.

Joseph Rost (1993), in his book *Leadership for the Twenty-First Century* has said, "Leadership is a relationship among leaders and followers who intend real changes that reflect their mutual purposes." From this definition, Rost explains four essential elements that must be present if leadership exists or is occurring:

1. The relationship is based on influence.
 - a. The influence relationship is multidirectional.
 - b. The Influence behaviours are noncoercive.
2. Leaders and followers are the people in this relationship.
 - a. The followers are active.
 - b. There must be more than one follower, and there is typically more than one leader in a relationship.
 - c. The relationship is inherently unequal because the influence patterns are unequal.
3. Leaders and followers intend real changes.

- a. *Intend* means that the leaders and followers purposefully desire certain changes.
 - b. *Real* means that the changes the leaders and followers intend must be substantive and transforming.
 - c. Leaders and followers do not have to produce changes in order for leadership to occur. They intend changes in the present; the changes take place in the future if they take place at all.
 - d. Leaders and followers intend several changes at once.
4. Leaders and followers develop mutual purposes.
 - a. The mutuality of these purposes is forged in the noncoercive influence relationship.
 - b. Leaders and followers develop purposes, not goals.
 - c. The intended changes reflect, not realize, their purposes.
 - d. The mutual purposes become common purposes.

LEADERSHIP IN TIMES OF CRISIS

Any crisis brings in questions pertaining to short-term survival as well as long-term sustainability. When leaders are pressed by demands to cut costs and increase efficiency, many leaders scramble to revise strategies, reduce headcount, categorically cut budgets, or simply changed their stated priorities and hoped for better results. Most simply ignore the power of talent within their organizations.

Pricewaterhouse Coopers and Franklin Covey, 2010 say that this could be a big mistake. Uncertain economic realities only increase the need for consistent and dependable strategy execution. Successful leaders recognize that a more effective and sustainable approach lies in narrowing their focus to what is most important. They enhance their ability to execute on a few critical goals by instilling basic behaviours and disciplines into their organizations that will unleash the talent inherent in their workforce.

Execution focused leadership fuses a system of execution with a principled, participative decision-making style that unleashes employee talent, inspires trust and motivation and consistently delivers remarkable results.

Franklin Covey's 4 Disciplines of Execution™ summarize as under:

- Focus on a few critically important goals
- Act on the lead measures that impact goal achievement
- Measure success and motivate employees through visible, compelling scoreboards.
- Hold one another accountable through a weekly "cadence" of accountability.

Execution, as per Pricewaterhouse Coopers /FranklinCovey (2010), is the discipline that empowers an organization to accomplish its strategic objectives. It is a systematic process that requires leaders to precisely identify and narrowly focus on the most impactful goals, concentrate teams' efforts on high impact actions, transparently share real time results, make timely course corrections, and ensure mutual accountability among team members. Effective execution is grounded in principles of clarity, commitment, translation of strategic goals to daily tasks, enabling sponsorships, synergistic teamwork, and accountability.

Execution focused leadership requires that the following principles are adhered to and answers to the relevant questions are in the affirmative:

- **Clarity:** Do we all know what is most important?
- **Commitment:** Do we believe in the goals and want to achieve them?
- **Translation to action:** Do we know what we have to do to achieve the goals?
- **Enabling sponsorship:** Do we remove barriers?
- **Synergy:** Do we work effectively together to improve our ability to achieve the goals?
- **Accountability:** Do we report results to one another regularly?

The benefits of a properly designed and consciously managed strategy execution are many, and it can help an organization to achieve short term goals and realize long term strategies. It can help boost efficiency by enabling an organization to more effectively align overall organizational objectives and allocate finite resources, time, and efforts to new initiatives.

While this strategy if implemented effectively would prove to be a boon in leading organizations in crisis, if it is not implemented in the right spirit and with adherence to all the above principles, transparency would become a major issue and commitment levels would wane to the extent that active disengagement would become a strong likelihood.

The success of leadership in times of crisis, depends largely on the relationship between the leader and the followers. This is a dynamic relationship and is ever-changing in its strength and affinity.

Leadership success today is definitely a celebration of teamwork, a celebration of employee engagement.

EMPLOYEE ENGAGEMENT

Engagement has been described (Robinson et al 2004) as "*a positive attitude held by the employee towards the organization and its values. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organization*".

Engagement therefore is ultimately an individual choice that an employee makes. It is entirely a personal decision on the part of the employee to either contribute to a minimum level of performance or to stretch himself (or herself) and offer a simply outstanding effort....or on the other hand to sabotage the positive efforts of the others in the team.

There have been a number of studies that have been carried out abroad, which show definite links between engagement and various measurements of financial success in organizations. (Sirota Survey Intelligence 2006, Towers Perrin 2005, Watson Wyatt, 2008). Moreover, high job and organization commitment, which are affected significantly by levels of engagement, also lead to reduced absenteeism and turnover.

It is interesting to note however that in one of the studies (Towers Perrin, 2005), it was found that *while people are keen to contribute more at work, the behavior of their managers and culture of their organizations is actively discouraging them from doing so*.

This discretionary effort on the part of an employee is contingent upon, not only on the intrinsic factors of the employees' psychological makeup, but also on the omnipresent but ever changing extrinsic factors of the organizational environment. That is where leadership plays a vital role. Leaders themselves have a significant impact on whether an employee would be engaged or not.

Employee Engagement is really a means to an end. That is, organizations that want to drive high levels of business success need motivated and engaged employees to get there. So it is of paramount importance for Leaders to be aware of the impact of their own behaviors in instilling higher levels of engagement. Research indicates that only 14% to 30% of employees are engaged at work. Unfortunately however, inspite of so much of interest shown in employee engagement, there is still a lot of disagreement about what employee engagement really is, and how to go about achieving employee engagement. There is still no available benchmark for what a realistic level of employee engagement is, which can be used as an authoritative scale.

In a situation of extreme competition, and continuous change, it is imperative for organizations "*to do more, with less*", and the only asset which can make that happen is the Human Capital, i.e. the employees. Experts claim that engaged employees do more, and therefore, to get more out of less, the simple logic would be that *managers simply get to engage their people*.

For organizations to be able to do that, leaders need to understand the factors that drive employee engagement. That way they are better equipped to create conditions that are conducive to drive higher levels of organizational performance. Following is the summary of factors that drive employee engagement and the personal investment that employees make in an organization (Molinaro & Weiss, 2005):

1. **Being part of a winning organization:** Everyone wishes to be part of a winning organization. This could mean an organization that is financially successful, or that it is recognized as a thought leader among customers, or that the organization has an ambitious vision, core purpose, and well articulated business strategy in place.

2. **Working for admired leaders:** "Admired Leaders" are one of the most important non-monetary drivers of performance (Corporate Leadership Council, 1998). Organizations with a strong network of admired leaders, create the conditions for high engagement.
3. **Having positive working relationships:** Employees value positive working relationships with high caliber and professional colleagues.
4. **Doing meaningful work:** Meaningful work is often defined as work that makes a difference or has an impact to the organization. Employees often want to see how their work impacts the organization's vision and strategy. They also want to know that the organization's stakeholders are touched by their work.
5. **Recognition and appreciation:** Recognition may mean monetary rewards and compensation, but it can also refer to the appreciation and direct feedback that employees receive from their managers. This recognition and appreciation demonstrates that employees are valued and that their contribution is acknowledged by their organization. Recognition also means that leaders notice the "often unnoticed" things that employees do, to make their organization successful.
6. **Work-Life Balance:** Organizations that create cultures that value work-life balance, and assist employees to achieve the same are rewarded with highly engaged employees. Work-life balance does not mean that employees are not loyal, nor committed to their organizations, it means that employees want to lead whole lives, not lives solely centered on work.

Firms win in the market when they develop human resources in a way that is not easily replicated by their competition. Theresa M. Welbourne, has suggested a role based performance model as an option for providing definition of the behaviours of employee engagement. She defines five key roles that employees occupy at work:

- Core job-holder role – whats in the job description
- Innovator role – improving process, coming up with new ideas
- Team Member role – participating in teams
- Career role – learning, engaging in activities to improve personal skills and knowledge
- Organizational member role – citizenship role or doing things that are good for the company

The roles that are not easily copied are the non-core job roles. When employees put in enough time within an organization to understand how to innovate, they add value that a new employee cannot contribute.

When employees are part of a team and all team members develop company-specific knowledge, that asset is something that cannot be easily copied by a competitor. As employees move from job to job within the organization and they build their own company-specific career knowledge, or as they teach others within the firm, the advantages of this firm-specific, career-based action cannot be easily imitated by another organization. When employees understand the inner workings of the organization, and they begin to engage in behaviors that support the company overall (instead of just their own job), this type of activity is not easily replicated by another organization, and these behaviors bring high value.

However, on the opposite side of the spectrum, if a company values only the core job role, and employees engage in behaviors exclusively associated with the core job, these jobs are very easy for competitors to copy. It is a simple matter to replicate this type of company, hire employees in another region or country who can be paid less money, and then compete with the original employer.

LEADERSHIP IN A CHALLENGED ORGANIZATION

The enormous complexity of current organizations and the immense challenges that organizations are facing today, is forcing organizations to adapt their behaviors continually to sustain their competitive advantage. The need for change induces a high degree of stress (Kets de Vries & Balazs, 1998; Liechtenstein, 2000).

Changing mindsets is never easy, and usually a strong jolt is required to trigger action. Awareness of the need for change is achieved most effectively when the organization come under pressure.

This pressure from external sources come in the form of threats from competitors, declining profits, decreasing market share, scarcity of resources, deregulation, technological demands, and problems with suppliers and groups of customers (Kets de Vries, 2001).

NEGATIVE LEADERSHIP

In circumstances such as these, organizations at times bring in a new leader in the form of a "Change Agent", who is expected to implement sweeping changes in established systems, with a view to increase productivity or reduce costs in a relatively short span of time.

This extent of performance pressure in the new leader, quite naturally increases "task orientation" at the cost of "people orientation" as per the Blake & Mouton Managerial Grid and as a result, this quite often this introduces negative leaders in the system.

The first kind of negative leadership is by "Transactional Leaders", described by Northouse (2001) as leaders who do not focus on the individual needs of their followers, but instead look to exchange things of value to advance their own and their subordinates' agendas. It focuses on the exchange between leaders and followers, with both parties receiving something of value (Boerner et.al. 2007). This give and take philosophy used by transactional leaders also makes use of negative motivation, which focuses on negative feedback, threats, or disciplinary action (Bass & Steidlmeier, 1999).

The second kind is by "Destructive or Toxic or Dysfunctional Leaders", who, whether intentionally or unintentionally cause separation, division or unrest within teams. Research has also shown a connection between toxic leadership tendencies and charismatic tendencies (Lipman – Blumen, 2005). This negative leadership comes as a result of the charisma, charm, intelligence and influence of the leader; the hero worshipping admiration of the followers and also an environment which supports such negative behaviors (especially in times of crisis and overbearing challenges).

THE "CATCH-22" SITUATION

These elements ultimately result in feeding the power of the negative leader (Klein & House, 1995). Lipman-Blumen (2005) have also suggested that the toxic leader will use charismatic tendencies to manipulate, isolate, and ostracize his or her followers. This is precisely where camaraderie and team work is affected and transparency and employee engagement take a back seat.

Often this causes a high drama in the organization, where emotions run high; and anxiety, sabotage and gossip prevail. This causes an interesting Catch-22 situation. The attention is drawn away from the leader and onto the dysfunctional team. The negative leader then continues with his toxic inputs without check. When the leader is then called upon to intervene and set right the dysfunctional team, he almost always turns to his devoted followers, at the cost of the other members of the team.

This invariably leads to sudden attrition, or slow down, and an overall dampening of the motivation level of the team, which ultimately plummets the overall engagement level of employees, and given the negative environmental conditions prevailing in the organization, in the first place, this more often than not causes a drain of resources.

Gallup has estimated that a typical organization has \$3,400 in lost productivity for every \$10,000 of payroll due to "disengaged employees" – one of the primary symptoms of dysfunctional toxic leaders (Buckingham and Coffman, 1999). Negative leadership can have high human and financial costs by disengaging employees who are more likely to resign and increase turnover in the organization, with consequent higher search, hiring and training costs (Branham, 2005). The false perception of the negative leader's high performance is unmasked by hidden costs in the organization, or by the "carcasses of those who work for them" (Reed, 2008:68).

This brings us to the crux of the problem. Another Catch-22 situation. The New Leader seems to be a boon for the organization because:

1. His task orientation has resulted in an improving trend, which is what the Top Management vehemently desires (the prime reason why he was brought in....in the first place).
2. Old mindsets are definitely changing and the initial resistance to change is crumbling. Another trend that the Top Management vehemently desires.
3. Discipline is being enforced at last and responsibilities are being continually vetted.

4. Low productivity is being discouraged by weeding out the straggling employees and fresh talent is being inculcated.

But on the other hand:

1. Teams are disintegrating and silos are coming up.
2. Sense of ownership has reduced and employees seem to be more concerned with "passing the buck".
3. Camaraderie has reduced.
4. The Happiness Quotient in the organization has significantly diminished.
5. Employee Engagement has taken a back seat.
6. Motivation levels across the organization is dismally low.
7. Fear psychosis is at a peak and performance levels of even star performers is diminishing.

Such a situation is apparent in many organizations that have not been able to manage negative leadership, especially when the same is demonstrated by a new incumbent, who was brought in to set right the ailing organization in the first place.

By the time the Board intervenes to rectify the detrimental effects of this negative leadership, it is already too late and redeeming motivation and productivity levels becomes a very long drawn and costly exercise.

So what is the recourse to this very common problem: that of reducing the effect of negative leadership.....especially when the negative leader cannot be immediately removed from the system.

INTRODUCING COMBO LEADERSHIP

Combo Leadership is being presented here as a strategy which is willfully executed, as a customized leadership intervention, in a situation where an external leader has been brought in to play the role of "Change Agent" in an ailing organization, and where there is a likelihood that the Change Agent may end up displaying negative leadership behavior. Combo Leadership, it is felt, would also aid in Leadership Grooming, when the new leader is a promotee from within the organization.

Combo leadership utilizes the position power of a second leader, who has an equal or higher rank than the incumbent. Ideally, he should be a full time member of the Board, who has been in the system (organization) for long and enjoys positive vibes with the workforce.

The Combo Leader plays the role of an indirect mentor for the workforce at large. His role is more of a tacit auditor for the Change Agent (or the new leader), and a pressure valve for individual members of the workforce.

Any turnaround strategy, executed over a short time span necessitates hard decisions to be taken at times, in the form of stringent guidelines, enforcements and weeding out of non-productive and less-productive team members. Each of these hard decisions, affect individual employees. Yet the cascading repercussions are never individual, but felt across the organization in the form of "group mind".

Multiple separations over a short span of time immediately makes the entire workforce assume that their "jobs are at stake". A couple of disciplinary proceedings immediately fires the Trade Union into raising slogans of "exploitation and autocracy". Introduction of a single austerity measure immediately triggers depression across the length and breadth of the workforce.

In such volatile environment, employees normally deal with the situation by either fanning the "group mind" or by withdrawing into a shell. Both these behaviors are detrimental to the organization, and left unabated, it only leads to a point of no return, where redemption is either extremely costly or extremely time consuming.

Combo Leaders act as pressure vents by being available as a transparent and fair listener and mentor for individual employees.

Mentoring is a process for the informal transmission of knowledge, social capital, and the psychosocial support perceived by the recipient as relevant to work, career, or professional development; mentoring entails informal communication, usually face-to-face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom, or experience (the mentor) and a person who is perceived to have less (the protégé). (Bozeman & Feeney, 2007)

Top Management is often skeptical to introduce such a mentor in a volatile environment for fear of being overburdened by grievances. In real situations however, not very many individuals from the workforce actually come forward to air their grievances. However, the few that do, are enough to fan the grapevine with positive feedback of the Mentor, thereby automatically easing the stress caused by the negative leadership.

It can be argued that encouraging individual discussions with disgruntled employees, would be detrimental to the overall focus of the organization, especially when it is a follow through of a thought out and strategic "hard decision".

The counter argument is that the Combo Leader focuses on giving a patient hearing to the disgruntled employee, without making any value judgments. He acts also as a source of factual information and Top Management Vision. He plays a vital role in dissemination of information which focuses on long term strategy of the Organization and possible roles of the team member concerned.

The Combo Leader further strives to nurture the core competencies of the team member, which are relevant for organizational success, and motivated the team member to excel in his professional domain.

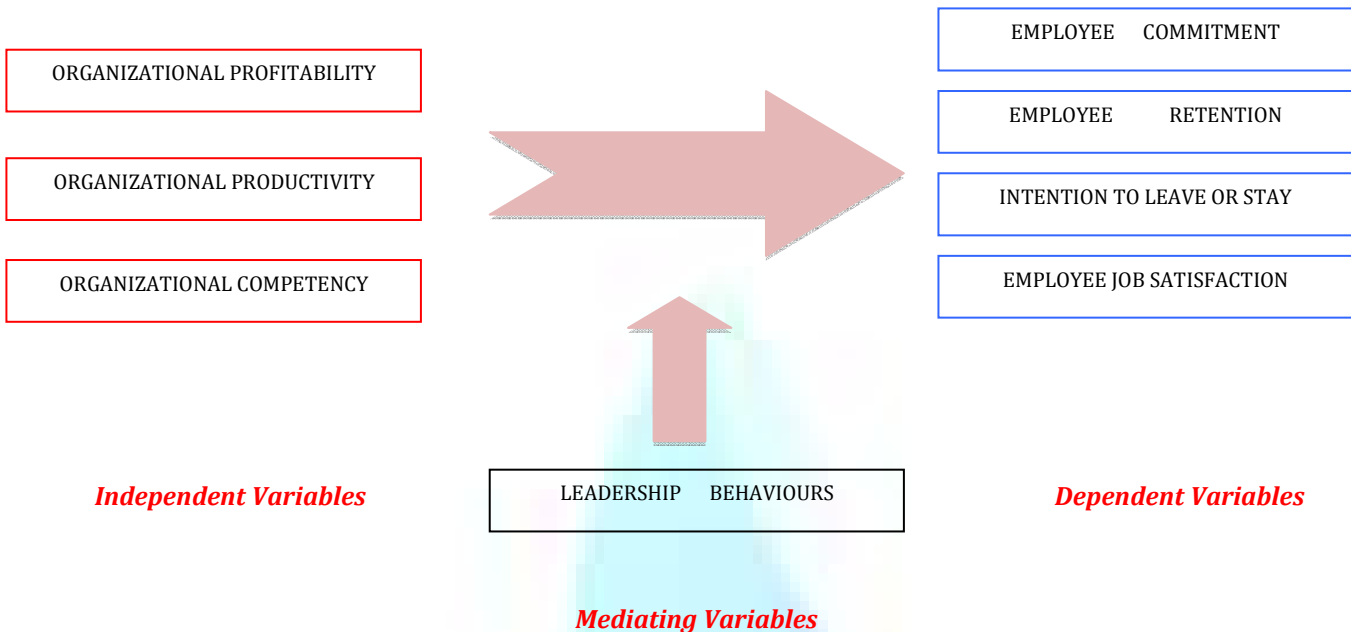
The culture of an organization stems from the top, and the Combo Leader has the opportunity to be seen as the custodian of employee goodwill. By portraying transparency, the Combo Leader strengthens the hand of the Change Agent, by complementing his efforts. As a silent auditor, he also picks up clues for appraising the Change Agent of the state of the Human capital in the Organization.

THE CHALLENGES OF COMBO LEADERSHIP

Since this concept involves two unique power centers in the organization, it needs to be handled with maturity and foresightedness, for the long-term benefit of the organization. This is possible when it has complete buy-in of the Top Management (the Board) and there is adequate information flow between its members. It requires also the perseverance of the individuals concerned to give precedence to organizational requirement over personal satisfaction.

THE CONCEPTUAL FRAMEWORK

The conceptual framework organizes and aligns the concept. It depicts the relationships of the various theoretical constructs and variables as under:



Since Leadership Behaviors are mediating variables, the continued success of an organization, especially one which is exposed to major upheaval due to emergent changes in work processes and conventions, spearheaded by a leader who is very strongly "Task Oriented", at the cost of "People Orientation", depends on an equally competent Combo Leader, who can mitigate the ill effects of negative leadership, so that Employee Engagement levels continue to peak, resulting in continued Organizational Sustainability and Excellence.

CONCLUSION

While most Leadership Theories so far, have taken a TOP-DOWN approach, the concept of Combo Leadership is fundamentally a BOTTOM-UP approach, and it tries to present a model of customizable leadership style, which focuses specifically on positive Employee Engagement, as an outcome. Although Combo Leadership has been demonstrated in a few Indian Organizations as an emergent Leadership style, which manifested spontaneously as the result of turbulence within the organization, its merits cannot be undermined, especially when it is executed as a strategic intervention.

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AN EXPLORATORY STUDY ON CONSUMERS' ENVIRONMENTAL ATTITUDE ABOUT GREEN ELECTRONIC PRODUCTS IN ANKLESHWAR

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ABSTRACT

This study intends to contribute to the body of knowledge in the area of green product attitude, within the domain of green marketing, where all activities are redesigned to generate and to facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs or wants occurs, with minimal detrimental impact on the natural environment. Therefore, this study intends to identify the influence of three independent variables including; perceived government legislations, media exposure, and safety and health concerns on the environmental attitude towards lead-free electronic products. Other objective of this study is to compare the demographic with attitudes towards the environment and green products. Through a self-administered questionnaire among 91 businessmen, from Gujarat Industrial Development Corporation (GIDC), Ankleshwar, the study found some revealing insights. Through the results of this study, it was observed that perceived government legislation and media exposure influence environmental attitude. As for safety and health concerns exhibited a significant positive influence on businessmen's environmental attitude.

KEYWORDS

Attitude, Green Electronic Products, Perceived government legislations, Media Exposure, Safety and health.

INTRODUCTION

The current rapid growth in the economy and the patterns of consumers' consumption and behavior worldwide are the main cause of environmental deterioration. This in turn causes environmental deterioration through over-consumption and utilization of natural resources. The consequences of environmental degradation are global warming, depletion of stratospheric ozone layer, pollution of sea and rivers, noise and light pollution, acid rain and desertification (Ramlogan, 1997). Grunert (1993) reported that about 40% of environmental degradation has been brought about by the consumption activities of private households. As the environment continues to worsen, it has become a persistent public concern in developed countries. As the environment continues to worsen, it has become a persistent public concern in the developed countries and has recently awakened developing countries to the green movement. Therefore, the phenomena of this study reveals the dark side of high technology, polluted drinking water, waste discharges that harm fish and wildlife, high rates of miscarriages, birth defects, and cancer clusters in another word it has a direct impact on the environment and an indirect impact on the consumer via drinking water. However, this study intends to identify the problem of pollution, which is caused by the disposal of high-tech electronic products at the end of the products life cycle. Hence, businessmen are considered relatively heavy users of electronic products; therefore, their attitude towards purchase of green electronic products and in this case Lead-free electronic products is the focus of the study. (T. B. Chen & L. T. Chai, 2010)

For example, The number of computers in India: +/- 14,000,000 (growth: 25 % per year). Each one of these PCs is a TOXIC Trap. Workers working in chip making facilities are likely to be exposed to toxic chemicals that may lead to cancer, miscarriage, birth defects etc. Many manufacturing sites of chips generate hazardous wastes and contaminate ground water; for every 2 gm of chip about 1260 gm of chemicals and materials are used. EOL PCs contribute to the mounting "electronics" waste EOL PCs find their way to many Asian countries including India for Recycling where workers are exposed to toxins leading to damage to the central nervous system, endocrine disruption, interference with brain development and organ damage. A typical computer monitor with a cathode ray tube contains 2-4 Kg of Lead, as well as phosphorus, barium and Chromium. (L. Ramakrishnan, 2006)

This paper is essentially exploratory in nature and has two objectives. The first objective is to compare the demographic of gender with attitudes towards the environment and green electronic products. This study also intends to explore factors that influence businessmen's environmental attitudes, which is measured by three independent variables; perceived government legislations, media exposure safety and health concerns.

LITERATURE REVIEW

A. ENVIRONMENTAL ATTITUDE

Widespread environmental concern has not disappeared among the public as predicted by social scientists, such as Downs, in the early 1970s. Instead, it rose dramatically in the 1980s, and by the spring of 1990, public environmental concern had reached unsurpassed levels [Dunlap, R. E. & R. Scarce. (1991)]. However, recent research suggests that despite high levels of "green attitudes" environmental concern has failed to translate into widespread environmental action [Dunlap, R. E. & R. Scarce. (1991)] & [Von Alvensleben, R. and M. Altamann (1986)]. More than two decades of environmental attitude, research has resulted in a multitude of studies dedicated to discovering the social determinants of environmental attitudes [Van Liere, K.D. & R.E. Dunlap. (1981)] & [Buttel, F.H. (1987)]. In addition, Wall, Glenda. (1995) argued that during the last few decades, the relationship between human beings and the environment has been an important issue because natural resources have been used up at a faster pace than they can be restored. However, it seems that much less consistency has been found between environmental concern and environmental behavior [Olli, E., Grendstad, G., & Wollebaek, D. (2001)]. That is, individuals expressing high levels of environmental concern and pro-environment attitudes often display behaviors and actions that have low levels of congruency with their expressed views. Moreover, many of the variables that shows some consistency with respect to environmental attitudes, display weak or inconsistent relationships to environmental behaviors [Diekmann, A. & Preisendorfer, P. (1998)]. It can be defined as a group of specific customer features that may influence their environmental attitudes and behavior, such as their environmental knowledge, need specificity, and cultural environment. Moreover consumers' environmental attitude also checked through vendor characteristics like, store reputation, size of store, physical location etc. and product characteristics like, price, looks and design, dimensions, brand, product customization, quality etc.

B. PERCEIVED GOVERNMENT LEGISLATIONS

According to Peck, S. & Gibson, R. (2000) anticipating rising world demand for environmental marketing, services and systems is also an obligation and opportunity for government. Indeed, there is a crucial role for government in facilitating the transition to an economy that is much more efficient, much fairer and much less damaging. Governments that lead will be in a stronger position to set the agenda and establish advanced positions for their industries and their citizens. Countries that lag behind will inevitably face increasing competitive disadvantage and lost opportunity. Hence, the growing public concern over the environment creates an enormous amount of pressure on governments to act whether this action is based on market initiative and cost effectiveness or legislatively mandated command and control will make a huge difference in the ramifications for the industry, consumer and the general economy [Cyrus H. Tahmassebi. (2003)] as with all marketing related activities. According to Polonsky, Michael Jay. (1994) governments want to "protect" consumers and society; this protection has significant green marketing implications. Governmental regulations relating to environmental marketing are designed to protect consumers in several ways;

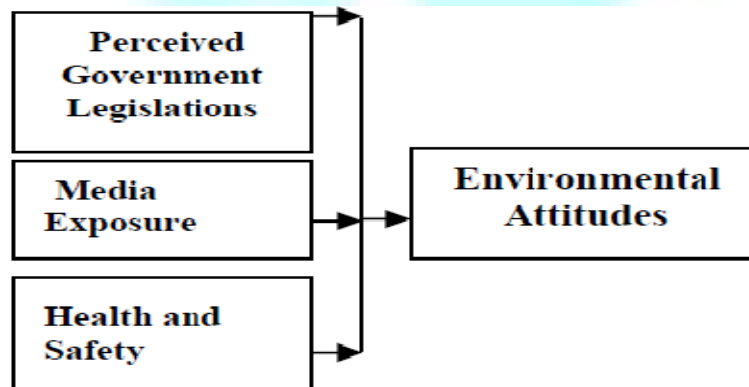
- Reduce production of harmful goods or by-products.
- Modify consumer and industry's use and/or consumption of harmful goods.
- Ensure that all types of consumers have the ability to evaluate the environmental composition of goods. In some cases governments try to persuade consumers to become more responsible. For example, in the United States of America governments have introduced voluntary curb-side recycling programs, making it easier for consumers to act responsibly. In other cases governments tax individuals who act in an irresponsible fashion. For example in Australia there is a higher gas tax associated with leaded petrol.

C. MEDIA EXPOSURE

Most researchers agree that media have played a major role in the widespread dissemination of environmental concern. Lowe, P.D. & W. Rudig. (1987) & Lowe, P. & D. Morrison. (1984), the amount and type of media coverage of environmental disasters and conflicts has helped transform many specific problems into a major public issue. Hence, Mazis, Michael B. & Mary Anne Raymond. (1997) argued that advertisers use a variety of media to communicate product benefits to a target audience. For example, television commercials may be used for product demonstrations, print advertisements may be used to communicate information that is more detailed and to establish a brand image, and product packaging may be used to attract consumers at the point of sale [Blech, G.E., Blech, M.A. (1995)]. The uses of these media are often coordinated into a single integrated communications campaign. However, Schultz, P.W. & Lauterborn, Z.C. (1993) defined media exposure as any opportunity for a reader, viewer, or listener to see or hear an advertising message in a particular media vehicle. Media exposure is an important driver of the innovation diffusion and has a significant impact on innovators [Bass, Frank M. (1969)]. Media exposure's most powerful effect on diffusion is that it spreads knowledge of innovations to a large audience rapidly [Rogers, E. M. (1962, 1995, 2003)]. According to DeFleur, M. & Everett Dennis. (1998), no one disputes the fact that media can help alter behavior and beliefs. What is important to keep in mind, however, is that most of those effects are small and, if truly effective, accumulative. In other words, tiny bits of information add up. Repetition of a message, its consistency over time, and apparent corroboration can help shift public opinion over the long-term. This process has helped change attitudes and behavior in a variety of contexts, some for the better, and some for the worse.

D. SAFETY AND HEALTH CONCERNS

Safety and health concerns are conceptualized as the consumer's concern for quality of life, health issues and the environment for humans and non-human species. However, it seems that given the broad problems that are defined as environmental issues, the probability that individuals will be affected by one or more of these issues is high [Dunlap, R. E. (1989)] & [Mitchell, R.C. (1990)]. In addition, there is also evidence to suggest that people believe environmental conditions are worsening for example, (water pollution, and air pollution) [Dunlap, R. E. & R. Scarce. (1991)]. Hence, concern for quality of life has given way, in many cases, to concern about health issues, and life itself, for human and non-human species [Dunlap, R. E. & R. Scarce. (1991)]. Thus, the diversity and intensity of environmental problems as experienced by the public, are themselves proposed as an explanation for the widespread nature of environmental concern. According to Wall, Glenda. (1995), safety and health concerns are considered the strongest predictor of attitude and behavior; her findings lend support to those researchers who claim that increasing concern with health and safety are becoming prominent factors in shaping people's attitudes towards the environment. However, Rundmo T. (1999) carried out a study aiming to analyze how health attitudes, environmental concern and behavior are influenced by risk perception. The findings of the study concluded that the respondents felt most unsafe regarding chemical food additives, infected food, industrial pollution and risks related to traffic behavior.

FIGURE 1: MODEL OF FACTORS INFLUENCING ENVIRONMENTAL KNOWLEDGE

Source: Iman Khalid A. Qader and Yuserrrie Zainuddin

E. GREEN CONSUMERS AND GREEN PRODUCTS

In general, green product is known as an ecological product or environmental friendly product. Shamdassami et al., (1993) defined green product as the product that will not pollute the earth or deplete natural resources, and can be recycled or conserved. It is a product that has more environmentally sound content or packaging in reducing the environmental impact (Elkington and Makower, 1988; Wasik, 1996). In other words, green product refers to product that incorporates the strategies in recycling or with recycled content, reduced packaging or using less toxic materials to reduce the impact on the natural environment. Krause (1993), in his research found that consumers were becoming more concerned about their everyday habits and the impact on the environment. The outcome of this is that some of the consumers translated their environmental concern into actively purchasing green products commitment (Martin and Simintiras, 1995). Consumers who are aware of and interested in environmental issues are called green consumers (Soonthonsmai, 2007). These green consumers usually organized petitions, boycotted manufacturers and retailers and actively promote the preservation of the planet (Fergus, 1991). Ottman (1992) reported that consumers accepted green products when their primary need for performance, quality, convenience, and affordability were met, and when they understood how a green product could help to solve environmental problems. The knowledge gap on the uses and values of green products prevents consumers from committing themselves to any purchase decisions. Table 1 reported some studies from different countries on green consumers.

F. DEMOGRAPHIC CHARACTERISTICS

Straughan and Roberts (1999) segmented college students based upon ecologically conscious consumer behavior and stated that the younger individuals were likely to be more sensitive to environmental issues. The results of their study indicated that the demographic variables such as age and sex were

significantly correlated with ecologically conscious consumer behavior when considered individually; and that income lacks significance. Green purchase intention correlates positively with every age and income except for education (Sooonthonsmai, 2001). Many studies have shown significant differences between men and women in environmental attitudes (Brown and Harris, 1992; Tikka et al., 2000) with men having more negative attitudes towards the environment compared to women (Eagly, 1987; Tikka et al., 2000). Women were more likely to buy green product because they believe the product was better for the environment (Mainieri et al., 1997).

Based on the foregoing literature, it can be argued that perceived government legislations, media exposure, safety and health concerns are all important predictors of environmental attitude. Hence, overall the following hypothesis was developed:

H1₀: Perceived government legislation has no significant positive influence on the consumer's environmental attitude.

H2₀: Media exposure has no significant positive influence on consumer's environmental attitudes.

H3₀: Safety and health concerns have no significant positive influence on the consumer's environment attitude.

H4₀: There is no significant demographic differences in environmental attitudes.

RESEARCH METHODOLOGY

A. SAMPLE

The population for this study consists of reputed businessmen from GIDC, Ankleshwar, which has been considered the oldest and biggest industrial corporation of India. Respondents will be businessmen from the companies which are ISO 14001 certified from Ankleshwar, Zhagadia and Panoli residences. Therefore, by using the simple random sampling method a list of names of entrepreneurs was obtained either from the directory book or from trade website, and once the population has been selected with 250 major ISO 14001 certified companies, 40% of the total number of businessmen would be drawn. Therefore, the target number of questionnaires need to be collected are 100. However, 96 were returned, 4 questionnaires were not returned and 5 were rejected due to incompleteness and were unusable. Hence, 91 completed sets would be used for the data analysis in this study there by giving a total response rate of 91%.

B. INDEPENDENT VARIABLES

Perceived government legislations: Perceived government legislations were measured by using the adapted measurements from Cordano, M., & Frieze, I. H. (2002) and Nielson, L.B. (1999) this means the respondents will have to give answers to six items for this variable. A five point Likert scale ranging from 1= strongly disagree to 5= strongly agree will be employed to measure perceived government legislations.

Media exposure: Media exposure was measured by Wray, R.J., Jupka, K., Ludiwg-Bell, C. (2005) using 10 items using media type-exposure questions, and dose-exposure questions. However, the measurements for this variable will be adapted from Wray, R.J., Jupka, K., Ludiwg-Bell, C. (2005) using eight items. Individuals will be asked whether they have been exposed to any advertisement through television, radio, newspapers and billboards, if the answer is yes individuals would be then asked how many times they have been exposed to that type.

Safety and health concern: Health and safety concerns was measured by Wall, Glenda. (1995) using 1 statement stating "Our food is becoming unsafe because of food additives" respondents were asked to give answers from 1= strongly disagree to 7= strongly agree. Rundmo T. (1999) used three items to measure health and safety, respondents were asked to give answers from 1= most unsafe to 5= extremely safe. However, the measurements for this variable will be adapted from Wall, Glenda. (1995) & Rundmo T. (1999) this means the respondents will have to give answers to 4 items on a scale ranging from 1= strongly disagree to 5= strongly agree.

C. DEPENDENT VARIABLE: ENVIRONMENTAL ATTITUDE

The measurement environmental attitude will be adapted from Maloney, M. P., & Ward, M. P. (1973). This means the respondents will have to give answers to 10 items for this variable. A five point Likert scale ranging from 1= strongly disagree to 5= strongly agree will be employed to measure environmental attitudes.

RESULTS AND FINDINGS

DEMOGRAPHIC PROFILE

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

Demographics	Classification	Frequency	Percentage
Gender	Male	58	63.74
	Female	33	36.26
Age	Below 25	2	2.20
	25-40	42	46.15
	41-60	35	38.46
	Above 60	12	13.19
Education	Undergraduate	4	4.40
	Graduate	51	56.04
	Post Graduate	30	32.97
	Other	6	6.59
Monthly Income	Below Rs.30000	4	4.40
	Rs. 30001-Rs.60000	36	39.56
	Rs. 60001-Rs. 100000	32	35.16
	Above Rs. 100000	19	20.88

Table 1 illustrates the demographic profile of the sample. It can be noticed that the sample is not balanced one with respect to gender where males represent 63.74% and females represent 36.26%. Age is constituted by middle age businessmen who represent 84.61% of the sample and which includes those who are 25-40 (46.15%) and those between 41 and 60 (38.46%); young respondents who represent 2.20% of the sample; and elders who represent 13.19% of the sample. Respondents with high educational level (university graduate, post graduate or professional degree) represent 89.01% of the sample. Those with above medium educational level represent 32.97% of the sample, and those with medium educational level represent 56.04%. Respondents exhibit different household income levels where 56.04% have high income level (more than Rs.100000 and from Rs. 60000 to 100000 monthly), 39.56% have above average income level (from Rs. 30000 to 60000 monthly), 4.40% have low or average income level (below Rs. 30000 monthly).

RELIABILITY STATISTICS

TABLE 2: RELIABILITY STATISTICS

Variable	Cronbach's α
Perceived Government Legislation	0.898
Media Exposure	0.921
Safety and Health Concern	0.782
Environmental Attitude	0.809
Overall	0.875

Reliability refers to the consistency of a measure of a concept (Bryman, 2004). It indicates how free a scale is from random error (Pallant, 2001). The reliability of the attitude scale was tested and resulted in a Cronbach's alpha 0.809. According to Bryman (2004, p.72), "the figure 0.80 is typically employed as a rule of thumb to denote an acceptable level of internal reliability". The result is shown in Table 2. Items of Perceived Government Legislation, Media Exposure and Safety & Health concern were tested in a Cronbach's alpha 0.898, 0.921 and 0.782 respectively. Cronbach's Alpha for all items was 0.875.

ANALYSIS OF HYPOTHESIS 1

H1₀: Perceived government legislation has no significant positive influence on the consumer's environmental attitude.

TABLE 3: RELATIONSHIP OF PERCEIVED GOVERNMENT REGULATION AND ENVIRONMENTAL ATTITUDE

3.1: Model Summary						
Model	R	R Square				
1	.852	.725				
3.2: ANOVA						
Model		Sum of Squares	F	Sig.		
2	Regression	45.967	11.499	.001		
	Residual	791.533				
	Total	837.500				
3.3: Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	35.378	2.179		16.240	.000
	Perceived Government Regulation	.339	.100	.234	3.391	.001

As shown in the Table 3, it provides correlation coefficients information for the regression models. The model entered all variables based on model of Iman Khalid A. Qader and YuserrieZainuddin (2010).

The first hypothesis of this model explained relationship between Attitude and Perceived Government Legislation. The model's coefficient of determination or R square ($R^2 = 0.725$) obtained indicates that 72.5% regression model of Environmental Attitude function can be explained by Perceived Government Legislation towards Green Electronics, while the remaining 27.5% are explained by other variables out of this model.

From the Table 3 (part 2) ANOVA, we can find that F value for the linear model is 11.499 ($.05 > \text{Sig.} = .001$), which can lead us to reject Null Hypothesis (H01). This result exerts that the first regression model with Perceived Government Legislation towards Green Electronics as the independent variables ($df = 1$) can be sufficiently used to predict Environmental Attitude.

Furthermore, the constants values " α " and " β " regression coefficients for this linear function are presented in the Table 3. Two approaches can be used to test the significance level: either by comparing t-value and t-table, or by comparing Sig. and α . In this analysis, both approaches were employed. Rules of thumb for this comparison pointed out that if $\text{Sig.} < \alpha = 0.05$, we can reject H_0 , and conversely, if $\text{Sig.} > \alpha = 0.05$, we cannot reject H_0 . Part 3.3 shows that as positive Perceived Government Legislation toward green products increase, Environmental Attitude increases, indicated a significant estimate ($t=3.391, p=0.001$). The corresponding beta coefficient indicated a positive effect ($\beta=0.234$). Thus, for attitude toward green initiatives and green electronics β coefficients are statistically significant or we can conclude that H_0 can be rejected.

ANALYSIS OF HYPOTHESIS 2

H2₀: Media exposure has no significant positive influence on consumer's environmental attitudes.

TABLE 4: RELATIONSHIP OF GREEN ELECTRONICS MEDIA EXPOSURE AND ENVIRONMENTAL ATTITUDE

4.1: Model Summary						
Model	R	R Square				
1	.768	.590				
4.2: ANOVA						
Model		Sum of Squares	F	Sig.		
2	Regression	52.482	13.237	.000		
	Residual	785.018				
	Total	837.500				
4.3: Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	34.508	2.270		15.204	.000
	Media Exposure	.379	.104	.250	3.638	.000

The second hypothesis of this model explained relationship between Green Electronics Media Exposure and Environmental Attitude. The model's coefficient of determination or R square ($R^2 = 0.590$) (Table 4: Part 1) obtained indicates that 59.0% regression model of Purchase Intention function can be explained by Green Electronics Media Exposure, while the remaining 41.0% are explained by other variables out of this model.

Looking at the Table 4 (part 2) ANOVA, we can find that F value for the linear model is 13.237 ($.05 > \text{Sig.} = .000$), which can lead us to reject Null Hypothesis (H02). This result exerts that the first regression model with Green Electronics Media Exposure as the independent variables ($df = 1$) can be sufficiently used to predict Environmental Attitude.

In part 3 of Table 4, it can be seen that as Green Electronics Media Exposure increase, Environmental Attitude increases, indicated a significant estimate ($t=3.638, p=0.000$). The corresponding beta coefficient indicated a positive effect ($\beta=0.250$). Thus, for Green Electronics Media Exposure β coefficients are statistically significant or we can conclude that H_0 can be rejected.

ANALYSIS OF HYPOTHESIS 3

H3₀: Safety and health concerns have no significant positive influence on the consumer's environment attitude.

TABLE 5: RELATIONSHIP BETWEEN SAFETY AND HEALTH CONCERN AND ENVIRONMENTAL ATTITUDE

5.1: Model Summary						
Model	R	R Square				
1	.894	.799				
5.2: ANOVA						
Model		Sum of Squares	F	Sig.		
1	Regression	32.409	31.538	.000		
	Residual	203.466				
	Total	235.875				
5.3: Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.265	1.499		8.181	.000
	Safety and Health Concern	.197	.035	.371	5.616	.000

The last hypothesis of this model explained relationship between Safety and Health concern and Environmental Attitude towards Green Electronics. The model's coefficient of determination or R square ($R^2 = 0.799$) (Table 5: Part 1) obtained indicates that 79.9% regression model of Environmental Attitude towards Green Electronics function can be explained by Safety and Health concern eco-friendly electronics, while the remaining 20.1% are explained by other variables out of this model.

Looking at the Table 5 (part 2) ANOVA, we can find that F value for the linear model is 31.538 ($.05 > \text{Sig.} = .000$), which can lead us to reject Null Hypothesis (H03). This result exerts that the first regression model with Safety and Health concerns as the independent variables ($df = 1$) can be sufficiently used to predict Environmental Attitude towards Green Electronics.

In part 3 of Table 5, it can be seen that as Safety and Health concern increases, Environmental Attitude towards Green Electronics increases, indicated a significant estimate ($t=5.616$, $p=0.000$). The corresponding beta coefficient indicated a positive effect ($\beta=0.371$). Thus, for Safety and Health concern coefficients are statistically significant or we can conclude that H_0 can be rejected.

Compared to coefficient of determination or R^2 , Adjusted R^2 is more reliable in measuring a regression model's goodness of fit. The main disadvantage of using coefficient of determination or R^2 is more to do with bias of number of independent variables included into the model, which implies that the more independent variable added into the model, the more R^2 increasing. Worst of all, this condition does not take into consideration whether independent variable included is significant or insignificant influencing dependent variable. Meanwhile, that situation will not apply in the case of using Adjusted R^2 . Based on the generated data, it has been demonstrated that Adjusted R^2 of the regression model tends to be very low.

ANALYSIS OF HYPOTHESIS 4

H4₀: There are no significant demographic differences in environmental attitudes.

TABLE 6: ENVIRONMENTAL ATTITUDE AND ITS RELATION WITH DEMOGRAPHICS OF RESPONDENTS (PEARSON CHI-SQUARE TEST)

	Gender	Age	Education	Income
Chi-square	13.192	15.114	19.049	38.953
Sig.	0.026	0.017	0.004	0.031
Hypothesis Outcome	Reject	Reject	Reject	Reject

As given in table 6, Pearson Chi-Square values examined association of all demographic variables with all ten items of Environmental Attitude. Analysis shows very high association of demographic factors with respondent's Environmental Attitude. All demographic variables, Gender ($p = 0.026 < 0.05$), Age ($p = 0.017 < 0.05$), Educational Qualification ($p = 0.004 < 0.05$) and Income ($p = 0.031 < 0.05$) of the respondents have significant differences between consumers who indicate positive Environmental Attitude and those who do not indicate positive Environmental Attitude. We can conclude that there was a significant main effect of Gender, Age, Educational Qualification and Monthly Income of respondents who indicate positive Environmental Attitude and those who do not indicate positive Environmental Attitude.

DISCUSSION

- The result of this study indicated that perceived government legislations influence respondents' environmental attitude, the mean score for perceived government legislations was 4.31 which indicate that businessmen's perception of governments' ability in controlling environmental laws and regulations is low. In this study perceived government legislations, is conceptualized as consumer's perception that governments should impose strict laws and regulations on environmental pollution.
- The findings of this study are closer in line with Chandra (Chandra, S. (2001)) and who carried out a study on the "relationship between political awareness and conservation of attitudes and behaviours", political awareness showed a positive weak correlation with attitude, it was at least strong enough to be considered significant and therefore, the results showed that there was almost positive relationship between a person's political and environmental awareness. However, this governmental variable was used in connection to environmental studies, each study catered for a different context, different measurement, different model, and a different theory from the one that has been used in this study.
- In addition, media, exposure is conceptualized as the type and frequency of media coverage on environmental issues that help shape consumer's beliefs. In the current study, measurement for media exposure has been adapted from [Wray, R.J., Jupka, K., Ludwig-Bell, C. (2005)] in the measurement media exposure is measured by frequency and dose of exposure to various media types. Although, the findings of this study show that 93.4% of businessmen are all exposed newspaper articles, while 86.81% of businessmen are exposed to local news stories. In addition, 42.86% of businessmen are exposed to radio advertisements, and 64.83% have exposed to billboards.
- However, dose of exposure is considered rather low, among businessmen reporting exposure to different types of media, this can be shown from the findings that 14.12% of businessmen are not exposed to newspaper articles on environmental issues, and 69.42% are exposed to newspapers articles on environmental issues, 1 to 5 times in a three-month period. In addition, it seems that 16.46% of businessmen have not seen local news stories on environmental issues, while 62% have seen local news stories on environmental issues 1 to 5 times in a three-month period. However, 40.6% of businessmen have not heard radio advertisements on environmental issues, while 37.1% hears a radio advertisement only 1 to 5 times in a three month period. Finally, 35.17% of businessmen do not remember seeing billboards, and 22% of businessmen do remember seeing a billboard on the environment 1 to 5 times in a period of three months. The findings indicate that although businessmen were exposed to the four types of media, but the level of exposure is low. Therefore, from the results of findings, media exposure has a significant statistical direct effect on environmental attitude.
- Finally, the result of this study indicated that respondents' safety and health concerns strongly influenced respondents' environmental attitude, this indicates that businessmen safety and health concerns towards the environment is high. This means that the higher the concern about safety and health the higher their attitude towards the environment. This study is in line with the findings of Wall, Glenda. (1995) who found that safety and health concerns ranked as the strongest predictors of attitude, findings by Wall, Glenda. (1995) lend support to researchers who claim that increasing concerns with safety and health are becoming a prominent factor in shaping people's attitudes towards the environment, it also supports the self-interest notion that behavioral motivation increases with perceptions of personal risk.
- The finding is supported by Dunlap, R. E. & R. Scarce. (1991) who argued that there is evidence that environmental conditions are worsening. Accordingly, Dunlap, R. E. & R. Scarce. (1991) argued that concerns for quality of life has given way, in many cases to concern about health issues, and life itself, for humans and non-human species.
- The findings of this study are in line with Rundmo T. (1999) who concluded that respondents felt most unsafe regarding polluted food, infected food, and industrial pollution. Hence, in the current study businessmen were asked four questions to measure their safety and health concerns.
 - The first question; our food is becoming unsafe because of environmental pollution, the mean score for question one is (4.0).
 - The second question; our water is becoming unsafe because environmental pollution, the mean score for question two is (4.31).
 - The third question; I feel unsafe from getting a health injury caused by environmental pollution, the mean score for question three is (3.98).
 - Finally question four; I feel unsafe consuming polluted food, the mean score for question four is (4.41).
- Therefore, the findings indicate that businessmen felt most unsafe consuming polluted food, polluted water, and getting a health injury caused by environmental pollution. Hence, concerns with safety and health are becoming a prominent factor in shaping people's attitudes towards the environment. The result of this study indicated that respondents' environmental attitude was high.
- Respondents' Attitude was different when it comes to Gender, Age, educational qualification and occupation of the respondents. This means that Males, Mid Age respondents, higher education and higher occupation level have more environment consciousness and they are more likely to act for green electronics in their near future.

CONCLUSION

Based upon research findings, following implications were drawn for electronic industry.

- An exploratory study sought to increase understanding of consumer perceptions of environment friendly Electronics. This study provides an empirical first step into understanding consumer attitudes in relation to green products in the Electronics industry.
- The research showed that consumer attitude towards environment friendly Electronics has a major effect of Perceived Governmental Legislation, Media Exposure and Safety & Health concern.
- Companies should focus marketing efforts on educating consumers about the social responsibility practices of the organization. Businesses should also strive to provide consistent sustainability messages on product labels and hangtags, as well as on company websites.
- Companies should also take into account how consumers are learning about the environmental movement. Respondents stated that they received the majority of information about environment friendly products through the internet and print/media.
- These findings continued to show the importance of consistent advertising on products and company websites. Research also suggests that respondents are interested in green Electronics and the environmental movement.
- The majority of respondents held strong attitudes towards environment friendly Electronics and other green products.
- Manufacturers and retailers should continue to incorporate environmental responsibility into their core values and expand environment friendly product lines to capture the growing number of consumers looking for green options.
- This research study was a preliminary step to understanding consumer adoption of the environment movement in Ankleshwar city. This emergent phenomenon is likely to expand and become a major strategy for businesses and corporations worldwide taking care of other major electronic product users in mind.
- Future research in India can also include investigation of linear relationships identified in this work and can help identify long-term patterns in one of the world's fastest growing countries and one that will truly have a global impact on the environmental and economic direction of society over the next few decades.
- In addition, future research should try to tease out various relationships, including mediating and moderating relationships, that may exist between various items and factors we have identified.
- A more broadly-based and random sample study across India would also provide a better picture of Indian consumers' behavior towards these practices and what is occurring throughout India, not only in Ankleshwar city.

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JPEG IMAGE COMPRESSION ALGORITHM

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ABSTRACT

The use of digital media is rapidly increases. Every printed media is converting into digital form. It is necessary to compress images or videos due to the growing amount of visual data to make efficient transfer and storage of data. Visual data is stored in form of bits, which represents pixels. An image often contains redundant and/or irrelevant data. Redundancy is the statistical properties of an image and irrelevancy is the subject/viewer perception of an image. These redundancies are reduced through different techniques during the compression. The main purpose of compression is to reduce the number of bits as much as possible. It also maintains the visual quality of the reconstructed image close to the original image. JPEG is one of the image compression algorithms. It is the best or excellent algorithm for image compression. This algorithm can be adjusting the image compression ratio. That is the main features of the image compression algorithm.

KEYWORDS

Redundancy, Pixel, Compression, Reconstruct, Visual Data.

1. INTRODUCTION

The Joint Photographic Experts Group developed the JPEG algorithm in the late 1980's and early 1990's. JPEG standard has been established by International Standards Organization (ISO) and International Electro-Technical Commission (IEC). The performance of these coders generally degrades at low bit rates mainly because of the underlying block-based Discrete Cosine Transform (DCT) scheme.

2. JPEG IMAGE COMPRESSION PROCESS

A different set of standards has to be created for compressing images of any size. Joint Photographic Expert Group is the first standard, which is known as JPEG and it is most widely used one. It is a very simple and easy to use standard that is based on the Discrete Cosine Transform (DCT). In JPEG compression there are main two processes: Encoder and Decoder.

Below figure shows the block diagram of JPEG Encoder and JPEG Decoder.

FIG-1: DCT BASED ENCODER PROCESS

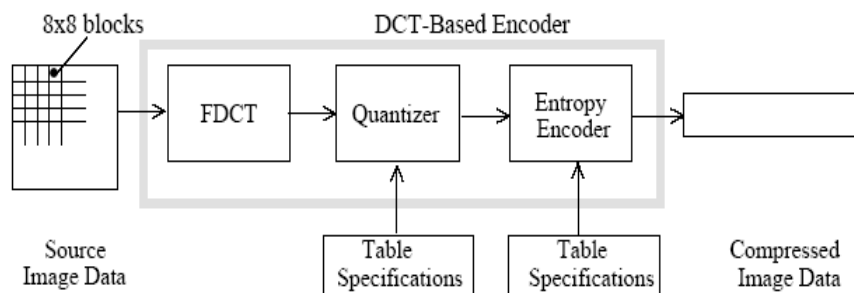
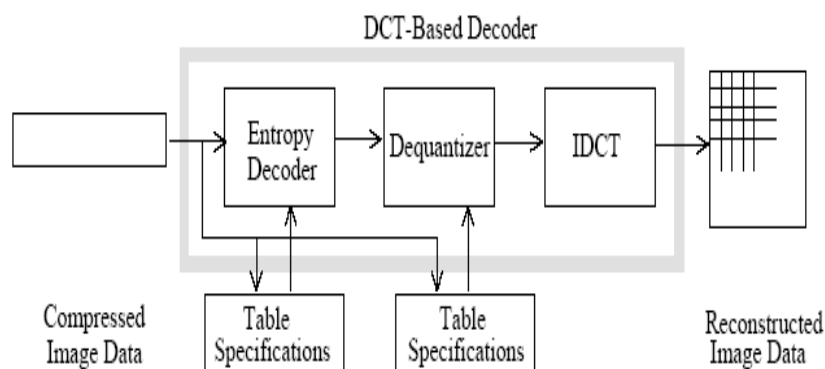
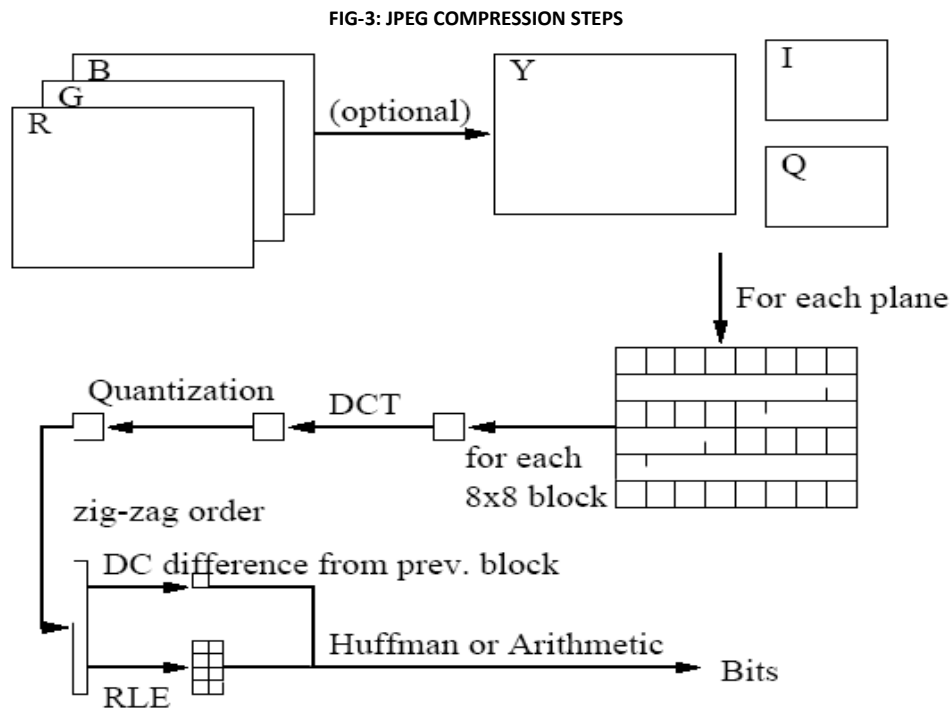


FIG-2: DCT BASED DECODER PROCESS



JPEG is a lossy compression scheme for color and gray scale images. It works on full 24-bit color. It is designed to be used with photographic material and naturalistic artwork. It is not the ideal format for line-drawings, textual images, or other images with large areas of solid color or a very limited number of distinct colors. Below figure shows the step in JPEG image compression process.

The input to JPEG is three color planes of 8-bits per-pixel each representing Red, Blue and Green (RGB). These colors are used by hardware to generate images.



3. JPEG ALGORITHM

JPEG compression and decompression process consist of four distinct and independent steps.

Step – 1 : Divide the Image

In this step image is divided into 8 x 8 pixel blocks.

Step – 2 : Conversion to the Frequency Domain

In this step Discrete cosine Transform is applied to each block to convert the information from the spatial domain to the frequency domain.

Step – 3 : Quantization

In this step the frequency information is quantized to remove unnecessary information.

Step – 4 : Entropy Coding

In this step final bit stream is compressed by using standard compression techniques. The report will analyze the compression of a gray scale image, and will then extend the analysis to decompression and to color images.

4. EXPERIMENTAL STUDY

JPEG image compression algorithm experiment is performed on gray scale image Boat and Barbara and color image Mandrill and Peppers image. In our experiment we perform this study on different image quality level such as 20%(Low Quality), 40%(Good Quality), 60%(Better Quality) and 80%(Great Quality). Below images represent the original images and different image quality level with original image and compressed image.

FIG-4: ORIGINAL BOAT AND BARBARA IMAGES



FIG-5: IMAGE QUALITY LEVEL AND COMPRESSED IMAGES OF BOAT AND BARBARA



Quality Level	Boat	Barbara
20% Low Quality		
40% Good Quality		
60% Better Quality		
80% Great Quality		

FIG-6: ORIGINAL MANDRILL AND PEPPERS IMAGES

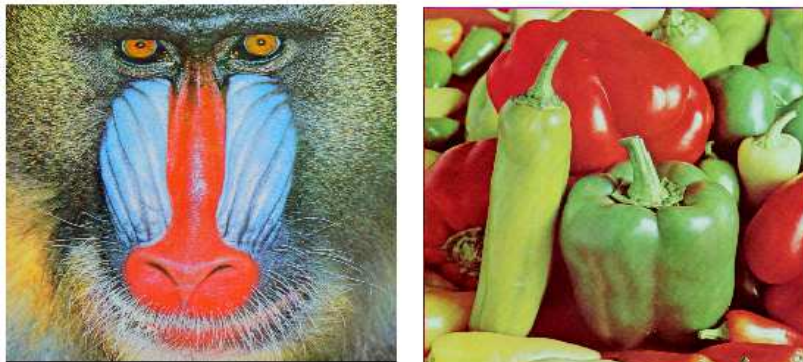


FIG-7: IMAGE QUALITY LEVEL AND COMPRESSED IMAGES

Quality Level	Mandrill	Peppers
20% Low Quality		
40% Good Quality		
60% Better Quality		
80% Great Quality		

Below table represent the different images at different image quality level with original image size and compressed image size.

TABLE – 1 IMAGE QUALITY LEVEL

Image	Original Size (in KB)	Image Quality Level			
		Low	Good	Better	Best
		20%	40%	60%	80%
Boat	173.6	16.1	24.3	31.8	49.5
Barbara	181.4	18.5	27.6	35.3	51
Mandrill	622.3	26.7	42.6	57	86.7
Peppers	526.1	14.3	21.9	29.8	47.1

TABLE – 2 IMAGE COMPRESSION TIME

Image	Original Size (in KB)	Image Compression Time (in Sec)			
		Low	Good	Better	Best
		20%	40%	60%	80%
Boat	173.6	5.2	7.9	10.3	16
Barbara	181.4	6	9	11.5	16.6
Mandrill	622.3	8.7	13.8	18.5	28.1
Peppers	526.1	4.7	7.1	9.7	15.3

FIG-8: QUALITY LEVEL V/S COMPRESSED IMAGE SIZE OF BOAT IMAGE CHART

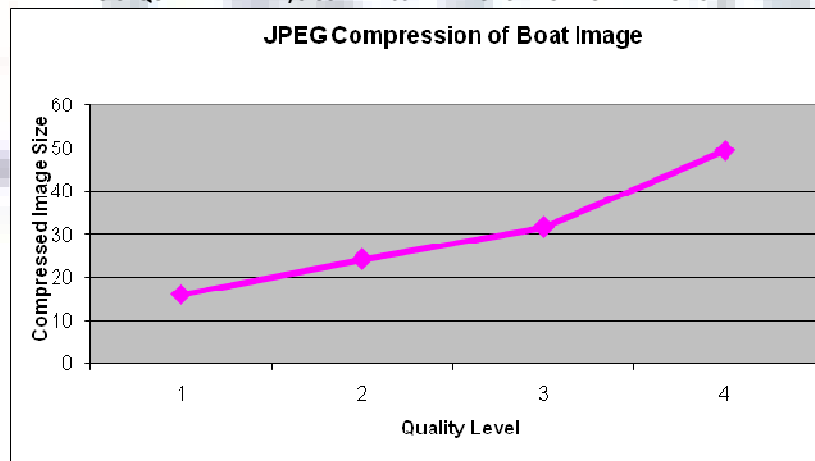


FIG-9: QUALITY LEVEL V/S COMPRESSED IMAGE SIZE OF BARBARA IMAGE CHART

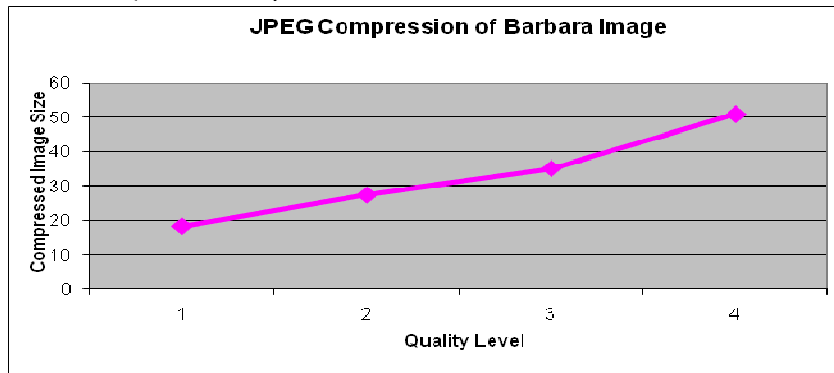


FIG-10: QUALITY LEVEL V/S COMPRESSED IMAGE SIZE OF MANDRILL IMAGE CHART

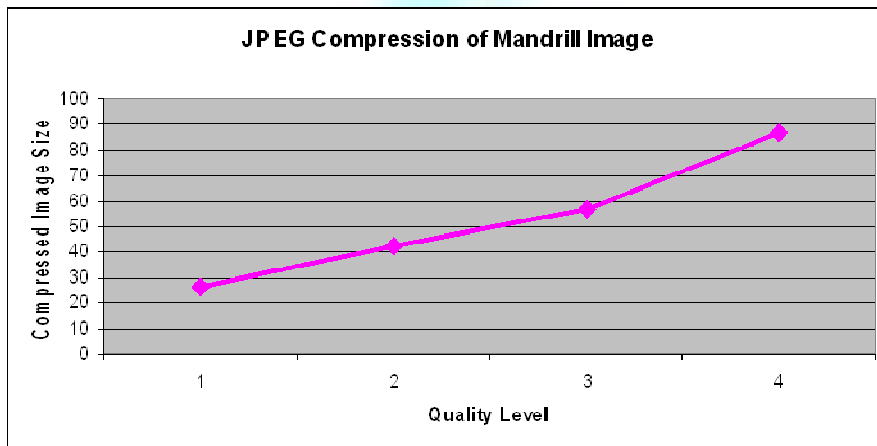


FIG-11: QUALITY LEVEL V/S COMPRESSED IMAGE SIZE OF PEPPERS IMAGE CHART

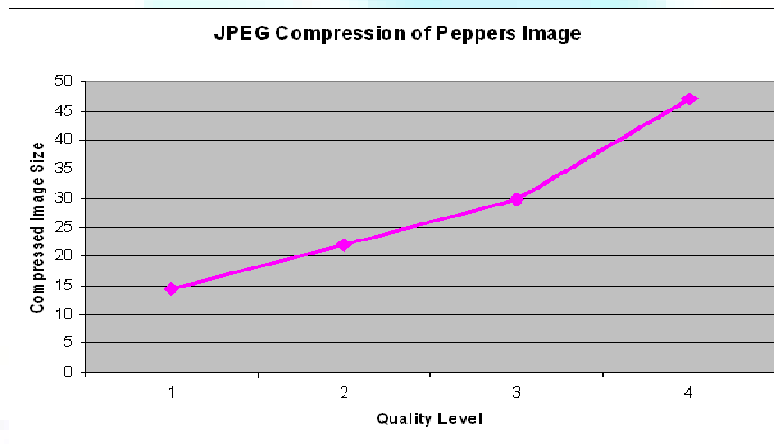


FIG-12: QUALITY LEVEL V/S COMPRESSION TIME OF BOAT IMAGE CHART

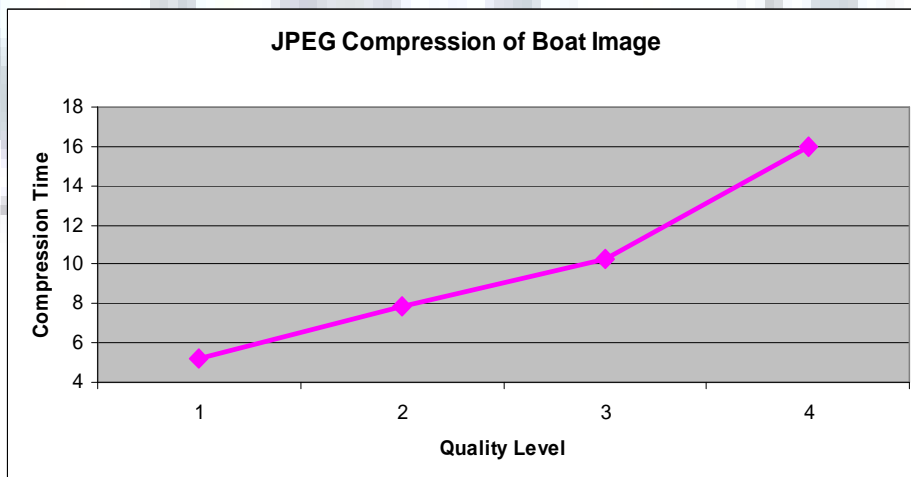


FIG-13: QUALITY LEVEL V/S COMPRESSION TIME OF BARBARA IMAGE CHART

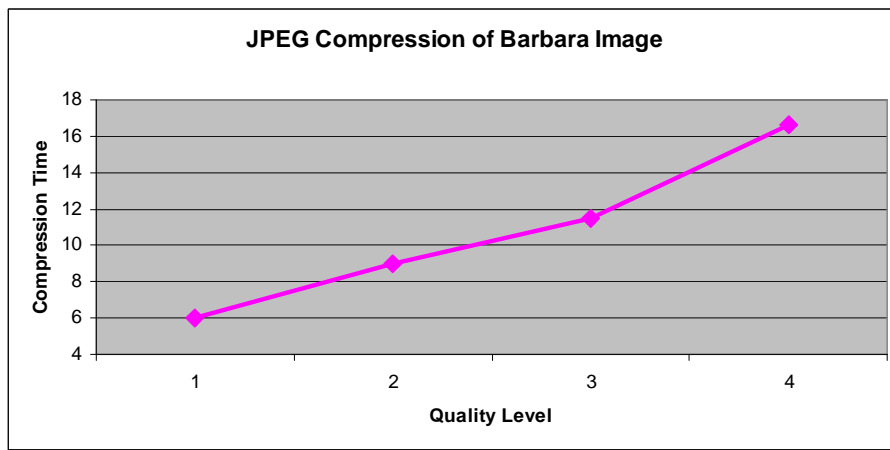


FIG-14: QUALITY LEVEL V/S COMPRESSION TIME OF MANDRILL IMAGE CHART

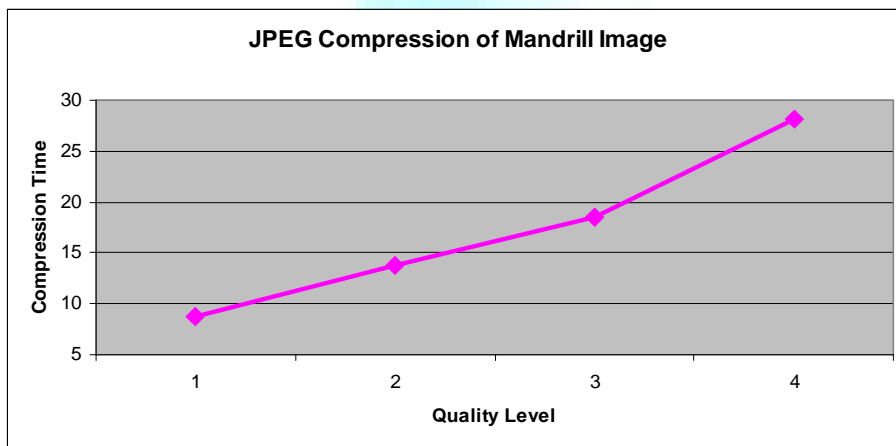
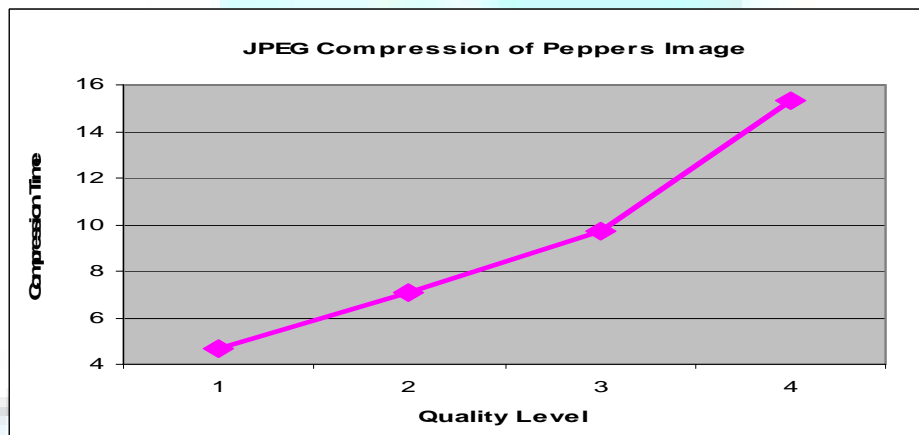


FIG-15: QUALITY LEVEL V/S COMPRESSION TIME OF PEPPERS IMAGE CHART



In above chart quality level-1 represent 20% quality; level-2 represent 40% quality; level-3 represent 60% quality and level-4 represent 80% quality level.

5. CONCLUSION

From the experimental study of different images at different image quality level, it concludes that when you increase the image quality level, the compressed image size is also increase which is shown in above table. When you increase the image quality level, the image compression time required is also increase which is shown in above table.

As per user requirement the size and quality of the final image or compressed image can be determined. Image can highly compressed with less quality or less compressed with high quality. Here the quality and size are the opposite of each other.

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DO EMPLOYEES LACK IN REQUIRED SKILLS: AN ANALYSIS ON SIGNIFICANT SKILLS REPORTED FOR EMPLOYEES IN ORGANIZED RETAIL SECTOR & EXISTING GAP WITHIN

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ABSTRACT

With the existence of hard-hitting competition and distinguished working conditions, now-a-days employees have to deal with more responsibility and assignments. Therefore, it becomes mandatory for them to be loaded with all skills set with which they can perform well in job. It is a well-known fact that skills required by an employee in fulfilling his job requirement largely depend on the nature of job performed by him. Moreover, the nature of job, over again, depends on the sector to which his organization/business belongs. The study here focuses on such significant skills which are required by an individual to perform well in Organized Retail Sector. Attempts are made to understand and identify the required significant skills which should be possessed by the employees involved at various operational areas, departments and job levels in retail business. The Study suggest that based on the level of interaction with consumers and basic requirement of the job, skills required by the employees can be identified and existing gap can be anticipated.

KEYWORDS

Job Requirements, Skills Gap, Organised Retail Sector, Significant Skills, Skill Gap Analysis.

INTRODUCTION

There exist diversified skills set for each individual working in different area. Skills are said to be the cluster of related abilities, behaviour, commitments, knowledge and decision making capability in a job or situation. These skills can differentiate one individual from another and helps in his personal growth as well as of the firm. Based on the nature of the job and the type of the operating industry, criteria of required skills set changes. It is possible that the skills set required in one sector type differs from that those required in other sector. For example, the skills set required in retail sector (like Communication skills, Behavioural Skills, Selling Skills, etc.) are entirely different from those skills required in textile industry (like technical knowledge, leadership skills, etc.). Study here, investigates the required significant skills in the retail sector.

Further, in the retail sector the levels of the required skills are different for each skill. Some of the skills are of high important while others can be of less importance. Based on the necessity of the job performed and with the help of job analysis and job description, it can be conveniently identifying the required skills in an individual.

As no individual can be picture-perfect in every skill, it happens that a person lacks in some of the skills required for performing a job. This gap between the required skills and actual present skills is known as Skills Gap. The study clearly defines the skills gap and its implications.

LITERATURE REVIEW

Before studying the skills requisite in retail sector grounded on the nature of job and the gap prevailing within, it becomes obligatory to understand the scope and implications of organised retail sector as well as skills gap.

ORGANISED RETAIL: CONCEPT & SCOPE

Organized retailing, in India, refers to trading activities undertaken by licensed retailers, that is, those who are registered for sales tax, income tax, etc. These include the publicly traded supermarkets, corporate-backed hypermarkets and retail chains, and also the privately owned large retail businesses [5].

As stated in the Study of Handa et. al. [9], Retailing involves a direct interface with the customer and the coordination of business activities from end to end- right from the concept or design stage of a product or offering, to its delivery and post-delivery service to the customer.

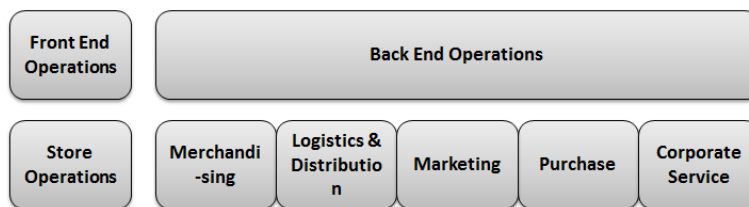
Although, Indian Retail Industry is encompasses unorganised retail in majority, but, organised retail is growing its pace to stand as the fastest rising sector. Organised Retail, 5th largest in the world and 3rd in India, stands as the sturdy mainstay of Indian Economy and contributes to 14-15 % in GDP [1][2]. The analysts and market experts have been making a bet on tough organised retail sector to help boost Indian economy and help it surface as the Asia's 3rd largest economy. The Indian retail market is assessed to be US\$ 450 billion and one of the top five retail markets in the world by economic value. According to NDTV Profit Report [14], organised retail, spreads on about 10% of the market, but is intensifying its coverage at 20% per annum. This is driven by the emergence of shopping centres and malls, and a middle class of close to 300 million people that is growing at nearly 2 per cent a year.

India is one of the fastest growing retail markets in the world, with 1.2 billion people engaged in the industry [3][4]. India's organised retail industry employs about 40 million Indians (3.3% of Indian population). As quoted by FICCI, India's Retail Sector will become a US\$ 1.3 trillion prospect by 2020 [7].

Some Sectors that prominently occupies the position in retail are; Apparel Retail, Fashion & Lifestyle Retail, Food & Beverage Retail, E-Commerce, Consumer Durables Retail, Jewellery Retail, Pharmaceuticals Retail, Mobile & Computers Retail, Books & Stationary Retail and Entertainment Retailing. Some of the major players of the Indian Retail Sector are Future Group, RP – Sanjeev Goenka Group, Aditya Birla Group, Lifestyle and Reliance Retail.

Organised Retail Sector is comprised of numerous internal and external, core processes which require various sorts' of skills set to actively complete it. Prerequisite of certain skills set in an individual can be determined by the nature of the job and level of dealings in various core process of the retailing, with consumers and colleagues from varied department. Individuals should possess efficient skill set so as to attain well in the relative job in retailing. Insufficiency in any of these skills leads to skills gap, which consequences in diminished performance and eventually leads to insufficient performance of the retail industry.

FIGURE 1: CORE PROCESS IN RETAIL



SKILLS GAP: CONCEPT & IMPLICATIONS

ASTD (American Society for Training & Development) in its report published in the year 2009 defines a skills gap as – “a significant gap between an organization’s current capabilities and the skills it needs to achieve its goals”. It is the point at which an organization can no longer grow or remain competitive because it cannot fill critical jobs with employees who have the right knowledge, skills, and abilities [9].

In simple verbal, Skill Gap is the dissimilarity in the skills requisite on the job and the actual skills possessed by the employees. More precisely, skills gap can be stated as “the difference amid the skills desirable on the job and those inherent by the applicants”.

Whenever the shortage in the skills occurs, there exist skills gap. As Individuals on job in retail sector comes from different cultural, educational and behavioural background and thus, there can be numerous chance that they may lack in some or other skills. Skills shortages are defined as “a shortage of suitably skilled people available in the labour market” [12].

It is necessary to keep a frequent check on the skills levels and requirements as it can prove to be a significant factor in gaining a competitive advantage in the industry. On the flipside of a coin, skilled employee in the retailing activities can convince and influence more and more customers to turn towards organised retailing and thus, provide boost to the retail industry.

The frequent check, as talked above, can be kept through the “skills gap analysis”. Skills Gap Analysis is the common tool used in the assessment of the difference (or the gap) in the current state of the prerequisite skills and the current requirement state of the skills.

An Employee Skill Gap analysis helps achieve the following objectives [11]:

- Helps one refine and define skills the agency needs, now and in the future.
- Make employees aware about the critical skills they’ll need to grow.
- Helps in recruiting efforts when current employees don’t have the skills or the interest.

SIGNIFICANT SKILLS IN ORGANISED RETAIL SECTOR & SKILLS GAP

The organised retail industry delivers employment to huge number of people and because of its consistent and efficient growth, this number is increasing rapidly. It offers large job roles, right from operational activities to supply chain management, including sales executives, store managers, merchandising planners, market research personnel’s and decision makers. Some of the skills needed for same are [6]:

- Conceptual understanding.
- Analytical skills.
- Detail-orientation.
- Fair understanding of customer’s psychology.
- Observations skills.
- Project Management.
- Operational Skills.
- In-depth product knowledge.

A. SKILLS REQUIREMENT AND SKILL GAP IN STORE OPERATION

Store operation involves proper merchandising, maintenance of store, selling, customer service and transaction process [13].

The following table shows the skills requirement and anticipated skills gap of the individuals involved in store operations of retail.

TABLE 1: SKILL REQUIREMENT & SKILL GAP IN STORE OPERATION

Level	Skills Requirement	Anticipated Skills Gap
Store / Department Manager	<ul style="list-style-type: none"> • Communication Skills. • Computer Proficiency. • Decision Making. • Negotiation skills. • Objection handling skills. • Man Management Skills. • Inventory Management skills. • Target Achieving skills. • Leadership Skills. 	<ul style="list-style-type: none"> • Inadequacy in Decision Making, Negotiating, Objection Handling, Inventory Management. • Lacking in Communication Skills, Man management skills. • Low Adaptability & Leadership Skills.
Transaction / Billing Associate	<ul style="list-style-type: none"> • Quick Processing Skills. • Computer Proficiency. • Accounting skills. • Oral communication skills. • Interpersonal & Interaction Skills. • Language Proficiency. 	<ul style="list-style-type: none"> • Inadequate Accountancy skills. • Inadequate knowledge of computer & software. • Lack in interacting with consumers.
Customer Service Representative / Sales Executive	<ul style="list-style-type: none"> • Selling skills. • Knowledge about store offerings • Consumer Objection handling Skills. • Convincing skills. • Communication skills. • Interaction skills. • Presentation skill. • Reporting skills. 	<ul style="list-style-type: none"> • Insufficient soft skills. • Inadequate presentation & objection handling skill. • Lacking in store & Offering Information. • Lack in convincing skills.

Source: NSDC Report (2012)

B. SKILLS REQUIREMENT AND SKILLS GAP IN MERCHANDISING

The process of merchandising involves choose and exhibition of the various offerings of the retail store. Merchandising plays a significant role in popularising of an outlet and is the vibrant activity that has to be in accordance with the customer trend and need, and which differentiate the store with other.

TABLE 2: SKILL REQUIREMENT & SKILL GAP IN MERCHANDISING

Level	Skills Requirement	Anticipated Skills Gap
Merchandising Manager	<ul style="list-style-type: none"> • Creative & innovative skills. • Planning & organising skills. • Oral communication & interacting skills. • Analytical Skills. • Comp. proficiency. • Knowledge about current market trends, consumer behaviour & behaviour. 	<ul style="list-style-type: none"> • Lacking in creativity & Innovativeness. • Inefficient in Communication & interacting skill. • Inadequate understanding of merchandise & Customer Behaviour. • Insufficient soft skills.

Source: NSDC Report (2012).

C. SKILLS REQUIREMENT AND SKILLS GAP IN LOGISTICS

Logistic function in retail includes transportation, warehousing, documentation and distribution. Choice of proper logistic function by an individual in retail plays a significant role as it includes lots of time and money.

TABLE 3: SKILL REQUIREMENT & SKILL GAP IN LOGISTICS

Level	Skills Requirement	Anticipated Skills Gap
Logistics Manager	<ul style="list-style-type: none"> • Negotiation skills. • Proper maintenance of inventory & storage. • Oral & Written communication skill. • Directing & decision making skill. 	<ul style="list-style-type: none"> • Inadequate negotiation skills. • Lack of skilled labours in the department. • Inefficient decision making skills. • Lacking in soft skills.

Source: NSDC Report (2012).

D. SKILLS REQUIREMENT AND SKILLS GAP IN MARKETING

Marketing activity focuses on pulling prospect customers to store and pushing them to the store merchandise and motivate (or influence) them to purchase. Therefore, it becomes a challenge for marketing personnel in retail to ensure both, increase in footfall and conversion ratio.

TABLE 4: SKILL REQUIREMENT & SKILL GAP IN MARKETING

Level	Skills Requirement	Anticipated Skills Gap
Marketing Manager.	<ul style="list-style-type: none"> • Efficient analytical skills. • Sound knowledge of consumer behaviour. • Convincing Skills. • Negotiation skills. • Oral & written Communication skills. • Surveying skills. • Observation skills. • Creative & Forecasting skills. • Team Work. 	<ul style="list-style-type: none"> • Inefficient in forecasting & analytical skills. • Inadequate Negotiation, convincing, surveying & observation skills. • Lacking in communicating skills. • Effective coordinating skill.

Source: NSDC Report (2012)

E. SKILLS REQUIREMENT AND SKILLS GAP IN PURCHASE

Centralised purchasing involves the purchase of right product, in right quantity and at right time for the store, that to in accordance with customers taste and preference. So, dealing with right purchase decision is yet another area where the presence of skilled personnel in retail is of utmost importance.

TABLE 5: SKILL REQUIREMENT & SKILL GAP IN PURCHASE

Level	Skills Requirement	Anticipated Skills Gap
Purchase manager.	<ul style="list-style-type: none"> • Negotiation Skills. • Relational Skills. • Inventory Maintenance skills. • Oral & Written communication skill. 	<ul style="list-style-type: none"> • Inadequate Negotiation Skills. • Lack in soft skills required. • Inefficient relational ability.

Source: NSDC Report (2012)

F. SKILLS REQUIREMENT AND SKILLS GAP IN CORPORATE SERVICES

Corporate services include all the support function in retail such as finance, IT and HR. Personnel engaged in these activities should be skilled enough to ensure smooth functioning of all the related activities.

TABLE 6: SKILL REQUIREMENT & SKILL GAP IN CORPORATE SERVICES

Level	Skills Requirement	Anticipated Skills Gap
Heads of Various Depts. (finance, IT, HR & Admin.)	<ul style="list-style-type: none"> • Decision making skills. • Directional & Co-ordinating skills. • Interaction skills for communicating with various depts. • Proper planning & maintaining skills. 	<ul style="list-style-type: none"> • Inadequate in decision making skills. • Inefficient in coordinating & directing skills. • Ineffective planning & maintenance skill.

OBJECTIVE OF THE STUDY ARE

- To define and understand the Skills Gap.
- To identify various skills required by an employee at different designation in organised retail sector.
- To find out the anticipated skills gap with respect to the identified skills in organised retail sector.

CONCLUSION

Skills are the most vital aspect for the achievement of both, an individual and a retail org as well. Present study advocates the key skills essential for personnel employed in a retail sector bestowing to the job performed by him. Some of the recognized noteworthy skills like communication skills, interpersonal skills, objection handling skills, soft skills and technology proficiency skills are significantly required by each and every personnel operational at numerous levels and operations of retail industry. It is obligatory to identify the prevailing skills gap in the organisation and to shrink and nullify it for the smooth functioning of the organisation. Moreover, with proper skills employees can generate more business and help in the rapid and consistent expansion of the retailing industry.

RECOMMENDATION

As suggested in the research study, skills set hold the vital position in shaping the career of an individual. So, an individual should make an effort to assess his existing skills set and try to develop it in relevance with the skills set required for performing the allotted job roles. Employees should concentrate more on some of the generic skills set such as communication skills, interpersonal skills, convincing skills, etc., which necessary to succeed in every organization are belonging to numerous sectors. Moreover, organisations should also frequently conduct assessment programs and provide proper and relevant to its employee to enhance skills set. Employees with enhanced skills set will lead to efficient achievement of the organizational goal and thus, helps to create a success story.

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AN ANALYSIS OF INCOME STATEMENT OF A SERVICE SECTOR UNDERTAKING – A CASE STUDY OF INDUSTRIAL FINANCE CORPORATION OF INDIA LTD

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ABSTRACT

The present research work is undertaken to make an analysis of Income Statement of Industrial Finance Corporation of India Ltd (IFCI Ltd). This study helps to reveal the causes of profit or loss made by the concern and makes a detailed analysis of the performance of the concern so that fruitful suggestion could be given to improve its performance in future. Since, financial analysis is a tool for scientific evaluation of the profitability and financial strength of any business concern; the same has been used in the present research study. The techniques of financial statement analyses are used for the purpose of analysis of Income Statement of Industrial Finance Corporation of India Ltd (IFCI Ltd). Since analysis of income statement is the process of making a proper, critical and comparative evaluation of the profitability and financial soundness of a given concern, the same has been done in the present research work through the application of the techniques of financial statement analysis particularly ratio analysis.

KEYWORDS

Income Statement, operating ratio, operating profit ratio, net profit ratio, return on equity, return on assets and burden ratio.

INTRODUCTION

Analysis of income statement provides an insight into how effectively management is controlling expenses, the amount of interest earned and expended, and the taxes paid. The income statement is therefore treated as the "report card" of those earnings, which ultimately determine the price which the owner expects to pay for a business. The primary purpose of the income statement is to report a company's earnings to investors over a specific period of time. For banks and other financial institution like IFCI their major sources of revenue are interest income and its biggest operating expense is interest expenses on deposits/loans. Thus for a bank or other financial institution profitability is largely based in its capacity to earn interest on its assets (loans and advances) at the rate higher than its cost of funds. The difference between gross yield (interest income as a percentage of interest earning assets) and cost of funds (interest expenses as a percentage of interest bearing liabilities) is called the net interest margin or spread. Every bank or other financial institution should endeavour to maximise the spread.

The recent trend in banking shows that banks or other financial institution are also focussing their attention to the promising non-interest income opportunities. It may be mentioned that interest income accrues from a bank's traditional lending business. A bank or other financial institution is primarily meant for lending money to business, farmers and individuals. However, banks or other financial institution have started venturing into non-fund based activities (e.g., corporate advisory services, treasury activities, loan appraisal and processing, merchant banking, bank guarantees, etc.). Treasury activities may not strictly be called non-fund based activities because these activities involve trading in securities. Every bank or other financial institution today, as a part of its business strategy, diversifies its income sources into interest-income and non-interest income¹. Different profitability ratios provide different useful insights into the financial health and performance of a company. For example, gross profit and net profit ratios tell how well the company is managing its expenses. Return on capital employed (ROCE) tells how well the company is using capital employed to generate returns. Return on investment tells whether the company is generating enough profits for its shareholders.

For most of these ratios, a higher value is desirable. A higher value means that the company is doing well and it is good at generating profits, revenues and cash flows.

EXPECTED OUTCOME OF THE STUDY/SCOPE OF THE STUDY

In the present world financial institutions play an important role in economic growth and economic development of the country as it helps to provide monetary assistance to the industries. It plays a key role in financial assistance as well for financial transactions. Thus, it can be said that financial institution are backbone of any industry. Thus, this study is helpful for both private as well as for nationalized financial institutions as it helps to improve the market share and also help private institution to compete with the nationalized financial institutions. This study is also helpful for the customer or general mass, they will become aware of the facilities provided by the IFCI and thus will be benefited by availing or making use of the better facilities without any risk.

REVIEW OF LITERATURE

Myez (1984) says financial statement analysis is largely a study of relationship among the various financial factors in a business, as disclosed by a single set of statements, and a study of the trends of these factors, as shown in a series of statements. **Kennedy and Muller (1989)** says that the analysis and interpretation

¹ Banerjee, Ashok.,(2004): Financial Accounting-A Managerial Emphasis, Excel Books,p. 423.

of the financial statements are an attempt to determine the significance and meaning of financial statement data so that the forecast may be made of the prospects for future earnings, ability to pay interest and debt maturities (both current and long term) and profitability and sound dividend policy.

Hermanson et al. (1992:846), "financial analysis relies heavily on informed judgment. Percentages and ratios are guides to aid comparison and useful in uncovering potential strengths and weaknesses. However, the financial analysis should seek the basic causes behind and established trends". Mario W. Cardulla (1996) 282 page, the financial analysis techniques that are useful to a manager are some of the major financial appraisal techniques and not the total set of these techniques. A financial statement often referred to, as the trading and profit loss account, matching revenues against expense to show the profitability or operational results of an enterprise over a period of time, such as a month or year. (Hermanson et al. 1992:25). According to Needles et al. (1996:770) financial statement analysis is used to achieve two basic objectives: (1) Assessment of past performance and current position, and (2) Assessment of future potential and related risks of a business. According to Hermanson et al (1992:824), "financial statement analyses consist of applying analysis tools and techniques to financial statements and other relevant data to show important relationships and obtain useful information." Therefore, financial statement analysis can be defined as the breaking down, interpretation, and translation of data contained in financial statements to provide information and show important relationships among the items of financial statements and drawing conclusion about the past performance, current financial position, and future potentials of a business. According to Needles et al. (1996:773), the major sources of information about publicly held corporations are reports published by the company, SEC reports, business periodical, and credit and investment advisory services.

OBJECTIVES OF STUDY

The study fulfils the following objectives:

- To examine the profitability position of the Industrial Finance Corporation of India Ltd (IFCI Ltd).
- To study the overall financial position of the Industrial Finance Corporation of India Ltd (IFCI Ltd).
- To identify the financial strengths and weaknesses of the organization so as to suggest improvements for future

HYPOTHESIS OF THE STUDY (Ho)

In order to achieve these objectives, the following hypothesis has been framed for testing:

Ho: There is no significant difference in the profitability position of the Industrial Finance Corporation Of India Ltd during the period of study.

METHODOLOGY

For the study, statistical data has been collected from various reports published periodically by the Industrial Finance Corporation of India Ltd (IFCI Ltd). The statistical techniques like percentage, averages, coefficient of correlation, coefficient of variation, T-test have also been applied. For proper analysis and evaluation of operational performance and financial strength, the individual items of profit and loss accounts and balance sheet have also been regrouped.

LIMITATIONS OF THE STUDY

Limitations are always a part of any kind of research work, as the report is mainly based on secondary data; proper care must be taken in knowing the limitations of the required study.

1. The financial performance of the institution is shown just for the last ten years, ending 2012. Hence, any uneven trend before or beyond the set period will be the limitations of the study.
2. This analysis is based on only monetary information, analysis of the non monetary factors are ignored.
3. As per the requirement of the study some data have been grouped and sub grouped.
4. There is non availability of sufficient literature & information from the corporation.

ANALYSIS OF INCOME STATEMENT

Analysis of Income Statement has been done through Ratio analysis techniques because it is the most effective tool of analysing the profitability position of any concern. They highlight how effectively the profitability of a company is being managed. These ratios also indicate how well a company is performing at generating profits or revenues relative to a certain metric. For the evaluation of the profitability and financial soundness of Industrial Finance Corporation of India Ltd, accounting ratios like net profit ratio, operating ratio, operating profit ratio, return on equity capital ratio, return on assets, burden ratio has been calculated.

1. NET PROFIT RATIO

Net profit ratio measures the rate of net profit earned on sales. It helps in determining the overall efficiency of the business operations. Net profit ratio indicates the efficiency of management in managing its manufacturing, selling, administrative and other activities. Net profit is computed by deducting all direct costs (i.e., cost of goods sold); indirect costs (i.e., administrative, marketing expenses and finance charges); making adjustments for non-operating expenses from sales and adding non-operating incomes. The ratio is calculated as under:

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales or Revenue}} \times 100$$

Increase in Net profit ratio shows better performance, improvement in the overall efficiency and profitability of the business. In the same way, decrease in the ratio indicates managerial inefficiency and excessive selling and distribution expenses Net profit Ratio therefore, indicates the proportion of sales revenue available to the owner's of the firm and the extent to which the sales revenue can be decreased or the cost that can be increased without inflicting a loss on the owner's. So, the net profit ratio shows the firm's capacity to face the adverse economic situation. Thus, Net profit ratio shows the overall operational efficiency of the business.

TABLE: - 1 STATEMENT SHOWING NET PROFIT RATIO (Rs. in Crores)

Year	Net Profit after Tax (Rs.)	Revenue (Rs.)	Net Profit Ratio (%)
2003	-259.70	1403.50	-18.50
2004	-3229.78	1095.72	-294.76
2005	-324.40	1293.37	-25.08
2006	-74.10	1645.69	-4.50
2007	898.02	1989.73	45.13
2008	1020.57	1963.00	51.99
2009	657.15	1402.07	46.87
2010	670.94	1657.05	40.49
2011	706.25	2332.45	30.28
2012	663.62	2729.39	24.31
Statistical Analysis			
Mean	Rs. 72.86	Rs. 1751.20	-10.38%
σ	1192.72	479.43	98.43
C.O.V	1637.07%	27.38%	-948.49%
Growth	-355.53%	94.47%	-231.40%
Average Growth	-35.55%	9.45%	-23.14%

Source: Compiled from the annual reports of IFCI Ltd. (From 2003 - 2012)

INTERPRETATION

According to table no.1, in the year 2003, the net profit ratio was -18.50%. The net profit ratio was at its lowest and was -294.76% in the year 2004. The net profit ratio increased to become -25.08% in the year 2005. In the year 2006 the net profit ratio again increased and came at -4.50% but it decreased to become 45.13% in the year 2007. The net profit ratio further increased and reached to 51.99% in the year 2008. The net profit ratio then decreased to 46.87% in the year 2009 and it further decreased to 40.49% in the year 2010. It was 30.28% in the year 2011 and then again decreased to become 24.31% in the year 2012. The standard deviation of the Net profit ratio was 98.43, with coefficient of variation as -948.49% and average annual growth as -23.14%.

2. OPERATING RATIO

Operating ratio reveals the cost content and operational expenses absorbed in the sales. Operating ratio indicates the ratio of operational cost to the sales. Operating ratio is a measurement of the efficiency and profitability of the business enterprise. In other words, it measures the cost of operations per rupees of sales. Operational efficiency of the business will be more in case of lesser operating ratio and vice versa. The ratio is calculated by dividing operating cost with the net sales and it is generally represented as a percentage. It is calculated by the following formula:

$$\text{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Net Sales}} \times 100$$

$$\text{Operating Ratio} = \frac{\text{Cost of Good Sold} + \text{Operating Expenses}}{\text{Net Sales}} \times 100$$

Higher ratio indicates lower efficiency because a major part of sales is eaten up by operating cost. There is no rule of thumb for this ratio as it may differ from firm to firm, depending upon the nature of its business and its capital structure. However, 75 to 85 per cent may be considered to be a good ratio in case of a manufacturing undertaking. Operating ratio is considered to be a yardstick of operating efficiency but it should be used cautiously because it may be affected by a number of uncontrollable factors beyond the control of the firm. Every business should try to increase its net profit which is possible if the operating cost is reduced. Lower operating cost is always in the interest of the business.

TABLE: - 2 STATEMENT SHOWING OPERATING RATIO (Rs. in Crores)

Year	Operating Cost (Rs.)	Revenue (Rs.)	Operating Ratio (%)
2003	1646.27	1403.50	117.30
2004	1466.38	1095.72	133.83
2005	1027.06	1293.37	79.41
2006	814.80	1645.69	49.51
2007	794.06	1989.73	39.91
2008	980.12	1963.00	49.93
2009	888.42	1402.07	63.36
2010	1011.88	1657.05	61.07
2011	1464.18	2332.45	62.77
2012	2005.17	2729.39	73.47
Statistical Analysis			
Mean	Rs. 1209.83	Rs. 1751.20	73.06%
σ	388.73	479.43	28.67
C.O.V	32.13%	27.38%	39.25%
Growth	21.80%	94.47%	-37.37%
Average Growth	2.18%	9.45%	-3.74%

Source: Compiled from the annual reports of IFCI Ltd. (From 2003 - 2012)

INTERPRETATION

As per table no.2, the operating ratio in the year 2003 was 117.30%. The operating ratio then increased to 133.83% in the year 2004. It then decreased to 79.41% in the year 2005. The operating ratio further decreased to 49.51% in the year 2006. It was at its lowest in the year 2007 when it was 39.91%. In the next year i.e., 2008 the operating ratio increased to 49.93% and in the year 2009 the operating ratio further increased to 63.36%. After that the operating ratio again decreased to 61.07% in the year 2010. In the year 2011 it was 62.77% and then increased to 73.47% in the year 2012. The standard deviation of the operating ratio was 28.67, with coefficient of variation as 39.25% and average annual growth as -3.74%.

3. OPERATING PROFIT RATIO

This ratio measures the relationship between operating profit and sales. The main purpose of computing this ratio is to determine the operational efficiency of the management. This ratio tries to calculate an average operating margin earned on a sale of 100 and what portion of sale is left to cover non-operating expenses, to pay dividend and to create reserves. Higher the ratio, the more efficient is the operating management. This ratio is calculated by dividing operating profit by sales. Operating profit is calculated as:

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

This ratio can also be calculated as:

$$\text{Operating Profit Ratio} = 100 - \text{Operating Ratio.}$$

Higher the ratio, the more efficient is the operating management.

TABLE: - 3 STATEMENT SHOWING OPERATING PROFIT RATIO (Rs. in Crores)

Year	Operating Profit (Rs.)	Revenue (Rs.)	Operating Profit Ratio (%)
2003	-208.03	1403.50	-14.82
2004	-361.62	1095.72	-33.00
2005	290.79	1293.37	22.48
2006	864.05	1645.69	52.50
2007	1252.62	1989.73	62.95
2008	1131.30	1963.00	57.63
2009	596.10	1402.07	42.52
2010	667.45	1657.05	40.28
2011	1015.93	2332.45	43.56
2012	845.03	2729.39	30.96
Statistical Analysis			
Mean	Rs. 609.36	Rs. 1751.20	30.51%
σ	518.45	479.43	29.72
C.O.V	85.08%	27.38%	97.44%
Growth	-506.21%	94.47%	-308.88%
Average Growth	-50.62%	9.45%	-30.89%

Source: Compiled from the annual reports of IFCI Ltd. (From 2003 - 2012)

INTERPRETATION

According to table no.3, the operating profit ratio was -14.82% in the year 2003 and in the year 2004 the operating profit ratio was at its lowest i.e. -33.00%. The operating profit ratio then increased to 22.48% in the year 2005. In the year 2006, the operating profit ratio again increased to 52.50% and then further increased to 62.95% in the year 2007. The operating profit ratio in the next year i.e. 2008 decreased to 57.63%. In the year 2009, the operating profit ratio again decreased to 42.52% and then further decreased to 40.28% in the year 2010. The operating profit ratio was 43.56% in the year 2011; it then decreased to 30.96% in the year 2012. The standard deviation of the operating profit ratio was 29.72, with coefficient of variation as 97.44% and average annual growth as -30.89%.

4. RETURN ON EQUITY CAPITAL RATIO

The return on equity capital examines profitability from the perspective of the equity investors by relating profits, available for the equity shareholders, with the book value of equity investment. Return on Equity Capital establishes relationship between Net Profit after tax and Preference dividend and equity capital. The purpose of computing this ratio is to find out how efficiently the funds supplied by the equity shareholder's have been used. Ratios calculated for number of years gives an idea of the prosperity, growth or deterioration in the company's profitability and efficiency. This ratio is calculated by dividing Net profit after tax and preference dividend by paid-up equity capital.

$$\text{Return on Equity Capital Ratio} = \frac{\text{Net Profit After Tax and Preference Dividend}}{\text{Paid - up Equity Capital}} \times 100$$

It also indicates as to how well the funds of the owner have been used by the firm, whether the firm has been able to earn reasonable return for the owners or not. Therefore, the equity shareholders would probably be most interested in return on equity analysis. This ratio is of great significance to the equity shareholders as this reveals how well the resources of a company are being used, higher the ratio, better are the results.

TABLE: - 4 STATEMENT SHOWING RETURN ON EQUITY CAPITAL RATIO (Rs. in Crores)

Year	Profit After Tax (Rs.)	Equity Capital (Rs.)	Return on Equity Capital (%)
2003	-259.70	1537.65	-16.89
2004	-3229.78	1522.89	-212.08
2005	-324.40	1515.37	-21.41
2006	-74.10	1510.93	-4.90
2007	898.02	1941.79	46.25
2008	1020.57	3324.87	30.70
2009	657.15	3740.76	17.57
2010	670.94	4609.8	14.55
2011	706.25	5003.4	14.12
2012	663.62	5535.75	11.99
Statistical Analysis			
Mean	Rs. 72.86	Rs. 3024.32	-12.01%
σ	1192.72	1534.44	69.46
C.O.V	1637.07%	50.74%	-578.28%
Growth	-355.53%	260.01%	-170.98%
Average Growth	-35.55%	26.00%	-17.10%

Source: Compiled from the annual reports of IFCI Ltd. (From 2003 - 2012)

INTERPRETATION

As per table no.4, in the year 2003 the return on equity capital ratio was -16.89% and further decreased to -212.08% in the year 2004. Then in the next year 2005, the return on equity raised to -21.41% and then further increased to -4.90% in the year 2006. In the year 2007 the return on equity increased to 46.25% and in the next year it again decreased to 30.70% in the year 2008. In the next year i.e., 2009 it again decreased to 17.57% and in the year 2010 the return on equity capital further decreased to 14.55%. It was 14.12% in the year 2011. In the last year of study i.e., 2012, the return on equity was 11.99%. The standard deviation of the return on equity capital ratio was 69.46, with coefficient of variation as -578.28% and average annual growth as -17.10%.

5. RETURN ON ASSETS RATIO

The return on assets (ROA) shows how profitable a company's assets are, in generating revenue. Return on Assets also known as ROA establishes relationship between net profits (after taxes) and assets employed to earn that profit. The objective of computing this ratio is to find out how efficiently the total assets have been used by the firm. The ROA basically relate the profits to the size of the firm (which is measured in terms of the assets). If a firm increases its size but is unable to increase its profit proportionately, then the return on assets will decrease. In such a case, increasing the size of the assets i.e., the size of the firm will not by itself advance the financial welfare of the owners. This ratio measures the profitability of the firm in relation to assets employed in the firm. It is calculated by dividing net profit (after taxes) by Average Total Assets.

$$\text{Return on Assets} = \frac{\text{Net Profit (After Taxes)}}{\text{Average Total Assets}}$$

The return on assets indicates the overall efficiency of the management in generating profits at a given level of assets at its disposal.

TABLE: - 5 STATEMENT SHOWING RETURN ON ASSETS RATIO (Rs. in Crores)

Year	Profit After Tax (Rs.)	Total Assets (Rs.)	Return on Assets (%)
2003	-259.70	21706.85	-1.20
2004	-3229.78	15914.66	-20.29
2005	-324.40	38543.56	-0.84
2006	-74.10	11435.09	-0.65
2007	898.02	15477.32	5.80
2008	1020.57	15178.81	6.72
2009	657.15	14882.57	4.42
2010	670.94	19589.21	3.43
2011	706.25	25915.31	2.73
2012	663.62	28183.8	2.35
Statistical Analysis			
Mean	Rs. 72.86	Rs. 20682.72	0.25%
σ	1192.72	7772.93	7.33
C.O.V	1637.07%	37.58%	2971.48%
Growth	-355.53%	29.84%	-296.81%
Average Growth	-35.55%	2.98%	-29.68%

Source: Compiled from the annual reports of IFCI Ltd. (From 2003 - 2012)

INTERPRETATION

According to the table no.5, return on Assets ratio showed a fluctuating trend throughout the period of study. It was -1.20% in the year 2003 and -20.29% in the year 2004. It was -0.84% in the year 2005 and was at its lowest i.e., -0.65% in the year 2006. The return on assets again increased to 5.80% in the year 2007. The return on assets was at its highest in the year 2008 when it was 6.72%. In the next year i.e., 2009 the return on assets decreased to 4.42% and further decreased to 3.43% in the year 2010. In the year 2011, the return on assets ratio decreased to 2.73% and further decreased to 2.35% in the year. The standard deviation of the return on Assets ratio was 7.33, with coefficient of variation as 2971.48% and average annual growth as -29.68%.

6. RETURN ON EQUITY RATIO (ROE)

This ratio measures the relationship between net profit (after interest and taxes) and shareholder funds. The objective of computing this ratio is to find out how efficiently the funds supplied by all the shareholders (equity and preference) have been used. This ratio is computed by dividing the net profit after interest, tax and dividend by shareholder funds. It is expressed as a percentage. This ratio is calculated as under:

$$\text{Return on Owner's Equity} = \frac{\text{Net Profit (After Tax)}}{\text{Owner's Equity}} \times 100$$

The shareholder equity or net worth includes paid up capital, security premium and reserve and surplus less accumulated losses. Net worth can also be determined by subtracting total liabilities from total assets. This ratio indicates the firm's ability of generating profit per rupee of shareholder's funds. A higher ratio shows more efficient management and utilization of shareholder's funds. They may also be used for declaration of dividend and creation of reserves for future growth. This ratio is very important as it tells us the value added to the owner's investment by the firm. It also helps us to tell how well the firm is able to manage its resources and profitable investment opportunities available in the external as well as internal environment.

TABLE: - 6 STATEMENT SHOWING RETURN ON EQUITY RATIO (Rs. in Crores)

Year	Profit After Tax (Rs.)	Net worth (Rs.)	Return on Net worth (%)
2003	-259.70	393.68	-0.66
2004	-3229.78	-2850	1.13
2005	-324.40	-3182.78	0.10
2006	-74.10	-3261.32	0.02
2007	898.02	1105.59	0.81
2008	1020.57	3324.87	0.31
2009	657.15	3740.76	0.18
2010	670.94	4609.8	0.15
2011	706.25	5003.4	0.14
2012	663.62	5535.75	0.12
Statistical Analysis			
Mean	Rs. 72.86	Rs. 1441.98	0.23
σ	1192.72	3338.41	0.45
C.O.V	1637.07%	231.52%	196.49%
Growth	-355.53%	1306.15%	-118.17%
Average Growth	-35.55%	130.62%	-11.82%

Source: Compiled from the annual reports of IFCI Ltd. (From 2003 - 2012)

INTERPRETATION

As per table no. 3.6, the return on net worth ratio was at its lowest in the year 2003 when it was -0.66%. The return on net worth was at its highest in the next year i.e. 2004 when it was 1.13%. The return to net worth then decreased to 0.10% in the year 2005 and further decreased to 2.02% in the year 2006, in the year 2007, it increased to 0.81% and then decreased to 0.31% in the year 2008. The return to net worth ratio decreased to 0.18% in the year 2009 and it further decreased to 0.15% in the year 2010 and to 0.14% in the year 2011. It decreased to 0.12% in the year 2012. The standard deviation of the return on net worth ratio was 0.45, with coefficient of variation as 196.49% and average annual growth as -11.82%.

7. BURDEN RATIO

Burden ratio indicates the contribution of non-interest operating income in recovering non-interest operating costs. In other words, the difference between interest income and interest expenses provides the yield spread to a financial institution to meet other expenses. If a financial institution has substantial non-interest income to bear the "Burden" of other operating costs (mainly staff costs and other administrative costs), the profitability of the financial institution improves. On the other hand, if a financial institution has lower non-interest income as compared to other operating expenses, the burden ratio would turn negative; which would imply that the net margin of the financial institution would be affected by the burden ratio. It is calculated by dividing (Non Interest Incomes- Non Interest Expenses) by Total Assets.

$$\text{Burden Ratio} = \frac{(\text{Non Interest Income} - \text{Non Interest Expenses})}{\text{Total Assets}}$$

Where non- interest income excludes gain on sale of assets or securities.

TABLE: - 7 STATEMENT SHOWING BURDEN RATIO (Rs. in Crores)

Year	Non-Interest Incomes- Non Interest Operating Expenses (Rs.)	Total Assets (Rs.)	Burden Ratio (%)
2003	-21.21	21706.85	-0.10
2004	-92.49	15914.66	-0.58
2005	-26.74	38543.56	-0.07
2006	-9.59	11435.09	-0.08
2007	2.85	15477.32	0.02
2008	-4.16	15178.81	-0.03
2009	-8.4	14882.57	-0.06
2010	-89.44	19589.21	-0.46
2011	12.73	25915.31	0.05
2012	-1.61	28183.8	-0.01
Statistical Analysis			
Mean	Rs. -23.81	Rs. 20682.72	-0.13
σ	35.22	7772.93	0.20
C.O.V	-147.94%	37.58%	-153.07%
Growth	-92.41%	29.84%	-94.15%
Average Growth	-9.24%	2.98%	-9.42%

Source: Compiled from the annual reports of IFCI Ltd. (From 2003 - 2012)

INTERPRETATION

According to table no.7, the burden ratio was -0.10% in the year 2003. This ratio further decreased and was -0.58% in the year 2004. The burden ratio was -0.07% in the year 2005 and -0.08% in the year 2006. It was 0.02% in the year 2007 but decreased to -0.03% in 2008, it further decreased to -0.06% in the year 2009. In the year 2010, this ratio was -0.46%. It was at its highest i.e., 0.05% in the year 2011 but it decreased to become -0.01% in the year 2012. The standard deviation of the burden ratio was 0.20, with coefficient of variation as -153.07% and average annual growth as -9.42%.

TESTING OF HYPOTHESIS**Null Hypothesis (Ho)-**

There is no significant difference in the profitability position of the Industrial Finance Corporation Of India Ltd during the period of study (2003-2012).

Interpretation of t-test

$$t = 2.23 \text{ \& } t_{0.05} = 1.86$$

$$t > t_{0.05}$$

When degree of freedom (df) is 8 and level of significance is 5%, the critical value of $t_{0.05}$ is 1.86. Since the calculated value of t is 2.23 which is more than the table value, we conclude that there is a significant difference in profitability position of the Industrial Finance Corporation Of India Ltd during the period of study (2003-2012). Hence, null hypothesis is rejected.

Alternative Hypothesis (H₁)-

There is a significant difference in profitability position of the Industrial Finance Corporation Of India Ltd during the period of study (2003-2012).

Since, the calculated value of t is 2.23 which is more than the table value, we conclude that there is significant difference in profitability position of the Industrial Finance Corporation Of India Ltd during the period of study (2003-2012). Hence alternative hypothesis is accepted.

CONCLUSIONS

The income statement reflects the efficiency with which the activity of an institution has been undertaken; they give an idea of whether the actual performances are in conformity with the predetermined goals and objectives. These are basically prepared with the main purpose of reporting companies' earnings to the investors. Hence, a lot of care is required for preparing these statements as they are the revelation of the proper performance of a concern. The financial analysis provides a number of tools which helps to develop a better understanding of the data provided by the income statement. These tools help to establish relationship between various variables of the income statement, which seem to be as mere figures in the absence of application of the techniques of financial analysis. For this reason the tools like ratio analysis, comparative income statement, common size income statement and trend analysis of income statement have been undertaken for the purpose of the present research work.

The analysis of income statement of IFCI Ltd reveals that the profit of the institution though, was not at all satisfactory initially but later on it gives a favourable picture of the performance of the concern. The overall average of net profit after tax ratio over the period of study was -10.38 crores. The overall growth of net profit over the period of study was 231.40%, which means that the average annual growth was of 23.14%. The operating cost of an institution should always be less than its operating incomes so that it can continue to grow in near future. The study of operating cost ratio reveals a satisfactory image, since except for the two initial years, the operating cost ratio showed a favourable condition of the concern in the rest of the period of the study as the overall average was 73.06%, with a growth of -37.37%, which reflects average annual growth of -3.74%.

The operating profit is the simplest measuring rod of performance of a concern. Higher the operating profit better is the performance of the concern. As far as IFCI Ltd is concerned, the operating profit ratio also gives a favourable picture of the concern since except for the two initial years the operating profits were quite consistent and approving. The overall average of operating profit ratio was 30.51%, with growth of 308.88% and average annual growth of 30.89%. The equity investors of any concern are very valuable for the concern; since they are the major provider of capital and their continuous support is indispensable for the survival of the concern. Hence, utmost care should be taken regarding the returns provided to them. The return on equity capital ratio is such a measure which helps to examine the profitability from the perspective of the equity investors. The return on equity capital ratio of IFCI Ltd was not satisfactory in the initial years of study but later on they improved. The overall average for return on equity capital ratio was -12.01%, with growth of 170.98% and average annual growth of 17.10%.

The efficiency of any firm depends a lot on its ability to utilize its assets profitably. The return on assets ratio facilitates to know whether the assets of the concern are used justifiably, since long run survival and growth of a firm is unimaginable if its assets are not utilized properly. As far as IFCI Ltd is concerned the assets of the firm were not used judiciously in the initial four years of study but later on the institution managed to utilize its assets properly. The overall average for return on assets ratio was 0.25%, with growth of 296.81% and average annual growth of 29.68%. Funds are an essential resource for undertaking any activity and its significance becomes all the more important due to the fact that it is a scarce resource particularly in a developing economy like India. The return on equity ratio is a tool to find out, how efficiently the funds supplied by the shareholders have been used. The return on equity ratio was quite favourable throughout the period of study except the first year i.e., 2003. The average return on equity ratio was 0.23%, with growth of 118.17% and average annual growth of 11.82%. A financial institution has certain non-interest operating incomes also besides its interest operating incomes. The amounts of such incomes have a significant role to play in the performance of these institutions since a substantial amount of non-interest operating incomes indicates a better profitability of the institution. The situation of IFCI Ltd shows an unfavourable picture as depicted by burden ratio except for the two years i.e., 2007 and 2011 when it was 0.02% and 0.05% respectively. The average burden ratio was -0.13%.

SUGGESTIONS

The main aim of undertaking the research work is to make an effort in developing an understanding of the performance of various correlated activities of the organization. Hence, various tools of financial analysis have been applied to fulfil this aim. But the research work does not end, only with analysis and interpretation of data. Any kind of research work is incomplete in the absence of suggestions, suggestions which are key to improvement in future. For this reason, the following suggestions could be laid down in the light of the findings:

1. The institution should try to maintain the control over its operating expenses which will otherwise going to be a major constraint on its profitability. The institution needs to maintain its present level of operating expenses in future also.
2. The institution should try to take utmost care in providing better returns to its equity shareholders since they are the major provider of capital and there continuous support is indispensable for the survival of the concern.
3. The Industrial Finance Corporation of India Ltd should try to control and enhance its non-interest operating incomes since the situation of IFCI Ltd shows an unfavourable picture as depicted by its burden ratio.
4. The institution should try to issue further share capital since borrowed capital should be used or is worthwhile only when the company's earnings are greater than its cost of capital and should reduce debt capital by reducing the amount of innate funds from outside sources.

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SIZE, AGE AND GROWTH IN INDIAN SELECTED PHARMACEUTICAL COMPANIES

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ABSTRACT

This study identifies the relationship between size, age and firm growth of selected companies in pharmaceutical industry in India. It is based sample of 10 companies drawn from the list of companies from the Capital Line database. It covers the period of ten years, i.e., from 2001-02 to 2010-11. The growth of the firm measured in terms of sales, and size in terms of total assets and Age is treated from the company establishment to initial year of the study. And Growth in net sales treated as dependent variable and Size and age are the depended variables. Correlation is used to know the relationship between the variables. It shows Age and Size both are positively significant with Growth. Multiple regression analysis results reveal that Size of the selected pharmaceutical companies determining its growth.

KEYWORDS

Age, Determinants, Growth, Net Sales, Size.

INTRODUCTION

Many economists attracted in the world Size, Age, Profitability, Research development and growth of the firms etc., in an industry. This study focused on Size, Age and Growth of selected companies of pharmaceutical industry. Precise information about the size, age and growth variables.

Size: Size in economic terminology, may be defined as 'scale'-it may be scale of production, output or operation and may constitute, one of the important elements determining efficiency of a firm. It is of essential importance for the firms to be of optimum size. If the firms are too big or too small, the efficiency of the firm in general and its competitive power in particular, may be seriously impaired. The factors affecting the size of the firm may be technical, marketing, financial and entrepreneurial (Beacham, 1958). In order to measure the Size of the firm different people considered different variables. Assets are used in the studies of Aislable (1971), Barna (1962), Cohen and Smyth (1973), Davenport (1971), Sing and Whittington (1968). This study focusing the Assets are the measure of size of the firm.

AGE: This study focusing age as initial year of study (2002) minus the year of first registration as a company, as reported in the stock exchange official directory. Some arguments suggest that young firm's with an unstable growth performance. But on the hand, economists give another argument, that young firms have more potential. They are more dynamic and more volatile in their growth experience than older firms.

GROWTH: Growth is important dimension of the firm, whether it is small or large. Through growth, the firm will be able to enlarge its size. The larger the firm, the more perfect the control it assumes over its environment and the higher the efficiency with which it plans its overall activities. Downie, 1958; Marris, 1998 argued that growth is a necessary condition for the long run survival of the firm in an uncertain and constantly changing environment. Each one is supported by different key functions shared by different departments in the company. Barringer et al. (2005) reviewed more than 55 works on high-growth businesses, and since then other studies have followed, with different empirical and theoretical perspectives (Chan et al., 2006; Gollann, 2006; Moreno and Casillas, 2007, 2008; Rauch et al., 2005; Storey, 2011 Wiklund et al.2009). Galbraith (1967) argued that the firm may maximize the rate of growth of sales subject to an acceptable level of dividends and retained earnings.

THE INDIAN PHARMACEUTICAL INDUSTRY: AN OVERVIEW

The Pharmaceutical industry in India meets around 70% of the country's demand for bulk drugs, drug intermediates, pharmaceutical formulations, chemicals, tablets, capsules, orals and injectables. There are approximately 250 large units and about 8000 Small Scale Units, which form the core of the pharmaceutical industry in India (including 5 Central Public Sector Units). Overall, the Indian market for pharmaceuticals is projected to grow at an average annual rate of between 15 and 20 percent during 2005 - 2010. The Indian Pharmaceutical industry is one of the growing sectors in India's science-based industries. The demand for pharmaceutical products in India is significant and is driven by low drug penetration, rising middle-class & disposable income, increased government & private spending on healthcare infrastructure, increasing medical insurance penetration etc. The Indian pharmaceutical industry is growing at about 8 to 9 percent annually according to "A Brief Report Pharmaceutical Industry in India," published in January 2011. McKinsey & Company's report, "India Pharmacy 2020: Propelling access and acceptance, realizing true potential," predicted that the Indian pharmaceuticals market will grow to US\$55 billion in 2020; and if aggressive growth strategies are implemented, it has further potential to reach US\$70 billion by 2020. Further, McKinsey reports Healthcare grew from 4 per cent of average household income in 1995 to 7 percent in 2005 and is expected to grow to 13 per cent by 2025.

REVIEW OF LITERATURE

The empirical studies in India, as well as abroad are presented to find out the gaps in the studies, it is relevant to review the available literature on the related aspect of the present study.

Kumar. P (1985), in his study on "Corporate growth and profitability in the larger Indian Companies", has examined the relationship between profitability and growth in 83 large companies in India's corporate sector during 1969-79. The study reveals a significant inter study. The very low value of R^2 in all the cases shows that only a small fraction of the growth of firms in India corporate sector has been explained by profitability.

Hall and Mairesse (1998) studied a sales model based on a Cobb-Douglas production function and performing OLS and GMM estimations. The most important conclusion is the high productivity of research and development in increasing the sales. These results were achieved for the United States data, and they used the GMM methodology to control for the simultaneity and firm heterogeneity. Additionally they found that the contribution of R&D to the Sales productivity declined during the 1980s, and the simultaneity bias was higher in the US than in France. This bias was probably due to the higher liquidity constraints for R&D Investments in the US firms than in the French firms.

Geroski (1999), together with Machin, and Walters (1997) studied the growth and profitability rates. Geroski concluded that the firm size follows a random walk, corporate growth is history dependent and every firm seems to have its own history. He described the theories of corporate growth and the implications in the

growth models for every theory. A very important conclusion, due to Geroski, is the finding of the irregular and erratic innovation by the majority of the firms, and the existence of a threshold to get signs of learning or increasing returns to the innovative activity. The results of the joint work show the unpredictability of corporate growth due to the unpredictability of future shocks, and the link between current growth and changes in the market value of firms.

Shanmugam K R and Bhaduri Saumitra N (2002), "Size, Age and firm Growth in the Indian manufacturing sector", Applied Economics Letters, Vol.9, pp 607-613, analyzed the growth of 390 Indian manufacturing firms. The statistical tools mean standard deviation and regression, shows significant results that age positive and size negative impact on growth of the firms.

Cox, Camp and Ensley (2002) surveyed 672 members of the Entrepreneur of the Year Institute and found a positive relationship between sales growth rate and profitability growth.

Cowling (2004) investigated UK firms across industries and concluded from a series of regression analyses that profit and growth tended to move together.

Niskanen, Mervi and Niskanen Jyrki (2005), "The Determinants of Firms growth in small and Micro Firms. Evidence on relationship lending Effects". This study has done between 1994 and 1997 with objective of examining the determinants of growth of small and micro firms with sample size of 100 Finland firms.

S. Chandrakumarmangalam and P. Govindasamy (2010) had analyzed under their study - "Leverage" – An Analysis and its Impact on Profitability with Reference to Selected Cement Companies in India, that the leverage and profitability and growth are related and the Leverage is having impact on the profitability of the firm.

Most of the studies have identified a positive impact of leverage on sales growth (e.g. Heshmati 2001, Honjo and Harada 2006, Hermelo and Vassolo 2007 and Huynh and Petrunia 2010). The autoregressive dynamic models were used in the Geroski, Machin and Walters' research when regressing the growth rate of the firm by previous growth rates and changes in current expectations of future profitability.

Our research differs in three main aspects when compared with the above mentioned previous research. Firstly, it differs in the specification of the econometric models; secondly, in the variables used and thirdly in the conclusions. The rest of studies are based on a static Cobb-Douglas production function where the production output is a function of labour, capital, and knowledge or R&D capital as specifically applied by Hall and Mairesse. Our research is based on Size, Age and Growth relationship by using mean standard deviation. It gives clear idea about consistency and variance of above variables of selected companies. And also multiple regressions have also run among the dependent and independent variables by using SPSS, which shows the significant results.

STATEMENT OF THE PROBLEM

The Pharmacy industry in India is playing a vital role in the healthcare area of the nation. With the implementation of product patents from the year 2005, there will be a tough competition for the global market share. The foremost objective of a business firm is to achieve maximum profit. It can be achieved through various factors. However, today's business aims for value addition towards equity shareholders. If the profit of a firm increases, then the growth and value of shareholders also increases. To achieve its objective, a firm should take proper financial decisions-which can be done through the Growth. It can be done through various factors. This study concentrates the Size, Age and Growth relationship in Indian selected pharmaceutical industry.

OBJECTIVES OF THE STUDY

1. To analyze the growth of the selected Indian pharmaceutical industry.
2. To examine the relationship among size, age and growth of the firms.

RESEARCH METHODOLOGY

Methodology is the science of dealing with principles of procedure in research and study. It deals with the definition of the research problem, research design method of data collection, sampling design, statistical tools employed and elucidation of survey data.

RESEARCH DESIGN AND PERIOD OF THE STUDY: The design of the present study is descriptive and analytical in nature and covers the period of 10 years, from 2001-2002 to 2010-2011.

SOURCES OF DATA: In the present study, secondary data were used. The data was collected from Capital line and Prowess Database.

SAMPLE SELECTION CRITERIA: The selection was made based on the following criteria:

1. The Pharmaceutical companies having continued availability of data.
2. The pharmaceutical companies which had nonstop net sales during the study period.

SAMPLE SELECTION: Among 661 Indian pharmaceutical companies 561 companies are public limited, 78 companies are listed in the NSE, and 210 companies are listed in BSE. The sample companies were reduced to 10 companies based on the availability of data.

TOOLS AND TECHNIQUES: The variables considered for the analysis include growth of sales, Size and age. The statistical tools such as Descriptive, correlation, Regression analysis done by using SPSS Software.

SCOPE OF THE STUDY: Irrespective of company's scale whether it is small or large growth have important dimension of the firm. So the present study focuses on analyzing the factors influencing the growth, as it is useful for decisions like financing and investment to maximize the profits.

HYPOTHESES OF THE STUDY

1. Size has positive relationship with growth of pharmaceutical selected companies.
2. Age positive relationship with growth of pharmaceutical selected companies.

CONCEPTUAL FRAME WORK

Variables And their Definitions: The study examines the determinants of the growth (Net Sales) of the Indian pharmaceutical Industry. For examining the various factors that affect the Growth (Net Sales) of the companies in India the present study considers growth (Net Sales) as a dependent variable and the Size and Age are consider as independent variables in the present study.

Growth: Growth is important dimension of the firm, whether it is small or large. Through growth, the firm will be able to enlarge its size. The present study measures growth in terms of compounded average annual growth. Rate of Sales has been taken as the Proxy.

Size: The firm size has been one of the cost common variables used in explaining a company's Growth. Size of the firm is measured either by a natural logarithm of assets or of sales. For this study, natural logarithm of assets is used as a proxy for the firm's size.

Size: logarithm (Total Assets)

AGE: This study focusing age as initial year of study (2002) minus the year of first registration as a company, as reported in the stock exchange official directory.

ANALYSIS AND INTERPRETATION

ANLYSIS OF DATA: The data were analyzed by using descriptive statistics, matrix. The regression line fitted, taking sales growth as a dependent variable and size and age are used as independent variables.

DESCRIPTIVE STATISTICS: It gives a numerical and graphical procedure to summarize a collection of data in an understandable manner. In this study, the descriptive statistics of mean, standard deviation, minimum and maximum were used.

TABLE 1: DESCRIPTIVE STATISTICS

Variables	Obs.	Mean	S.D	Minimum	Maximum
Growth	100	.224	.95476	-1.00	6.45
Age	100	.009	.18502	-1.00	.52
Size	100	.0018	.16733	-1.00	.62

Table 1 provides a summary of descriptive statistics of the dependent and independent variables. The mean of net sales of the company is .224. This means that more than 22% of the company's growth depends on the net sales. Age mean value is .009 and size mean value is .0018.

CORRELATION MATRIX

It is a mathematical tool that is used to describe the degree to which one variable is linearly related to the other, in other words it is measuring the degree of association of the two variables. The table 2 shows the correlation matrix between dependent and explanatory variables. The results show that Age and Size are positively correlated with growth (net sales), which is significant at 1% level.

TABLE 2: CORRELATION MATRIX

Variables		Growth	Age	Size
Growth	Pearson correlation Sig (2-tailed)	1	.540** .000	.620** .000
Age	Pearson correlation Sig (2-tailed)	.540** .000	1	.846** .000
Size	Pearson correlation Sig (2-tailed)	.620** .000	.846** .000	1

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

REGRESSION MODEL SPECIFICATIONS

The present study examines the determinants of growth (net Sales) of the pharmaceutical industry by using multiple regression analysis. All four explanatory variables are included in the regression study. The model is represented as follows:

$$\text{Growth}_{it} = \beta_0 + \beta_1 \text{Age}_{it} + \beta_2 \text{Size}_{it} + \epsilon_{it}$$

The variables are for clarification given below:

Size_{it} = Natural logarithm of Total assets for a firm i in period t

Growth_{it} = compound annual growth rate of sales for a firm i in period t

ε_{it} =Residuals

TABLE 3: REGRESSION RESULTS

Variables	Beta(β)	Std.Error	T	P values
(constant)	.216	.076	2.840	.005
Age	.277	.771	.359	.720
Size	3.280	.853	3.847	.000

Table 3 indicates the regression results of explanatory variables. Age is positive relationship with growth (Net sales) but not significant as the p- value shows .720. And it is clear that Size have positive relation with growth. The results are statistically significant (p-value, .000). Hence, the hypothesis has been accepted, and it can be concluded that Size of the Indian pharmaceutical industry, taken as the sample, is positively correlated with growth (Net Sales). The results are statistically not significant (p-value, .720) at any level of significance, there by rejecting the hypothesis which implies that Age does not affect the determinants of Growth (net sales).

F Statistics giving value p value .000 depicts that regression model is highly significant in this study.

TABLE 4: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.621 ^a	.386	.373	.75608

The table 4 presents the value of R Square, which is equal to .386 and suggests that 38.6% of the variation in the Growth (Net Sales) has been explained by the explanatory variables such as Size and age.

STEP-WISE REGRESSION

Step-wise regression analysis has been used to find out the explanatory variables contributing the most towards the variation in the Growth (Net Sales) of the Indian pharmaceutical industries is Size of the selected companies of pharmaceutical industry.

TABLE 5: STEP-WISE REGRESSION RESULTS

Model		Beta(β)	Std. Error	T value	P values
1	(Constant)	.218	.075	2.894	.005
	Size	3.539	.452	7.828	.000

The Table 5 shows the step-wise regression results. It reveals Size is positively correlated with growth, indicating them as statistically significant (p value is .000) and, therefore, hypothesis is accepted.

SUMMARY OF FINDINGS

- From this study, it is found that Growth (Net Sales) had high mean value of .224. This means 22.4% of pharmaceutical companies are growing in terms of sales.
- The results show that the Size and Age has positively correlated with growth (Net Sales)
- The regression results of explanatory variables make it clear that Size of selected companies only determining growth of pharmaceutical industry.
- The step-wise regression result also shows that Size has more significant relation with growth (Net Sales) of the companies.

SUGGESTIONS

- Growth of the firm is positively related to the pecking order theory. Hence, the suggestions from this theory are recommended that to have a long term benefit.
- This study suggests that Size is enhancing the growth of the pharmaceutical industry. So it suggests that improvement of total assets.

CONCLUSION

This study analyzed the size, age and growth association by taking 10 Indian pharmaceutical companies from 2001-02 to 2010-11. By using multiple correlations, it is clear that Size and Age have high positive influence with the Growth (Net Sales). And also the results confirm the significance of Size as determinants of Growth by the statistical tool of multiple regressions. Finally the Indian pharmaceutical companies are growing drastically in terms of sales and total assets and also have a wide scope in the future. So they could decide on for more Sales, size to enjoy the benefits to increase their shareholders' value.

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VENTURE CAPITAL FIRMS ASSESSMENT CRITERIA'S WHILE FINANCING FOR NEW ENTERPRISES IN KARNATAKA

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ABSTRACT

The present study addresses the investment criteria's used by Venture Capital Firms of Karnataka in their financing decisions to new enterprises. Using Likert scale type of questionnaire, venture capital firms of Karnataka were asked to rate the investment criteria's. By evaluating the mean ratings, it was found that venture capital firms of Karnataka considers the Entrepreneur honesty and integrity, Long term vision, Urge to grow, High-tech product, Uniqueness of the product, High market growth rate, Balanced team, Capable of sustained intense efforts, high internal rate of return, Easy market acceptability are the top ten most important criteria's considered by venture capital firms before financing the new enterprises.

KEYWORDS

High-tech product, venture capitalists, start-up companies etc.

INTRODUCTION

Venture capital is a growing business of recent origin in the area of industrial financing in India. The venture capital sector is the most vibrant industry in the financial market today. Venture capital is finance provided by professionals who invest in young, rapidly growing companies that have the potential to develop into significant economic contributors. Venture capital is an important source of equity for start-up companies.

Venture capital can be visualized as **"your ideas and our money"** concept of developing business. Venture capitalists are people who pool financial resources from high net worth individuals, corporate, pension funds, insurance companies, etc. to invest in high risk- high return ventures that are unable mobilize funds from regular channels like banks and capital markets. The venture capital industry in India has really taken off recently. Venture capitalists not only provide monetary resources but also help the entrepreneur with guidance in formalizing his ideas into a viable business venture. With technology and knowledge based ideas set to drive the global economy in the coming millennium, and given the inherent strength by way of its human capital, technical skills, cost competitive workforce, research and entrepreneurship, India can unleash a revolution of wealth creation and rapid economic growth in a sustainable manner, however, this to happen, there is a need for risk finance and venture capital environment which can leverage innovation, promote technology and harness knowledge based ideas.

Venture Capital refers to the commitment of capital as shareholding, for the formulation and setting up of small firms specializing in new ideas or new technologies. It is not merely an injection of funds into a new firm, it is a simultaneous input of skill needed to setup the firm, design its marketing strategy and organize and manage it. It is an association with successive stages of firm's development with distinctive types of financing appropriate to each stage of development.

REVIEW OF LITERATURE

This section provides a view of some existing literature with regard to the selection criterion for venture capitalists; this literature review must allow having a better understanding of both research topics and of the existing gap.

Wells (1974) conducted personal interviews with eight venture capital companies. The criteria which his respondents used to evaluate business proposals and deals include, in order of significance management commitment, product, market, marketing skill, engineering skill, marketing plan, financial skill, manufacturing skill, references, and other participants in the deal, industry/technology, and cash-out method.

Poindexter (1976) added to Wells' criteria (1974) and re-ranked them with a more extensive sample size of 97. The new criteria, with modified rankings according to their significance, include quality of management, expected rate of return, expected risk, percentage equity share of venture, Management stake in firm, financial provisions for investor rights, venture development stage, restrictive covenants, and interest of dividend rate, present capitalization, investor control, and tax shelter considerations.

MacMillan, Siegel and Subba Narashimha (1985) carried out a two-step study, interviewed of 14 VCs and identified 27 criteria of evaluating venture investment. Then they grouped these criteria in six groups: entrepreneur's personality, Entrepreneur's experience, product characteristics, market characteristics, financial considerations and composition of venture team. They then tested the model with a questionnaire mailed to a sample of 150 VCs in the US. The analysis revealed that, out of 10 criteria most frequently rated as essential, six related to the entrepreneur's personality and experience.

Robinson, R.B. (1987) Mailed questionnaires to 53 VCs, by using Descriptive statistics and Factor analysis he identified that management skills, venture team, references/ track record, personal motivation, market growth, competitive threat, cash-out potential/liquidity, substantiated growth objectives are most important criteria's in venture success.

Timmons, J.A et.al(1987) By conducting unstructured interview to 47 VCs, by using content analysis they find out that management skills, venture team, references, degree of product differentiation, market acceptance, product line, growth path, market size, market growth, barriers to entry, competitive threat, cash-out potential/liquidity, size of investment, value added stream are important criteria's.

I. M. Pandey, Jyoti P Gupta and R M D Wickramatilake (1995) the purpose of this paper is to provide empirical evidence of the venture capital activity in a developing Asian country, which is Thailand. The top ten criteria identified by their study are: well thought strategy to remain ahead of competition, integrity, familiar with target market, managerial skills, and balanced team. Long-term vision, demonstrated market acceptance of the product, urges to grow, high market growth, financial skills.

Pandey (1996) in the study to evaluate criteria being used by the VCs in India, found that out of the top five criteria, most frequently rated as essential, four relate to the entrepreneur's personality, viz., integrity, urge to grow, long-term vision and well-thought strategy to remain ahead of competition. The sample consisted of nine VCs. Pandey concluded that VCs in India consider the entrepreneur's integrity and urge to grow as the most important critical aspects of venture evaluation, but a very low priority to the high-tech component of the product, untapped market, and venture returns.

Gupta, J P, Pandey, I M and Wickramatilke, R M D (1996) they found that in Sri Lanka, the top criteria preferred by venture capitalists are; potentially high growth, return, liquidity and technologically skilled venture team. The entrepreneur's integrity and sustained efforts are additional important evaluation criteria.

Pandey, I M and Jang, Angela, (1996) they found that the five top most criteria considered by venture capitalist while financing in Taiwan are; return on investment, entrepreneurs' technical skills, market need for product, growth potential for the market and liquidity of investment.

Golis, (1998) The criteria used in the screening stage are: market size and potential growth; a significant competitive advantage; uniqueness of the product/service; management team; funding requirement; investment stage; the industry; profit potential; and economic return.

Zacharakis and Meyer (2000) also found, using conjoint analysis that the entrepreneur is not as important as shown in previous studies, and that Market and competition considerations were more important.

Dr. A.K.Mishra (2004) the study analyses the validity of venture evaluation model in India by directly comparing the relative importance of evaluation criteria on the funding decision with the relative importance to factors influencing venture's empirical performance. The results reveal that criteria adopted by Indian VCs are different from those adopted by VCs in other countries including US. The results also confirm that the entrepreneur's personality and experience are seen as being primary indicators of the venture's potential.

Lerner (2004) enumerates criteria similar to those found by prior authors (promising technology, flexible and experienced management team, market size, fulfillment of market needs) and adds that, if available, the feedback from existing or potential customers is an important element to consider.

Abdul Rakhman (2005) this research investigates the use of investment criteria to evaluate potential partners who seek venture capital. The survey was undertaken in the South Sulawesi Province of Indonesia. VCs paid a lot of attention to the financial aspects and personality and experience of entrepreneurs in assessing the proposed businesses. They were concerned with the availability of raw material, marketing skills, fair trading and legal action. Entrepreneurs rated the ability to manage risks, product being well accepted and ability to attract customers as very important, and audited financial report and relationship with VCs as important. Investees emphasized honesty, openness and approachability, the product being well accepted, ability to attract customers and VCs actively developing trust and relationship with investees. They also believed IRR to be important.

B.van Deventer and C. Mlambo (2008) this study explores and identifies the investment criteria used by South African Venture Capitalists in their venture screening and evaluation processes. By using a Likert scale type of questionnaire by evaluating the mean rating, it was found that South Africa VCs consider the entrepreneur's honesty and integrity; a good expected market acceptance; and a high internal rate of return to be the three most important criteria. The result of this study are deemed useful to both venture capitalists in their decision making process and to entrepreneurs in their venture capital applications to maximize their success rate.

STATEMENT OF THE PROBLEM

Venture capital is a risky finance for entrepreneurial growth oriented companies. It is an investment for the medium or long-term ventures seeking to maximize medium or long-term return for both the parties. The research gaps and relevant questions which strike the mind during the literature review that what assessment criteria's are being used by the venture capital firms of Karnataka while financing new enterprises, particularly when the venture capital activity is in its infancy stage? Hence there arises a need to address the mentioned question.

OBJECTIVES OF THE STUDY

To study the criteria adopted by venture capital firms while financing new enterprises in Karnataka.

SCOPE OF THE STUDY

The present study is confined to venture capital firms located in Karnataka under the registration of SEBI and functioning in Karnataka. At present as on Jan, 2013, total 13 venture capital firms and 21 of their funds located in Karnataka.

DATA AND METHODOLOGY

Data is gathered through primary data, i.e. questionnaire from different venture capital firms under the registration of SEBI and functioning in Karnataka. From the 13 questionnaires sent out, 10 completed, surveys were returned giving a response rate of 76.92%. For analysis of data mean rating is calculated to achieve the expected results.

QUESTIONNAIRE

The questionnaire was used collect the required information. The respondents were asked to evaluate the importance of the investment criteria using a four-point scale, where 1 = irrelevant; 2 = desirable, 3 = important and 4 = essential. Likert scale questionnaire provides a consistent means of obtaining data. It helps reduce bias.

RESULTS**EVALUATION CRITERIA'S AND RESULTS**

Criteria's	Mean	Variance(standard deviation)	Standard Deviation
I Management Criteria			
A. Entrepreneur's Personality			
Entrepreneur honesty and integrity	3.9	0.1	0.31623
Great desire for success	3.4	0.48889	0.69921
Capable of sustained intense effort	3.6	0.48889	0.69921
Able to evaluate and react to risk well	3.00	0.44444	0.66667
Long term vision	3.8	0.17778	0.42164
Attention to detail	3.00	0.22222	0.4714
Urge to grow	3.7	0.45556	0.67495
Commercial orientation	3.3	0.67778	0.82327
Amenable to suggestions and criticism	2.3	0.67778	0.82327
Articulate in discussing venture	2.2	0.62222	0.78881
Compatible personality	2.1	0.76667	0.8756
The entrepreneur is hardworking and flexible	3.2	0.62222	0.78881
B. The Entrepreneur's Experience			
Familiarity with target market	3.4	0.48889	0.69921
Demonstrated leadership ability in past	2.5	0.27778	0.52705
Track record relevant to venture	2.4	0.48889	0.69921
Referred by trustworthy source	1.1	0.1	0.31623
Familiarity with entrepreneur's reputation	1.9	0.54444	0.73786
Competes against self imposed standards	2.2	0.84444	0.91894
Well thought-out strategy to remain ahead of competition	2.8	0.62222	0.78881
The entrepreneur has good risk management qualities	3.5	0.5	0.70711
II Characteristics of the Product or Service			
A good market acceptance for the product or service	2.7	0.67778	0.82327
High-tech product	3.7	0.23333	0.48305
Uniqueness of the product	3.7	0.45556	0.67495
The product/service has a competitive advantage over competing products	2.7	0.23333	0.48305
venture has production capabilities in place	1.4	0.48889	0.69921
III Characteristics of the Market			
High market growth rate	3.7	0.23333	0.48305
Little threat of competition	2.5	0.72222	0.84984
Easy market acceptability	3.5	0.5	0.70711
Market stimulated by the venture	1.9	0.98889	0.99443
Large size of market	3.2	0.62222	0.78881
Product in market familiar to VCF	2.3	0.67778	0.82327
Ability to create a new market	2.5	0.27778	0.52705
IV Financial Considerations			
The venture will provide a high internal rate of return	3.6	0.26667	0.5164
The venture has Significant potential for earnings growth	3.2	0.4	0.63246
Expected return equal to at least 10 times the investment in 5-1-years	2.8	0.4	0.63246
Venture can be easily made liquid (By going public or Acquisition etc)	3.0	0.88889	0.94281
Subsequent investment not expected by VCF	1.6	0.48889	0.69921
VCF will not participate in later rounds of investment	1.1	0.1	0.31623
V Characteristics of Venture Management Team			
Technical skills	3.2	0.62222	0.78881
Managerial skills	3.1	0.32222	0.56765
Balanced team	3.6	0.26667	0.5164
VI. Environmental Threats			
Freedom or min regulation from outside agencies	1.5	0.27778	0.52705
Protection from barriers to entry by competition	1.6	0.26667	0.5164
Protection from obsolescence due to changing technology	2.0	0.88889	0.94281

MAIN GROUP CRITERIA'S AND RESULTS

Main Group Criteria's	Mean	Variance(standard deviation)	Standard Deviation
Management Considerations	3.9	0.1	0.31623
Product Considerations	3.6	0.26667	0.5164
Financial Considerations	3.7	0.23333	0.48305
Market Consideration	2.9	0.32222	0.56765
Environmental Threats	1.7	0.23333	0.48305
Venture Management Team	2.8	0.17778	0.42164

TOP TEN EVALUATION CRITERIA'S AND RESULTS

Criteria's	Mean	Variance(standard deviation)	Standard Deviation
Entrepreneur honesty and integrity	3.9	0.1	0.31623
Long term vision	3.8	0.17778	0.42164
Urge to grow	3.7	0.45556	0.67495
High-tech product	3.7	0.23333	0.48305
Uniqueness of the product	3.7	0.45556	0.67495
High market growth rate	3.7	0.23333	0.48305
Balanced team	3.6	0.26667	0.5164
Capable of sustained intense effort	3.6	0.48889	0.69921
The venture will provide a high internal rate of return	3.6	0.26667	0.5164
Easy market acceptability	3.5	0.5	0.70711

CONCLUSION

Venture capital firms of Karnataka paid a lot of attention to the management consideration, followed by financial and product consideration when financing for rapidly growing companies in Karnataka.

This study also identifies the investment criteria's used by venture capital firms of Karnataka in their evaluation process and study explore the most important criteria's rated by VCs, they are Entrepreneur honesty and integrity, Long term vision, Urge to grow, High-tech product, Uniqueness of the product, High market growth rate, Balanced team, Capable of sustained intense efforts, a high internal rate of return, Easy market acceptability are identified as most and top ten important criteria's.

In this context entrepreneurs can have a look on Criteria's considered by VCs, and helps for proposal preparation for venture capital to maximize their success rates.

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INVESTIGATING STOCK MARKET EFFICIENCY IN INDIA

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ABSTRACT

This paper investigates the stock market efficiency of the Indian stock markets by employing asymmetric EGARCH model. The result shows that volatility is persistent and there is leverage effect supporting the work of Nelson (1991) in the Indian stock markets. The study results show that market returns are contributed to the high volatility persistence, implying that Indian stock markets are not weak form efficient signifying that there is systematic way to exploit trading opportunities and acquire excess profits. This provides an opportunity to the traders for predicting the future prices and earning abnormal profits.

KEYWORDS

Stock market efficiency, Volatility, Asymmetric effects, EGARCH model.

1. INTRODUCTION

The efficient markets theory (EMT) of financial economics states that the price of an asset reflects all relevant information that is available about the intrinsic value of the asset. Although the EMT applies to all types of financial securities, discussions of the theory usually focus on one kind of security, namely, shares of common stock in a company. A financial security represents a claim on future cash flows, and thus the intrinsic value is the present value of the cash flows the owner of the security expects to receive.

Theoretically, the profit opportunities represented by the existence of "undervalued" and "overvalued" stocks motivate investors to trade, and their trading moves the prices of stocks toward the present value of future cash flows. Thus, investment analysts' search for mispriced stocks and their subsequent trading make the market efficient and cause prices to reflect intrinsic values. Because new information is randomly favorable or unfavorable relative to expectations, changes in stock prices in an efficient market should be random, resulting in the well-known "random walk" in stock prices. Thus, investors cannot earn abnormally high risk-adjusted returns in an efficient market where prices reflect intrinsic value.

As Fama (1991) notes, market efficiency is a continuum. The lower the transaction costs in a market, including the costs of obtaining information and trading, the more efficient the market. If the stock market found to be inefficient, then there is chance for making arbitrage profits. Hence, many theoretical asset pricing models (e.g., Sharpe, 1964; Lintner, 1965; Mossin, 1966; Merton, 1973, 1980) postulates the return of an asset to its own return variance. However, whether such a relationship is positive or negative has been controversial. Many traditional asset-pricing models (e.g., Sharpe, 1964; Merton, 1980) postulate a positive relationship between a stock portfolio's expected return and the conditional variance as a proxy for risk. On the other hand, theoretical works by Black (1976), Cox and Ross (1976), Bekaert and Wu (2000), Whitelaw (2000) and Wu (2001) consistently asserts that stock market volatility should be negatively correlated with stock returns.

Empirical studies pertaining to the relationship between expected returns and conditional volatility also provides mixed finding. Earlier studies by French et al., (1987), Bollerslev et al., (1988), Chou (1988), Harvey (1989), Scruggs (1998), Ghysels et al., (2005), Guo and Whitelaw (2006) as well as Leon et al., (2007) establishes a positive and significant relationship between expected returns and conditional variance. Besides, the earlier works by Baillie and De Gennaro (1990), Theodossiou and Lee (1995), Choudhry (1996), De Santis and Imrohorglu (1997), Leon (2007) and Olowe (2009) report a positive but insignificant relationship stock market returns and conditional variance. Furthermore, consistent with the asymmetric volatility argument, several researchers (Campbell, 1987; Turner et al., 1989; Nelson, 1991; Glosten et al., 1993; Bekaert and Wu, 2000; Wu, 2001; Brandt and Kang, 2004; Li et al., 2005) report a negative and often significant relationship.

Given the conflicting results cited above, it is primarily an empirical question whether the conditional first and second moments of equity returns are positively related. Besides, the several emerging markets like India are not weak-form efficient and subject to have asymmetric properties in risk-return characteristics. Hence, the usage of asymmetric econometric models in examining risk-return trade-off could provide more precise results, as Exponential GARCH-in-Mean (EGARCH-M) accommodates an asymmetric relationship between stock price returns and volatility changes under the assumption that both the magnitude and sign of volatility was important in determining the risk-return correlation. Thus, the negative and positive sign of the conditional variance allowed the stock price returns to respond asymmetrically (bad and good news) to rises and falls in stock prices.

The purpose of this paper is to investigate the weak form efficiency of the Indian stock market and as well as to examine the relationship between stock market returns and volatility in the Indian stock markets by employing EGARCH(p, q)-in-Mean model. The rest of this paper is organized as follows. Section-2 discusses the empirical methodology, Section-3 reports the empirical findings, and finally, Section-4 concludes the paper.

2. METHODOLOGY

In order to capture the asymmetric response of volatility to news, Nelson (1991) proposed EGARCH-M model which allows the conditional volatility to have asymmetric relation with past data¹. Two explanations for asymmetric responses have been put forward. The traditional explanation for this phenomenon was the so-called 'leverage effect' whereby a fall in price results in greater financial leverage, leading to an increase in risk premiums (Black, 1976 and Christie, 1982). Moreover, Black (1976) acknowledged that financial leverage alone was not a sufficient explanation to account for the actual size of the observed asymmetries, and an alternative explanation based on market dynamics and the role of noise traders have been expounded (Kyle, 1985 and Sentana and Wadhvani, 1992). Statistically, this effect occurs when an unexpected drop in stock price due to bad news increases volatility more than an unexpected increase in price due to good news of similar magnitude. This model expresses the conditional variance of a given variable as a non-linear function of its own past values of standardised innovations that can react asymmetrically to good and bad news. The AR(1)-EGARCH(p, q)-in-Mean model can be specified as follows:

$$R_t = \beta_0 + \beta_1 R_{t-1} + \xi \sigma_t^2 + \varepsilon_t \quad (1)$$

$$\ln(\sigma_t^2) = \alpha_0 + \alpha_1 \ln(\sigma_{t-1}^2) + \delta_1 \left| \frac{\varepsilon_{t-1}}{\sigma_{t-1}} \right| + \gamma_1 \frac{\varepsilon_{t-1}}{\sigma_{t-1}} \quad (2)$$

where, R_t is the stock market returns of the S&P CNX Nifty and BSE SENSEX Indices at time 't'. R_{t-1} is a proxy for the mean of R_t conditional on past information. β_0 is comparable to the risk-free rate in the Capital Asset Pricing Model. $\xi \sigma_t^2$ is the market risk premium for expected volatility. This is the most relevant parameter for this study, because the sign and significance of the parameter ξ directly shed light on the nature of the relationship between stock market returns and its volatility. The expected volatility is approximated by σ_t^2 , the conditional variance of R_t such that:

$$\sigma_t^2 = \text{var}(R_t / \psi_{t-1}) \quad (3)$$

where ψ_{t-1} is the information set up to time $t-1$ and, $\text{var}(\cdot)$ is the variance operator.

In terms of conditional variance equation (2), $ln(\sigma_t^2)$ is the one-period ahead volatility forecast. This implies that the leverage effect is exponential rather than quadratic and forecast of conditional variance are guaranteed to be nonnegative. σ_{t-1}^2 denotes the estimation of the variance of the previous time period that stands for the linkage between current and past volatility. In other words, it measures the degree of volatility persistence of conditional variance in the previous

period. $\frac{\epsilon_{t-1}}{\sigma_{t-1}}$: represents information concerning the volatility of the previous time period. It signifies the magnitude impact (size effect) coming from the unexpected shocks. σ_{t-1} : indicates information concerning the asymmetry effects. Unlike the GARCH model, the EGARCH model allows for leverage effect.

If γ_1 is negative, leverage effect exists. That is an unexpected drop in price (bad news) increases predictable volatility more than an unexpected increase in price (good news) of similar magnitude (Black, 1976; Christie, 1982). If δ_1 is positive, then the conditional volatility tends to rise (fall) when the absolute value of the standardized residuals is larger (smaller). α 's, β 's, ξ , δ and γ_1 are the constant parameters to be estimated. ϵ_t represents the innovations distributed as a Generalised error distribution (GED), a special case of which is the normal distribution (Nelson, 1991).

The daily closing prices of S&P CNX NIFTY and the SENSEX indexes of National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) respectively were used for the study. The database was considered from July 1, 1997 to December 30, 2012. The PROWESS online database maintained by the Centre for Monitoring Indian Economy (CMIE) provides information regarding the daily closing values of the NSE S&P CNX NIFTY and the BSE SENSEX indexes. Throughout this paper, stock market returns are defined as continuously compounded or log returns (hereafter returns) at time t, R_t , calculated as follows:

$$R_t = \log(P_t / P_{t-1}) = \log P_t - \log P_{t-1} \quad (4)$$

where P_t and P_{t-1} are the daily closing values of the NSE S&P CNX Nifty and the BSE SENSEX indexes at days t and t-1, respectively.

3. EMPIRICAL FINDINGS

To assess the distributional properties of stock market return series of NSE Nifty and BSE SENSEX, descriptive statistics are reported in Table-1. The mean and the standard deviation of NSE Nifty and BSE SENSEX market returns indicates, on average, the positive association between risk and returns in Indian stock markets. Besides, the skewness values of both market return series are negative, indicating that the asymmetric tail extends more towards negative values than positive ones. This reflects that both the market return series are non-symmetric. The kurtosis values of market return series was much higher than three, indicating that the return distribution is fat-tailed or leptokurtic. The market return series of NSE Nifty and BSE SENSEX are non-normal according to the Jarque-Bera test, which rejects normality at one per cent level.

TABLE-1 DESCRIPTIVE STATISTICS

	Nifty	BSE-30
Mean	0.00043	0.00046
Std. Deviation	0.01726	0.01756
Skewness	-0.22848	-0.10584
Kurtosis	9.27793	8.16175
Jarque-Bera	5634.4* (0.000)	3628.5* (0.000)
Q(12)	12.66	13.88
Q ² (12)	16.12*	14.79*

Notes: Figures in the parenthesis () indicates p-value. * - denote the significance at one level.

As evident from Table-1, the Ljung-Box test statistics Q(12) and Q²(12) for the return and squared returns series of NSE Nifty and BSE SENSEX confirms the presence of autocorrelation. We can also observe that the both stock market return shows evidence of ARCH effects judging from the significant ARCH-LM test statistics, proposed by Engle (1982). The Augmented Dickey-Fuller (ADF) test was employed to test the stationarity of both market return series and the results are presented in Table-2.

TABLE-2 UNIT ROOT TEST RESULTS

Augmented Dickey-Fuller Test		
Variables	Intercept	With Intercept & trend
NIFTY	-15.448*	-15.462*
SENSEX	-17.931*	-17.949*

Notes: * - indicates significance at one per cent level. Optimal lag length is determined by the Schwarz Information Criterion (SIC).

The unit root test strongly rejects the hypothesis of non-stationarity in the case of two market return series. However, despite the unit root test results that the market return series should be considered stationary; returns display a degree of time dependence and possess significant ARCH effects. Thus, the EGARCH-M model is capable with generalised error distribution (GED) is deemed fit for modeling the conditional variance.

TABLE-3 RESULTS OF EGARCH MODEL

Nifty Return								
θ_0	θ_1	ξ	α_0	α_1	δ_1	γ_1	Q ² [12]	ARCH-LM[12]
0.0006 (1.863)***	0.0988 (5.524)*	0.1183 (0.082)	-0.6655 (-13.03)*	0.9458 (176.70)*	0.2739 (17.07)*	-0.1148 (-11.47)*	6.4934	0.5261
BSE-30 Return								
0.0007 (2.193)**	0.0994 (5.261)*	-0.7996 (-0.554)	-0.5539 (-12.55)*	0.9563 (209.80)*	0.2461 (16.49)*	-0.1056 (-11.25)*	9.0710	0.7198

Notes: Figures in parenthesis are z-statistics. *, ** and *** - denotes the significance at one, five and ten percent level, respectively. Q(12) and Q²(12) represents the Ljung-Box Q-statistics for the model squared standardized residuals using 12 lags. ARCH-LM[12] is a Lagrange multiplier test for ARCH effects up to order 12 in the residuals (Engle, 1982).

Table-3 reports the results of AR(1)-EGARCH(1, 1)-in-Mean estimates for NSE Nifty and BSE SENSEX stock markets. In the mean equation (1), the coefficient ξ turns out to be positive but statistically insignificant. This implies that stock returns are not affected by volatility trends. In other words, conditional variance lacks predictive power for stock returns. This result is consistent with the findings of French et al. (1987), Baillie and De Gennaro (1990), Chan et al. (1992) and Leon (2007). The present study suggests that investors are not rewarded for the risk they had taken on the Indian stock exchanges. In terms of the conditional

variance equation (2), the persistence parameter α_1 was 0.9458 and 0.9563 for the NSE and BSE stock markets, respectively. This suggests that the degree of

persistence is high and very close to one. In other words, once volatility increases, it is likely to remain high and takes longer time to dissipate. The positive and

statistically significant coefficient α_1 in the case of both stock markets confirms that the ARCH effects are very pronounced implying the presence of volatility clustering. Conditional volatility tends to rise (fall) when the absolute value of the standardized residuals is larger (smaller) (Leon, 2007).

Besides, the asymmetric coefficient γ_1 in the case of both Indian stock markets was found to be negative and statistically significant at one per cent level, implying the presence of asymmetric effects. This suggests that there is a larger impact on volatility due to the noise traders in the Indian stock markets during market downward movement than market upward movement under the same magnitude of innovation, i.e. the volatility of negative innovations is larger than that of positive innovations. In addition, Table-3 shows the results of the diagnostic checks on the estimated EGARCH (1,1) model for NSE Nifty and BSE SENSEX stock markets. The Ljung-Box $Q^2(12)$ statistics of the squared standardized residuals are found to be insignificant, confirming the absence of ARCH in the variance equations. The ARCH-LM test statistics further showed that the standardized residuals did not exhibit additional ARCH effect. This shows that the variance equations are well specified in the case of both estimates. In other words, the AR(1)-EGARCH (1,1)-M process generally provides a good approximation of the data generating process for stock returns under consideration.

4. CONCLUSION

This paper investigates the stock market efficiency of the Indian stock markets by employing asymmetric EGARCH model. The result shows that volatility is persistent and there is leverage effect supporting the work of Nelson (1991) in the Indian stock markets. The study results show that market returns are contributed to the high volatility persistence, implying that Indian stock markets are not weak form efficient signifying that there is systematic way to exploit trading opportunities and acquire excess profits. This provides an opportunity to the traders for predicting the future prices and earning abnormal profits. Hence, the present study suggests that there is a need for regulators to evolve policy towards the stability and restoration of investor's confidence through enhancement of transparency and efficiency in the Indian stock markets.

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INNOVATING ICT FOR GENDER SENSITIVE DEVELOPMENT COMMUNICATION IN INDIA

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ABSTRACT

The philosophy of inclusive growth and political compulsions of governments across the world and more particularly in the developing nations necessitates that development initiatives occur without resistance. Neither the exchequer nor political parties can afford fracas like those happened in India. Over the last few decades, the imbroglia associated with environmental issues churning out of seismic activity in Tehri Dam site in the hilly Uttarakhand region & loss of vital forest cover near Posco's proposed Mining & Smelter project in Orissa and less compensation to farmers for their land acquired by Tata for Nano Car Project in Nandigram-Singur in West Bengal and by builders in Noida near New Delhi are some of the glaring examples of how utter lack of communication amongst stakeholders can lead to socio-economic upheavals. One of the emerging solutions to usher inclusive growth is to break Gender barriers and empower the 'weaker or second sex' along with linking the target population into a communication loop dispelling individual and collective fears through dialogue and discussion. This is primarily possible through the innovative and judicious exploitation of ICT options. The recent examples from the Arab world too support this view.

KEYWORDS

ICT, gender sensitive development.

INTRODUCTION

ustainable Development and inclusive growth are not just a global concern but also a priority. It is universally acknowledged that unless the anomalies of developments are addressed by ensuring a more habitable world for our coming generations coupled with equitable distribution of the benefits of growth, the future of Planet Earth as well as our fellow beings looks bleak. The World cannot afford to ignore the recent happening across the Globe, whether it is the sweeping changes happening in the Arab world or the confrontations between the have-nots & haves in India.

GENDER – A THORN IN THE PROCESS OF DEVELOPMENT?

A comprehensive perception of development is a pre-requisite to launch & sustain a trouble-free development initiative. This holds true of both social and economic development. In both instances, development may be looked upon as a 'bi-polar activity' with one extreme occupied by the powerful minority of developers pitted against the other dominated by majority population or the masses. A further dissociation in this vertical divide is the problem of gender divide afflicting both the micro and macro environments especially in developing economies like India.

The seditious legacy that has reduced women to the humiliating position of the 'Second Sex' in countries like India even now, when it enjoys the Most Favored Nation status amongst the developed world, has further complicated the process of development. This is primarily because an inherent anomaly in the process of development is the element of 'loss' that unavoidably affects all target population. This is true even in the case of development initiatives which emerging economies are focusing on nowadays. The apparent sense of loss, primarily of 'land' due to its acquisition for various infrastructure projects, is a case in point. For example, in Singur in West Bengal where farmers initially sold their land to industrial giant Tata for the Nano car project, to land acquired for buildings & highways near Noida located on the fringe of New Delhi, this loss later seemed 'real'. However, when development targets social issues, as in the contexts of tribal population, the felt or perceived loss is more in terms of abstract issues like traditional occupation, culture and the like as in the case of Posco's mammoth mining project in Orissa. Both are traumatic for the people to bear.

In the case of women, the 'injustice' is twofold. For, along with bearing sexual discrimination in decision making, they are also made to suffer the pressure of development with no scope to ventilate their pain! Found often to be more judicious, reasonable and open to suggestion by field researchers, women are rarely 'spoken to' by developers, a prerogative still monopolized by men. This is a puzzle that still bothers researchers today.

NATIONAL PROSPERITY INDEX

It has to also be kept in mind that a simple growth in economy need not lead to overall development and progress. We may here refer to the former Indian President, Dr. APJ Abdul Kalam. In an address to the students, he said that it was the happiness quotient which became more pertinent while measuring progress especially in the Indian context. In a similar vein the late JRD Tata once remarked that an image where all Indians were happy and contented appealed more to him than just an economically progressing India.

The National Prosperity Index proposed by Dr. Kalam is ideally the bedrock of development. He pointed out that the quality of life of a large population can be improved with emphasis on the basic needs like food, potable water, proper housing, sanitation, quality education, healthcare and employment potential. The concept thus, ideally ensures that citizens gain the capacity to enjoy the fruits of development through significant socio-cultural progress besides capacity building other measures.

Development initiatives are basically directed at those groups that are chronically, systematically and traditionally deprived of even the basic requirements like food, water, shelter and gainful employment. Economic development alone cannot address this problem holistically. Thus, there is a need to look at the socio-cultural aspect of development as well to reach the coveted destination of universal and sustainable development, a panacea for chronic and degenerating malaises. The social approach to development follows the principles of social justice and equity.

ROLE OF COMMUNICATION IN DEVELOPMENT

Progressive experience across the globe points out the need to allay individual & collective fears and sense of insecurity to make development not only acceptable but also resistance free. This would essentially mean dissemination of the very *raison d'être* of development projects to the target population right from the conception to the commissioning of the initiatives. However, progressive dissociation of the masses from the developers or those at the helm necessitates that the affected masses people be given a legitimate voice to express not only their concern but their wisdom as well. This gets duly reflected when we find that the United Nations System Network on Rural Development and Food Security too has propounded that 'knowledge and information are essential for people to successfully respond to the opportunities and challenges of social, economic and technological change'. But knowledge and information must be effectively communicated. This unambiguously ushers in the role & relevance of communication in development initiatives.

DEVELOPMENT COMMUNICATION

Development communication connotes the use of communication tools, techniques and principles to bring about equitable development. It does so by looping the two proximities of development- the developers and the target population- into a mode of meaningful & sustained dialogue & discussion. Development Communication thus systematically applies the processes and strategies of communication to effect positive social change. It makes use of a variety of communication techniques to address the problems associated with changes brought about by development measures. Some of its approaches, which are applied for facilitating a hassle free process of development, are information dissemination, education, behavior change, social marketing & mobilization and so on, while participatory development communication being the most important of these.

TOWARDS NEW VECTOR OPTIONS

In today's context, with rising popular awareness and numerous means of information dissemination, the faceless man among the teeming millions is becoming crucially important for all those who have their fingers on important buttons. This common man's angst and displeasure is capable of throwing out novel initiatives like the ambitious Tata Nano Car project from West Bengal. On the other hand, paradoxically no exchequer or business house can afford such major hiccups.

We now add to the above the rising assessment of the women folk who are beginning to find the ground beneath their feet. This makes it almost mandatory that when a communication loop is being established, the individual voice, including that of the women is heard when negotiation & bargaining are done collectively! This focus on individual's aspirations, concerns and wisdom interestingly also conforms to the philosophy of inclusive growth. And for this to happen in real terms, communication has to move beyond the achievements of information dissemination through emerging techniques to the dawning realms of ICT options as the new age paradigm of Development Communication

Contemporary studies suggest some other determinants like 'Gender Sensitivity' as an essential dimension to the management, control and harvesting of the development projects. Gender relations are not biologically fixed but socially determined in terms of the relations of power and dominance which influences the life chances of men and women differently. This has a direct co-relation with policy planning, implementation and managing responsible social work. Simultaneously, it also has a significant bearing on Development Communication that is gender sensitive. As a result, participatory development communication ensures that a Gender sensitive approach to social development provides a scope for women to share their ideas, experiences and views so that they do not remain passive receivers and but instead become intelligent and rational contributors. Progressive spread of ICT devices across-the-board has ensured that women are in a position to be looped into a matrix of dialogue & discussion. India is no exception to this despite her humiliating gender statistics.

ICT

Progressive knowledge gained through cumulative experience has made us reach the stage where in the process of development we need the population to revert back to the developer endorsing the initiatives with local and micro level wisdom inputs, for the projects to be owned by the target population. ICT provides the mechanism for the common man to assume this voice of wisdom. Information and Communication Technology, or ICT, imbibes the entire process of storage, retrieval, manipulation, transmission or receipt of information that has become so indispensably crucial for development to happen without resistance.

Examples in focus: The year 2010 has been a revelation year in terms of the power of Multimedia to generate, organize and control social revolutions. The instances of Egypt and Tunisia in the Arab world, overthrowing the tyrannical or dictatorial rulers through peaceful agitations that were predominantly organized and broadcast by using the power of various multimedia networks like Facebook and Twitter, have become global models. Online forums and chat facilities on various social networking sites were used to contact and connect the youth in both these countries in order to make them aware of the malady. They were encouraged to become members of various social groups formed online to protest against the oppressive and undemocratic policies of the dictatorial regimes and offer remedy. These forums were used to spread messages about protests and demonstrations being organized in various parts of the country and encourage them and others through them to come out and participate in protest rallies. The servers operating these social networking websites were generally based outside the country of protest which made blocking or shutting down of this communication medium difficult for the regimes.

a) THE INDIAN CONTEXT

These developments in the Arab world made one wonder if this power of multimedia or ICT could be effectively harnessed to usher in socio-economic development in a country like India. ICT involves use of various multimedia elements like audio, video, text and images to convey social & economic development information to the deprived sections of the society. However, before jumping to any conclusion we need to understand certain aspects of developments that occurred in Egypt and Tunisia.

The multimedia element used in propelling the socio-political protests in countries like Egypt and Tunisia were essentially influential videos showing brutal government crackdown in the aftermath of these pro-democracy demonstrations. These videos were played on various social networking websites where they could be easily seen and downloaded from Facebook, Twitter and Orkut. The internet penetration data mentioned below will further buttress the point that internet and broadband penetration in these countries is much superior to that prevailing in India to have caused this kind of impact:

Content	Egypt	Tunisia	India
Internet Penetration (approx)	15.4%	48%	6.9%

Supported by high end broadband and internet speed and high internet penetration ratio which assured smooth access and downloading of various multimedia elements especially in terms of audio-video and still images by large section of the masses proved to be an effective tool for information dissemination in these countries. It also provided the citizens to connect to the cause and each other through the possibilities of reacting and thereupon responding to the sites, often instantaneously.

India, on the other hand, is marred by low broadband downloading speed which hinders smooth display and downloading of multimedia elements from the internet. Further, high cost of computers & peripherals prevents the Personal Computer or PC from becoming an Indian household commodity- a prospect without which it is not possible to implement multimedia based ICT generated and controlled revolutions. Simultaneously, poor and rural India is incapacitated

by pitiable infrastructure and inadequate socio-economic developments to support such emerging high-end communication paradigm. Thus as things stands today the idea of multimedia based ICT vectored development communication for socio-economic development in India stands negated.

b) THE 3G OPTION

In contrast to the PC, the penetration of mobile phones in the India is a resounding reality making it potent as an ICT option. What needs to be addressed in this context is to work towards better user compatibility between the point of transmission and the point of reception. Due to the present lack of infrastructure and the low levels of literacy and education, trained skill is difficult to find in the bottom of the pyramid (BOP) population. Added to this is the fact that it is not feasible to find high-end handsets amongst the masses as a common possession.

Several academic surveys further indicate the low propensity of the marginalized population to use their mobile phones to its full potential. Yet, there is no denying the common fondness for mobile phones even in places where, till the end of 20th century, people used to walk miles to receive & make calls on weak tele-networks due to the unavailability of infrastructure facilities! Hence high end transmission services like MMS, mobile and web internet, heavy and complex data transmission needed to engineer social mobilization may still not be possible. This is also compounded by the reality that for various socio-cultural and economic reasons, the BOP population in contexts like India despite their growing socio-political awareness is still either reluctant or is incapable of using the mobile phones beyond making and receiving calls. It thus becomes an enormous challenge & option for various stakeholders of development especially the government to reach out and meaningfully connect with the marginalized in areas deprived of basic civic facilities but riding high on mobile usage with multimedia based ICT borne development communication.

This brings us to the current requirement where we need to develop simple voice-backed message services along with using multimedia integration to connect with this teeming but intelligent & joyful common population. Living in the lowest rung of society, these are the illiterate and semi literate people with barely any trained skills who at the end of a hard day's work would love a unique simple image-based, voice-backed info-tainment message. Such messages would serve the purpose better than simple text messages which are, in general, not popular with most of the common population across the country. However, despite the overriding botheration for costs, 'gaming' as a multimedia product too is emerging as an option for connecting with the masses. This trend is predominantly based on popular propensity, especially amongst the youth, to dabble with multi-media vectored Games despite their contest with poverty and illiteracy. In fact, it is found that their contact with ICT frequently begins with video games.

Hinged on this knowledge of mass acceptance of the medium, the mobile phones are becoming the most common device used for multimedia based communication that is at once interactive and entertaining. This is a recent trend on internet and mobile internet where not just products but even television programme and movies are being promoted. Looking at its appeal and possibilities of future exploitation, the scope of mobile hand-set as potent tool of social mobilization for development is tremendous.

It should be kept in mind that India has the potential to become the animation and e-content development destination because of low cost, high quality advantage which offers a 60-80 percent cost saving for the international studios outsourcing/off shoring to studios in India. Increasing telecom bases and arrival of 3G are the driving factors for growth of Gaming and other multimedia based communication techniques. The current staggered rollout of 3G services is likely to provide efficient high speed data networks to mobile users. The telecom subscriber base is expected to increase to 725 million by 2013 with a mobile penetration of 60 percent. Infotainment with local flavour that can be played on consoles, internet and mobiles are becoming popular amongst Indians. What is significant from the stand of policy making is that these are infotainments with tremendous popularity even in the far flung areas which have little else to offer.

Keeping the above mentioned scenario in mind, a preliminary survey was done in a Village in Nuh block in the economically backward district of Mewat in Haryana province. A typical instance of a top-down model of growth, the district today is in a state of development ambivalence. With money-backed initiatives pouring in almost every avenue, the district now enjoys almost enviable infrastructure development efforts & outcomes. Yet the micro socio-economic environment suffers from lacunae that cry out for priority based remedies.

RESEARCH METHODOLOGY

CASE STUDY

a) LOCATION: The Mewat district was carved out from the erstwhile prosperous Gurgaon and Faridabad districts of Haryana and came into existence on 4 April 2005 as its 20th district. The district headquarter is located at Nuh. The district comprises of five blocks namely Nuh, Tauru, Nagina, Firozpur Jhirka and Punhana. There are 431 villages in the district and 297 *Panchayats* or local bodies. Geographically, Mewat District is situated between 26-degree and 30-degree North latitude and 76-degree and 78-degree East longitude. Inconsistency in Mewat topography is evident from hillock of the Aravali Mountains, on the one hand and the rugged plains, on the other. Thus, physio-graphically the area is divided into two tracts- the upland and the low land. Though the district is in the NCR (National Capital Region) and just 50 km from the international airport in New Delhi, it had remained a startling showcase of under development and gross neglect till it was 'adopted' by a plethora of government and non-government initiatives. Today amidst a vast array of development projects working in the area, the local population dominated by the Meo Muslim community is looking for socio-economic thrusts that would integrate them to the mainstream without disturbing the micro environment.

b) POPULATION AND SOCIO-ECONOMIC STATUS: The main occupation of the people of Mewat is agriculture, agro-based and allied activities. The Meos are predominantly rural agriculturists. They perceive themselves as such with a sense of pride.

Agriculture in Mewat is mostly rain fed except in small pockets where canal irrigation is available. Agricultural production measured in terms of crop yield per hectare is low as compared with the other districts of the State. Animal husbandry, particularly dairy is the secondary source of income for people and those who live closer to the hilly ranges of Aravali also keep a few sheep and goats. Milk yields are not so low but due to heavy indebtedness most of the farmers are forced to sell milk to lenders at lower than normal price, which drastically reduces their income from the milk. The poultry population in Mewat district is much less in comparison to other districts of Haryana State. Statistics given below clearly bring to focus the social, cultural, geographical and economic parameters obtaining there.

c) MEWAT AREA AT A GLANCE: a. Total area in Hectares- 191154; Cultivated: 146805. Non-Irrigated: 45,000; Irrigated-1,01,00. b. Population- 993617; Rural: 95.36%; Urban: 4.64%. c. Literacy- 44%: (Male-61.53%, Female-24.26%). d. Sex Ratio- 893. e. Family Size 7.5. f. Health Services- General Hospital: 01; Community Health Centre: 05; Primary Health Centre: 17; Sub Centers Ayurvedic; 28 Homeopathic; 10. g. Agriculture- Total Area (in hectares): 1,86,000; Net area sown: 1,46,000; Area sown more than once: 66,000. Total cropped area: 2,12,000. h. Irrigation- Net area irrigated (in hectares): 42600; %age of irrigated area: 29.7; Tube well and pump sets; 18,553; No of tractors: 5,021; Percentage of villages connected with surfaced roads and also electrified: 100. i. Workers-Cultivators: 175794; Agri-labourers: 61136; Workers in Household Industries: 7629; others: 151647; Total: 396206. j. Livestock Population- Cows: 47995; Buffalos: 296137; Sheep: 22311, Goats: 83907; Pigs: 2315; Horse & Pony: 368; Mule & Donkey: 343; Camel: 428; Poultry: 124170. k. Number of Colleges-4; Number of Industrial Training/Vocational Institutes/Polytechnics- 9.

d) EDUCATION AND SELF – RELIANCE FOR GIRLS IN PALLA VILLAGE, MEWAT: Through sustained interaction and observation with women and young girls, it was found that there was an urge on their part to educate girls so that they become financially independent and capable enough to decide for themselves. But many factors do not encourage this. Primarily it is the shackles of the micro environment of the traditional village life which does not encourage young girls moving out of the house. Her domain is prominently defined to be the household responsibilities and marriage therefore becomes her prime aim. In fact, the women and young girls being interviewed were quite surprised to know that the survey of the present research was being conducted by a young lady!

An interview with a school teacher in a deserted area of the village brought an additional reality. There were very few girl students in the school and when asked for the reason, the teacher said that the parents were reluctant to send their daughters to study with a male teacher. He further added that qualified female teachers were not interested to come and live in such a place. Why would they leave a career in towns and cities to come all the way to a village like this? He suggested that government should take initiatives to send qualified and able female teachers to this area by giving them a good pay package and incentives.

These ideas have come from local people of this area and not from a minority group framing policies according to its whims. This point at the need for a gender sensitive approach to development which would make it possible to envisage, design, implement and evaluate with women as active decision makers alongside

the other stakeholders. The survey indicates that ICT borne development communication targeting the women using mobiles phones could mainstream local folks in a number of areas especially in terms of the dreams and aspirations of the women still held back to the hearth by poverty and tradition, which they desire to transcend.

CONCLUSIONS

The inclusion of a gender focus to development communication is very important because of the gender divisions in the society, in general in India and economically backward Mewat region, in particular. ICT options like simple messaging over mobile telephony offers opportunities of inclusive growth which can effectively address socio-economic and geo-cultural biases especially concerning females.

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A STUDY ON IDENTIFYING KEY HUMAN RESOURCE MANAGEMENT PRACTICES AFFECTING ORGANIZATIONAL COMMITMENT OF ENGINEERS OF NCR

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ABSTRACT

Employees are one of the most important ingredients determining the success of an organization in a competitive environment. In this context, committed employees contribute maximally to organization's success and competitiveness. Employees who are committed to their organization are glad to be members of it consider in and experience good about the organization and what it stands for, and aim to do what is good for the organization. Organizational Commitment has gained importance to modern organizations for gaining competitive advantage by reducing labour turnover, absenteeism and increasing motivation. The positive effects of Organizational Commitment (OC) have been well documented in management literature. Organizational Commitment has been found to be strongly related to the intention to leave one's job and to the intention to search for job alternatives. Knowledge of the antecedents of Organizational Commitment will enable organizations to manage these withdrawal behaviors. Organizational Commitment shows the strength of the commitment which a working person feels for the organization he or she works in. HRM practices are considerably predicting organizational commitment. Various Human Resource Management Practices affect the commitment of employees in an organization. Organizational commitment is the backbone of the contemporary HRM philosophy. A number of human resource experts focus on organizational commitment and found ample support for their assumptions. So the main objective of this paper is to identify the key Human Resource Management Practices that may affect the Organizational Commitment of engineers of NCR.

KEYWORDS

Organizational Commitment, Human Resource Management Practices.

1) INTRODUCTION

Employees are one of the most important ingredients determining the success of an organization in a competitive environment. In this context, committed employees contribute maximally to organization's success and competitiveness. Employees who are committed to their organization are glad to be members of it consider in and experience good about the organization and what it stands for, and aim to do what is good for the organization. Infact, Organizational Commitment was introduced in early 1950 in the field of Organizational Behaviour and since then it remained a topic of research for many researchers. Researchers like Paré, G. & Tremblay, M. 2004; Chew, Y. T. & Wong, S. K. 2008; Ugboro, I. O. 2006; Slattey, J. P. & Selvarajan, T. T. R. 2005; Meyer, J. P. & Allen, N. J. 1997; Mowday, R. T. 1998, focused that with continuous interest in Organization Commitment can be extended to various beneficial indicators viz. better performance, higher attrition and reduced absenteeism and organizational efficacy. This resulted in a number of empirical research studies to understand the antecedents and consequences of Organizational Commitment. However, there have been few studies linking Organizational Commitment with HR practices in the Indian context. So this study aims to identify the key Human Resource Management factors that affect the commitment of engineers of NCR. Commitment has been defined as the identification and the attachment to an organization and implies three elements: a strong belief/acceptation of the organization's objectives and values, the willingness to exert strong efforts for it and the firm intention to stay within the organization (Mowday, R. T. et al 1982). In its broad sense, Organizational Commitment includes the idea of loyalty and commitment. Most of the research studies in the context of Organizational Commitment have been drawn from the work of Meyer, J. P. & Allen, N. J.

Meyer, J. P. & Allen, N. J. (1984) suggested a three-dimensional measurement of Organizational Commitment showing that this attitude could be better understood as a multidimensional concept. They defined the three dimensions as:

- Affective commitment, e.g. "positive feelings of identification with, attachment to, and involvement in the work organization"
- Continuance commitment, e.g. "the extent to which employees feel committed to their organizations by virtue of the costs that they feel are associated with leaving (investments or lack of attractive alternatives)"
- Normative commitment, e.g. "the employees' feelings of obligation to remain in the organization"

Given the contribution a highly trained and committed employee can make to organizational productivity, keeping such employees should be a high priority for the organization. This is especially true for any organizations that rely heavily on their good behavioural employees to provide friendly and courteous services to their customers in this competitive environment. Thus, it may be in the organization's best interest for managers to understand how their behavior might influence a worker's commitment to the organization.

Organizational Commitment has gained importance to modern organizations for gaining competitive advantage by reducing labour turnover, absenteeism and increasing motivation. The positive effects of Organizational Commitment (OC) have been well documented in management literature. Organizational Commitment has been found to be strongly related to the intention to leave one's job and to the intention to search for job alternatives. As organizations recognize the competitive advantage that can be gained through human resources practices. Various Human Resource Practices affect the commitment of employees in an organization. Knowledge of the antecedents of Organizational Commitment will enable organizations to manage these withdrawal behaviors. Organizational Commitment shows the strength of the commitment which a working person feels for the organization he or she works in.

Thus, drawing from above paragraphs it can be inferred that committed employees contribute a lot in the organization and its functioning by operating in the limelight of achieving the organization's goals. Likewise, personnel who are steadfast for their organization are happy and delighted to be a part of it, have confidence in it and feel good about the same (Feinstein, A. H. and Vondrasek, D. 2001). Though a large amount of work has been written and talked about of Organizational Commitment but still there exists the great amount of confusion on how the factors associated with it contribute to the development of the Organizational Commitment. This paper has tried to find out that Human Resource Management Practices that may affect the Organization Commitment of engineers of NCR.

2) THEORETICAL BACKGROUND

2.1) HUMAN RESOURCE MANAGEMENT

Human resources are noteworthy premeditated levers or the foundations of unremitting competitive advantage. HRM is seen as a main function of management that has come a protracted way. The customary version of HRM, Personnel management (PM) is a notion that can be expediently connected to the timeworn exemplary model of organization, is an unbending bureaucratic in nature, with fewer liveness, besides advanced notch of centralization and solemnization, i.e., adherence to rubrics and parameters.

"A chain of integrated decisions that generate for the service relationship; their excellence add on to the knack of the organization and the employees to pull off their objectives" is Human Resource Management as viewed by Milkovich, G. T. and Boudreau, J. W.

There are so many problems that are faced by the organizations due to lack of proper Human Resource Management policies or no Human Resource Management Department, more over HRM policies of the organization are responsible for the smooth functioning of the department as well as the organization.

2.2) ORGANIZATIONAL COMMITMENT

In today's extremely competitive international economy, rising and retaining capable engineers is a main challenge for HR executives. Organizational Commitment is the backbone of the modern HRM philosophy (Shahnawaz, M. G. & Juyal, R. C. 2006). Employees long term relationship with the organization and their intention to stay in it along with firm faith in the objectives and goals of his/her organization, complied by dedicated attempt attain these objectives and goals (Steers, R. M. 1977; Mowday, R. T. et al 1979).

Porter, L. W. et al (1974) describe Organizational Commitment as "an attachment to the organization, characterized by an intention to remain in it; an identification with the values and goals of the organization; and a willingness to exert extra effort on its behalf". Individuals consider the extent to which their own values and goals relate to that of the organization as part of Organizational Commitment; therefore it is considered to be the linkage between the employee and the organization.

Meyer, J. P. & Allen, N. J. (1984) initially viewed Organizational Commitment as two dimensional namely, affective and continuance. Meyer, J. P. & Allen, N. J. (1984) defined the first dimension, namely affective commitment as "positive feelings of identification with, attachment to and involvement in the work organization", and they defined the second dimension, namely continuance commitment as "the extent to which employees feel committed to their organization by virtue of the costs that they feel are associated with leaving". After further research, Allen, N. J. & Meyer, J. P. (1990) added a third dimension, namely normative commitment.

Allen, N. J. & Meyer, J. P. (1990) defines normative commitment as "the employee's feelings of obligation to remain with the organization". Consequently, the concept Organizational Commitment is described as a tri-dimensional concept, characterized by the affective, continuance and normative dimensions (Meyer, J. P. & Allen, N. J. 1991).

2.3) HRM AND ORGANIZATIONAL COMMITMENT

HRM practices were considerably predicting organizational commitment. Organizational commitment is the backbone of the contemporary HRM philosophy. A number of human resource experts (Maheshwari, S. et al 2007; Shahnawaz, M. G. & Juyal, R. C. 2006; Zaitouni, M. et al 2011; Paré, G. & Tremblay, M. 2004; Sawalha, N. et al 2012; Paré, G. et al 2001; Kipkebut, D. J. 2010) focus on organizational commitment and found ample support for their assumptions. Human resource (HR) practices of the organization do have influencing effect on employees' performance and therefore affecting commitment. It also determines the effectiveness of the organization for the achievement of its objectives (Paré, G. & Tremblay, M. 2004). Some of the human resource practices, not all, were the factors that are related to organizational commitment (Maheshwari, S. et al 2007). According to them HR practices like human resources planning; career growth, training, performance appraisal and compensation have a significant impact on Organizational Commitment. Researchers have also suggested that among the entire HRM practices, Performance Appraisal was the significant predictor of Organizational Commitment. Result of a study also strengthens the belief that HRM practice can contribute significantly to organizational commitment (Shahnawaz, M. G. & Juyal, R. C. 2006). They also proved that 'Overall attitude towards HRM department' was the significant predictor of organizational commitment. According to Kipkebut, D. J. (2010) HRM practices are more important than demographic characteristics in influencing Organizational Commitment. Many researchers (Maheshwari, S. et al 2007; Shahnawaz, M. G. & Juyal, R. C. 2006; Zaitouni, M. et al 2011; Paré, G. & Tremblay, M. 2004; Sawalha, N. et al 2012; Paré, G. et al 2001; Kipkebut, D. J. 2010) empirically tried to show the relationship between HR management practices and organizational commitment. They indicated that various human resource practices would affect the employee's commitment. On similar lines this study intends to find the Key Human Resource Management Practices that may be responsible for employee's Organizational Commitment (Engineers of NCR).

3) RESEARCH METHODOLOGY

Research Design of this study is exploratory as this study was tried to explore the Human Resource Management variables affecting organizational commitment. Questionnaire was used to collect the primary data in this study. Responses for commitment and HR practices were collected using Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). In this research the engineers working in NCR was taken for study. As the population was not known in this study so the convenience sampling method was used. The respondents biographical characteristics are presented in order to get a clear picture of the distribution of the sample. Demographic variables that were measured from the respondents is shown in table No. 1:

TABLE NO. 1: DEMOGRAPHIC PROFILE OF RESPONDENTS

Age	Frequency	Percent	Valid Percent	Cumulative Percent
21-30	248	63.3	63.3	63.3
31-40	128	32.7	32.7	95.9
41&Above	16	4.1	4.1	100.0
Total	392	100.0	100.0	
Gender				
MALE	352	89.8	89.8	89.8
FEMALE	40	10.2	10.2	100.0
Total	392	100.0	100.0	
Qualification				
DIPLOMA	28	7.1	7.1	7.1
Graduate	252	64.3	64.3	71.4
Post-graduate	112	28.6	28.6	100.0
Total	392	100.0	100.0	
Total Work Experience				
0-2	104	26.5	26.5	26.5
3-5	96	24.5	24.5	51.0
6 & Above	192	49.0	49.0	100.0
Total	392	100.0	100.0	
Total Work Experience in Current Organization				
0-2	228	58.2	58.2	58.2
3-5	92	23.5	23.5	81.6
6 & Above	72	18.4	18.4	100.0
Total	392	100.0	100.0	
Total No. of Organizations Served Till Date				
0-2	200	51.0	51.0	51.0
3-5	184	46.9	46.9	98.0
6 & Above	8	2.0	2.0	100.0
Total	392	100.0	100.0	

The sample size used in this study is 392, which was appropriate as per the rule and calculation.

4) SCALE SELECTION AND DEVELOPMENT

To identify the key Human Resource Management Practices affecting organizational commitment, the scale of Paré, G. and Tremblay, M. 2000; Paré, G. and Tremblay, M. 2004, of Human Resource Management practices was used. This scale was modified after pilot study so an adopted and modified scale was used for the study. A pilot study was conducted on a sample size of 30 respondents which is the required sample size for pilot study. Cronback Alpha reliability test was conducted on this sample size and then modified questionnaire was distributed for the final survey. A questionnaire was sent to the engineers of NCR. A pretest of the questionnaire was conducted with a convenient sample of 30 engineers. Pilot test on a sample of 30 Respondents the reliability of Human Resource Scale was 0.885. Validity of the scale was also tested by taking the views of the subject experts.

Then the revised version of the questionnaire was sent to the engineers NCR through mail or hard copy. After following the mailing, a follow-up reminder was sent to the respondents. A total of 532 questionnaires were returned out of which 392 questionnaires were usable, while others were rejected due to incompleteness (net response rate of 73.68%).

5) MEASURES

Cronback alpha reliability test was used to test the reliability of the scale. The reliability coefficient of HR scale of 21 items was 0.878. KMO value of HR scale was 0.772 which is a measure of Sampling Adequacy. Principal Component Analysis technique of Factor Analysis was adopted to identify and examine the 21-item scale of Human Resource Management practices using SPSS 16.

6) FACTOR ANALYSIS OF HUMAN RESOURCE MANAGEMENT PRACTICES

A 21 item-scale was used to measure the Human Resource Practices. Principal Component Analysis technique of Factor Analysis was adopted to identify and examine the 21-item scale of Human Resource Management practices. To arrive at a meaningful and interpretable factor dimensions, this study applied the following criteria to monitor items. First, it was emphasized that the items must have a minimum factor loading of 0.50 or greater on the factor loading. Second, the content of the items retained must be consistent with those of the other items loaded on the same factor. An item was retained if it met one or both the criteria. Using this procedure, in this study total five factors (competence development, information sharing, empowerment, fair reward and recognition) were drawn from a total of 21 items for the scale, accounting for 68.053% of the total variance. Cronbach alpha reliability test was used to test the reliability of the scale. The reliability coefficient of this HR scale of 21 items was found to be 0.878. The reliability coefficients for the five HR scales were ranged from .0.586 to 0.878. The least alpha coefficient was of last HR scale (recognition) i.e. 0.586 where as all the other four HR scale (competence development, information sharing, empowerment, fair reward) alpha coefficient were ranged from 0.834 to 0.878. KMO value of HR scale was 0.772 which is a measure of Sampling Adequacy. The Table No. 3 presents the results of factor analysis of the 21 items.

RELIABILITY STATISTICS

Cronbach's Alpha	No. of Items
.878	21

Table No. 2 show that the Human Resource Practices consisted of five distinct factors: The five factors or dimensions are labeled and interpreted as follows:

TABLE NO. 2: INTERPRETATION OF FACTOR ANALYSIS RESULT FOR HUMAN RESOURCE MGT. PRACTICES

Sr. No.	Factors (HR Management Practices)	Items	Factor Loading	No. of Items	Reliability
1.	Competence Development	Managers usually give responsibilities to employees according to their respective background and interests.	0.676	06	0.878
		Employees have the possibility to develop their skills in order to increase their chances of being promoted.	0.664		
		Several professional development activities (e.g., coaching, training) are offered to employees to improve their skills and knowledge.	0.784		
		Proficiency courses such as specialized technical courses and professional certification are encouraged by management	0.704		
		In my work unit, it is easy to get the resources (e.g., time, financial aid, flexible schedules) necessary to acquire new competencies.	0.742		
		In my work unit, employees are encouraged to experiment and share knowledge	0.805		
2.	Information Sharing	Employees are regularly informed of major corporate projects (e.g., investment, rationalization, acquisition)	0.802	05	0.860
		Employees are regularly informed of financial results	0.879		
		Employees are regularly informed of new products and/or services	0.739		
		Employees are regularly informed of the technological changes ahead	0.744		
		Managers regularly inform employees about the level of customer satisfaction	0.715		
3.	Empowerment	Employees in my work unit have a lot of autonomy in regard to project management.	0.786	04	0.834
		In my work unit, employees have a great deal of liberty in the conduct of their work	0.743		
		Employees in my work unit are extensively involved in the recruitment process	0.812		
		Employees in my work unit are regularly consulted in technological investments decisions	0.686		
4.	Fair Reward	I estimate my salary as being fair internally.	0.822	03	0.837
		My salary is fair in comparison with what is offered for a similar job elsewhere.	0.864		
		The pay increases and/or bonuses I received in the last two years adequately reflect my recent performance evaluations.	0.590		
5.	Recognition	Employees who do not hand out quality work are regularly reprimanded by their supervisors.	0.704	03	0.586
		In my work unit, employees that make mistakes are regularly reprimanded	0.719		
		In my work unit, employees can be retrograded or even fired from their current job if their productivity at work is not sufficient	0.757		
Total				21	0.878

Percentage of Variance Explained: 68.053
 KMO Measure of Sampling Adequacy: 0.772

6.1) COMPETENCE DEVELOPMENT PRACTICES

Competency development practices (e.g. responsibilities as per employees interest, coaching and training, mentoring, accessibility of resources to develop new competencies, encouragement to apply innovative work practices etc) were considered in this study. Competency development practices refers that the employees in the organizations give emphasis to Human Resource and consider them as valuable assets and consider that investment in Human Resource is to gain competitive advantage and helpful in maintaining a long term relationship between the employees and the organization. It consists of six items such as, Several professional development activities (e.g., coaching, training) are offered to employees to improve their skills and knowledge, In my work unit, it is easy to get the resources (e.g., time, financial aid, flexible schedules) necessary to acquire new competencies etc. The Cronbach alpha score for this factor came out to be 0.878.

Reliability 1st factor (Competence Development)

RELIABILITY STATISTICS	
Cronbach's Alpha	N of Items
.878	6

6.2) INFORMATION SHARING PRACTICES.

The information-sharing practices involve the means through which organization distributes and receives information among the organization's employees in order to reinforce the decision-making process. These practices make sure that members of the organization are being considered as element of the decision-making process and organization is treating their views or opinions with respect. Researchers have found that there is a linkage between the "high-involvement human resources practices and the turnover intention" (Paré, G. & Tremblay, M. 2007). It consists of five items such as Employees are regularly informed of new products and/or services, Managers regularly inform employees about the level of customer satisfaction etc. The Cronbach alpha score for this factor came out to be 0.860.

Reliability 2nd factor (Information Sharing)

RELIABILITY STATISTICS	
Cronbach's Alpha	No. of Items
.860	5

6.3) EMPOWERMENT

This dimension refers to the organizational practices dedicated to boost employee discretion and influence them through job involvement (Campbell, D. J. 2000; Forrester, R. 2000; Spreitzer, G. M. 1995). Organizations permit employees to imagine various roles and responsibilities and thus exercise a better influence at job while enjoying greater independence in the hopes that they will experience a higher sense of ownership. Empowerment practices make employees experience significant, responsible, and free to turn their creativity and competencies to good account (Paré, G. et al 2001). This Human Resource Management scale consist of four items such as Employees in my work unit have a lot of autonomy in regard to project management, In my work unit, employees have a great deal of liberty in the conduct of their work etc. The Cronbach alpha reliability score for this factor came out to be 0.834.

Reliability 3rd factor (Empowerment)

Reliability Statistics	
Cronbach's Alpha	No. of Items
.834	4

6.4) FAIR REWARD PRACTICES

Monetary rewards refer to all the reimbursement, monetary and non-monetary, that an employee receives during his/her service relationship with an organization (Malhotra, N. et al 2007). Fair organizational rewards refer to the perceived fairness of various job outcomes including compensation conditions, performance evaluations and job assignments (Paré, G. & Tremblay, M. 2004). This Human Resource Management scale consist of three items such as 1) I estimate my salary as being fair internally, 2) My salary is fair in comparison with what is offered for a similar job elsewhere etc. The Cronbach alpha reliability score for this factor came out to be 0.837.

Reliability 4th factor (Fair Reward)

Reliability Statistics	
Cronbach's Alpha	No. of Items
.837	3

6.5) RECOGNITION

This dimension refers to the organizational practices dedicated to acknowledgement of employees work (e.g. close check of the work done by the employees and punishment as well as appreciation given by supervisor for their work in a fair manner) by this an organization substantially signals its appreciation of achievements of employees through their quality work. For most highly educated professionals, to a great extent their incentive ensues from the acknowledgment they receive from supervisors for a job well done and the sense that they are an essential part of the organization (Agarwal, R. & Ferratt, T. W. 1999; Gomolski, B. 2000). This Human Resource Management dimension consist of three items such as Employees who do not hand out quality work are regularly reprimanded by their supervisors, In my work unit, employees can be retrograded or even fired from their current job if their productivity at work is not sufficient etc. The Cronbach alpha reliability score for this factor came out to be 0.586.

Reliability 5th factor (Recognition)

RELIABILITY STATISTICS	
Cronbach's Alpha	No. of Items
.586	3

7) CONCLUSION

An individual's attitude to the organization is inferred by their loyalty to the firm and identification with its values. The behavioural component of commitment reflects a person's willingness to expend effort on the organization, as well as his or her intention to remain in the organization. Individuals with high commitment to the organization view the pursuit of organizational goals as important, whereas those with low organizational commitment are primarily interested in pursuing self-interest. Researches stated that stronger commitment could result in less turnover and absenteeism, thus increasing an organization's productivity. There are so many factors that affect the commitment of employees, organizations should consider these factors to improve the commitment of their employees so that they are able to reduce labour turnover, absenteeism and increase their efficiency so that competitive advantage can be achieved. The objective of this study is to identify the key Human Resource Management variables that may be responsible for the Organizational Commitment of the engineers of NCR. To obtain this objective Factor Analysis was carried out. The result of Factor Analysis is shown in table No. 2. Human Resource Management Practices have been divided in to five distinct factors named Competency Development Practices, Information sharing Practices, Empowerment, Fair Reward Practices and Recognition. And to enhance the level of organizational commitment of engineers of NCR, organizations of private sector should implement good human resource practices such as competency development practices through training and development, coaching, Proficiency courses, time and financial aid given by organization to increase the competencies of engineers, information sharing practices through involvement of employees in decision making and also by sharing decisions with employees, empowerment through providing autonomy and liberty in the conduct of their work and adopt a system of fair reward practices.

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IMPACT OF LEADERSHIP ON PERFORMANCE: IN CONTEXT OF SCHOOL LEADERSHIP

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ABSTRACT

The purpose of this study is to evaluate the impact on performance in school education due to sudden change in leadership (Principal). The data has been gathered through questionnaire, ten factors of school performance have been justified in literature review and same were taken in the questionnaire as well. Population sample is 4 provinces of Pakistan and federal area. Our sample is teachers, principals and administrative staff from Pakistan. We have selected 500 teachers, 50 Principals and 50 Administrative staff for our study. Findings of this study is that, school leader ship has multiple impact on the performance of school, without leadership school is direction less. In conclusion a need arises that there should be a process (succession planning) in the system, so that impact on performance due to sudden change in the performance should be minimized. Our research have some limitations as well, which are that only ten factors have been considered as school performance which could be increased in future. Through analyzing private education in different provinces, which is substantially different in their relative emphasis on quality of education.

KEYWORDS

School leadership; succession planning; performance; Principal's Role; Education.

INTRODUCTION

Education leadership is very important factor to achieve those desired objectives of quality education (Oduro, Dachi, & Fertig, 2008; OECD, 2008) which is ignored in third world countries (Cogan, 1982; Zawail, 2002). In developed countries Principals are being treated as a leader of institution (Usdan, McCloud, & Podmostko, 2000; Fullan, 2002; Gosmire & Grady, 2007; Mendel, 2012) as it is treated in different corporate setups in western countries (Richardson, 1995; Lombardi, 2000) and this position is planned strategically (Fairholm, 2009; Hanna, 2003; Mittenthal, 2002). Institutions without vision and leadership in developing countries are very common, that's why they are unable to bring effective changes in these countries (Iqbal & Iqbal, 2011). Developing countries are also facing lack of human capital for their development (Makasa; Miyamoto, 2003; United nations, 2005) which results that key employees normally switch one organization to another, which creates serious imbalances for the organization and other bodies in those countries (Aberra, 2007; Masri, 2009).

Pakistan is in intermediate level in education sector. More and more new institutions are coming in this sector and providing or try to provide quality education to respective pupils. Political intervention and corruption also restrict educational institutions not to make progress and increase their performance. Transfers, Recruitment, nepotism and posting have effects this sector drastically. Cheating in examinations is also another phenomenon in this sector.

A leader provides a direction for the organization and without leader organization is just like a ship in the sea without knowing where it is going. Vision of a leader and vision of his organization moves in the same direction. His priorities, interpersonal skills, technical skills, strategic thinking, management skills, relationship with internal environment, relationships with external players and environment and approach toward the goals and objectives of the organization all are representing the optimum utilization of organization's resources. He builds a liaison between different departments of the organization, he knows how he should deal with different employees and for smooth running of operations he has to match the companies' objectives and employees' benefits. All these factors of the leader let him to work for the achievement of vision of the organization. Simple question in this regard are that; what will happen if a leader leaves the door and never came back? What will happen with the company in case of death of a leader? Whether company has also to die with the leader? This study will give an evidence that how leadership continuity is necessary for organization's smooth operations and how organization will response in case of any change in the leadership or any other key position. In the same way in education sector leader is the Principal and without its direction and vision any education institution cannot complete its voyage. If we build the same scenario in any educational institution then, how such questions can be answered, this would be the important for us to answer in this study. There should be a proper planning in the organization, so that due to any uncertain leadership change, reaction can be controlled.

STATEMENT OF PROBLEM

To know the impact of leadership on performance in the context of school education in Pakistan (Jacobson, 2011)

OBJECTIVES

- To know the role of leadership in educational institutions?
- How leadership change will effect the performance of the organization in context of educational leadership?

This study is important for education sector in developing countries like Pakistan, India, Bangladesh and other African countries. Where there is a need of educational leadership to increase the quality of education. As there is a lack of skill full and experienced educational leader, though they can switch their organization with minimum additional benefits. This study will help them to plan proactively in case of any future leadership replacement. In the same way this study is also helpful for organization, so that they can develop a mechanism in their organization that, successful leaders can transfer their expertise for future leaders. In addition to this, study findings of this study also helpful for organization and specifically for schools that they can continue to work for their vision, in case of leader leaves the organization. Today most institutions are focusing on manager ship rather than leadership.

This study also helpful to enhance leadership skills and to create a benchmark for future as per changing environment. Study will also give an idea about the technology skills prevailing with the employees and the training which employees need in future. The study will create a pool of potential candidates in the organization, which is helpful for the organization in terms of knowledge management. And finally this study will also evaluate the current structure of the organization, and how it fit between organization's grand strategy.

REVIEW OF LITERATURE

Categorization of leadership theories which is developed by Bolden, Gosling, Marturano, & Dennison in (2003), which is given as under:

TABLE 1

Great Man Theories	Based on the perception that leaders are born with innate qualities, destined to lead and are exceptional people.
Trait Theories	Based on the positive human attributes and qualities which are necessary for leadership.
Behaviorist Theories	In these theories different patterns of behaviour are observed and categorized as 'styles of leadership'.
Situational Leadership	This approach sees leadership as specific to the situation in which it is being exercised.
Contingency Theories	After extending the situational leadership theories these theories focuses on identifying the situational variables which best predict the most appropriate or effective leadership style to fit the particular circumstances.
Transactional Theories	Under this approach leader promotes compliance of his followers through both rewards and punishments
Transformational Theories	Through the strength of their vision and personality, transformational leaders are able to inspire followers to change expectations, perceptions and motivations to work towards common goals

Effective leadership can lead the whole humanity on earth; it can help the nations through times of peril. In corporate world it enables the organization to achieve their missions and even in family parents are leading their children for productivity in their life. Without decision making it is difficult for the nation to make progress, when we vote for our leaders, we are fully aware the importance of the leadership, and their visions which they presented during the election campaigns. Organizations cannot achieve their vision, timely, complete, correct decision and implementation of decisions is very difficult for the organizations. Leaders are basically influencing the behavior of the followers in various ways, for change the course of event, to implement change and to overcome resistance for change. Investors are also fully aware the fact that good leader can make best business plan, however a bad leader can ruin the existing status of the business (Mills, 2006). The significance of leadership cannot be ignored while achieving quality in the management (Saraph, Benson and Schroeder, 1989; Anderson, Rungtusanatham, and Schroeder, 1994).

Vision and leader has very close relationship with one another, where there is a leader in any context, he also have a vision for the accomplishment of specific objectives. Leaders always have thinking in their mind for the future, where he will lead his followers, which is basically a vision, so we can say that leadership without any vision is not possible, vision basically provides direction to the leadership. There are as many definitions of leadership available in the literature as there are leaders in the history, and as many leadership models are available in books as leadership authors. Leadership definition is just a statement which accommodates the values, attitudes and core beliefs of a person. According to Fred Kofman in (2006) "Leadership is a process by which a person sets a purpose for others to follow and motivates them to pursue it with effectiveness and full commitment". This definition gives the leader some characteristics that, leader has a vision, he can motivate and pursue, and he can bring effectiveness and commitment for the followers. Leadership is just to influence other to achieve goals and objectives (Maxwell, 2006). Another approach to understand the role of leader in any context is that "if the organization is a ship then the leader is not the captain, nor the navigator but rather the designer of that ship". This definition is of the view, that leader is not the person who is just giving orders by his authority or vision, but leader is a person who influences the whole environment in a positive direction. While talking in a corporate environment Jim Collins in (2001) has given some characteristics of leader in organization. As per his definition leader is a person, who maintains persistence, attracts dedicated people, influence people for the accomplishment of goals, overcome obstacles, and lead the company in rainy days. In above four definition different factors have been noted – leadership as influencing factor, leadership as an activity, leadership as design, and leadership as a process so it is clear that there is no general definition of leader which can encapsulate all dimensions of leadership. Leadership is defined by the behaviours, qualities and traits of a leader. Vision, determination and emotional intelligence are the qualities which distinguishes the leader from followers. However, emotional intelligence includes self-awareness, self-regulation, Motivation, empathy and social skills (Daniel, 1998).

Specifically speaking the role of school leader is quite much different from the role of different organization but overall perspective of the leadership is same that leader have to achieve goals and objectives of the organization. CPA Australia in 2002 has given key attributes and competencies of the principal, which are as under:

- Principal should have school leadership skills.
- Principal should be a strategic thinker.
- Sound ethics and values for Principal is also necessary
- Principal must have the capacity of decision making, so that he can make right decision at right time.
- Leaders who don't have knowledge about the industry is not effective, so principal should have knowledge for the education industry.
- Principal have to interact with teachers and principals so their communication skills should be sound enough.
- Level of intelligence of principal should be ample as per his profession.
- He should have relevant experience of this field.
- Principal should have leadership qualities to lead others.
- Lack of co-ordination and team building skills may also effect the leader's caliber.
- Their must be personal chemistry of the individual with the board.

Schools have also to decide about the compensation package of the Principals; hence it is a great challenge for schools to decide upon the fair compensation package for the school leaders. Financial package should be affordable for the school and acceptable for the principal, and it should be aligned with the goals and objectives of the school, which are to achieve prosperity and productivity for all the stakeholders (Corban, 2002). Leadership should be compensated accordingly, so that a sense of ownership can be embodied in the culture of a school.

Above strategies are contributing the performance of any organization, so it is very necessary that there is a need of proper school leadership which guide its followers (AISQ Briefing, 2003). Obama administration has introduced many education reforms in education sector and investment in the development of principals is on of its top priorities. The administration has acknowledged that school leadership is directly involved for quality of education and federal government has ignored this area of school reforms in the past, by announcing budget of tens of billions dollars and considered this amount as peanuts into principal leadership. All these performs are considered important and its fruit only came out "only if we have great principals in our schools" a government official said. During the panel discussion on leadership, innovation and Change, New York City school chancellor Klein said "If you don't solve the school leadership problem, you cannot solve the teaching problem". Obama administration is the ruling party in the US, is giving much importance to principal leadership, because principal leadership is playing a key role in the quality of education of a country (Wallace Foundation, 2009). The vision should be such which is acceptable to all the members of the school and communication and collaboration of the vision is also important, principal should act as promoter and chief investigator the implementation of the vision. The Principal must lead actively, in order to validate the creditability of the performance, so that it can remain with vital importance (Weiss, 1995). While relating the vision with the environment of the class room, role of instructional leadership by the principal cannot be ignored because teachers are only backed by the narrow part of the performance.

Board of Loss Angeles schools has defined School Performance Framework (SPF) to evaluate the performance of the school, in which the overall goal of the system is to maximize the performance of the students. Further training of teachers and other school leaders is also necessary to remain in the Performance Framework. Involvement of parents in school has a positive effect on the achievement of the child. In absolute words, a school have to spend \$1000 more per child in order to achieve same results, which can be achieved through involvement of the parents. Parents are also interested in the performance of their child, so it has a multiple effect on the performance of the child, and the ultimate effect would be on the performance of the schools (Andrew and Conway, 2008). Another study giving the role of parents is that, parents should be aware that homework checking, attending PTMs is very important. Family social capital and school social capital, both are contributing towards the performance of the student. Bonds between parents and children like trust, open communication and

active engagement with academic life of child is family social capital. School social capital is learning environment of school, teacher's morale dealings of teacher with that particular individual. Researchers found that student having high family social capital and low school social capital are performing better than the students which have high school social capital and low family social capital (Mikaela, Toby and Kelly, 2012). School discipline is also another factor which have contributed towards the performance of the school. Student which are active in discipline cases have low grades in the school and ultimate school role in such situation is a key to overcome, because it has an ultimate impact on the performance of the school (David, Milne, Baker and Ginsburg, 1987). Evaluation policies of the teachers and principals is very important for the performance of the institutions. While hiring a new principal it is also important to see that how effective the new evaluation system is, for the school. Evaluation system has a positive impact on the professional growth of the pupils and is beneficial to assess the strength and weaknesses of the staff members and the students as well (Laura, 2012). An effective school leader's job is to utilize the financial, human and physical resources of the school in an optimum way. Planning and strategic thinking, alignment of resources with desired outcomes are the skills which are required to achieve the vision and goals of the schools. As if there is change in the leadership, school has also sacrifice all his intellectual abilities to develop and implement strategies. Although, development and implementation of the strategies have also key role in the performance of the school (Methew, 2007). Changes in schedules will result in high achievement of the student and the ultimate effect goes to the better performance of the institution (Wahlstrom, 2002). Evidence is there that if we increase the autonomy of the educational institutions in terms of hiring and firing of teacher's student discipline then school is in better way to utilize the local information, this has the potential to yield better educational outcomes. This can only be achieved through empowerment of principals and teachers by the higher management, the study has been conducted in Flemish school system Belgium and is achieving result practically. Our point in this study is that hiring, firing, school discipline and accounting the local priorities will also contribute towards the performance of the school (Jen, Marijin, Glenn and Koen, 2010). Relationships with district bodies or other groups in the community can energize the institutions by utilizing from diverse talent and skills. Empowerment of staff as per local requirement also predicts the impact of external relation on the performance of the school. External relationships will also improve the teaching techniques and develop new capacities as per changing needs of the region, especially in case of imported institutions (Robert and Claire, 2003). Institutes are achieving new models and procedures of educational leadership by facilitating new knowledge and skills through training and development. New framework to achieve new trends and demands has been developed, in which growth oriented training and development is the key component of this framework (Mohamad). Different nations are reforming their education systems, curriculum assessment in order to cope the change in education sector. Demands for teachers and principals is going high, so that they would be well-versed in subject, their teaching techniques, and administration skills in order to optimize learning. Strategies such as personalize feedback, guided discovery, whole teachings and should have deep understanding how learning happens. In other words teachers need to be able to work with collaboration with other staff members, to be in the network of professional communities, strong skills of technology and effective use of technology is necessary to increase their performance. Training and development is a very important factor to cope these changes, only then teachers can optimize the use of digital resources and information management systems. Another issue is the demand and supply of qualified teachers for schools, many school hires fresh graduates and train them as per their requirement. Hence high quality of developmental strategies are necessary to meet the demand of qualified teachers of diverse students, use of technology(OECD, 2012). Performance of any organization directly related to the development and motivation level of its staff members. The primary responsibility of the HR department in the school is to maximize the human resources, human resource function is the primary responsibility of all personnel's of the education system. School is a social system its expectation and individuals' personal need disposition will directly influence the behavior of individuals. The performance of each staff members is directly or indirectly contributing towards the performance of the institution. Every institutions have financial resources it is the Human resource which makes difference.

RESEARCH METHODOLOGY

TABLE 2

Description	Used in this study
Type and Selection Method	Applied
Method of contact	Through questionnaire
Sponsorship	Air Foundation School System
Incentives provided to participants	None
Number of sampling frame	500 (400 teachers, 50 Admins, 50 Principals)
Response rate	68% (71% teachers, 30% Admins, 80% Principals)
Sector from which the sample drawn	Education sector
Company characteristics	Independent education system
Geographic scope	Islamabad, Punjab, Sindh, KPK and Gilgit Baluchistan
Job responsibilities of the sample	400 (Teachers), 50 (Admin), 50(Principals)
Age of respondents	18 to 60 years
Gender of respondents	Mixed
Experience of respondents	1 year to 30 years

Here in this study population schools (institutions which are operating up to matric in school chains) in Pakistan's education sector. This study is targeting institutions which are registered with school systems and are operating in three provinces (Sindh, Punjab and KPK) and capital of Pakistan, Islamabad. Administration staff from different institutions which are linked through and education system.. A questionnaire has been developed to get their opinion about the subject matter and their role. They are selected because they are directly contributing towards the vision of school. Any group of such staff can play a vital role towards the achievement of vision. In this study research questionnaire is developed to collect the data to achieve the objectives of our research. This study is targeting the whole country (except Baluchistan province) so it is easy for us to collect data through questionnaire, then a large population throughout Pakistan has been targeted, which is only possible through questionnaire.

HYPOTHESIS

H0: When a leader leaves the school there would be no effect on its performance.

H1: There is a great impact on the performance of the school if there is a sudden change in leadership.

As per details given in table 1 this study has discussed such situation when the Principal in school leave the organization. The structure and the factors of the questionnaire which are taken is as follows:

TABLE 3

S#	Theme of question	Weightage given
	Student progress	10%
	Communication with parents	10%
	Discipline	10%
	Evaluation criteria	10%
	Development and implementation	10%
	School schedules	10%
	Recruitment	10%
	External communication	10%
	Staff development	10%
	Performance of staff	10%

DISCUSSION

Reliability is the extent to which any questionnaire gives the same results, if it is used in different trials or consistency of outputs over time (Miller,). Cronbach's alpha is a tool to test the reliability of the data (Brown, 1997). Table 1 shows the results of cronbach's alpha as 0.860, which are clearly acceptable.

TABLE 4

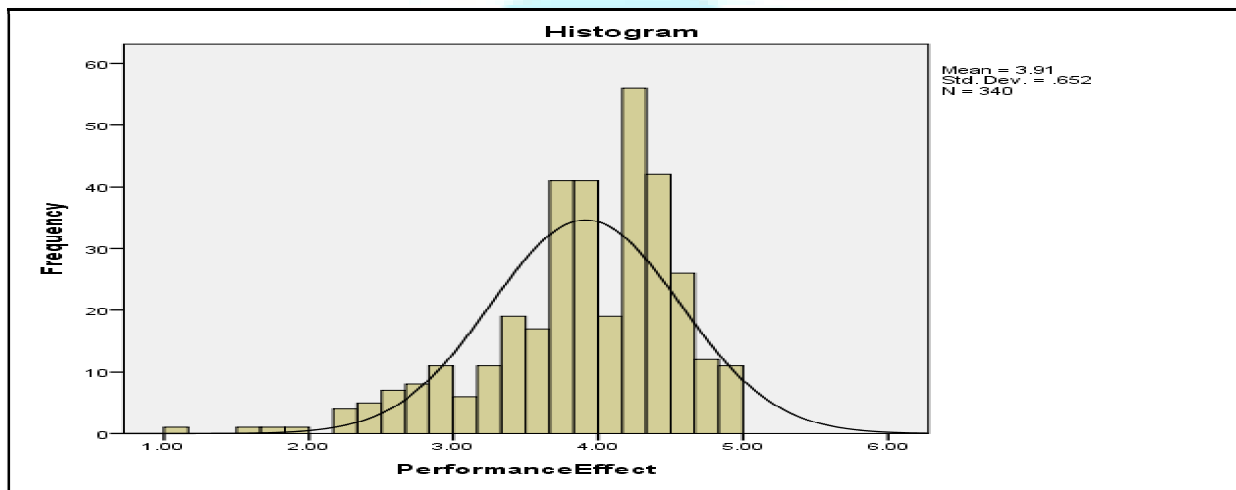
Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.860	.862	10

Following are the descriptive statistics of the data, mean value is 3.91 which depicts that average response of the population sample is almost 4 on 5 point likert scale. Mean value tells us when a leader leave the organization it effect, this also rejects our null hypothesis. Then value of standard deviation is .65 which states that data is normally distributed and 2/3 responses are lies between 3.3 to 4.6, clearly rejects our H0.

TABLE 5

Statistics	
N Valid	340
Missing	1
Mean	3.9145
Std. Deviation	.65212
Range	4.00
Minimum	1.00
Maximum	5.00

FIGURE 1

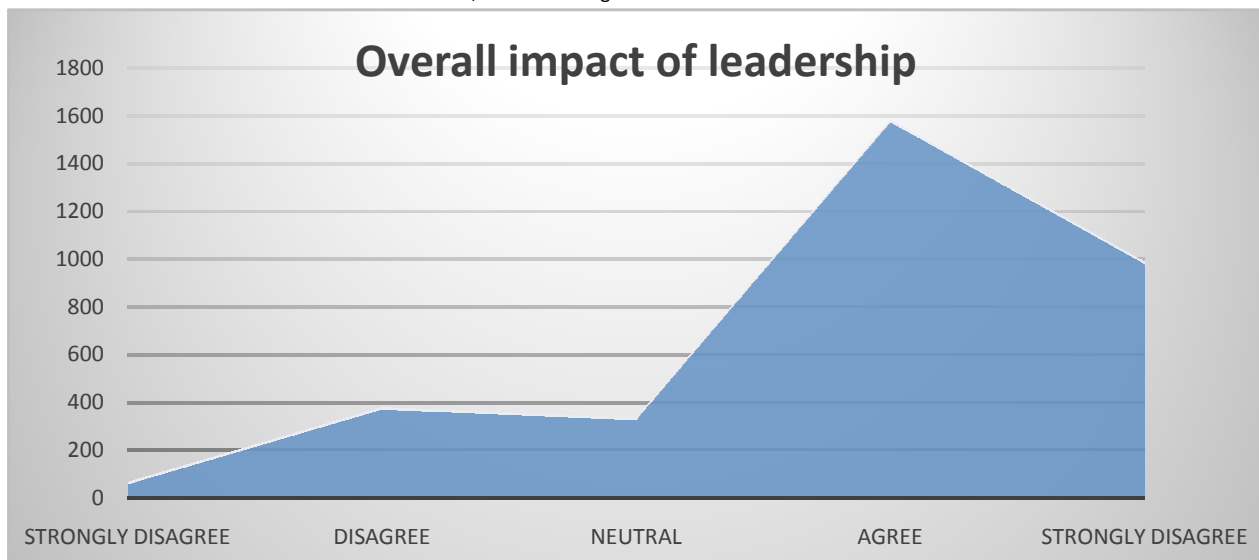


In table 4 frequency of the responses on 5 point likert scale and its percentage has been taken. As in table 1 different factors are given which are taken in the study, all factors are effected due to change in the leadership to positive direction. If we take those responses in which respondents are either "agree" or "strongly agree" then we can say that, from our sample 75% of the respondents are agree/strongly agree that change in leadership will effect student progress. Then 84% are agree that due to change in leadership, there will be effect on the performance of staff. Effect on all factors is above 50% and lies between 54% to 84%, these results are also rejecting our null hypothesis.

TABLE 6

LOA	1		2		3		4		5		6		7		8		9		10	
Strongly disagree	18	5%	8	2%	6	2%	10	3%	4	1%	10	3%	4	1%	2	1%	2	1%	2	1%
Disagree	27	8%	26	8%	34	10%	46	14%	26	8%	94	28%	26	8%	46	14%	25	7%	29	9%
Neutral	39	12%	30	9%	30	9%	30	9%	24	7%	35	10%	42	13%	43	13%	39	12%	23	7%
Agree	156	46%	167	50%	133	40%	157	47%	161	49%	129	39%	172	52%	174	52%	194	58%	138	41%
Strongly disagree	97	29%	106	31%	132	39%	92	27%	116	35%	67	20%	87	26%	71	21%	75	22%	144	43%
Total	337	100%	337	100%	335	100%	335	100%	331	100%	335	100%	331	100%	336	100%	335	100%	336	100%

When we analyze the graphical representation of the data then we came to a conclusion that major area is dealt on the responses which are agreed that there will be an effect when a successful leader leaves the school, as shown in figure 2 below.



FINDINGS

As in our discussion we have rejected our null hypothesis that there would be no effect when a successful leader leaves the school. So, alternate hypothesis will be accepted which is that there is an effect on the performance of the school. This study has taken 10 different factors for the purpose of research, on the basis of research our findings are that, when a successful leader leaves the school student progress will be greatly effected in a negative way. Then parents are very conscious about the studies of their child, timely information to the parents about studies matters a lot for the repo of the school. Our study also proves that quitting of leader will also effect this aspect of the performance. Then discipline acts as a lubricant in the education sector, to stream line the learning structure of the school. Our findings also supports that when a leader quits it will also effect the discipline of the school. There are some general criteria's, which are applicable throughout the education system i.e. examination marks. But while we discuss their evaluation this may also change from school to school. Some schools give high weightage to class participation, however others are giving toward annual examination, our study also finds that evaluation criteria will be effected by leader. Principals have to develop different short and long term strategies to achieve goals of their institution, this will also be effected in a situation when a successful leaders leaves the institution. As per findings of our study, this situation will have least effect on schedule of school, but still it is acceptable which is 59 percent. Then other important factors like, hiring and firing approach of the staff, relationship will community and other institution operating in the same jurisdiction, training and development and performance of the staff members are greatly effected in such situation.

CONCLUSION

The review of the literature and findings indicate that the management of the schools have to account for the leader for the better performance of the school. Our findings support that leader is a very key position in the school and have a drastic impact on the performance of the schools. Management have to make sure that the continuity in the service of leader must be given high importance, otherwise overall strategic performance the school will be effected in a negative way. But here another question arises that with all efforts we can minimize the chances that a principal can leave the institution, but some chances are still there, which can be accounted for the future research.

FUTURE RESEARCH AND LIMITATIONS

These chances can be overcome through succession planning in the schools. Future research could be conducted by accounting for the succession planning. This study has been conducted with the sample which is linked with a system, this could be a limitation of the study. Research from independent institutions or public sector institution is also a direction for future research. The study also limits upto ten different factors of performance, there are still many more which are important for performance of the school. Researchers can also include these factors for their future studies.

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SERVICE QUALITY PERCEPTIONS: AN EMPIRICAL ASSESSMENT OF BANKS IN JAMMU & KASHMIR STATE

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ABSTRACT

In today's competitive banking environment, delivering high service quality to customers is a must for success and survival. Poor service quality places a bank at a competitive disadvantage. If customer perceives quality as unsatisfactory, they may take their business elsewhere, particularly in the case of firms that offer nearly identical services, such as banks where establishing service quality is the only way of differentiating oneself. Such differentiation can yield a higher proportion of customer choices. Customer based determinants and perceptions of service quality, therefore, play an important role when choosing a bank. However, quality does not improve unless it is measured. Further, delivering higher levels of service quality is the strategy that is increasingly being offered as a key to service provider's efforts to position themselves more effectively in the marketplace. In view of this widespread belief, an attempt has been made in the present paper to study service quality in banks operating in J&K State with a view to offer suggestions to make overall service quality in banks more effective and efficient. The results of the study lead us to the conclusion that service quality of JKB is comparatively better than PNB and suggests improvement in all dimensions to augment the quality of bank services.

KEYWORDS

Service quality, Customer Satisfaction, SERVQUAL, SERVPERF.

INTRODUCTION

Delivering quality service to customers is a must for success and survival in today's competitive banking environment (Samli and Frohlich, 1992; Panda, 2003). Among others, provision of high quality services enhances customer retention rates, helps attract new customers through word of mouth advertising, increases productivity, leads to higher market shares, lowers staff turnover and operating costs, and improves employee morale, financial performance and profitability (Lewis, 1989, 1993; Julian and Ramaseshan, 1994). Good service quality will also help in sustaining the customers' confidence in a service provider's delivery, attract more new customers, increase business with existing clients, reduce dissatisfied customers with fewer mistakes, maximise company's profits and increase customer satisfaction (Berry, et. al., 1994; Lee, et. al., 2000). Service quality can, therefore, be used as a strategic tool to build a distinctive advantage over competitors.

The importance of service quality in banks has been emphasised in many studies and perceived quality advantage leads them to higher profit (Raddon, 1987; Buzzell and Gale, 1987). Delivering high service quality has become a strategic approach for satisfying and retaining customers as well as building and sustaining profitability in banks (Cronin and Taylor, 1992; Rust, et. al., 1995; Ennew and Binks, 1996; Lee, et. al., 2000; Ting, 2004). In today's, competitive environment, banks are not only focusing on providing wide range of products to create competitive advantages; but also emphasise on the importance of services, particularly in maintaining service quality. Successful banks of the future will be those that provide services to the customers who want it, were they want it, and in the quantity they want, at the price they want it, thereby delighting rather than merely satisfying them (Shemwell, et. al., 1998). Muffato and Panizzola (1995), further suggest that service quality is considered to be the most important competitive factor for the future and will be the best indicator of bank's profitability.

In the banking field, Soteriou and Zenious (1998) proposed that service quality is a factor impacting financial institution performance as measured by profitability. Several other researchers have indicated that service quality improvement implies increased spending by organizations. Though it has the immediate impact of lowering profitability, however, it is argued that there will be longer-term gains as the firm's ability to attract new customers' increases and current customers become repeat customers. These studies find that service quality has a measurable impact on customer retention, market share and profitability. Service quality is, therefore, considered by many service organizations as the most critical factor in enabling them to achieve a differential advantage over their competitors (Leonard and Sasser, 1982; Albrecht and Zemke, 1985; Ross and Shetty, 1985; Berry, et. al., 1989). Increasingly, quality is becoming a key variable in strategic planning. The link between superior customer service performance, customer retention and profitability has become almost a sine quo non in the marketing literature.

In light of above research findings, interest in service quality is, thus, unarguably high. Poor service quality places a firm at a competitive disadvantage. If customer perceives quality as unsatisfactory, they may take their business elsewhere. Thus, it is clear that service quality offers a way of achieving success among competing services, particularly in the case of firms that offer nearly identical services, such as banks, where establishing service quality is the only way of differentiating oneself. Such differentiation can yield a higher proportion of customer choices and hence means the difference between financial failure and success.

In view of the growing importance of service quality in banks, an attempt has been made, in the present study, to measure quality of bank services in Kashmir valley with a view to suggest, on the basis of study results, ways and means to make overall quality of bank services more effective and efficient.

LITERATURE REVIEW

Service quality is the result of comparison that customer makes between their expectations about a service and their perception of the way the service has been performed (Gronroos, 1982; Lehtinen and Lehtinen, 1982; Lewis and Booms, 1983; Parasuraman, et. al., 1985; 1988). Parasuraman, et. al., 1985 defined service quality as "global judgment, or attitude, relating to the superiority of the service", and explicated it as involving evaluations of the outcome (i.e. what the customer actually receives from services) and process of service act (i.e. the manner in which service is delivered). As customers consume a service, they compare the quality they have experienced to that prior expectation which leads to an emotional reaction manifested in the satisfaction/dissatisfaction with the product or service they purchased (Woodruff, et. al., 1983). Therefore, it is "a global judgement or attitude relating to a particular service, the customer's overall impression of the relative inferiority or superiority of the organization and its services. Johnston (1995) also stated that service quality is the customers' overall impressions of an organisation's services in terms of relative superiority or inferiority. Further, service quality is considered not only to meet but also to exceed customer expectations, and should include a continuous improvement process (Lloyd-Walker and Cheung, 1998). Consequently, service quality arises from a comparison between service expectations developed before an encounter with the bank and the performance perceptions gained from the service delivery based on service quality dimensions (Bloemer, et. al., 1998). Customers' perception of services are based on specific dimensions of services quality and are partly shaped by how well they believe that they are performing their own roles in service delivery systems (Zeithaml and Bitner, 2003). The customer often expects the service to be provided in a specific way or by a specific individual (Sureshchander, et. al., 2001). Some customers are more demanding than others, having greater sensitivity to, and higher expectations of service quality. Perceptions are created after experiencing the quality of service. The customer may perceive dissatisfaction if expectations are higher than the actual service experienced. Also the perception of actual service quality may be low if the service provider misinterprets customers' expectations.

Service quality is intangible, heterogenic, and inseparable, which makes it difficult to measure and understand (Parasuraman, et. al., 1985). In the past decades, researchers (Garvin 1983; Parasuraman, et. al, 1985, 1988; Carman, 1990) used to measure service quality by examining the attributes of service quality, while the researchers in contemporary times (Oliver and DeSarbo, 1988; Bitner and Hubbert, 1994; Parasuraman, et.al., 1994) have focused on the application in services to conceptualize the relationship between service quality and customer satisfaction. The conceptualization and measurement of service quality is one of the most debated topics in service marketing literature (Brady and Cronin, 2001). Several researchers pointed out that service quality is difficult to measure as it is an elusive and abstract construct (Carman, 1990; Garvin, 1983; Parasuraman, et. al., 1985, 1988). Parasuraman, et. al., (1985) also argued that service quality involves not only the outcome but also the delivery process. The authors described service quality as a form of attitude that results from the comparison of consumer expectations with service performance delivered. They along with Cronin and Taylor (1992) argue that the delivery of services is more difficult than goods and delivering quality service is increasingly recognized as the key to success.

SAMPLE DESIGN

Keeping in the view the paucity of time and financial resources, present study is limited to Kashmir valley of J&K State. The study is further limited to two banks namely Jammu and Kashmir Bank (JKB) and Punjab National Bank (PNB). The decision regarding sample banks has been made in view of the fact that among best private sector banks, JKB has been ranked 9th by BSE and Bloomberg (2012) with maximum business operations and branch network in Jammu and Kashmir State. In the same way PNB is ranked 13th by BSE and Bloomberg and has been selected as it has originated and has maximum branch operations (http://rbidocs.rbi.org.in/rdocs/publications/pdfs/Otpbi121111_full.pdf) in northern India. The size of the sample was however limited to four hundred and forty. This represents 50% bank customers from each bank. While choosing a bank customer, the method of simple random sampling was used. All important demographic characteristics like age, sex, level of income, level of education and profession was taken into consideration while seeking the response from the customers regarding quality of bank services. All these have an important bearing on the customers' evaluation of bank service quality. The effort was made to give a balanced representation to above demographic characteristics to make the sample representative.

TABLE 1: DEMOGRAPHIC PROFILE OF RESPONDENTS

DEMOGRAPHIC CHAREACTERISTICS		JAMMU AND KASHMIR BANK (JKB)		PUNJAB NATIONAL BANK (PNB)	
		NO. OF RESPONDENTS	PERCENTAGE (%)	NO. OF RESPONDENTS	PERCENTAGE (%)
Age in Years	20-35 Years	119	54.1	124	56.4
	36-50 Years	75	34.1	83	37.7
	Above 51 Years	26	11.8	13	5.9
	Total	220	100	220	100
Gender	Male	144	65.5	162	73.6
	Female	76	34.5	58	26.4
	Total	220	100	220	100
Level of Education	Up To Secondary	44	20.0	59	26.8
	Bachelors Degree/Diploma	103	46.8	99	45.0
	Post-Graduate/Diploma	73	33.2	62	28.2
	Total	220	100	220	100
Level of Income (per month)	Up To 20000	109	49.5	151	68.6
	21000-40000	78	35.5	32	14.5
	41000-60000	24	10.9	28	12.7
	Above 61000	9	4.1	9	4.1
	Total	220	100	220	100
Profession	Business	63	28.6	90	40.9
	Service	72	32.7	83	37.7
	Self-Employed	85	38.6	47	21.4
	Total	220	100	220	100

The data on table: 1 clearly shows that out of the total respondents, 54.1% from JKB and 56.4% from PNB belonged to age group of 20-35 years followed by 34.1% from JKB and 37.7% from PNB in the age group of 36- 50 years and the remaining 11.8% from JKB and 5.9% from PNB belonged to the age group of above 51 years. The sample includes 65.5% (JKB) and 73.6% (PNB) male respondents while as the rest 34.5% (JKB) and 26.4% (PNB) were females. Majority of the respondents 46.8% from JKB and 45.0 % from PNB were graduates followed by post graduates 33.2% from JKB and 28.2 % from PNB and the remaining were under graduates. Respondents with monthly income of up to Rs.20000 were highest (49.5% from JKB and 68.6% from PNB) participants followed by income group ranging from Rs. 21000-40000 per month (35.5% from JKB and 14.4% from PNB), respondents with monthly income of Rs. 41000-60000 were 10.9% from JKB and 12.7 % from PNB where as the respondents with monthly income of above Rs. 61000 were the least (4.1% from JKB and 4.1% from PNB).

RESEARCH INSTRUMENT

For measuring quality of service, SERVQUAL research instrument has been used, which has been widely acknowledged in many research studies (Carman, 1990; Fick and Ritche, 1991; Saleh and Ryan, 1992). There have been a number of empirical studies that deal with service quality in banking industry in general and the application of SERVQUAL instrument in commercial banks in particular (Blanched and Gallaway, 1994; Angur, et. al., 1999; Bahia and Nantel, 1998; Mushtaq, 2003, 2005; Mushtaq and Gani, 2003; Mushtaq and Bashir, 2005; Mushtaq and Riyaz, 2007). Cronin and Taylor (1992) were amongst the first researchers who

rejected the use of the SERVQUAL scale. They provided empirical evidence across four industries to corroborate the superiority of their 'performance only' instrument over disconfirmation-based SERVQUAL Scale. The SERVPERF scale is found to be superior not only as the efficient scale but also more efficient in reducing the number of items to be measured by 50 per cent (Hartline and Ferrell, 1996; Babakus and Boller, 1992; Bolton and Drew, 1991). Several other authors were in line with Cronin and Taylor (1992) about the use of SERPERF instrument (Buttle, 1996; Quester and Romaniuk, 1997; Hahm, et. al., 1997; Robinson, 1999; Lee, et. al., 2000).

As such service performance 'SERVPERF' has been used for the present study. The research instrument consisted of structured questionnaire and the respondents were asked to indicate their perceptions regarding the quality of bank services they are receiving from their respective banks on a five point Likert type scale where '1' represents strongly disagree and '5' represents strongly agree.

RESULTS AND DISCUSSION

The main objective of this study was to measure service quality in JKB and PNB through SERVPERF Scale. The main area of questioning and analysis relates customers' perception in relation to service quality and its dimensions: tangibility, reliability, responsiveness, assurance and empathy. Perception were measured on a five point strongly agree/strongly disagree scale. Mean scores were calculated separately for each bank, under study, results of which are presented on Tables: 2 and 3.

OVER-ALL SERVICE QUALITY IN BANKS

The data on Table: 2 clearly show that service quality of JKB is relatively higher (3.80) as compared to PNB (3.31). Dimension-wise analysis reveals that service quality of JKB is comparatively high on Tangibility (3.35) and reliability (3.25) while Punjab National Bank is slightly better on responsiveness (3.12), assurance (3.21) and empathy dimensions (3.84).

TABLE 2: OVERALL SERVICE QUALITY IN BANKS AVERAGED ON ALL DIMENSIONS

S. No.	Dimensions	BANKS	
		Jammu & Kashmir Bank (JKB)	Punjab National Bank (PNB)
1	Tangibility	3.35	3.28
2	Reliability	3.25	3.12
3	Responsiveness	3.03	3.12
4	Assurance	3.14	3.21
5	Empathy	3.80	3.84
Total		3.80	3.31
Rank		1	2

DIMENSION-WISE ANALYSIS

The analysis of table 3 clearly reveals that over-all quality of services of JKB is relatively high (3.80) as compared to PNB (3.31). Microscopic view of the **tangibility** dimension shows that the JKB is relatively better only on three out of four elements of the said dimension, i.e., up-to date equipment (3.49), employees are well dressed and neat appearing (3.36) and communication material (3.07) while as PNB's performance is better on physical facilities (3.36). The analysis on **reliability** dimension shows relatively higher level of service quality of JKB (3.25) in comparison to PNB (3.12). The elements-wise analysis of said dimension reveals that JKB is relatively high on promise to do something by a certain time (3.40), performing the service right the first time (3.31), providing the service at the promised time (3.20) and keeping records correctly (3.21) as compared to PNB while as it is relatively poor on being sincere in solving problem (3.22), on the said dimension. The SERVPERF score of **responsiveness** dimensions shows relatively poor service quality scores of JKB (3.03) as compared to PNB (3.12). Element-wise analysis of responsiveness reveal that PNB is relatively high on telling customers exactly when services will be performed (3.32), employees providing prompt service to customers (3.11), employees who are never too busy to respond to customers requests (3.10) while JKB is comparatively high on employees who are always willing to help (3.15). The SERVPERF score of **assurance** dimension of PNB is relatively better as compared to JKB. Its element-wise analysis reveals that PNB is comparatively high on employees who are trustworthy and instils confidence (3.21), employees who are consistently courteous (3.24) and employees who have the knowledge to answer customers questions (3.26) while JKB is comparatively high on feeling safe in transacting with the bank (3.40). The SERVPERF score of PNB is again relatively high on **empathy** dimension as against JKB. The elements-wise analysis reveals that out of five elements, PNB is better on two elements i.e. employees who give personal attention (3.03) and bank which has (your) best interest at heart (3.18) while as JKB is reported relatively high on individualised attention (3.18), convenient operating hours (3.04), employees who understand specific needs of the customers (3.25).

CONCLUSION AND SUGGESTIONS

In the emerging competitive era, with little or no distinction in the product offering, it is the quality of bank services that sets apart one bank from another. The present study measured service quality in select banks on five dimensions by using SERVPERF proposed by Cronin and Taylor (1992). The results of the study lead us to conclude that SERVPERF score of JKB (3.80) is relatively better as compared to PNB (3.31). The poor service quality in PNB is mainly because of deficiency in tangibility and responsiveness. The PNB must invest heavily on tangibility dimension besides improving other dimensions to improve the overall quality of bank services. Present study has also brought to light that although JKB's over-all SERVPERF score is relatively better but are lagging behind on responsiveness, assurance, and empathy in comparison to PNB which suggests an over-all improvements in said dimensions to improve over-all quality of banking service. Delivering high service quality is one of the best ways a bank can respond to competition. Assessing service quality and better knowledge of how various dimensions affect the overall service quality would enable organisations to competently devise the service quality strategy. By identifying strengths and weakness pertaining to the dimensions of service quality, banks can better allocate resources to provide enhanced service. With the awareness of the service quality dimensions, banks can judge how well employees perform on each dimension and should conduct frequent training programmes for employees accordingly to improve overall service quality.

TABLE 3: COMPARATIVE SERVPERF SCORES OF BANKS

DIMENSIONS OF SERVICE QUALITY	BANKS			
	Jammu & Kashmir Bank (JKB)		Punjab National Bank (PNB)	
	Mean Score	Std. Deviation	Mean Score	Std. Deviation
Tangibility				
Up-to date equipment.	3.49	0.86	3.29	1.06
Physical facilities.	3.34	1.00	3.36	0.93
Employees are well dressed and neat appearing.	3.53	1.09	3.45	1.00
Communication material.	3.07	1.12	3.04	1.09
Total	3.35		3.28	
Rank	1		2	
Reliability				
Promise to do something by a certain time, doing it.	3.40	1.07	3.14	1.09
Being sincere in solving the problem.	3.14	1.22	3.22	1.19
Performing the service right first time.	3.31	1.21	3.30	1.11
Providing the service at the promised time.	3.20	1.21	3.05	1.10
Keeping records correctly.	3.21	1.18	2.89	1.05
Total	3.25		3.12	
Rank	1		2	
Responsiveness				
Telling customers exactly when services will be performed.	3.12	1.16	3.32	1.09
Employees providing prompt services to customers.	2.92	1.21	3.11	1.04
Employees who are willing to help.	3.15	1.26	2.98	1.07
Employees who are never too busy to respond to customer requests.	2.95	1.15	3.10	1.23
Total	3.03		3.12	
Rank	2		1	
Assurance				
Employees who are trustworthy and instills confidence in you.	3.03	1.14	3.21	1.12
Feeling safe in transacting with the bank.	3.40	1.21	3.14	1.15
Employees who are consistently courteous.	3.15	1.12	3.24	1.04
Employees who have the knowledge to answer the customers' questions.	2.99	1.10	3.26	1.01
Total	3.14		3.21	
Rank	2		1	
Empathy				
Banks that gives individual attention.	3.18	1.17	3.17	1.10
Convenient operating hours.	3.04	1.06	3.00	1.22
Employees who give personal attention.	2.77	1.14	3.03	1.17
Bank which have your best interest at heart	2.96	1.18	3.18	1.22
Employees who understand specific needs of the customer.	3.25	1.34	3.00	1.27
Total	3.80		3.85	
Rank	2		1	
Overall Quality of Service (Averaged on all Dimensions)	3.80		3.31	
Overall Rank	1		2	

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A STUDY ON INVESTORS' ATTITUDE TOWARDS STOCK MARKET INVESTMENT

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ABSTRACT

Investor's attitude will provide a way to accurately measure how do the investors think about the investment portfolio. The purpose of the study is to analyze the investors' attitude towards investment in stock market and also to analyze the factors responsible to prefer investment in stock market. The impact of various demographic factors on investors' attitude towards investment in stock market has been studied with the help of data collected through questionnaire method from the stock market investors in Pondicherry. The study reveals that capital appreciation, risk level and return on investment are the main factors the investors focus before investing their hard earned money in stock market. The study also reveals that there is no significant relationship between investors belonging to different education groups and the duration of investment in stock market.

JEL CODES

G11, G10

KEYWORDS*Investors' attitude, source of information for investment, stock market investment.***INTRODUCTION**

Indian stock market is the oldest one in the entire Asia. The Bombay Stock Exchange (BSE) and the National Stock Exchange of India Ltd (NSE) are the two primary major stock exchanges in India. A **stock market** or **equity market** is a public entity for the trading of company stock (shares) and derivatives at an agreed price. It is one of the most vital areas of a market economy as it provides firms with access to capital and allows investors to own firms and participate in economic growth through primary and secondary markets. While the primary market provides the channel for creation and sale of new securities, the secondary market deals with the securities issued already.

The success of any investment depends on how effectively it has been able to meet the investors' expectation and preference. Today, there are many investment avenues available in financial market for an investor. One of the well known and reputed investments is equity or share market investment. Many investors earn more return by carrying out trading at the share/stock market. Before investing into any investment, investors will always view on certain areas viz., *company reputation, capital appreciation, risk and return* and so on.

The present study is an attempt to study the general attitude of investors towards stock market investment by analyzing the factors responsible for investors to prefer investment in stock market.

REVIEW OF LITERATURE

Many researchers conducted several studies on various aspects of stock markets in the past. However, the general attitude of investors towards the stock market investment should be known. Hence, this study focused on the investors' general attitude towards investment in stock market.

Bennet Collins et al. (2011) carried out a study on the factors influencing the investor stock selection decision and found that *return on equity, quality of management, price earnings ratio* and *return on investment* were the important factors which the investors considered the most before selecting the stock to invest. **Suman and Warne (2012)** pointed out that income level and annual savings are the important consideration by the investors for the stock market investment.

Murthy and Joshi (2012), who examined the Indian investors' behavior stated that the investors are irrational with different investment options and over confident. **Patidar (2010)** stated that the investors who are below 35 years of age are actively participating in speculation and those of above 35 years of age are hesitant to take risk and therefore they are not at all interested in the share market investment.

Joshi et al. (2011) pointed out that *financial performance of firm, performance of stock, sentiment of stock market and reputation of firm* are the important factors influenced the investment decision of investors in stock market. **Murugan (2012)** found that majority of investors in Nellore are quite unaware of the investment avenues like equity and preference shares, mutual funds, corporate debt and securities and deposits. **Sasikumar and Vikkraman (2011)** studied and investigated the relationship between socio economic characteristics of investors with stock market investment and found that the investors trade regularly with an experience of more than 3 years.

NEED AND IMPORTANCE OF THE STUDY

The aim of the study is to track out the investors' general attitude towards investment in stock market. This paper provides information about the future of stock market industry as well as the awareness level among the investors. This paper is very much informative for the beginners who want to understand and undertake empirical work regarding stock market investment.

STATEMENT OF THE PROBLEM

In recent days, by and large, most of the investors prefer to invest their hard earned money in stock market. Even though many researchers have made attempts in this area, no major study has been done regarding the behavioral aspects of investors with special reference to Indian stock market. So this study is a maiden attempt to analyze the attitude of individual investors towards stock market investment.

OBJECTIVES OF THE STUDY

The primary objectives of the paper are:

1. To study the general attitude of investors towards investment in stock market.
2. To analyze the factors influencing the investors to prefer stock market investment and
3. To study the preferred sector and source of information for stock market investment.

HYPOTHESES DEVELOPED FOR THE STUDY

The following hypotheses are formulated to study the general attitude of investors in stock market.

H_0^1 : There is no significant difference between gender and factors affecting the selection of investment.

H_0^2 : There is no significant difference between the investors belonging to different age groups and saving objectives.

H_0^3 : There is no significant difference between the investors belonging to different education groups and the duration of investment in stock market.

H_0^4 : There is no significant difference between the investors belonging to different income groups and size (proportion) of total investment made in stock market.

RESEARCH METHODOLOGY

DATA SOURCE

The study is based on primary data and personal survey method is used to collect the data with the help of the structured questionnaire. The respondents are those who have invested in stock market and having residence in Puducherry. For collection of data, various stock market agencies were approached to get filled in questionnaire. Only two agencies (40 respondents from each agency) have permitted to approach the investors, hence the questionnaires were given to investors and information has then been collected from them.

SAMPLING PLAN

- Target Population : Investors in Puducherry region
- Sample Element : An individual investor in stock market
- Sample Size : 80
- Area of Survey : Various areas in Puducherry

RESEARCH METHODS

For testing H_0^1 Mann-Whitney U Test is employed. For testing H_0^2 to H_0^4 Kruskal Wallis H Test is used. Further, to study the preferred sector and source of information relating to stock market Henry Garrett Ranking Test is applied.

I. MANN-WHITNEY U TEST

Mann-Whitney U Test is used to study whether there is a significant difference between genders with regard to factors affecting the selection of investment in stock market. Mann-Whitney U Test formula is as follows:

$$Z = \frac{|U - E(U)|}{\sqrt{V(U)}} \sim N(0, 1)$$

$$U = n_1n_2 + \frac{n_1(n_1 + 1)}{2} - R_1$$

or

$$U = n_1n_2 + \frac{n_2(n_2 + 1)}{2} - R_2$$

$$E(U) = \frac{n_1n_2}{2} \quad V(U) = \frac{n_1n_2(n_1 + n_2 + 1)}{12}$$

- Where,
- U=Mann-Whitney U test
- n_1 = sample size one
- n_2 = Sample size two
- R_i = Rank of the sample size

II. KRUSKAL WALLIS H TEST

Kruskal Wallis H Test is used for comparing more than two samples that are independent, or not related. This test is used to study whether saving objectives of investors vary with age. Kruskal Wallis H Test formula is as follows:

$$\chi^2 = \frac{12 \sum \left(\frac{R^2}{n} \right)}{N(N + 1)} - 3(N + 1) \sim \chi^2_{k-1 \text{ df}}$$

- Where,
- R = Sum of rank of each group
- N = Total number of observations
- n = Number of observations in each group
- k = Number of groups

III. GARRETT RANKING METHOD

Garrett Ranking Method is used to rank the various investment portfolios in which the investors desire to invest. For the purpose, the investors are asked to rank their preference for investment. The order of priority given by the investors is converted into rank by using the following formula:

$$\text{Present position} = 100(R_{ij} - 0.5) / N_j$$

Where,

R_{ij} = Rank given for the i^{th} variable by the j^{th} respondent.

N_j = Number of variables ranked by the j^{th} respondent.

The present position of each rank obtained is converted into scores by referring to **Henry Garrett Ranking Table**. The scores of individual respondents are added together and divided by the total number of respondents for whom the scores are added. The mean score for all the factors is computed and the factor having the highest mean value is considered to be the most important factor.

RESULTS AND DISCUSSION

Tables 1 and 2 show the demographic characteristics of the respondents, and their attitude on the stock market investments.

The demographic variables viz., *gender, age, marital status, education, occupation, income, expenses, saving and number of dependents* are shown in table 1. The variables viz., *gender, age, education and income groups* are associated with the dimensions of investment attributes viz., *the selection of investment in stock market, saving objectives, duration of investment and proportion of investment* respectively.

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Characteristics		Frequency	Per cent
Gender	Male	69	86.2
	Female	11	13.8
	Total	80	100.0
Age	Up to 30	20	25.0
	31-40	31	38.8
	41-50	17	21.2
	51-60	7	8.8
	61 and above	5	6.2
	Total	80	100.0
Marital Status	Married	61	76.2
	Unmarried	19	23.8
	Total	80	100.0
Education	Up to High School	3	3.8
	Up to Higher Sec. School	5	6.2
	Under Graduate	32	40.0
	Post Graduate	40	50.0
	Total	80	100.0
Occupation	Business	23	28.8
	Professional	16	20.0
	Self Employed	4	5.0
	Salaried (Govt/Pvt)	20	25.0
	Retired (Govt/Pvt)	10	12.5
	Home Maker	4	5.0
	Others	3	3.8
	Total	80	100.0
Monthly Income	Up to ₹25000	42	52.5
	₹ 25001- ₹50000	23	28.8
	₹ 50001- ₹100000	14	17.5
	Above ₹ 100000	1	1.2
	Total	80	100.0
Monthly Expenses	Up to ₹10000	37	46.2
	₹10001- ₹20000	24	30.0
	₹20001- ₹30000	14	17.5
	₹30001- ₹40000	1	1.2
	₹40001- ₹50000	4	5.0
	Above ₹50000	0	0
	Total	80	100.0
Monthly Saving	Up to ₹10000	66	82.5
	₹10001- ₹20000	8	10.0
	₹20001- ₹30000	3	3.8
	₹30001- ₹40000	2	2.5
	₹40001- ₹50000	1	1.2
	₹50001- ₹60000	0	0
	Above ₹60000	0	0
	Total	80	100.0
Number of Dependents	No Dependent	17	21.2
	1-3 Dependents	55	68.8
	4 & Above Dependents	8	10.0
	Total	80	100.0

Source: Computed results based on survey data

Gender of the respondents plays an important role in the stock market investment. It is observed from table 1 that 69% of the respondents are male and 11% of them are female. It indicates that stock market investment is widely preferred by men than that of the women. Age is considered to be the important parameter in deciding the investment portfolio. Therefore, to analyze the influence on age, the respondents are classified into 5 categories (see table 1). The analysis reveals that majority of the respondents are aged between 31- 40 and about 15% of the investors are in the age group of 51-70. Out of 80 investors, 76% of them are married and the rest are unmarried.

Educational level of the investors is another important factor that determines the general attitude of investors. In general, awareness about the investment in stock market will be more among the educated investors. It is proved that 50% of the investors are 'Post Graduates' and 40% (32) of the investors are 'Under Graduates'. The Occupation of the investors is also an important factor in investment decision on stock market because it directly affects the investor's income, expense, saving and choice of investment. Nearly 19% of the investors belong to business class, 20% are professional, 25% are salaried and the rest are self employed, retired and home makers. It is found that 53% (42) of the investors' monthly income is up to ₹25,000.

It is evident from the table that 46% (37) of the investors spend monthly expense of ₹10,000. 30% of the investors spend between ₹10,001 and ₹20000 per month and 18% of the investors spend between ₹20,001 and ₹30,000. With regard to the monthly saving, 83% (66) of the investors save ₹10,000, 10% of the investors save between ₹10,001 and ₹20000 per month and 4% of the investors save between ₹20,001 and ₹30,000.

The attitude of respondents in respect of investment objectives, proportion of investment in stock market and duration of investment in stock market are shown in Table 2.

TABLE 2: INVESTORS' ATTITUDE TOWARDS STOCK MARKET INVESTMENT

Parameter		Frequency	Per cent
Investment Objective in Stock Market	Income and Capital Preservation	22	27.5
	Long-term Growth	17	21.2
	Growth and Income	35	43.8
	Short-term Growth	6	7.5
	Total	80	100.0
Proportion of total investment in Stock Market	Less than 25%	55	68.8
	25-50%	19	23.8
	51-75%	5	6.2
	More than 75%	1	1.2
	Total	80	100.0
Duration of Investment in Stock Market	Less than 1 year	11	13.8
	1 to 2 years	28	35.0
	2 to 3 years	11	13.8
	More than 3 years	30	37.5
	Total	80	100.0
Dealing with Stock Market Investment	Daily	22	27.5
	Weekly	24	30.0
	Monthly	10	12.5
	Occasionally	9	11.2
	Rarely	6	7.5
	Can't say	9	11.2
	Total	80	100.0
Recommending others to invest in Stock Market	Definitely	29	36.2
	Probably	21	26.2
	Not Sure	11	13.8
	Probably Not	5	6.2
	Never	14	17.5
	Total	80	100.0

Source: Computed results based on survey data

The study has attempted to analyze the general attitude of investors in respect of selective dimensions viz., investment objectives, proportion of investment, duration of investment, dealing with stock market and recommending others to invest in stock market. With regard to investment objectives, 44% (35) of respondents are for 'Growth and Income'. It is noteworthy to infer that 69% (55) of the investors invested up to 25% of their total investment in stock market. It could be seen from table 2 that (30) 38% of the investors have more than 3 years experience, (28) 35% of the investors have 1 to 2 years of experience in stock market investment, the rest of the investors have less than 1 year of experience in stock market investment. When asked about the frequency of investment in stock market, it is inferred that about 30% of the investors deal with stock market weekly and 28% of the investors deal daily. 36% of the respondents recommend others to invest in the stock market and only few, say 6% of the respondents do not recommend others to invest in the stock market.

H_0^1 There is no significant difference between gender and factors affecting the selection of investment.

Mann-Whitney U Test – Analysis of Gender and Factors of Selection of Investment.

To test whether the factors affecting the selection of investments varies with gender, Mann-Whitney U Test is performed. The result of the analysis is given in Tables 3(A) and 3(B).

TABLE 3(A): GENDER AND FACTORS OF SELECTION OF INVESTMENTS IN STOCK MARKET

Factors	Gender	N	Mean Rank	Sum of Ranks
Capital Appreciation	Male	69	42.57	2937.50
	Female	11	27.50	302.50
Period of Holding	Male	69	40.86	2819.50
	Female	11	38.23	420.50
Risk Level	Male	69	40.12	2768.00
	Female	11	42.91	472.00
Return on Investment	Male	69	39.95	2756.50
	Female	11	43.95	483.50
Tax Benefit	Male	69	40.53	2796.50
	Female	11	40.32	443.50
Company size & Reputation	Male	69	40.38	2786.00
	Female	11	41.27	454.00
Liquidity	Male	69	40.17	2772.00
	Female	11	42.55	468.00
Market Trend	Male	69	39.76	2743.50
	Female	11	45.14	496.50
Government Policies	Male	69	40.13	2769.00
	Female	11	42.82	471.00
Inflation	Male	69	39.51	2726.00
	Female	11	46.73	514.00

Source: Computed results based on survey data

TABLE 3(B): MANN-WHITNEY U TEST ANALYSIS FOR GENDER DIFFERENCE IN ATTITUDE ON FACTORS DETERMINING INVESTMENT IN STOCK MARKET

Factors	Capital Appreciation	Period of Holding	Risk Level	Return on Investment	Tax Benefit	Company size & Reputation	Liquidity	Market Trend	Government Policies	Inflation
Mann-Whitney U	236.500	354.500	353.000	341.500	377.500	371.000	357.000	328.500	354.000	311.000
Wilcoxon W	302.500	420.500	2768.000	2756.500	443.500	2786.000	2.772	2743.500	2769.000	2.726
Z	-2.359	-.410	-.415	-.578	-.029	-.125	-.347	-.770	-.375	-1.001
Asymp. Sig. (2-tailed)	.018	.682	.678	.563	.977	.900	.728	.441	.707	.317

Source: Computed results based on survey data. Grouping variable-Gender * Significant at 5%.

The result of Mann-Whitney U Test reveals that the difference is not significant for variables viz., period of holding, risk level, return on investment, tax benefit, company size and reputation, liquidity, market trend, government policy and inflation. However, difference is found to be significant for capital appreciation. Since, p value for capital appreciation (.018) is less than 0.05, the null hypothesis H_0^1 is rejected at 5% level. Therefore, it can be concluded that there is a significant difference between gender and factors determining the selection of investment in stock market.

H_0^2 There is no significant difference between the investors belonging to different age groups and saving objectives.

Kruskal Wallis H Test – Analysis of Age and Saving Objectives

To test whether the saving objectives of investors vary with the age groups, the Kruskal Wallis H Test is employed and the results are presented in Tables 4(A), 4(B) and 4(C).

TABLE 4(A): AGE AND SAVING OBJECTIVES OF INVESTORS

Saving Objectives	Age Group	N	Mean Rank	Saving Objectives	Age Group	N	Mean Rank
To take care of me in post retirement period	Up to 30	20	39.28	To avail tax benefit	Up to 30	20	48.58
	31-40	31	31.34		31-40	31	34.45
	41-50	17	46.56		41-50	17	42.74
	51-60	7	48.14		51-60	7	29.71
	61 and above	5	70.90		61 and above	5	53.20
	Total	80			Total	80	
To meet contingencies	Up to 30	20	49.65	To give education to children	Up to 30	20	37.98
	31-40	31	32.06		31-40	31	49.02
	41-50	17	38.24		41-50	17	45.53
	51-60	7	57.79		51-60	7	16.71
	61 and above	5	39.70		61 and above	5	14.00
	Total	80			Total	80	
To purchase fixed assets	Up to 30	20	51.88	To get marriage of children	Up to 30	20	32.82
	31-40	31	36.68		31-40	31	51.82
	41-50	17	39.53		41-50	17	46.09
	51-60	7	43.64		51-60	7	19.00
	61 and above	5	17.60		61 and above	5	12.10
	Total	80			Total	80	

Source: Computed results based on survey data

TABLE 4(B): KRUSKAL WALLIS H TEST FOR AGE AND SAVING OBJECTIVES

Saving Objectives	To take care of me in post retirement period	To avail tax benefit	To meet contingencies	To give education to children	To purchase fixed assets	To get marriage of children
Chi-Square	15.982	9.186	11.803	19.628	11.044	24.614
df	4	4	4	4	4	4
Asymp. Sig.	.003**	.057*	.019*	.001**	.026*	.000**

Source: Computed data based on survey data. Grouping variable-Age. *Significant at 5%, **Significant at 1%.

The investors of various age groups do vary significantly with regard to saving objectives viz., 'to take care of them in post retirement period', 'to give education to children' and 'to get marriage of children'. Since the p value for the saving objectives of children's education and children's marriage is less than or equal to 0.01, the H_0^2 is rejected at 1% level and hence can be inferred that there is a significant difference between different age groups of investors and saving objectives. Likewise, since the p value is less than 0.05 for the saving objectives viz., 'to avail tax benefit', 'to meet contingencies' and 'to purchase of fixed assets', the null hypothesis H_0^2 is rejected at 5% level.

The result indicates that the investors belonging to different age groups differ in their saving objectives, therefore it can be concluded that there is a significant difference between age group of investors and the saving objectives of investors in stock market investment.

TABLE 4(C): DESCRIPTIVE STATISTICS FOR SAVING OBJECTIVES OF INVESTORS IN STOCK MARKET

Saving Objectives	Range	Mean	Std. Deviation	Mean Rank
To take care of me in post retirement period	75	16.47	18.944	2
To avail tax benefit	40	5.04	6.989	6
To meet contingencies	50	11.04	11.121	5
To give education to children	50	13.66	11.076	3
To purchase fixed assets	50	13.43	13.734	4
To get marriage of children	60	17.09	12.858	1

Source: Computed results based on survey data

The result shows that the saving objectives viz., 'to get marriage of children', followed by 'to take care of them in post retirement period' are the most preferred objectives for saving. The saving objective, 'to give education to children' is the third preferred one followed by purchase of fixed assets. The saving objective 'to meet contingencies' occupies the fifth position, probably because it is considered to be one of the important aspects for every individual. Finally, the last and the sixth place of saving objectives are occupied by 'to avail tax benefit'.

H_0^3 There is no significant difference between the investors belonging to different education groups and the duration of investment in stock market.

To test whether the duration of investment in stock market varies with the level of education of investors, the Kruskal Wallis H Test is employed and the result is presented in Table 5.

TABLE 5: MEAN RANK AND TEST STATISTICS IN RESPECT OF EDUCATIONAL LEVEL AND DURATION OF INVESTMENT

Duration of investment in stock market	EDUCATIONAL LEVEL	N	MEAN RANK	χ^2	DF	ASYMP. SIG.
	Up to High School	3	38.83			
Up to Higher Sec. School	5	37.40				
Under Graduate Level	32	39.28				
Post Graduate Level	40	41.99				
Total	80					

Source: Computed results based on survey data

From the analysis, it is inferred that the mean rank is 38.33 for the investors who have studied 'up to High School' level, 37.40 for the investor who have studied "up to Higher Sec. School" level, 39.28 for the investors who have studied up to "Under Graduates" and 41.99 for the investors who have studied up to "Post Graduate" level. The investors belonging to various educational groups vary significantly with regard to the duration of investment in stock market. Since the p value (.94) is greater than 0.05, the H_0^3 is accepted, leading to conclude that there is no significant difference between the investors belonging to different educational groups and the duration of investment in stock market, and the difference found in the analysis is due to chance.

H_0^4 There is no significant difference between the investors belonging to different income groups and the (size) proportion of total investment made in stock market.

To test whether the proportion of investment in stock market varies with the income level of the respondents, the Kruskal Wallis H Test is performed and the result is presented in Table 6.

TABLE 6: MEAN RANK AND TEST STATISTICS FOR INCOME AND PROPORTION OF INVESTMENT

Proportion of Investment	INCOME LEVEL	N	MEAN RANK	χ^2	DF	ASYMP. SIG.
	Up to Rs. ₹ 25000	42	33.05			
₹ 25001- ₹ 50000	23	44.61				
₹ 50001- ₹ 100000	14	53.50				
Above ₹ 100000	1	77.00				
Total	80					

Source: Computed results based on survey data

The result of Kruskal Wallis H Test reveals that there is a significant difference between income level and proportion of investment in stock market. Since the p value (0.00) is less than 0.01, H_0^4 is rejected at 1% level. Hence, it is inferred that there is a significant difference between the income level and proportion of total investment in stock market.

TABLE 7: FACTORS AFFECTING THE SELECTION OF INVESTMENT IN STOCK MARKET

Factors	NI (1)	NVI (2)	SI (3)	I (4)	HI (5)	Weighted Score	Rank
Capital Appreciation	0	0	3 (3.8%)	27 (33.8%)	50 (62.5%)	367	I
Period of Holding	0	1 (1.2%)	8 (10.0%)	51 (63.8%)	20 (25.0%)	330	IV
Risk Level	0	2 (2.5%)	5 (6.2%)	31 (38.8%)	42 (52.5%)	353	II
Return on Investment	1 1.2%	4 5.0%	7 8.8%	32 40.0%	36 45.0%	338	III
Tax Benefit	4 (5.0%)	6 (7.5%)	24 (30.0%)	28 (35.0%)	18 (22.5%)	290	VI
Company size & Reputation	2 (2.5%)	7 (8.8%)	25 (31.2%)	32 (40.0%)	14 (17.5%)	289	VII
Liquidity	1 (1.2%)	4 (5.0%)	16 (20.0%)	44 (55.0%)	15 (18.8%)	308	V
Market Trend	0	10 (12.5%)	26 (32.5%)	38 (47.5%)	6 (7.5%)	280	IX
Government Policy	4 (5.0%)	4 (5.0%)	26 (32.5%)	31 (38.8%)	15 (18.8%)	289	VII
Inflation	7 (8.8%)	8 (10.0%)	29 (36.2%)	26 (32.5%)	10 (12.5%)	264	X

Source: Computed results based on survey data. Not at all Important-1, Not Very Important-2, Somewhat Important-3, Important-4, Highly Important-5

Table 7 shows the factors affecting the investment decision in stock market. The weighted score in respect of factor "capital appreciation" (367) is more than that of the mean score of all other factors. Hence, it stood as the first rank. Out of 80 respondents, 52.5%, 38.8% and 6.2% of the respondents stated that the factor "risk level" is highly important, important and somewhat important respectively. Since most of the respondents stated that it is the important aspect, it is ranked in the second position. The factor "return on investment" stood in the third rank and the factor "inflation" occupied the last rank in the weighted score (264) as 36% of the investors stated it as somewhat important.

TABLE 8: GARRETT RANKING SCORES AND RANK FOR VARIOUS PREFERRED SECTORS OF INVESTMENT IN STOCK MARKET

S. No.	SECTOR	TOTAL SCORE	MEAN SCORE	RANK
1.	IT	4949	61.86	II
2.	Pharmaceutical	3380	42.25	VIII
3.	Telecommunication	2976	37.20	IX
4.	Banking	5234	65.42	I
5.	Petroleum	4536	56.7	III
6.	Automobile	4347	54.33	V
7.	Entertainment	2746	34.32	X
8.	Engineering	3464	43.30	VII
9.	Oil & Gas	4471	55.88	IV
10.	Metals & Mining	3852	48.15	VI

Source: Computed results based on survey data

Table 8 highlights the Garrett's ranking scores, which shows the preferred sectors for investment by the respondents while investing in stock market. It could be observed from the table that the sector "banking" has been ranked first with the Garrett Score of 5234. The second and third rank respectively occupied by 'IT' and 'Petroleum' sectors with the Garrett Score of 4949 and 4536 respectively. It is followed by Oil & Gas, Automobile, Metals & Mining, and Pharmaceutical. The last two ranks were occupied by 'Telecommunication' and 'Entertainment' sectors with the least Garrett Score of 2976 and 2746 respectively. From the analysis, it is inferred that most of the investors preferred 'Banking' as the preferred sector for their investment in stock market.

TABLE 9: GARRETT RANKING SCORES AND RANK FOR VARIOUS PREFERRED SOURCES OF INFORMATION IN STOCK MARKET

S. No.	SOURCES OF INFORMATION	TOTAL SCORE	MEAN SCORE	RANK
1.	Brokers/Agent	5594	69.92	I
2.	Prospectus	3671	45.88	VI
3.	Advertisement	2534	31.67	VIII
4.	Annual Report	3873	48.41	V
5.	Newspapers	4737	59.21	II
6.	Magazines	3019	37.73	VII
7.	Friends/Relatives	4348	54.35	III
8.	Television	4225	52.81	IV

Source: Computed results based on survey data

Table 9 highlights Garrett's ranking scores, which shows the preferred source of information for the investors. In this analysis, the highest Garrett's score is vested with the source 'brokers and agents' with 5594. The second and third rank is placed for 'newspapers' (4737) and 'friends/relatives' (4348) respectively. The source of information like television, annual report and prospectus are ranked in fourth, fifth and sixth place with the Garrett's score of 4225, 3873 and 3671 respectively. Finally, the last two ranks are occupied by magazines (3019) and advertisement (2534). Hence, from the Garrett's ranking analysis, it is inferred that most of the investors rely upon the source of "brokers and agents" and also get information through "newspapers" for investing in stock market than that of the other sources of information like magazines and advertisements.

FINDINGS

The objective of the study is to analyze the general perception of the investors in stock market and to analyze the factors influencing the investors to prefer stock market investment. For this purpose, primary data have been collected through questionnaire method and tested using Mann-Whitney U Test, Kruskal Wallis H Test, and Garrett's ranking.

The finding of the study reveals that male investors dominate their counterparts in the stock market investment. As per age wise classification, the investors in the age group of 31-40 do actively participate in the stock market investment. The investors who are employed by themselves and home makers are not interested to invest their hard earned money in the stock market, whereas the investors who involve in business and salaried class do actively participate in the stock market investment. Investors falling under income group below ₹25,000 show more interest in investing their earnings in the stock market than those of the investors who belong to other categories of income. Capital appreciation, risk level and return on investment are the main factors, which influence the investors to invest their money in stock market.

Majority of the investors prefer 'growth and income' followed by 'income and capital preservation' as the objectives for their investment in stock market. Most of the investors do invest their money through brokers and agents and they get their information relating to the investment through brokers, newspapers and friends and relatives rather than from magazines and advertisements.

CONCLUDING REMARKS

The primary objective of the study is to analyze the general perception of the investors in stock market. Relatively, hypotheses were framed and tested using the data (sample of 80 respondents) which are collected through the structured questionnaire method. The result proves that there is a significant difference between gender, age groups, income groups and factors affecting the selection of stock market investment, saving objectives and proportion of investment in stock market respectively. The study also reveals that there is no significant difference between the investors belonging to educational groups and duration of investment in stock market investment.

LIMITATIONS OF THE STUDY

1. The sample size is limited to 80 respondents only.
2. The respondent contacted belongs to Puducherry only.

SUGGESTIONS AND SCOPE FOR FURTHER STUDIES

Investors who are employed by themselves are not interested in stock market investment when compared to the businessmen. The self employed investors could also participate actively in stock market like business class people with the help of the brokers and agents, but they are willing to come forward. Since the present study is limited to the investors in Puducherry, the result may vary, if conducted elsewhere. The study could also be extended to other regions by focusing on other aspects also. The present study focused only on general attitude of investors in stock market by approaching two agencies only for collection of data. Hence, further studies could also be made by concentrating on the specific aspects like gender, education, risk level and others by approaching several agencies with large size sample.

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A COMPREHENSIVE MODEL TO CHECK THE ADOPTION OF ONLINE SHOPPING IN PAKISTAN**MUHAMMAD RIZWAN****LECTURER****DEPARTMENT OF MANAGEMENT SCIENCES
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BAHAWALPUR****ABSTRACT**

The purpose of this study is to check the adoption of online shopping in Pakistan. Many research papers explain the effect of different variables on online shopping intention. But there is no explanation in any paper the effect of these variables on online shopping intention i.e. attitude on both perceived ease of use (PEOU), perceived usefulness (PUF) and then such both (PEOU, PUF) on trust and finally the effect trust on privacy and responsiveness. We collected the 150 useable questioners in the city of Bahawalpur (Pakistan). We analyze such data in SPSS and find result. This research paper revealed that attitude effect on online shopping intention, PEOU and PUF effect on attitude, trust is effected on such both (PEOU, PUF) and finally privacy, responsiveness both effect on trust. This study will help to increase the trend of online shopping if we focus on such factors i.e. privacy, responsiveness, trust, PEOU, PUF and attitude.

KEYWORDS

Attitude, Privacy, PEOU, PUF, Responsiveness, Trust.

1. INTRODUCTION

Online shopping (OLS) stated that purchase the products from electronic stores (Monsuwe *et al* 2004). Unluckily considerable growth in acceptance to electronic shopping is sympathetic policies and this unconstructive tendency owed to the attitude factors then technological infrastructure (Ramayah and Ignatius, (2010).

Information is collected electronic stores and provides such guidelines to potential buyers in steps wise. In this way potential buyers perform the OLS in easy way. Usually guidelines exploited on home page of such site. Many of electronic stores is registered their names according to terms and conditions, that is called "portal site". OLS stores are organism based on both of computer hardware and software due to these parts and internet facilitates buyer talk with other parties (electronic stores). OLS malls enlargement of more accelerated from side to side the helpful such as aggressive value, better contact to information, merchandise characteristic and timely to receive merchandise (Keeney, 1999). This development is a chance of organization should increase their revenue and also reduce cost.

Today internet is one of the numerous non store formats commonly used by the clients for shopping. By the end of 2003, figures for online trade were expected at approximately 4.5 per cent of total vend sales, with the internet the top increasing shopping channel (Lorek, 2003; Maloy, 2003). Online vending was predictable to attain sales of virtually \$100 billion by the end of 2003, enhance of 26 percent in excess of 2002 (Mullin, 2003).

The technology acceptance model (TAM) (Davis, 1989) is extensively used to give details individuals' intentions and real use of (IT). Firm of IT means to buy or sales of goods and services on electronic stores. So, performance of online shopping can be somewhat explained by the TAM. On the other hand, there are discrepancies among the use of the web site and online purchasing, especially with respect to repurchase (Tsai and Huang, 2007). The desires of (TMA) to be comprehensive by incorporating further variables in order to adjust it to the online shopping framework and progress its descriptive authority (Hu *et al.*, 1999; Moon and Kim, 2001). Idea of investigate supports that shopping can give together hedonic and useful significance (Babin *et al.*, 1994; Babin and Darden, 1995). Several studies have modeled apparent helpfulness and pleasure as useful and hedonic principles correspondingly, and have connected them to buyer approach and behavioral meaning towards online shopping (Ahn *et al.*, 2007; Lee, 2005). Though, the impacts of Perceived usefulness (PUF) and pleasure on repurchase meaning remain indistinct in the OLS context.

Kamen (2010), an originator and capitalist describes the inflexibility in tolerant technology as follows: "Technology is simple to expand, rising a new approach, touching the civilization from one cerebral replica to a new, that's the complicated fraction. You give explanation to the people about a trouble and the huge satire is that smooth however they're miserable, they have high inactivity. People don't resembling transform. The cause it takes technology 15 or 20 years to come in is as 15 years is the time it takes a toddler how proverb it while he was young to turn into a performance mature."

Online shopping technology is not fully formed; small is recognized of the factors that pressure online shopping behaviors (Haque *et al.*, 2006). Customer choice concerning online shopping is to be unspoken so as to build up online shopping systems (Lin, 2007). While small number of studies investigates customer receipt of online shopping (Ha and Stoel, 2009), this study extends the TAM to recognize the factors that belongings online shopping. To enhance understanding of OLS technology can assist to sell their goods online firm make their efforts (Van derheijden *et al.* 2003). These learn attempts to discover the causes that consequence OLS in business to customer surroundings of Pakistan. The fast increase in numbers of internet users in Pakistan from 133900 users in 2000 to 18500000 in 2010 (internetworldsttes.com) provide opportunities for small shopkeeper as well as wholesalers to discover ways in research new businesses on the internet. In this study the theory is the (TAM) (Davis 1989) which essentially includes PUF and PEOU as two outside variables. The model is organism customized by addition seven variables: Perceived Ease of Used (PEOU), Perceived Use Fullness (PUF), Trust, Privacy, Responsiveness, Attitude and OLS have two major variables of TAM, PUF and PEOU. Though previous studies such as Lu *et al.* (2005), Huwang and Kim (2007) and Ha and Stoel (2009) have used dissimilar combinations of these variables but no study has included all the seven variables at the same time in finding out the intention of customers towards OLS.

In this study the research questions need to be answered are about the negative and positive impact on OLS intention by Privacy, PUF, PEOU, Attitude, Responsiveness and Trust. This study comprises of who have or have not transacted in online shopping intention.

2. LITERATURE REVIEW

2.1. ONLINE SHOPPING

Online shopping stated that purchasing behavior of buyers in the online or virtual stores or through the website transaction (Monuwe *et al.* 2004).

Some factors are influencing on online shopping attitude, this technology is not fully formed (Haque *et al.* 2006). Customer's opinions are unstated towards online shopping to build up online shopping structure (Lin, 2007). Several researches examine the customer to accept the online shopping (Ha and Stoel, 2009). This research introduces the factor of TAM that affects online shopping. A better technology can help the firm to sell their product online. (Van der Heijden *et al.* 2003).

2.2. ATTITUDE

A positive or negative reaction toward something or anyone shows in ones beliefs, feelings or deliberate behavior (Myers, p. 36). It is social point of reference that responds to something either positive or negative.

An attitude defined as a valuation of behavior which is declaring a person in a positive way towards it (see Eagly & Chaiken, 1993; Gärling *et al.*, 1998). A very critical point in the history of theory that has been the development of the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA) (Armitage & Conner, 2001). These theories are under the behaviors depending on ability (behavioral control) and motivation (intention) (Ajzen, 1987; 1991). Yet empirically, the TRA operationalization (Fishbein & Ajzen, 1975) defines that intention is in the behavior and the attitude. Intention is not depend on attitude but also on subjective norms such as parents and good friends that is to perform or not perform a behavior.

Online shopping is very different from shopping in a store. Due to this individuality, the consumer's intention goes to shop online than others put off them. In the other hand, psychographics and demographic backgrounds of the consumer's intention that affect their attitude towards online shopping intention.

H1: Online Shopping Attitude has positive impact on intention to use online shopping.

2.3. PERCEIVED EASE OF USE

Perceived ease of use refers the degree to which the customer believes that online shopping will be without any effort. The technology acceptance modal entails that all the things are same, the website of an OLS that bring awareness of usefulness. Davis *et al.* (1989) Stated that improvement in ease of use may be helpful source to increase the effectiveness.

Some researchers argued that PEOU is the scope to which a person believes right to use the testing method; it could be free of cost for the individual (Davis *et al.*, 1989; Mathieson, 1991; Gefen and Straub, 2000; Gahtani, 2001). Initially Rogers (1962) confirmed that PEOU is to represents measure to which a novelty is perceived, it is no more difficult to be aware of, find out and control. He more confirmed that PEOU is the amount to which the perceive consumers have to identify a new service or product as superior than its alternatives (Rogers, 1983). According to Zeithaml *et al.* (2002) the extent to which an innovation is simple to recognize or use could be measured as PEOU.

Recently, Chen and Barnes (2007) have established that two technological aspects of the edge that is to say perceived ease of use appreciably affect customer adaptation intentions.

H2: Perceived ease of use has positive effect on customer attitude.

2.4. PERCEIVED USEFULNESS

It is stated as the extent to which a consumer believes his or her transaction performance will increase by online shopping. According to Davis *et al.* (1989), the persons have a behavioral intention towards OLS is depend on cognitive analysis that how it would increase their online shopping performance.

Pikkarainen *et al.* (2004) TAM useful in Finland, they estimated PUF is the actual behavior which has positive effect on the banking user of the 21th century which are more creative self-service technology that give the larger independence in a well performance dealings with banking. It is gaining financial information and buying financial service or product. However, Gerrard and Cunningham (2003) well have known the PUF that is offering the banking services for instance examining bank balances, depositing utility bills, applying for a loan, moving money in a foreign country, and obtaining information on joint funds.

H3: Perceived usefulness has positive effect on customer attitude.

2.5. TRUST

Gefen and Straub (2000) explored that effect of PUF and the acceptance of electronic business. Chen *et al.* (2002) considered that effect of PUF on customer's response of purchasing about virtual store. Hence, TAM can be useful to evaluate the actions of consumer in the online backgrounds when supposing that is residential for use prediction and technology acceptance.

Chircu *et al.* (2000) described that trust is the mediator to increase the PEOU in an e-commerce. However, it is the increase in the use of comfortable web by the more and more development in web-based technology that in the reason it becomes more difficult in the arrangement of a web site (Lee and Shiu, 2004). So for that, the PEOU will be more significant for the consumer try to use of online shopping store. The PUF of the web site can be increased by online trust (Chircu *et al.*, 2000; Gefen *et al.*, 2003). The usefulness of online shopping depends on latest search engines and providing personal service to customers through the online shopping stores. It is the main source to contact with the customer.

Perceived ease of use, perceived usefulness, online trust, online shopping intention and Technology acceptance model (TAM) have been getting more awareness through information systems because of its system use.

On the other hand, it is just useful in the widespread region of information technology through online shopping. That is to say, a positive effect on the PUF is estimated when consumers have a trust on provided information and the handling process by the honest online shopping mall.

H4: Online trust in the online shopping mall will have positive effects on perceived ease of use.

H5: Online trust in the online shopping mall will have positive effects on perceived usefulness.

2.6. PRIVACY

The extent to which the online shopping web site is secure and protects the purchaser information refers to privacy. Due to a lack of trust most of people have yet to shop online or give personal information to online vendors this is the major reason recommended by Hoffman et al. (1999), because people think that online vendors will sell their private information to third person without their consent.

People don't feel secure that their credit card information is safe and shielded from potential hackers in this way customers will hesitate to do online shopping (Collier and Bienstock, 2006). Preceding study in the online shopping framework presents that consumer' perceptions of privacy have a positive and significant effect on consumer trust in the online vendor (Bart et al., 2005; Liu et al., 2005; Roma'n, 2007).

H6: Privacy is positively related to customer trust in the online shopping.

2.7. RESPONSIVENESS

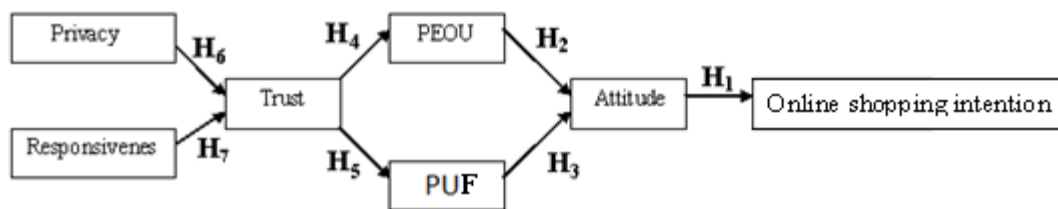
Responsiveness defines that the efficient handle of the difficulty through the online shopping. (Parasuraman et al., 2005). The e-service quality evaluate by responsiveness which has significant effect though online shopping (Yang et al. 2004). It is very critical that the consumers have been given the sufficient and timely support to any question or problem (Semeijn et al., 2005).

To the Moorman et al. (1993), when message is sent to the consumer within a short time then gain the fosters trust. A very speedy sent the response to the requirement that is expected to reduce the uncertainty. It is most important approach for online seller to explain their customer-oriented and act generously towards consumers (Gummerus et al., 2004). This is hold up for the function of responsiveness in the progress of trust is giving by Lee (2005).

H7: Responsiveness is positively related to customer trust in the online shopping.

3. PROPOSED MODEL

FIGURE1: HYPOTHESIS MODEL



4. RESEARCH METHODOLOGY

The recent study is expressive in its nature. The explanatory research can be defined as explaining something, some fact or any specific situation. Descriptive researches explain the existing situation instead of interpreting and making judgment (Creswell, 1994). The developed hypothesis that reflects the existing situation which is the main objective of the descriptive research. This research gives the information about the current situation and focus on past or current scenario, the customer attitudes towards any marketing activity is the example to the value of life in a commodity (Kumar, 2005).

4.1. SAMPLE /DATA

A sample of 200 respondents will ask to contribute in a self administered questionnaire, In order to collect the data for understanding the condition about adoption of online shopping intention. The population for the current researches is internet users in Pakistan.

A non probability sampling technique that is utilizing in this recent research is convenience sampling. The technique that obtains and collects the pertinent information from the sample or the unit of the study that are conveniently available is known as convenience sampling (Zikmund, 1997). For collecting a large number of completed surveys speedily and with economy convenience sampling is generally used (Lym. et al., 2010).

It has ensured that the sample members possess two main qualifications to participate in the self administered survey. First one is, the sample member has enough awareness about internet and they are also using internet, Second one is, because of having experience about internet purchase they never buy any item over the internet, it absolutely influences the attitude and behavior of the respondent.

We selected these sample members from diverse metropolitan cities of Pakistan. Two main clusters will target to collect the sample data like university students and working professionals. The result of previous studies is online shopping intention based on the selection of students and working professionals. According to Wood (2002) young adults are more online attracted in online shopping as compared to others. The skills needed for online shopping can easily be learned by young people (Hubona and Kennick, 1996). For the adoption of online shopping income is also a significant factor (Shin, 2009).

4.2. INSTRUMENT AND MEASURES

The survey instrument of the present research defines two major purposes: First is to examine the relationships of different variables in the adoption of online shopping intention. Second one is, gather information about different individuality of the respondents that can be used to understand the deviation in different categories.

The survey instrument contains two sections. Section 1 consists of different personal and demographic variables. This section will acquire the respondent's information about gender, income, status, education, age, frequency of internet use and possible product to be purchased in the future.

Section 2 includes the latent variables that are vital in the existing research. These variables include privacy, responsiveness, perceived ease of use, perceived usefulness, attitude towards online shopping and online shopping intention. This section of the study is developed based on the past literature and already used questionnaires (table 1).

The scales of the study were adopted from the previous literature and published studies. The first variable of the study was privacy which was taken from Yu et al. (2005). This variable has four items. The second variable of the study was responsiveness which was taken from Chiu et al. (2008) and it has three items. The other three variables are perceived ease of use, perceived usefulness, and online shopping attitude. Each variable has three items and these scales were taken from Yu et al. (2005). The next variable is future online shopping intentions having three items was taken from Moon and Kim (2001). The variable trust has five factors and this scale was taken from Gefen et al. (2003). The last variable is online shopping intention and this scale was taken from Xiao Tong (2010).

TABLE1: SCALES OF THE STUDY

No.	Variable	Items	Reference
1	PRIVACY/SECURITY	<ol style="list-style-type: none"> 1. I feel my privacy is protected online shopping. 2. I feel safe in my transactions with this online shopping. 3. I feel I can trust this online shopping. 4. The online shopping has adequate security Features. 	Liu et al (2005)
2	RESPONSIVENESS	<ol style="list-style-type: none"> 1. The online stores offer a meaningful guarantee. 2. The online stores tell me what to do if my transaction is not processed. 3. The online store solves my problems promptly. 	Chiu et al (2008)
3	TRUST	<ol style="list-style-type: none"> 1. Based on my experience with the online store in the past, I know it is honest. 2. Based on my experience with the online store in the past, I know it cares about its customers. 3. Based on my experience with the online store in the past, I know it keeps its promises to its customers. 4. Based on my experience with the online store in the past, I know it is trustworthy. 5. Based on my experience with the online store in the past, I know that the transactions will be successful. 	Gefen et al (2003)
4	PERCEIVED EASE OF USE	<ol style="list-style-type: none"> 1. Learning to use the internet to buy a product would be easy for me, even for the first time. 2. Using the internet to buy a product would be easy to do for me. 3. The internet would be easy to be use to do my shopping. 	Yu et al. (2005)
5	PERCEIVED USEFULNESS	<ol style="list-style-type: none"> 1. Using the internet to acquire a product would allow me to shop more efficiently. 2. Using the internet to acquire a product would allow me to do my shopping more quickly. 3. Using the internet to acquire a product would be useful to do my shopping. 	Yu et al. (2005)
6	ONLINE SHOPPING ATTITUDE	<ol style="list-style-type: none"> 1. Using the internet to do my shopping is a good idea. 2. My general opinion of electronic commerce is positive. 3. Using the internet to purchase a product seems an intelligent idea to me. 	Yu et al. (2005)
7	ONLINE SHOPPING INTENTION	<ol style="list-style-type: none"> 1. There is a strong likelihood that I will buy online in the near future. 2. I would like to recommend online shopping to my friends. 3. I intend to use online shopping within the next 1-2 years. 4. I intend to use online shopping frequently over the next 1-2 years. 	Xiao Tong (2010)

4.3. 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 questionnaires with relevant response. A total of 150 questionnaires were selected and rest of the questionnaires was not included in the further analyses due to incomplete or invalid response. After collecting the completed questionnaires, these questionnaires were coded and entered into SPSS sheet for regression analysis.

4.4. RELIABILITY ANALYSIS

Overall Cronbach's alpha of online shopping questionnaire items are more than acceptable and recommended value 0.50 by Nunnally (1970) and 0.60 by most et al. (1998). This shows that all the 25 items were reliable and valid to measure the opinions of consumers towards online shopping intention.

TABLE2: RELIABILITY OF MEASUREMENTS INSTRUMENT

Scales	Items	Cronbach Alpha
Privacy	4	.773
Responsiveness	3	.597
Trust	5	.819
Perceived ease of use	3	.813
Perceived usefulness	3	.763
Online shopping attitude	3	.736
Online shopping intention	4	.792

5. RESULTS AND ANALYSIS

5.1. PROFILE OF THE RESPONDENTS

Personal and demographic information such as gender, age, income, education level, status, frequency of internet use and potential purchase over the internet are presented in the following table (table3)

TABLE3: PROFILE OF THE RESPONDENT

Variable	Category	Frequency	Percentage
GENDER	Male	81	54.0
	Female	69	46.0
AGE	15-20 years	23	15.3
	21-25 years	96	64.0
	26-30 years	8	5.3
	31-35 years	13	8.7
	36-40 years	6	4.0
	Above 41 years	4	2.7
INCOME	Below 15000	93	62.0
	15000-25000	20	13.3
	25000-35000	15	10.0
	35000-45000	9	6.0
	45000-55000	8	5.3
	Above 55000	5	3.3
EDUCATION	Matriculation	3	2.0
	Intermediate	5	3.3
	Bachelor	47	31.3
	Master	78	52.0
	MS/M. Phil	16	10.7
	Ph.D	1	.7
STATUS	Student	98	65.3
	Employed	49	32.7
	Businessman	2	1.3
	Unemployed	1	.7
FREQUENCY INTERNET USE	Less than 1 hour	52	34.7
	1-2 hours	40	26.7
	2-3 hours	23	15.3
	3-4 hours	14	9.3
	4-5 hours	11	7.3
	5-6 hours	10	6.7
FUTURE PURCHASE OVER INTERNET	Book/Magazine	35	23.3
	Music CD/DVD	2	1.3
	Video CD/DVD	9	6.0
	Clothes/Garments	22	14.7
	Shoes	5	3.3
	Sport Equipments	6	4.0
	Airline Ticketing	18	12.0
	Games/Software	13	8.7
	Electronics	7	4.7
	Hotel Reservation	5	3.3
	Toys/Gifts	6	4.0
	Cosmetics	15	10.0
	Other	7	4.7

5.2 HYPOTHESIS TESTING

5.2.1. ATTITUDE AND ONLINE SHOPPING INTENTION

Regression analysis show that positive relation both online shopping attitude and online shopping intention with ($\beta=0.547$) and ($p<0.000$). In this way result show that online shopping attitude contributes more than 55% to online shopping intention .This result of the study validate H1.

5.2.2. PERCEIVED EASE OF USE, PERCEIVED USEFULNESS AND ATTITUDE

Due to the results, both variables perceive ease of use and perceived useful have positive significant, positive relationship with online shopping attitude. Significant, regression results of perceived ease of use with online shopping attitude with ($\beta=0.243$) and ($p<0.01$). In this way perceived ease of use contributes more than 24% to online shopping attitude. Specifically, Perceived usefulness has a significant positive relationship with ($\beta=0.475$) and ($p<0.000$). That means the perceived usefulness contributes more than 47% to online shopping attitude. Results of the current study validate H2 and H3.

5.2.3 TRUST AND PERCEIVED EASE OF USE

The regression results of the study confirm the significant positive relationship between Trust and Perceived ease of use with ($\beta=0.437$) and ($p<0.000$). According to these results, online shopping attitude contributes more than 44% to online shopping intention .These results of the study validate H4.

5.2.4 TRUST AND PERCEIVED USEFULNESS

The regression results of the study confirm the significant positive relationship between Trust and Perceived usefulness with ($\beta=0.551$) and ($p<0.000$). According to these results, online shopping attitude contributes more than 55% to online shopping intention .These results of the study validate H5.

5.2.5 PRIVACY AND TRUST

Regression analysis of the online shopping model shows that there is a significant positive relationships between privacy and trust with ($\beta=0.399$) and ($p<0.000$).The results suggest that the privacy contribute almost 40%to trust. The results of the study support H6.

5.2.6 RESPONSIVENESS AND TRUST

Regression estimates results show that Responsiveness significantly related with trust. There is a significant positive relationship between Responsiveness and trust with ($\beta=0.359$) and ($p<0.000$). The results suggest that the privacy contribute almost 36%to trust. The above results confirm H7.

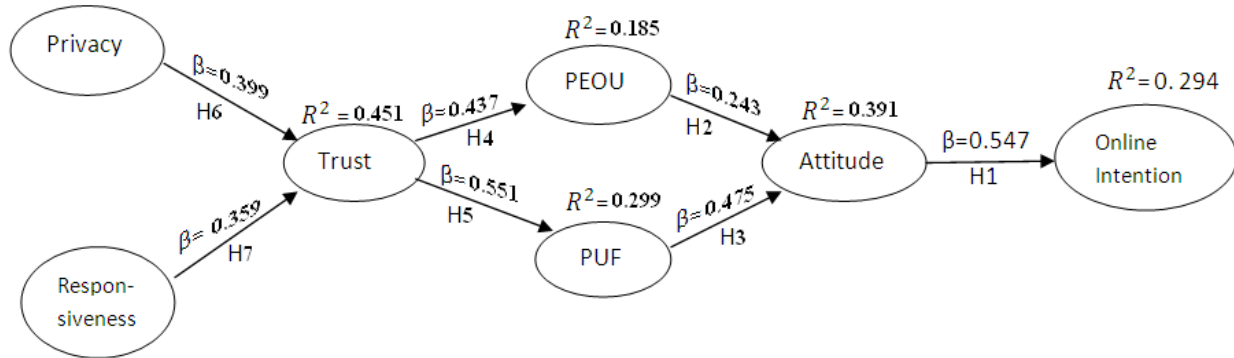
TABLE 4: Summarizes the regression results of the study

FIGURE 2: Shows the graphical presentation of the structural model.

TABLE4: REGRESSION RESULTS

Hypothesis	Model Variables	Estimate (B)	S.E.	C.R.	Significance(P)	Results
H1	intention ← Attitude	.547	.075	7.948	.000	Supported
H2	Attitude ← PEOU	.243	.065	3.304	.001	Supported
H3	Attitude ← PUF	.475	.071	6.467	.000	Supported
H4	PEOU ← Trust	.437	.087	5.910	.000	Supported
H5	PUF ← Trust	.551	.073	8.035	.000	Supported
H6	Trust ← Privacy	.399	.072	5.272	.000	Supported
H7	Trust ← Response	.359	.074	4.743	.000	Supported

FIGURE2: STRUCTURAL MODEL RESULTS



6. DISCUSSION

The major part of this study lies in verifying a model that integrate the influence of responsiveness, privacy, trust, perceived usefulness, perceived ease of use, attitude towards online shopping intention.

This study provides evidence for the relationship between privacy, responsiveness and trust. Prior researches in the online shopping perspective shows that consumer perception of privacy has a positive and significant effect on their online shopping (Bart *et al.*, 2005; Liu *et al.*, 2005; Roman, 2007). People don't feel secure that their credit card information is safe and shielded from potential hackers that mean customers will hesitate to do online shopping. This study has also demonstrated that responsiveness has positive influence on adoption of online shopping. Timely contacts with online vendors increase trust of customers according to Moorman *et al.* (1993). A fast reply shows that online vendors are customer-oriented and due to fast reply uncertainty diminishes.

Amplification can be found that online trust increase perceived ease of use and perceived usefulness. Consumers trust plays the role of assurance usefulness expected in online atmosphere (Gefen, 1997). The online purchaser prefer those shopping malls which are convenient, provide useful information and easy to use. The different online shopping stores sell similar services and commodities, if the online purchaser does not observe which online shopping store is more valuable, then online purchaser will easily move to another competitor. The risk of online purchaser can be reduced through trust and trust creates a positive impression about the internet of online purchaser. The other significant contribution of this study is indirect influence of PEOU and PUF through attitude towards online shopping intention. Above result has significant managerial implication. Online shopping stores designs a user friendly website then a lot of customers will increase the service and quality consideration. This study is consistent with the previous studies that positive attitude of the online purchaser results in stronger buying intention. Prior researches (Karahana and Strub, 2003; Gefen and Starub, 2004) explained that PUF and PEOU guide to increase of online shopping intention. When customers find the web site and related technology are useful for online shopping then customers quickly ready to adopt the technology. These findings show that PUF has greater influence on attitude as compare to PEOU. The online shopping is truthful and frank and the information give for managing the deal is honest for the online buyer which is expected when perceived usefulness has positive effect. The customer trust about online shopping should be increased by PUF of the website. (Chircu *et al.*, 2000; Gefen *et al.*, 2003). The online information helps their customers to making purchase decision and influences online shopping intention that uses internet (Critrin *et al*, 2003; Shim *et al*; 2001). This study identifies reasons that hinders and inspire people to carry on or accept online shopping technology.

In general, these results emphasize the reasons following the success and failure of the online shopping. The online information helps their customers to making purchase decision and influences online shopping intention that uses internet. The online shopping is truthful and frank and the information give for managing the deal is honest for the online buyer which is expected when PUF has positive effect. The customer trust about online shopping should be increased by PUF of the website.

7. LIMITATIONS

The limitation of this study data is put in SPSS only 150 useable questioners. It is so short of this study, questioners. The other limitation is that data is collected only from one region (Bahawalpur) in this way the behavior of other people in different cities is not included in this study for online shopping. The main limitation of this study is that questioners are filling only lower level people. Lower level people do not perform the online shopping because their purchasing power is limited. We should fill the questioners in this study the middle or upper level people.

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LASER COMMUNICATION SYSTEM

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ABSTRACT

Laser communication system can transmit and receive signal from any audio device. Communication distance is few meters. All components are not critical. Laser communication links in space are attractive alternatives to present-day microwave links. Laser Communication Demonstration Project, a joint project between NASA's Goddard Space Flight Center (GSFC), the California Institute of Technology Jet Propulsion Laboratory (JPL), and the Massachusetts Institute of Technology Lincoln Laboratory (MITLL). The laser Communication (lasercom) flight terminal will be flown on the Mars Telecom Orbiter (MTO) to be launched by NASA in 2009, and will demonstrate a technology which has the potential of vastly improving NASA's ability to communicate throughout the solar system. Laser communication network is introduced that consists of Low Earth Orbit (LEO), Medium Earth Orbit (MEO), and Geosynchronous Earth Orbit (GEO) satellites. The performance of the satellite laser network can be improved drastically if multiple satellite constellations are used in the architecture. Laser communication allows the real-time transmission of digital data on the basis of the Ethernet protocol; encryption using standard techniques is also possible in accordance with IPv4 and IPv6. Aerial photos, images from covert reconnaissance, radar and uncompressed sensor data can be transmitted to control centers and between mobile units without the risk of interference or interception. The high network capacity offers transmission rates in the Gbit range. The frequency used for laser satellite communication should be selected from bands that are most favorable in terms of power efficiencies, minimal propagation of distortion, and reduced noise and interference effects. Terrestrial systems tend to favor these same bands. So, concern for interference effect between the satellite and terrestrial systems must be made. The optical laser communication system consists of a transmitter uses a laser beam of a wavelength 650 nm as a carrier in free space, and a receiver uses PIN diode as a detector. In both sides Intensity modulation (IM) technique has been used to transmit video signal of a frequency range (0~5) MHz band width. A constellation of low-Earth orbit (LEO) satellites will be used to provide mobile terminals on the ground with Global Multimedia Mobile Satellite System service, which will allow high-speed transmission of information such as image data. Accordingly, we are planning to conduct verification testing of the necessary optical inter-satellite communications technology. Inter-satellite communications: High-speed optical inter-satellite communications (up to 2.5 Gbps) User link connection: Satellite antenna design of 1 user/1 beam User terminal performance: Multimedia communications up to 2 Mbps. Recent years have seen the emergence of a number of international projects for communications, positioning, or Earth-monitoring services using the many Low-Earth Orbit (LEO) satellites (in fact located both in low and medium orbits). Some of these projects have since led to notable practical applications. An example of one such first-generation LEO service may be seen in the US Iridium satellite- telephone system, in which approximately 70 satellites are placed in orbit at an altitude of 700 km for a range of mobile phone services.

KEYWORD

laser communication.

1. INTRODUCTION

Since the early days of laser technology, many countries supported large laser R&D budgets which lead to a rich diversity of systems, ranging from 'laboratory' systems demonstrating the latest non-linear optical technology to eye-safe, low cost laser-ranging binoculars. Traditionally, military interests in laser systems have been concentrated in four general areas: Laser Rangefinders (LRFs) and Target Designators (LTDs), Laser Radars (LADARs), Laser Communication Systems (LCOMs), and Directed Energy Weapons (DEWs). The nature of the interest in laser technology is, for a considerable part, significantly dissimilar for the three military service branches, and this is mainly due to the different requirements (e.g., environmental, weight/size, performance) of systems to be used on land, at sea, and in the air. Although military lasers are significantly different from those which exist in the commercial world, commercial applications of military technologies are also being exploited.

Due to the aim of the present research, in this chapter we will review the fundamentals of the most popular of current airborne and ground tactical laser systems (i.e., LADAR/LRF and LTD), with particular emphasis for the systems currently in service or under development for the Italian Air Force. More detailed information about the relevant laser technologies, and a discussion of various airborne systems applications

An initial hurdle faced by early means of laser communication was the enormous heat generated by pumped laser action. However, in the late 1960's, semiconductor laser was developed and ever since, the possibilities for laser communication have grown. Though developed for carriers, new laser technologies are finding a place in private networks. Recent breakthroughs in wireless technology and the need for a wireless extension of the Internet have increased the demand for faster, higher bandwidth wireless access networks. The two wireless options nowadays are either radio or optical networks. Radio frequency (RF) has been the primary medium of communication for a long period of time. However, in this day and age, the RF spectrum has become congested and may no longer be sufficient for broadband high-speed applications. In addition to this radio communication requires the leasing of frequencies in order to be legally permitted to use them. On the other hand, optical communication is the key to supply the ever-increasing demand for higher bandwidth, without the associated hassles or Interference experienced with radio communication. Entrepreneurs and technologists who know of this are borrowing many of the technologies initially designed for fiber-optics systems and applying them to what is now called Free Space Optical (FSO) communication.

FSO systems run in the infrared (Ir) spectrum, which is at the bottom of the light spectrum. Specifically, the optical signal is in the range of 1 THz (1 Terahertz = 1 trillion Hz = 1,000,000,000,000 cycles per second) in terms of wavelength. FSO is a free space (wireless) technology, meaning that the signal travels in the free space between transmitter and receiver, rather than through a conductor such as a wire or fiber, or through a waveguide of some sort. Another important feature of FSO is that it is unaffected by electromagnetic interference and radio frequency interference, which increasingly plague radio based communication systems. FSO systems are used in disaster recovery applications and for temporary connectivity while cabled networks are being deployed.

In the near future the National Aeronautics and Space Administration anticipate a significant increase in demand for long-haul communications services from deep space to Earth. Distances will range from 0.1 to beyond 40 AU', with data rate requirements in the 1's to 1000's of Mbits/second. The near term demand is driven by NASA's Space Science Enterprise which wishes to deploy more capable instruments onboard spacecraft and increase the number of deep space missions. The long term demand is driven by missions with extreme communications challenges such as very high data rates from the outer planets, supporting sub-surface exploration, or supporting NASA's Human Exploration and Development of Space Enterprise beyond Earth orbit.

2. LASER COMMUNICATION RANGE

We can estimate the range of laser communication system using following equation

$$\text{range} = \sqrt{\frac{(P_e \times A \times T_a \times T_o \times 4)}{D_s \times \pi \times \Theta^2}}$$

where

range is in kilometers

P_e = laser power

A = area of receiving optics (lens or mirror)

T_a = transmissivity of the atmosphere

T_o = transmissivity of the receiving optics

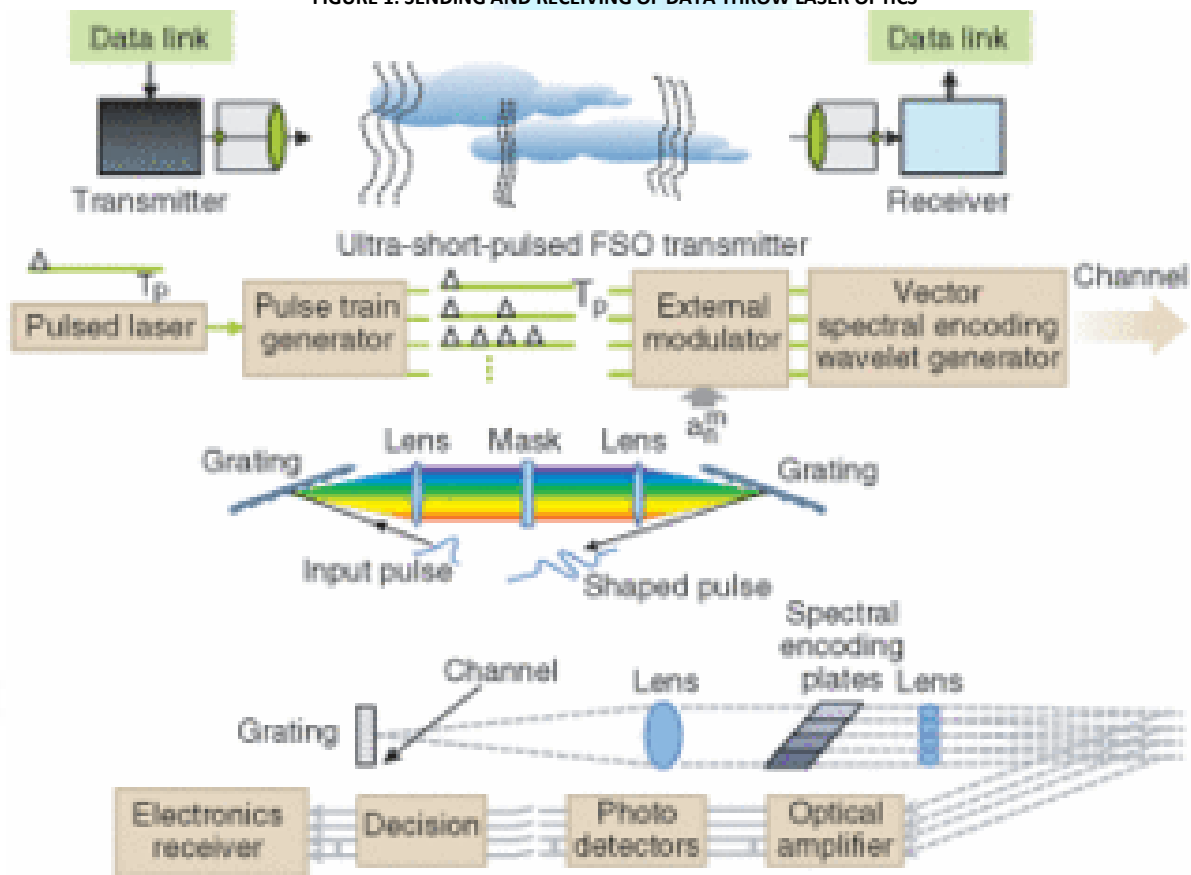
D_s = detector sensitivity (minimum detectable signal)

Θ = beam divergence (in radians)

Above is the equation that helps to find the range between sources to destination. Laser power is important for sending and receiving signal of laser. Area is also important for optical wire or wave.

3. LASER COMMUNICATION SYSTEM TRANSMISSION

FIGURE 1: SENDING AND RECEIVING OF DATA THROU LASER OPTICS



Information typically in the form of digital data is input to data electronics that modulates the transmitting data source. Direct or indirect modulation techniques may be employed depending on the type of laser used. The source output passes through an optical system into the channel. The optical system typically includes transfer, beam shaping and telescope optics. The receiver beam comes in through the optical system and is passed along to the detectors and signal processing electronics. There are also terminal controlled electronics that must control the gimbals and other steering mechanism and servos to keep the acquisition and tracking system operating in the designed modes of operation.

3.1 DATATRANSMISSION OVER SHORT RANGE

TABLE-1: DATA TRANSMISSION OVER SHORT-RANGE DISTANCES

Description	Requirements
Maximum range	5 km, eye safe at 1550 nm
Availability	High (>95%), increase through cell structures
Type of connection	Point-to-point or integrated nodal point
Bandwidth	1 Gbps (higher data rates up to 5 Gbps in development)
Beam readjustment	Not necessary
Compatibility	Compatible with the any other laser communication systems

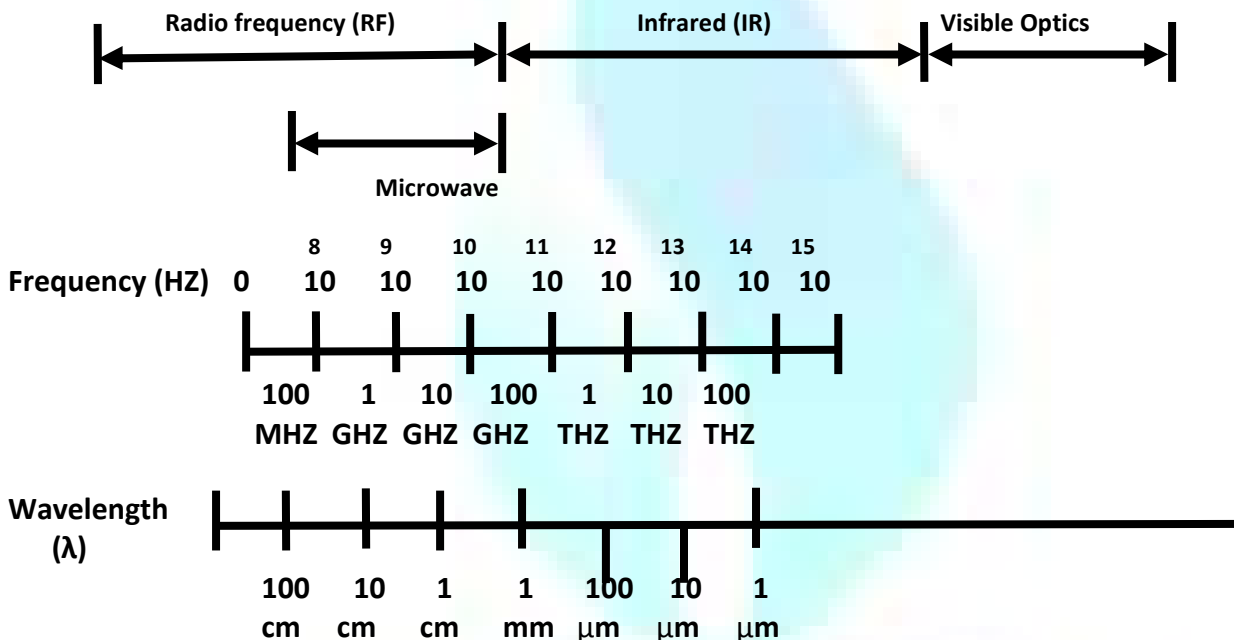
3.2 DATATRANSMISSION OVER MID RANGE

TABLE-2: DATA TRANSMISSION OVER MID-RANGE DISTANCES

Description	Requirements
Maximum range	≥20 km, eye safe at 1550 nm
Availability	Very high (>99%) in good weather conditions
Type of connection	Point-to-point or integrated nodal point, hybrid attachment with RF link as back-up
Bandwidth	1 Gbps (higher data rates up to 5 Gbps in development)
Beam readjustment	Electronic tracking
Compatibility	Compatible with the any other laser communication systems

4. SATELLITE FREQUENCY BANDS

The electromagnetic frequency spectrum is as shown below.



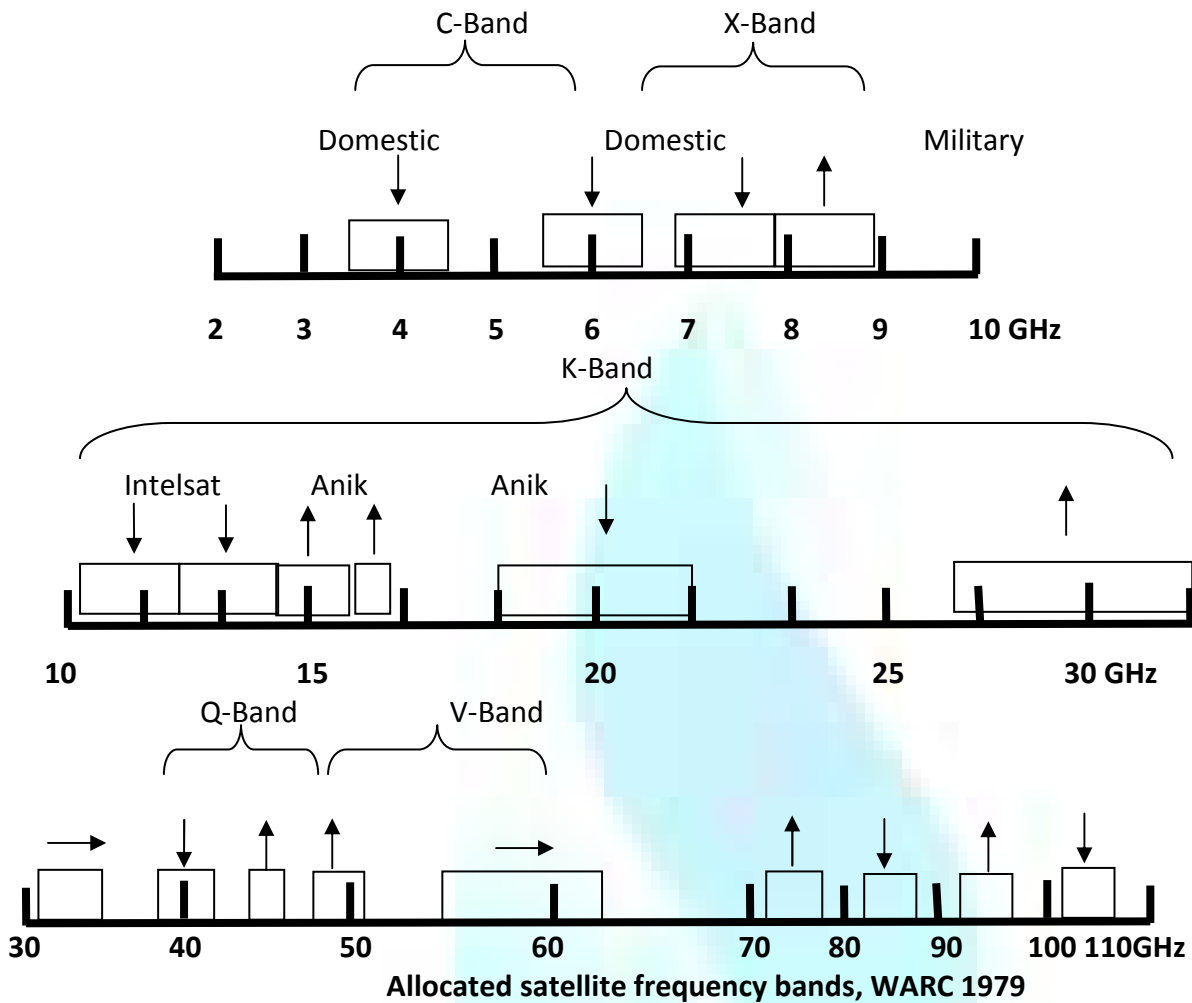
The frequency used for satellite communication should be selected from bands that are most favorable in terms of power efficiencies, minimal propagation of distortion, and reduced noise and interference effects. Terrestrial systems tend to favor these same bands. So, concern for interference effect between the satellite and terrestrial systems must be made.

Satellite use from space must be regulated and shared on a worldwide basis. For this reason, frequencies to be used by the satellite are established by a world body known as the International Telecommunications Union (ITU) with broadcast regulations controlled by a subgroup known as World Administrative Radio Conference (WARC). An international consultative technical committee (CCIR) provides specific recommendations on satellite frequencies under consideration by WARC. The basic objective is to allocate particular frequency bands for different types of satellite services, and also to provide international regulations in the areas of maximum radiation's level from space, co-ordination with terrestrial systems and the use of specific satellite locations in a given orbit. Within these allotments and regulations an individual country can make its own specific frequency selections based on intended uses and desired satellite services.

TABLE-3: BANDS AND FREQUENCY

Bands	Frequency
VHF	54 - 216 MHz
UHF	470 - 890 MHz
L	.39 - 1.55 GHz
S	1.55 - 5.2 GHz
C	3.9 - 6.2 GHz
X	5.2 - 10.9 GHz
K	10.9 - 36 GHz
Ku	11.7 - 14.5 GHz
Ka	17 - 31 GHz
Q	36 - 46 GHz
V	46 - 56 GHz

The frequency bands allocated by WARC (1979) for satellite communication are given below.



- Downlink

- Uplink

- Crosslink

Use of frequencies has been separated into military, non-military, and services has been designated as fixed point (between ground stations located at fixed points on earth), Broadcast (wide area coverage), and mobile (aircraft, ships, land vehicles). Inter satellite refers to satellite cross- links. Most of the early satellite was developed for UHF, C-band and X-band, which required the minimal conversion from existing microwave hardware. The foremost problem is the fact that the available bandwidth in these bands will be inadequate to meet present and future traffic demands. The advantage of using a carrier at higher frequencies is the ability to modulate more information on it.

5. SYSTEM CHARACTERISTICS AND DESCRIPTION

The key system characteristics which when quantified, together gives a detailed description of a laser communications system. These are identified and quantified for a particular application. The critical parameters are grouped into five major categories: link, transmitter, channel, receiver, and detector parameters.

5.1 LINK PARAMETERS

The link parameters include the type of laser, wavelength, type of link, and the required signal criterion, today the lasers typically used in free space laser communications are the semiconductor laser diodes, solid state lasers, or fiber amplifier lasers. Laser sources are described as operating in either in single or multiple longitudinal modes. In the single longitudinal mode operation the laser emits radiation at a single frequency, while in the multiple longitudinal mode, multiple frequencies are emitted.

Semiconductor lasers have been in development for three decades and have only recently (within the past 7 years) demonstrated the levels of performance needed for the reliable operation as direct sources. Typically operating in the 800-900 nm range (galliumarsenide/gallium aluminums arsenide) their inherently high efficiency (50%) and small size made this technology attractive. the key issues have been the life times asymmetric beam shapes, output power.

Solid state lasers have offered higher power levels and the ability to operate in high peak power modes for the acquisition. When laser diodes are used to optically pump the lasing media graceful degradation and higher overall reliability is achieved. A variety of materials have been proposed for laser transmitters: neodymium doped yttrium aluminums garnet (Nd:YAG) is the most widely used. Operating at 1064 nm, these lasers require an external modulator leading to a slight increase in the complexity and reliability.

With the rapid development of terrestrial fiber communications, wide areas of components are available for the potential applications in space. These include detectors, lasers, multiplexers, amplifiers, optical pre amplifiers etc. operating at 1550nm erbium doped fiber amplifiers have been developed for commercial optical fiber communications that offer levels of performance consistent with many free space communications applications.

There are three basic link types: acquisition, tracking and communications. The major differences between the link types are reflected in the required signal criterion for each. For acquisition the criterion are acquisition times, false alarm rate, probability of detection. For the tracking link the key considerations are the

amount of error induced in the signal circuitry. This angle error is referred to as the noise effective angle. For the communications link, the required data and the bit error rates are of prime importance.

5.2 TRANSMITTER PARAMETERS

The transmitter parameter consists of certain key laser characteristics, losses incurred transmit optical path, transmit antennae gain, and transmit pointing losses. The key laser characteristics include peak and average optical power, pulse rate and pulse width. In a pulsed configuration the peak laser power and duty cycle are specified, whereas in continuous wave application, the average power is specified.

Transmit optical path loss is made up of optical transmission losses and the loss due to the wave front quality of the transmitting optics. The wave front error loss is analogous to the surface roughness loss associated with the RF antennas. The optic transmit antenna gain is analogous to the antenna gain in the RF systems and describes the on axis gain relative to an isotropic radiator with the distribution of the transmitted laser radiation defining the transmit antenna gain. The laser sources suitable for the free space communications tend to exhibit a Gaussian intensity distribution in the main lobe. The reduction in the far field signal strength due to the transmitter miss pointing is the transmitter pointing losses. The pointing error is composed of bias (slowly varying) and random (rapidly varying) components.

5.3 CHANNEL PARAMETERS

The channel parameters for an optical inter satellite link (ISL) consist of range and associated loss, background spectral radiance and spectral irradiance. The range loss is directly proportional to the square of wavelength and inversely proportional to the square of the separation between the platforms in meters.

5.4 RECEIVER PARAMETERS

The receiver parameters are the receiver antenna gain, receive optical path loss, the optical filter bandwidth and the receiver field of view. The receiver antenna gain is proportional to the square of effective receiver diameter in meters and inversely proportional to the square of the wave length. The receiver optical path loss is simply the optical transmission loss for systems employing the direct detection techniques. However for the lasers employing the coherent optical detection there is an additional loss due to the wave front error. The preservation of the wave front quality is essential for the optimal mixing of the received signal and the local oscillator fields on the detector surface. The optical filter bandwidth specifies the spectral width of the narrow band pass filter employed in optical inter satellite links. Optical filters reduce the amount of unwanted background entering the system. The optical width of the filter must be compatible with the spectral width of the laser source. The minimum width will be determined by the acceptable transmission level of the filter.

The final optical parameter is the angular field of view (FOV), in radians which limits the background power of an extended source incident on the detector. To maximize the rejection, the FOV should be as small as possible. For small angles the power incident on the detector is proportional to FOV square. The minimum FOV is limited by optical design constraints and the receiver pointing capability.

5.5 DETECTOR PARAMETERS

The detector parameters are the type of detector, gain of detector, quantum efficiency, heterodyne mixing efficiency, noise due to the detector, noise due to the following pre amplifier and angular sensitivity.

For optical ISL systems based on semiconductor laser diodes or Nd:YAG lasers the detector of choice is a p type intrinsic n type (PIN) or an avalanche photodiode (APD) APIN photo diode can be operated in the photovoltaic or photoconductive mode and has no internal gain mechanism. An APD is always operated in the photo conductive mode and has an internal gain mechanism, by virtue of avalanche multiplication. The quantum efficiency of the detector is the efficiency with which the detector converts the incident photons to electrons. The mean output current for both the PIN and APD is proportional to the quantum efficiency. By definition the quantum efficiency is always less than unity. Another detector parameter is the noise due to the detector alone. Typically in a detector there is a DC current even in the absence of signal or background. This DC dark current produces a shot noise current just as the signal and the noise currents do. In an APD there are two contributors to this DC dark current-an multiplied and an un multiplied current.

The output of the detector is the input to the preamplifier that converts the detector signal current into a voltage and amplifies it to a workable level for further processing. Being the first element past the detector, the noise due to the preamplifier can have a significant effect on the systems sensitivity. The selection of the pre amplifier design and the internal transistor design and the device material depends on a number of factors.

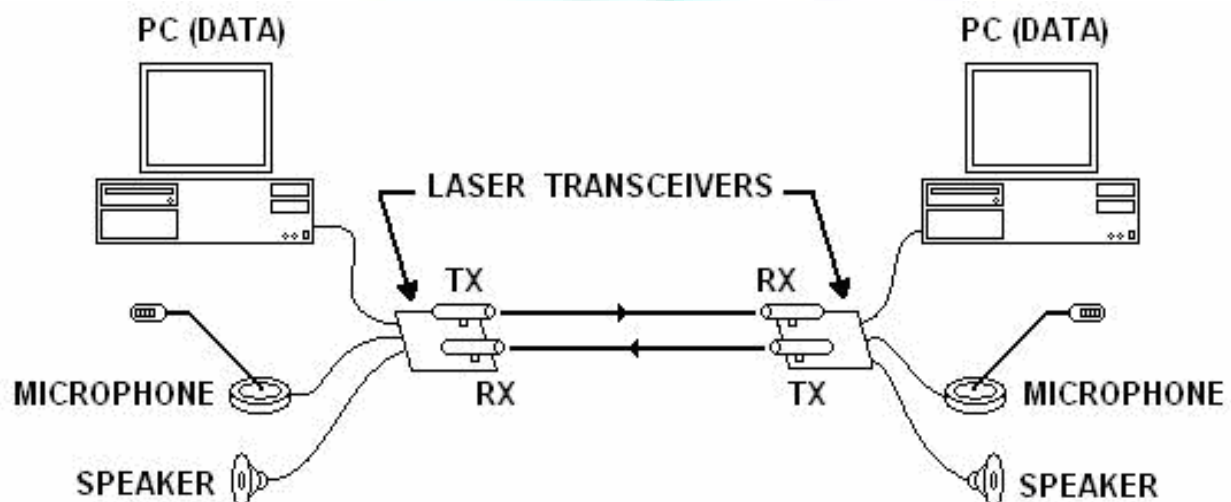
6. A FREE SPACE OPTICAL LASER COMMUNICATION LINK

The free space optical laser communication link developed is comprised of four circuits: the analogue link transmitter and receiver, the digital transceiver and the Voice Unit (VU) meter. This combination of circuits will enable line-of-sight (LOS), full duplex voice and RS232-compatible data communication, over a laser beam in free space.

6.1 SYSTEM OVERVIEW

The completed system consists of two transceivers, each capable of simultaneously transmitting and receiving either analogue or digital information. The user has the option to manually select between either analogue or digital information via means of two switches, which control the laser transmitter and phototransistor receiver. This translates to a system where, if necessary, analogue information can travel in one direction while digital information travels in the opposite direction. In normal operation, the system is a full-duplex analogue/digital communicator. The system overview is depicted in Figure 2.

FIGURE 2: SYSTEM OVERVIEW



6.2 THE TRANSMITTER SIDE

The transmitter side is made up of two dedicated circuits that perform amplitude modulation of the laser diode when supplied with either a digital or analogue input signal. The circuits are designed with built-in protection for the laser diode in case the input signal amplitude is too high. As a result, this portion of the circuit is more complex than the receiver side.

6.3 THE RECEIVER SIDE

The receiver side is again made up of two dedicated circuits that perform the demodulation of the analogue signal from the phototransistor. The digital section of the circuit incorporates the MAX232 IC to generate the RS232-compatible signals necessary for interfacing PC and the circuit. In addition to this, there is an onboard VU meter designed to make the alignment process easier and protect the listener from unexpected high pitch sounds during the alignment process.

7. LASER RADAR SYSTEMS

The term radar originated during World War II as an acronym for radio detection and ranging. At that time, it referred to the technique of monitoring reflected, radio frequency, electromagnetic radiation to locate remote objects. Since that time, the basic radar technique has been applied to progressively shorter (and in some cases, longer) wavelengths so that the term radar no longer applies only to systems that operate at radio frequencies. Laser radar is simply radar that operates at optical frequencies and uses a laser as its source of electromagnetic radiation.

Laser radars are commonly referred to as LADAR for laser radar or as LIDAR for light detection and ranging. Ranging is accomplished by measuring the time delay to and from the target. Angular information is obtained from the beam-pointing direction. Laser radars are capable of extremely accurate angular measurement because of the small beam diameters of lasers (on transmit) and narrow fields of view (on receive). On the negative side, the detection and tracking ranges are much shorter than microwave radar because of lower transmitter power and higher atmospheric attenuation.

LADARs usually operate at 10.6 m wavelength in the far infrared and at 1.064 m in the near infrared. The former use CO2 lasers and the latter Nd:YAG crystal lasers, with typical efficiencies of 10% and 3%, respectively. Other available technologies include 1.5 μm "Eye-safe" Erbium doped fibre (Er:fibre) laser and Raman-shifted Nd:YAG lasers. Possible airborne LADAR applications include the following:

- Aircraft guidance (obstacle avoidance and terrain following);
- Tactical imaging systems (surveillance and reconnaissance); and
- Wind velocity measurement (clear air turbulence and severe storm sensors).

The various types of Laser radars and some typical airborne applications are described in Annex A. In the following paragraphs, after a brief introduction to Laser Obstacle Warning Systems (OWSs), a technical description of the Laser Obstacle Avoidance System (LOAS), developed by Marconi-Selenia Communications S.p.A. for the Italian Military Forces and tested by the Air Force Flight Test Centre (RSV), is presented.

8. BEAM ACQUISITION, TRACKING AND POINTING

The use of extremely narrow optical beams for a satellite cross-link introduces obvious beam pointing problems. The transmitting satellite should transmit the narrowest possible beam for maximum power concentration. The minimal band width is limited by the expected error in pointing the beam to the receiver. The pointing error ultimately decides the minimal beam size.

Pointing error is determined by the accuracy to which the transmitting satellite can illuminate the receiving satellite. This depends on the accuracy to which one satellite knows the location of the other, the accuracy with which it knows its own orientation in space and the accuracy to which it can aim its beam, knowing the required direction. Satellite beam pointing by ground control will not permit the micro radiant beam width projected for the optical link. Determination of the satellite location can be aided by using an optical beacon transmitted from the receiving antennae back to the transmitting satellite.

The transmitting satellite receives the beacon then transmits the modulated laser beam back towards the beacon direction of arrival. The uncertainty in absolute satellite location is transferred to smaller uncertainty in reading beacon arrival direction. The beacon must be trapped in time to provide updated position information. When the beams are extremely narrow there is a possibility that the receiving satellite may have moved out of transmitters beam width during the round trip transmission time. The transmitting satellite should point ahead from its measured beacon arrival direction.

$$\alpha = Vt / 150 \mu \text{ radians}$$

Where α is the point ahead required and

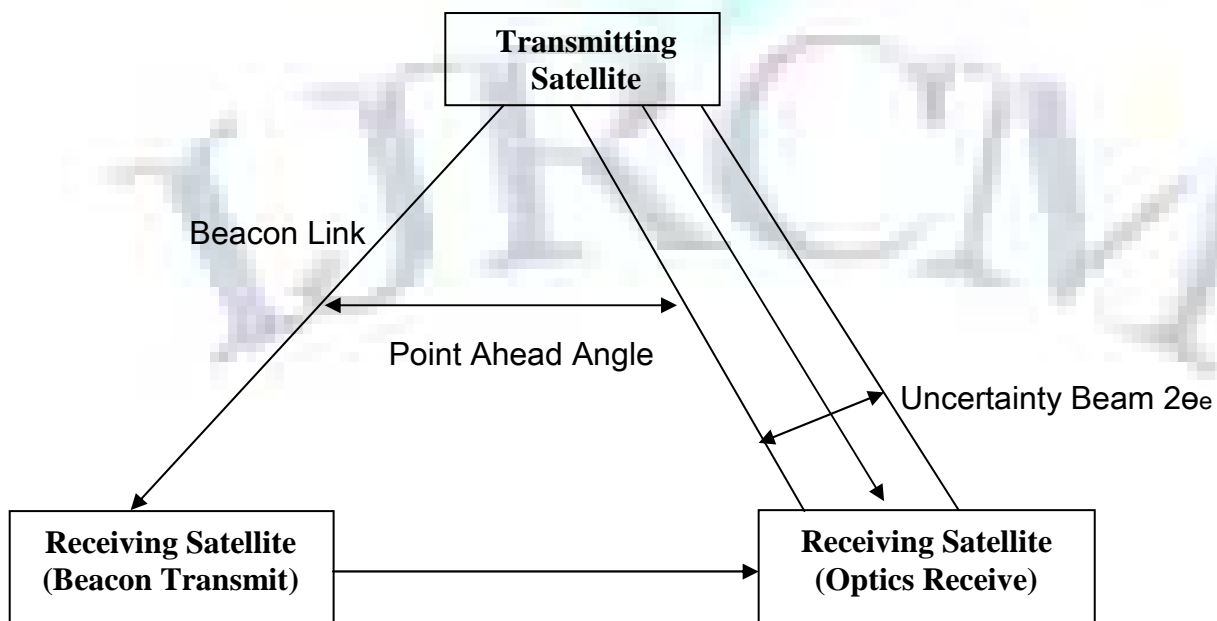
Vt is the tangential velocity of the satellite in m\s.

If this exceeds one half the beam widths the point ahead must be used. This means that the transmitting laser cannot transmit back through the same optics from which the beacon is received. It is independent of the satellite cross link distance.

The use of a beacon modifies the optical hardware on each satellite, since the transmitting and receiving satellite must contain both a transmitting laser and a optical receiver. This means either satellite can serve as a transmitter or an optical data can be sent in both directions. The modulated laser beam can serve as a beacon for the return direction. The receiving optics tracks the arrival beam direction and adjusts the transmitting beam direction. Separate wavelengths are used for optical beams in each direction. If no point ahead is needed, transmit and receive optics can be gimballed together and the laser transmits through receive optics. If point ahead is needed then command control (either stored or received from the earth station) must adjust transmitting direction relative to receiving direction.

In establishing an optical cross link we require the initial acquisition and tracking of the beacon by the transmitting satellite followed by a pointing of a laser beam after which the data can be modulated and transmitted.

FIGURE 3: REQUIRED BEAM WIDTHS AND POINT AHEAD MODEL FOR OPTICAL POINTING



8.1 TRACKING MODES FOR SATELLITE SUBSYSTEMS

Several approaches to tracking have been used in laser communications. Free space laser inter-satellite links require terminal pointing, acquisition, and tracking subsystems that are capable of high speed, high accuracy pointing control for acquisition and tracking to support communication operations. Without the ability to return a beam along the line of sight towards the companion terminal, communications cannot take place. By employing a simple chopper wheel in the optical receiver path, a quadrant avalanche photodiode can be made to track a known stellar object.

The difficulty in system design revolves around the limited view field and narrow wavelength bands typical of laser cross-link receivers, a typical laser communication pointing and tracking system is nested with a gimbals and fine tracking loop plus the additional forward correction offered by a point-ahead loop. Low-bandwidth disturbances are normally added linearly, while higher frequency disturbances are root-sum squared to achieve an estimate of the pointing uncertainty.

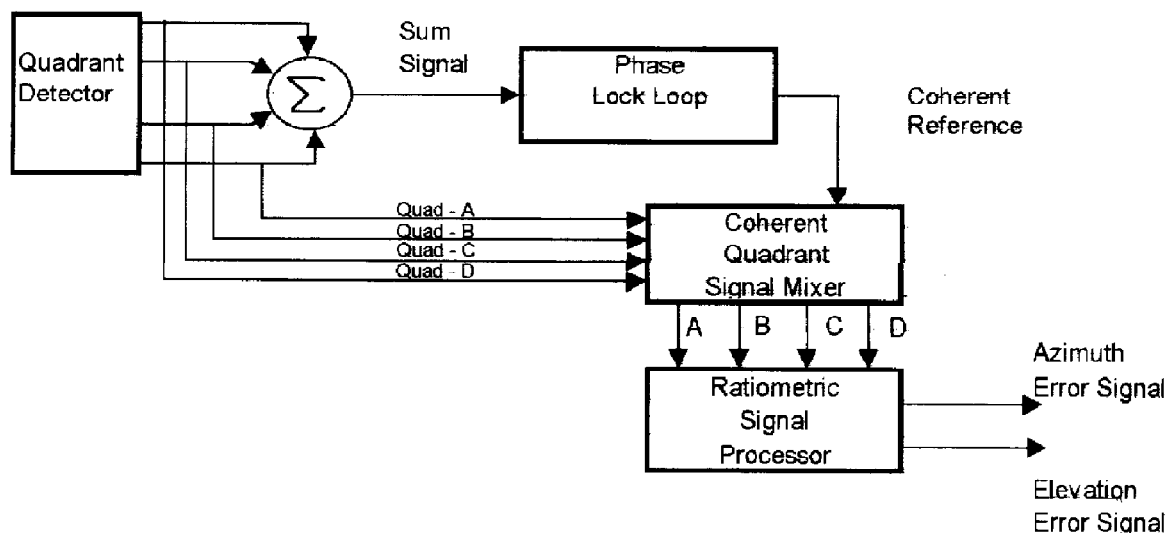
The total pointing error is the contribution of the bias and the random term's. Tracking systems can be divided in two distinct categories. The first category involves those systems that derive the track information from communication signals. The second technique set concerns those systems that use a separate laser beacon to track. The first technique to track signals is dc tracking. The term is used to describe tracking the laser source by integrating the received amplitude-modulated signal over a large number of cycles or pulses. Commonly, an integrating type of detector such as CCD, which will be optimized to the track bandwidth, would be used to track the beam. With dc tracking, the drawback is the susceptibility to optical background, especially point sources in the field of view (FOV). DC tracking is not recommended because unique discrimination is not possible without very narrow line width filtering of the signal.

A second technique for tracking a communication signal is pulse tracking. This technique is used when the communication source is also a pulse waveform but can be used also as an independent beacon channel. With pulse tracking system, each pulse is detected with the receiver threshold and uses this information to generate a high-bandwidth tracking error signal from the track quadrants. Pulse tracking has a high-bandwidth receiver front end to effectively detect very short pulses. In the dc system, the bandwidth is dependent upon the communication system, pulse width and pulse rate.

Another technique of tracking systems that derives a track signal by squaring the communication waveform to generate a tracking signal is Square-Law Tracking. This technique can be used most effectively when a single quasi-CW modulated source is used for communication. Squaring the incident signal waveform at twice the signal bandwidth generates a harmonic signal. This harmonic signal can then be phase-locked and used to generate the quadrant track errors. One inconvenience with this technique is that the track signal is twice the communication bandwidth and the tracking system is more dependent upon the data rate.

Figure below shows this type of tracking system.

FIGURE 4: TYPE OF TRACING SYSTEM



Tone tracking involves transmitting a separate tone beacon via an additional laser source or modulating the tone into the communication waveform. In this type of modulated tone, the frequency does not interfere with the message content of the communication waveform. If a wavelength separation is available it could involve a separate detector.

By using coherent waveform techniques, spatial inter satellite tracking can be achieved. Coherent techniques use the high front-end local-oscillator gain to compensate for downstream noises. There are others approaches to track a system using Non conventional Tracking Techniques like Gimbal-Only Tracking and Feed-Forward Tracking.

8.2 SPATIAL INTER SATELLITE TRACKING

The use of optical frequency for communications has several advantages such as high, bandwidth, lower power requirements, and smaller antenna size, minimization of spurious background, privacy, and jam-resistance. The selection of beam width and field of view is not inhibited by aperture size, wavelength, and surface quality, but by the ability of the communication terminal to acquire, point, and track to a compatible accuracy.

9. ADVANTAGES OF LASER SYSTEMS

Laser communication systems offer many advantages over radio frequency (RF) systems. Most of the differences between laser communication and RF arise from the very large difference in the wavelengths. RF wavelengths are thousands of times longer than those at optical frequencies are. This high ratio of wavelengths leads to some interesting differences in the two systems. First, the beam-width attainable with the laser communication system is narrower than that of the RF system by the same ratio at the same antenna diameters (the telescope of the laser communication system is frequently referred as an antenna). For a given transmitter power level, the laser beam is brighter at the receiver by the square of this ratio due to the very narrow beam that exits the transmit telescope. Taking advantage of this brighter beam or higher gain, permits the laser communication designer to come up with a system that has a much smaller antenna than the RF system and further, need transmit much less power than the RF system for the same receiver power. However since it is much harder to point, acquisition of the other satellite terminal is more difficult. Some advantages of laser communications over RF are smaller antenna size, lower weight, lower power and minimal integration impact on the satellite. Laser communication is capable of much higher data rates than RF.

The laser beam width can be made as narrow as the diffraction limit of the optic allows. This is given by beam width = 1.22 times the wavelength of light divided by the radius of the output beam aperture. The antennae gain is proportional to the reciprocal of the beam width squared. To achieve the potential diffraction limited beam width a single mode high beam quality laser source is required; together with very high quality optical components throughout the transmitting sub system. The possible antennae gain is restricted not only by the laser source but also by the any of the optical elements.

In order to communicate, adequate power must be received by the detector, to distinguish the signal from the noise. Laser power, transmitter, optical system losses, pointing system imperfections, transmitter and receiver antennae gains, receiver losses, receiver tracking losses are factors in establishing receiver power. The required optical power is determined by data rate, detector sensitivity, modulation format, and noise and detection methods.

Following is the major Advantage of the laser communication systems

1. The narrow beams guarantee high spatial selectivity so there is no interference with other links.
2. High bit rate enables them to be applied in all types of networks.
3. Optical band lies outside the area of telecommunication offices; therefore, a license is not needed for operation.
4. The utilization of quantum state transmission promises long-term security for high-value data.
5. Short size and small weight corresponds to easy integration to the satellite body.

For reliability improvement number of new methods is applied:

1. Photonic technology
2. Multi beam transmission
3. Wavelength and space division
4. Beam shaping
5. Auto-tracking system
6. Microwave backup
7. Adaptive optics
8. Polygonal (mesh) topology

10. DISADVANTAGES OF LASER SYSTEMS

Following is the major disadvantage of the laser communication systems

1. Availability of Free-Space optical (FSO) link depends on the weather
2. FSO link requires a line of site between transceivers
3. birds and scintillation cause beam interruptions

11. DEVELOPMENT OF CONSTITUENT TECHNOLOGIES

To date we have conducted research into the basic concepts and feasibility of a next-generation satellite mobile system as well as investigation of the constituent technologies. We have also studied satellite visibility factors and quality of service regarding handover and delay characteristics. Based on our results, we have made recommendations as to the optimum satellite constellation: a circular orbit at an altitude of 1,200 km; an orbital inclination of 55°; ten orbital planes; and 12 satellites per orbital plane (120 in total).

Following are examples of the main constituent technologies we have developed in this project to date. Some of these technologies have potential in a wide range of applications in addition to their use in satellite mobile systems.

11.1 DEVELOPMENT OF SATELLITE-MOUNTED EQUIPMENT FOR ACCESS TO THE GROUND

High-efficiency amplifiers offer potential for use in satellite mounted phased array antennas. Eschewing conventional materials, we constructed a new type of power amplifier using a gallium nitride semiconductor. To study the feasibility of mounting the amplifier on a satellite, we then conducted environmental evaluations, such as testing of the amplifier's radiation resistance and dispersion properties.

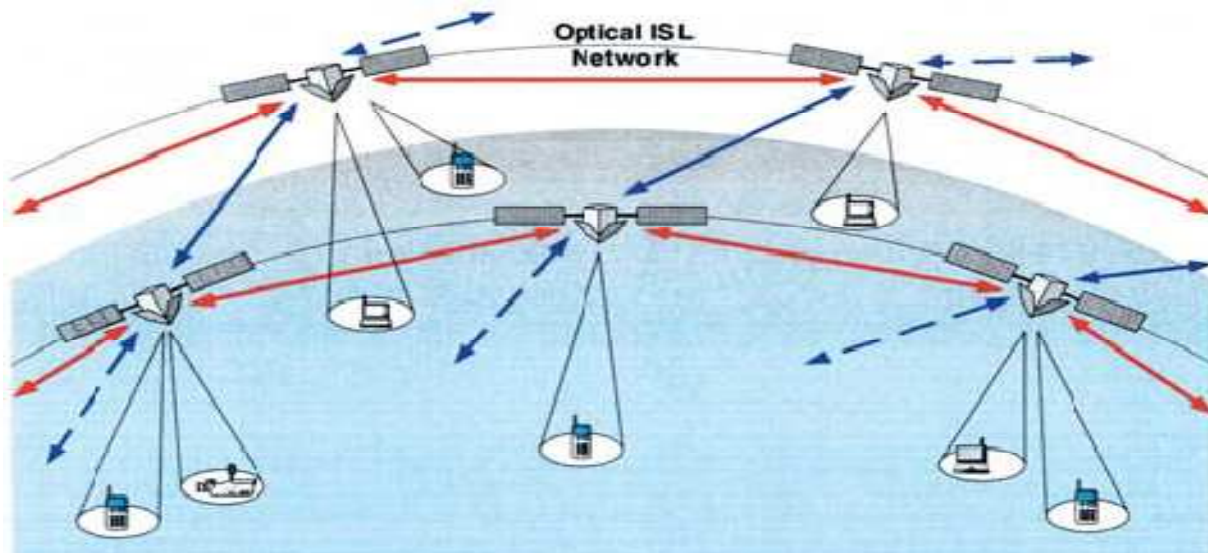
11.2 INTER-SATELLITE COMMUNICATIONS TECHNOLOGY

We developed an optical antenna and a transmission evaluator for an "optical inter-satellite" communications terminal. This compact and lightweight terminal achieves single-wavelength data transmission at 2.5 Gbps. We also carried out partial prototyping and evaluation of the satellite-mounted system including a control/processing circuit and a finely sensitive acquisition and tracking sensor module/mechanism featuring a receiving collimator fiber assembly.

11.3 GROUND-SATELLITE NETWORKING TECHNOLOGY

We developed a ground-satellite network simulator that is compatible with ground-based communications systems; the device simulates multimedia communications via satellite.

FIGURE 5: NEXT-GENERATION LEO COMMUNICATIONS



A constellation of low-Earth orbit (LEO) satellites will be used to provide mobile terminals on the ground with Global Multimedia Mobile Satellite System service, which will allow high-speed transmission of information such as image data. Accordingly, we are planning to conduct verification testing of the necessary optical inter-satellite communications technology. Inter-satellite communications: High-speed optical inter-satellite communications (up to 2.5 Gbps) User link connection: Satellite antenna design of 1 user/1 beam User terminal performance: Multimedia communications up to 2 Mbps.

12. CONCLUSION

The implementation of any of these systems in an inter-satellite link will require a substantial development effort. The strengths and weaknesses of the various types of lasers presently available for laser communications should be carefully considered. Based on existing laser's characteristics, the GaAlAs system, especially the full-bandwidth, direct detection system is the most attractive for inter satellite links because of its inherent simplicity and the expected high level of technological development. The system and component technology necessary for successful inter satellite link exists today.

The growing requirements for the efficient and secure communications has led to an increased interest in the operational deployment of laser cross-links for commercial and military satellite systems in both low earth and geo-synchronous orbits. With the dramatic increase in the data handling requirements for satellite communication services, laser inter satellite links offer an attractive alternative to RF with virtually unlimited potential and an unregulated spectrum.

Compared to existing stationary satellites or LEO satellites (providing communications services now experiencing a notable slowdown in demand), the next-generation LEO satellite system offers superior multimedia communications features. This new system offers high-capacity transmission despite its globally unparalleled small size. Further, technologies discovered in the course of system development will likely find commercial application in many fields other than satellite communications, including areas involving national security, global environmental measurement, and resource exploration. Notably, the development of a next-generation LEO satellite system was selected as part of the Millennium Project.

A full-duplex, combined analogue and digital FSO Laser Communication Link was successfully designed and implemented. It was also possible to obtain experimental data from the designed system, which proved to be very useful and informative.

The results of testing and experiments created new areas within this study's scope that can still be explored. Recommendations for future developments of the FSO laser link are based mainly on alignment and focusing systems to improve performance, in addition to the use of laser diodes specifically designed for modulation.

FSO technology is ready for utilization as terrestrial links, mobile links and satellite links.

1. Importance of high bit rate and security for high-value data.
2. Possibility of integration in global wireless communication network.
3. Optical communication in deep space between Mars satellite and Earth station is in preparation (MTO, Mars Telecommunication Orbiter).
4. Terrestrial links are a suitable technology for the "last mile" solution in the frame of access network.
5. The utilization of the FSO links is requested namely in situations where the use of an optical cable is impossible and desired bit rate is too high for a microwave links.
6. FSO links are flexible, simple and full-value (in terms of quality of transmission) license-free instrument of network communication technologies.

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PERCEPTION OF CUSTOMERS TOWARDS SMS MODE OF ADVERTISING: A STUDY AT WEST BENGAL

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ABSTRACT

Technological development in the last decade has given organizations new opportunities to market themselves. Mobile phones and smart phones make it possible for every type of business organization regardless of the size and popularity of business to send SMS mode of advertisement to consumers. The Literature survey indicates that the SMS advertisement helps to update information of the customers, the effectiveness of this in increasing the sales depends on the presence of general positive outlook towards SMS advertisement and behavioral disposition of potential customers, which are segregated by the sex, age, income, socio-cultural environment and an individual's psychological field. For the purpose of study, a tailored made, close ended questionnaire with Likert five point scales was prepared with the information received through literature survey and was used to collect the data on self perception of customer towards SMS Advertising. It was identified that the perception of customers or potential customers could be categorized into two domains - emotional or affective state of mind and rational state of mind. The finding signifies that the emotional state of mind of any person are affected by the SMS mode of advertisement and hence emphasize should be given on the factors that can create a positive impact and can influence significantly the affective state of mind.

KEYWORDS

emotional state of mind, rational state of mind and SMS mode of advertisement.

1.0 INTRODUCTION

Technological development in the last decade has given organizations new opportunities to market themselves. Since 2009, mobile marketing through cellular telephone became an effective way to advertise to consumers. (Brandweek; 11/30/2009). Mobile phones and smart phones make it possible for every type of business organization regardless of the size and popularity of business to send advertisement through SMS mode to consumers. Bulk SMS services have become one of the most modern and proven marketing tools for enhancing the brand name. Most of the companies maintain their own database of clients that receive SMS messages. On the basis of customer's profile and the context of the situation, companies can provide the target customers exactly the advertisement information they desire. Advertising through mobile phones helps promoters to identify the various perception of potential customers several benefits, like, precise targeting based on a person's preferences and behavior; time based targeting (i.e. duration of promotion); location based targeting (send promotional offer only to people in and around a major shopping mall that signed up for a promotion) (www.ipipi.com/corporate/smsadvertising). Hence, the effectiveness of SMS advertisement depends on the perception of the consumer or the potential consumer for the same, where the process of perception begins with an object in the real world; that individuals select, organize, and interpret the input from their senses to give meaning and order to the world around them.

2.0 LITERATURE SURVEY

Hundal et al, 2012, attempted to make a comprehensive study with the help of Factor analysis and Cluster analysis, about the perception of consumers towards SMS advertisements and effectiveness of the SMS advertisement programmes from the viewpoint of the organized retail sector. It was found that these advertisements are really effective in increasing the sales of the firm and people have positive outlook towards the same. In support of that it is worth to mention the comments of Offtada, Fatma (The Kuwait Times, 2011) that, SMS advertising has attracted many clients to her company, and is now the main source of advertising and better than the placing advertisements in the newspaper. The SMS advertising can target a specific client base (age, area, and nationality of potential clients). Whereas, Fitchard (2007) reports on the short message service (SMS) advertisement in the U.S. and Europe reveals that 75 percent of the Spaniards received text advertisements while Americans received only 17 percent because they reject the notion of marketing via SMS. However, it is believed that SMS will increase due to the search for new distribution medium in the U.S.

Damjanovic et al (2010), investigated with a sample of 350 respondents about the relationship between young consumers' attitudes between the age of 16 to30 toward mobile advertising usage and demographic characteristics. Findings indicated marketers' abilities to reach young population of Serbian mobile consumers through better communication strategy via SMS and MMS advertisement.

Feldman (2008) identified the vital role of short message service (SMS) in advertising. SMS is a mobile communication protocol that offers ultimate direct-response mechanism through uniting the traditional media with digital marketing. According researcher it is a low cost approach that offers solution to companies that are looking toward direct marketing than branding. It offers detailed tracking capabilities to print advertising and other static media advertising. It is also easy to implement and measure.

Tripathi et al (2008), attempted to critically analyse "person interactive" (goal-oriented) information and "person interactive" (experiential) messaging, targeting both utilitarian and hedonic benefits from the consumers' perspective. It analyses the effectiveness of mobile advertising in its current format (as prevalent in India). 'Effectiveness' for the purpose of this study has been concretized in terms of impact of mobile advertising on the purchase decision of the consumer. However, results of binary logistic regression indicate that mobile advertising in its current format does not have a significant impact on the purchase decision of a consumer, and that there might be other significant factors like a firm's marketing efforts (marketing mix), a consumers' socio-cultural environment (family, informal sources, non-commercial sources, social class, culture and sub-culture), and an individual's psychological field (motivation, perception, learning, personality, and attitudes) that affect his purchase decision. They identified that although mobiles are a powerful mode of marketing communication, the important issues at stake here are--what to say, how to say it, to whom, and how often. Hence the challenge lies in customizing the marketing communication to suit individual needs (Customerization), i.e., reaching the right target market with the right message at the right time.

2.1 SUMMARY OF LITERATURE SURVEY

The Literature survey indicates that the SMS advertisement helps to inform customers about their special offers, new arrivals and collections, and other special occasions. At the same time it is the better communication strategy, low cost approach, easy to implement and measure. Where its effectiveness in increasing the sales depends on the presence of general positive outlook towards SMS mode of advertisement and behavioral disposition (combination of motivation, perception, learning, personality, and attitudes) of potential customers, which are segregated by the sex, age, income, socio-cultural environment and an individual's psychological field

3.0 OBJECTIVE OF THE STUDY

On the basis of theoretical background, review of literature and the present need of the market the following objectives were considered:

- To identify various relevant perceptual factors for SMS mode of advertisement.
- To study genderwise Perception of customer towards SMS mode of advertisement.
- To study agewise Perception of customer towards SMS mode of advertisement.
- To study educationwise Perception of customer towards SMS mode of advertisement.

- To study income wise Perception of customer towards SMS mode of advertisement

4.0 RESEARCH METHODOLOGY

4.1 NATURE OF THE STUDY

The present study is exploratory in nature with following independent and dependent variables.

- i) **Independent Variables:** Gender, age, education, Income of the selected sample..
- ii) **Dependent Variable:** Perception of Customer towards SMS advertisement.

4.2 SAMPLING PLAN

- i) **Types of Sampling:**
- ii) **Sampling Unit:** All Categories of customers from the city of Kolkata and surroundings
- iii) **Sampling Method:** The sample for the study was selected using Convenience Sampling method (Non Probability Sampling) from different categories (gender, age, education and income).
- iv) **Sample Size:** 200

4.3 DATA COLLECTION

- i) **Secondary Data:** For the development of questionnaire for the collection of primary data the literature survey was conducted and probable relevant factors were identified.
- ii) **Instruments for Primary Data Collection:** For the purpose of study, a tailored made, close ended questionnaire with Likert five point scales (annexture I) was prepared with the information received through literature survey and was used to collect the data on self perception of customer towards SMS Advertising and to understand its constituent factors.
- iii) **Procedure for Data Collection:** Face to face interview were conducted with the help of a structured close ended questionnaire to collect the data.

4.4 DATA ANALYSIS

- i) To identify various relevant perceptual factors for SMS advertisement Factor Analysis was done and Item wise significant differences were identified.
- ii) To identify the significant differences of the Perception of customer towards SMS Advertising genderwise, agewise, educationwise and incomewise Analysis of Variance were conducted.

5.0 RESULTS

5.1 TO IDENTIFY VARIOUS RELEVANT PERCEPTUAL FACTORS FOR SMS ADVERTISEMENT

TABLE I: IDENTIFICATION OF COMPONENTS BY FACTOR ANALYSIS (ROTATED COMPONENT MATRIX)

Items	Components	
	Emotional	Rational
Q1	-0.25	0.70
Q2	0.83	0.12
Q3	0.57	0.08
Q4	0.51	0.41
Q5	0.72	0.11
Q6	0.46	0.58
Q7	0.24	0.57
Q8	0.01	0.74
Q9	0.20	0.66
Q10	0.16	0.77
Q11	0.38	0.61
Q12	0.48	0.55
Q13	0.58	0.45
Q14	0.69	0.30
Q15	0.77	0.07
Q16	0.57	0.34

a. Rotation converged in 3 iterations. Rotation Method: Varimax with Kaiser Normalization.

TABLE II: COMPONENT TRANSFORMATION MATRIX

Components	Emotional	Rational
Emotional	0.73	0.70
Rational	-0.70	0.73

Extraction Method: Principal Component Analysis.

Table I and II indicate the result of factor analysis of the data collected through questionnaire. It is seen that items are loaded in two significant categories (Q2, Q3, Q4, Q5, Q13, Q14, Q15, Q16 and Q1, Q6, Q7, Q8, Q9, Q10, Q11, Q12). First category specifies the domain of pleasure of 'receiving', 'cooperating', and 'reading'; in general enjoyment; create 'urge' and 'impact' to the purchase product; and a feeling of 'proud'. The second category comprise with the domain of 'informative in terms of quick updating, inquisitiveness', 'time management in terms of consumption, on time', 'convenience' 'necessity'. This subjective correlation of the items with the factor analysis markedly specifies the two components of the potential customer perception viz, **Emotional or affective state of mind** and **Rational or cognitive state of mind** respectively.

To find out the effective factors for development of positive perception, itemwise percentage of positive, indifferent and negative responses were identified and significant differences between major two categories of responses were calculated and shown in Table III.

5.2 TO IDENTIFY SIGNIFICANT POSITIVE RESPONSES TO INDICATE THE MAJOR PERCEPTUAL FACTORS

TABLE III: SIGNIFICANT DIFFERENCES BETWEEN POSITIVE AND NEGATIVE RESPONSES

Item No	Item Description	Frequency of Positive Response	Percentage of Positive Response	Frequency of Negative Response	Percentage of Negative Response	Percentage of Indifferent Response	Significant Differences(sd) between positive and Negative Response
Q1	Use the facility	106	53	40	80	7	1.77
Q2	Pleasure in receiving	98	49	35	70	16	2.09*
Q3	Pleasure to get	98	49	31.5	69	19.5	2.09*
Q4	Like to read	102	51	33	66	16	1.8
Q5	Enjoyment	106	53	29.5	59	18	3.01*
Q6	Informative	95	47.5	40.5	81	12	0.91
Q7	Time consuming	97	48.5	37.5	75	14	1.45
Q8	Physically convenient	95	47.5	39.5	79	13	0.95
Q9	On time	88	44	32	64	24	1.6
Q10	Quickest method of updation	96	48	35.5	71	16.5	1.62
Q11	Necessity	89	44.5	30	60	25.5	1.81
Q12	Increase curiosity	83	41.5	34.5	69	14	0.89
Q13	Creating urge	78	39	37.5	75	13.5	0.19
Q14	Help in purchase	86	43	26	52	31	4.1*
Q15	Creating impact	94	47	30.5	61	22.5	4.18*
Q16	Feeling proud	95	47.5	34.5	69	18	3.2*

*Significant at .05 level

From Table III it has seen that major responses were either positive or negative, which indicates that the respondents have a consistent and definite mindset (positive or negative) about their nature of selecting the perceptual factors of SMS advertising. It is seen that though the percentage of all the positive responses are higher than the negative responses but significant positive factors are Q2 i.e., Pleasure in receiving (sd=2.09), Q3 i.e., Pleasure to get (sd=2.09), Q5 i.e., Enjoyment (sd=3.01), Q14 i.e., Help in purchase (sd=4.1), Q15 i.e., Creating impact (sd=4.18), Q16 i.e., Feeling proud (sd=3.2). It has also identified that all the significant factors are under the components of Emotional or Affective state of mind. Hence it could be said that the individual perception on SMS advertisements are influenced by the emotional factors of mind.

5.3 TO STUDY GENDERWISE PERCEPTION OF CUSTOMER TOWARDS SMS ADVERTISING

TABLE IV: IDENTIFICATION OF THE GENDERWISE SIGNIFICANT DIFFERENCES OF THE PERCEPTION OF CUSTOMER TOWARDS SMS ADVERTISING

	Gender	Sum of Squares	df	Mean Square	F	Sig.
Emotional	Between Groups	.934	1	.934	1.464	.228
	Within Groups	125.679	197	.638		
	Total	126.613	198			
Rational	Between Groups	.012	1	.012	.019	.891
	Within Groups	121.120	197	.615		
	Total	121.132	198			

Level of significant at 0.05.

Table IV indicate that there is no gender wise significant differences in the customer perception neither for Emotional nor for Rational state of mind of the respondent. So gender difference cannot create any difference of perception for SMS advertisement.

5.4 TO STUDY AGEWISE PERCEPTION OF CUSTOMER TOWARDS SMS ADVERTISING

TABLE V: IDENTIFICATION OF THE AGEWISE SIGNIFICANT DIFFERENCES OF THE PERCEPTION OF CUSTOMER TOWARDS SMS ADVERTISING

	Age	Sum of Squares	df	Mean Square	F	Sig.
Emotional	Between Groups	13.400	4	3.350	5.740*	.000
	Within Groups	113.213	194	.584		
	Total	126.613	198			
Rational	Between Groups	4.430	4	1.108	1.841	.123
	Within Groups	116.701	194	.602		
	Total	121.132	198			

* significant at 0.00.

Table V shows that there exist an agewise significant difference about emotional nature of perception of customer. Hence it can be interpreted that emotional domain of individual perception varies significantly with the variation of age. Therefore age level influences emotional state of mind of the customer perception towards SMS advertisement where rationality of perception remains constant is independent of age.

5.5 TO STUDY EDUCATIONWISE PERCEPTION OF CUSTOMER TOWARDS SMS ADVERTISING

TABLE VI: IDENTIFICATION OF THE EDUCATIONWISE SIGNIFICANT DIFFERENCES OF THE PERCEPTION OF CUSTOMER TOWARDS SMS ADVERTISING

	Education	Sum of Squares	df	Mean Square	F	Sig.
Emotional	Between Groups	16.009	5	3.202	5.587*	.000
	Within Groups	110.604	193	.573		
	Total	126.613	198			
Rational	Between Groups	2.929	5	.586	.957	.446
	Within Groups	118.203	193	.612		
	Total	121.132	198			

* significant at 0.000.

From Table VI it could be said that there exist an educationwise significant difference about emotional nature of perception of customer. Hence it can be interpreted that emotional domain of individual perception varies significantly with the variation of education. Therefore the education levels of the customer

towards their perception about SMS advertisement significantly influence emotional state of mind where rationality of perception remains unaffected with the variation of education.

6.0 CONCLUDING REMARKS AND RECOMMENDATION

The study on perception of SMS Advertisement was conducted at the Kolkata with the help of a structured questionnaire. It was identified (Table I) that the perception of customers or potential customers could be categorized into two domains - emotional state of mind and rational state of mind. Item wise favourableness indicates (Table III) that significant factors for perception on SMS Advertisements were "Pleasure in receiving", "Pleasure to get", "Enjoyment", "Help in purchase", "Creating impact", "Feeling proud". All these factors are under the domain of *Emotional state of mind*. In identifying the existence of any differences in perception according to variation of age or gender or education it has been seen that there exist significant differences of perception of SMS advertisement for the domain emotional state of mind age wise and education wise (Table IV, V and VI). This finding signifies that the emotional or affective state of mind of any person changes and easily adopted with the new environment and new learning. Hence for product promotion through SMS advertisement focus and emphasize should be given on the factors that can create a positive impact and can influence significantly the affective state of mind. It should also keep in mind that SMS should vary according to variation of age and variation of education.

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ANNEXURE

ANNEXURE I: MY PERCEPTION ABOUT SMS ADVERTISEMENT

Here sixteen items on SMS advertisement are given. Please go through these and respond to the most suitable options, which match with your opinions or actions. There is no right, wrong, or ideal response. But your sincere and open response will help to obtain the correct outcome of this survey.

PERSONAL INFORMATION:-

Gender: Male Female

Education: High School Graduation Post Graduation Other (Please Specify)

Age (year): 16-25 26-35 36-45 46-55 56-65 above

Occupation: Businessman Employee Professional Student Other

Income (per annum) : 4000-14000 15000-25000 26000-35000 36000-50000 51000-80000 Above 80000

SPECIFIC INFORMATION:-

1) I use the message facility on my mobile.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
2) I like to receive any number of advertisements through SMS.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
3) I gladly give my mobile number to the shop representative.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
4) I use to read the complete promotional SMS even before deleting it.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
5) I enjoy mobile advertisement.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
6) Information like new offers, discounts etc through SMS delight me.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
7) Going through SMS Advertisement is not time consuming.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
8) It is convenient to receive information through an SMS than personal visit to that place.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
9) I think that SMS advertising provides timely information.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
10) SMS advertising is the quickest way to get updated on latest trends in the market.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
11) To go through SMS advertisement has become necessity in today's busy life.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
12) SMS advertising raises curiosity to try new brands.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
13) The SMS advertising can create an urge to try the product/brand.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
14) SMS advertisements help me to purchase products.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
15) SMS advertising can create a long lasting impact.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
16) I feel proud when I receive constant SMS advertisements as a premium customer.	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree

Thank You for Participation

CUSTOMER RELATIONSHIP MANAGEMENT IN BANKING: ISSUES AND CHALLENGES

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ABSTRACT

Bank Marketing has evolved from Transactional to Relationship Marketing. Customer acquisition, customer satisfaction, customer retention, all is acquiring the focal point of planning and marketing strategies in Banking. Enabled by CBS and operating in a multi-channel, hi-tech environment many Indian Banks have adopted the concept of Customer Relationship Management with intent to generate better understanding of the customer and maintain long term mutually beneficial relationship with the customer. CRM is a strategic initiative which has organization wide implications. In Indian Banking sector CRM is still at a nascent stage. A very small proportion of its potential has been utilized. Also implementation wise it has been implemented on a limited scale. The paper proposes to analyze the issues and challenges pertaining to the CRM in Indian Banking Sector. Although the CRM software may be owned and customer centric initiatives be communicated, the successful implementation seems to be a scenario not evident in near future in most Banks. Implementation rests on four pillars of People, Process, Data and Technology. A coordination of all these and transformation to CRM System is a huge challenge and encompasses multidimensional problems. An overview of these problems and issues will be provided and analyzed.

JEL CODE

M31

KEYWORDS

Bank Marketing, Banking, CRM, Customer Relationship Management, Relationship Marketing.

INTRODUCTION

A global survey conducted by the IBM Institute for Business and Value and part of IBM Business Consulting Service's three part series "Doing Customer Relationship Management (CRM) Right" claims that only 15% of current CRM projects are fully successful, but that the success rate can be improved to as high as 80% through proper business process methodology and prioritization. One of the main reasons for CRM failure is the lack of understanding about the true meaning and implication of practices for managing relationships with customers.

Deloitte Consulting found that 70% firms found little or no improvement through CRM implementation. The reasons are many: The CRM system was poorly designed, it became too expensive, users didn't make much use of it or report much benefit, and collaborators ignored the system.

Indian banking system is witnessing the adoption of CRM Systems for greater competitiveness. Although the type and range of CRM enabling technologies differ from Bank to Bank, the ultimate goal is higher customer focus. Technology has successfully initiated this journey towards customer centricity, but there are large number of issues and challenges to adoption and implementation of CRM. The true potential of CRM still remains to be explored in its true sense. The paper attempts to identify these issues in the light of information about how CRM has been utilized by some leading players in International and National Banking Scenario.

CRM DEFINED

CRM is a sound business strategy to identify the Bank's most profitable customers and prospects, and devotes time and attention to expanding account relationships with those customers through individualized marketing, reprising, discretionary decision making and customized service – all delivered through various sales channels that the bank uses.

CRM is the practice of analyzing and utilizing marketing databases and leveraging communication technologies to determine corporate practices and methods that will maximize the lifetime value of each individual customer to the firm. (Kumar and Reinartz, 2006).

"CRM is a comprehensive strategy and process of acquiring, retaining and partnering with selective customers to create superior value for company and the customer." (Jagdish Sheth and Atul Parvatiyar).

Paul Greenberg, the Author of CRM at the Speed of Light, has his own classic definition about CRM

"CRM is philosophy and a business strategy, supported by a system and a technology, designed to improve human interactions in a business environment. It is also a continuing business initiative that demands a dynamic, ongoing strategy of customer engagement".

Whilst Scott Hornstein, the Principal of Hornstein Associates, defines CRM as: "CRM is the delivery of customer care as a strategic product, with measurement and reward focused on generating happier customers that stay longer and buy more".

- ▶ **From a strategic standpoint**, CRM mobilizes resources around customer relationships rather than product groups and fosters activities that maximize the value of lifetime relationships.
- ▶ **From an operational standpoint**, CRM links business processes across the supply chain from back-office functions through all customer contact channels ("touch points"), enabling continuity and consistency across a customer relationship.
- ▶ **From an analytical standpoint**, CRM provides a host of resources that enable banks to fully understand customer segments, assess and maximize lifetime value of each customer, model "what-if" scenarios, predict customer behaviors, and design and track effective marketing campaigns.

CRM: PAY OFFS TO BANKS

- ▶ Restoring the personal-service connotation that was previously removed.
- ▶ Fostering greater long-term loyalty through relationship building.
- ▶ Maximizing lifetime value of each customer through cross-selling.
- ▶ Enabling immediate action to retain the most valuable customers.
- ▶ Identifying high-risk customers and adjusting service accordingly.
- ▶ Enabling the bank to fulfill customer needs at the right time with the right offer.
- ▶ Increasing the rate of return on marketing initiatives.
- ▶ Efficient fraud detection

REVIEW OF LITERATURE

Berry (1983) recommended the following five strategies for practicing relationship marketing -

- i. Developing a core service around which to build a customer relationship,
- ii. Customizing the relationship to the individual customer,
- iii. Augmenting the core service with extra benefits,
- iv. Pricing services to encourage customer loyalty,

v. Marketing to employees so that they will perform well for customers.

Gartner's Research shows that less than 10% of Banks have a single integrated view of their customers and those that do are just beginning to leverage their investments to improve customer loyalty and profitability. Payne's² study summarizes the barriers to CRM implementation as: Lack of skills; Poor Data quality; Failure to understand the business benefits; Functional Boundaries; Lack of leadership and management involvement; and inadequate measurement systems.

Several authors (Boulding, Staelin, Ehret and Johnson, 2005; Newwell, 2003; Ngai, 2005; Payne, 2006) point out some problems that lead to CRM failure such as: Lack of skills in building and using the new IT based CRM systems; Inadequate investments, as many projects dramatically exceed their planned cost and sometimes even their scope; poor data quality and quantity, mainly for companies that are at early stage of CRM development; Lack of leadership and top management involvement; inadequate measurement systems (sometimes organizations do not exactly know what they want from a CRM operation); cultural problems; alignment of organizational vision, mission, technology and goals is an important CRM adoption issue; employee resistance to CRM.

Wharton's George Day concludes that one of the reasons many CRM failures occurs is that companies concentrate on customer contact processes without making corresponding changes in internal structures and systems.

Mishra H. in IBA special Report on 'Operational Business Intelligence in Banking' November 2007 notes that information needs of banking are unique. There is a large variety of banking services and this variety has given rise to multiplicity of technology solutions in banking. No single software solution today can satisfy even the transaction processing requirements of a large bank. Ramchandra S. J. suggests CRM implementation requires revolutionary changes in the entire organization, top management support and long term view.

Managing individual customer relationships has a profound effect on enhancing long-term customer loyalty, thereby increasing the enterprise's long-term profitability. Relationship strategies, for example, have a substantial effect on customer retention in the financial services sector. A study conducted in 2000 by Peppers and Rogers Group (with Roper Starch Worldwide) found that only 1 percent of consumers who rate their financial services provider high on relationship management say they are likely to switch away products. One-fourth of consumers (26 percent) who rate their primary financial services provider as low on relationship management attributes say they are likely to switch away one or more products during the next 12 months. The financial implications of these findings are staggering using a conservative average annual profitability per household for U.S. retail banks of \$100, a reduction in attrition of 9 percentage points by providing excellent customer relationship management (e.g., recognizing returning customers, anticipating their needs, etc.), that institution with an average household profitability of \$500, the increase in profitability climbs to \$900,000.

CRM: GLOBAL SCENARIO

WACHOVIA BANK

Wachovia Bank uses customer transaction data to support modeling processes that evaluates each branch's current and long term profitability. In Atlanta, Bank's largest market, significant performance improvements were attained when it used the outputs of modeling process as a basis to decide which of its 96 branches to close and which location to open new ones.

ROYAL BANK OF CANADA

RBC is Considered Canada's largest bank when measured in terms of assets and market capitalization with \$270 Billion in assets, 23 Million retail accounts, 700 Products, 58,000 Employees and 10 Million personal, commercial, corporate, and public sector customers served in North America and much of the world. RBC Royal Bank (personal and commercial retail banking) comprised of 1,300 branches, 4,800 ABM's, 87,250 proprietary POS terminals, 900+ mobile sales staff, 1.4 million online banking customers and 2 million telephone banking customers with 300 offices in 30 countries

RBC developed superior computing and database power, along with sophisticated statistical programs, to analyze customer information and test specific actions it should take with specific customers. Once profitability and lifetime value was determined, these measures were included when determining customer decisions. For RBC this meant: Customized Marketing Campaign, Establishing Service Levels, and Product Design & Pricing. Customer profitability was a determinant used for segmenting and targeting. The CRM system used customer profitability and future potential calculations to give pricing parameters to account managers to determine how to price products depending on the customer. RBC also determined a set of customer treatment strategies using the customer segment categories. A customer's category would determine the length of wait and type of customer service representative the customer talks to. To learn the most about its customers, RBC has undertaken an intense ongoing statistical analysis of them. It is developing and refining the prototype for an algorithm to model the long-term lifetime values of its individual customers. Part of this effort includes a "client potential" model that measures how "growable" certain kinds of customers are to the bank. It also analyzes a customer's vulnerability to attrition and tries to flag the most vulnerable before they defect, in order to take preventive action in a focused effective way.

BNP PARIBAS

BNP Paribas became one of world's most admired Banking brands, leader in European Financial Services Sector which operates in more than 85 countries and over 100,000 employees. The business challenges were:

Restructuring its services around customers to achieve ever-increasing satisfaction levels and to create a fully integrated customer experience across all channels, using technology fusion as the foundation for future success and enhanced revenue streams, CRM enabled integrated multi-channel retail banking platform providing consistent customer interactions across channels. It enabled Back office process engineering. Also Integration of Banks database of 6 million retail clients was done, with daily reporting of events leading to daily updating of customer profiles. Results were that: More than 300 million discrete customer contacts, Management of 4.3 billion individual transactions, peaking at 800 per second, over a single infrastructure, Improvement in customer service, Customer relationship centers handling more than 2 million calls and 3.7 million appointments booked by electronic appointment system.

WELLS FARGO

Wells Fargo is one of the largest Internet Banking entities in the world. It is recognized as industry leader in US for alternative delivery strategies of banking Services

The goal of CRM is providing "Every channel our customers want, every product our customers need, anytime our customers choose". The focus is on Innovation efforts in customized service, speed and Convenience. One of its main concerns is that of servicing its high net worth customers by better integration of customer information and service applications and to assist representatives of customer sales and services to easily provide a one-stop-shop for any banking service or transaction.

CAPITAL ONE

Capital One is reaping the rewards of full-fledged Customer Value Management. It uses customer value in its segmentation process as well as its behavioral indicators, offering open data access to its front line with a uniform and holistic view of its customer data. Capital one was also one of the first players in the industry to conduct offer prioritization based on expected increase in customer value (across value drivers), using propensity models for cross-selling to maximize the value of customers it had acquired. It also analyzes client purchase patterns and dates to infer its risk and propensity to buy specific products. As a result, it is able to target tailored customer offers (over 3,000 credit card variations) to over 100,000 segments. It also conducts highly flexible test-and-learn campaigns at a rate of more than 65,000 tests a year. These efforts are given top-priority support by the organization via elements such as a unique relational database management system, specific customer acquisition targets for employees at all levels, and an extra bonus to staff who sell higher-yielding products.

CRM: INDIAN SCENARIO

YES BANK

Yes Bank adopted Collaborative CRM, which has two logical separation models: a pre-acquisition and a post-acquisition service cycle for customers. The customer information captured in the YCCRM is mapped to blog-like entries made by employees. These entries include ideas, suggestions and perceptions of

² Roy SK, (2008) ICAFI Journal of Management Research , Vol. 7

the sales representatives. The sales and product teams can then analyze this information and figure out related business opportunities. Such information can also be leveraged to customize existing products or conceive new products altogether. Through YCCRM, officers are provided with a template where they can fill details (other than the standard keywords) noted during their interaction with the customer. Typically, sales staff interacts with customers over the phone, jotting down the most important parts of their conversation on little pieces of paper. This information is filled on a separate form. Sales representatives can now upload or download scribbled information from their phones to the main CRM System. As a sales representative, part of the job includes being constantly on the field, which leaves them little time to fill in their reports. As a result, it is not always possible to feed detail of their interaction with customers on the day they meet them. YCCRM provides an additional tab of source date (the date mentioned as the source date) when they meet the customer and the system date when it is registered in the system. The integrated and personalized dashboard with an activities planner enables the smooth functioning of a sales representative. And its social value-based relationship management helps in cross-selling. There has been a drastic improvement in customer acquisition after sales leads were passed on via discussion boards. "There is servicing of 10 lakh leads and around 5 lakh service requests per year. Customer service has improved by 60 per cent and turnaround time for its processes by almost 70 per cent. The repository also enables geography wise customer segmentation to plan a promotional campaign better. Customers can directly send their feedback or use blogs to interact with the bank. Same time it will provide the bank with a new set of opportunities in understanding the customer.

PUNJAB NATIONAL BANK

Moving ahead of CBS, PNB deployed CRM software Customer First which comprises of modules for Business prospect management, Lead Management, activity management, Product management, complaint management and business intelligence reporting. The pay offs to PNB are in terms of increased customer base, cross selling, sales force optimization, efficient lead management and higher productivity. It has helped increase PNB's customer base from 5.81 crore (as on March 2010) to more than 6.5 crore. In 2009-10, the Bank generated 61243 Leads, out of which 353,250 leads were converted amounting to RS.788 crore of Business.

ICICI BANK

In ICICI, the situation before CRM implementation was marked by waiting line, high cost per transaction and scenarios like call centers providing only account information. ICICI adopted an enterprise CRM strategy. Nycamp consulting Group prepared a detailed and comprehensive CRM action plan. ICICI identified five functional areas which when integrated will give Bank its CRM Business transformation map. Core areas of business transformation were – Business focus, organization structure, Business matrix, marketing focus and Technology. ICICI ensured that all the functional areas like Strategy Development, Value Creation Process, Multi-channel Integration Process, Information Management Process and Performance Assessment Process should be integrated for implementation of CRM. The payoffs were: Lower total cost of ownership, efficient management of volume growth, greater responsiveness to market needs, improved operations, decrease in operational costs, reduction in turnaround time, and integrated platform for all applications of the Bank. This technology platform had several benefits: A decreased need for data management as data is now taken from a central system; up to date information appearing on the screen of the employee to improve performance and higher degree of coordination and services; All customer contact points are now coordinated.

SBI

SBI has presence in 32 countries with more than 13 crore customers and over 13,800 branches and 5 associate banks. The business data of SBI spreads over several domestic and international source systems such as Core Banking, Trade finance, Treasury, ATMs, Internet Banking etc. The top management didn't have a mechanism of having a consolidated view of business across all functions of the bank on a real time basis. To overcome this challenge the Bank decided to employ, a Business Intelligence system which integrated data from nearly 15 source systems (with nearly 70 databases) to form a single enterprise data warehouse logical model. The system has empowered the decision makers to have actionable data leading to faster decision making based on latest information. The system generates 248 reports daily for the top management and each of the branches have access to reports generated particularly for them. Dash board covering the key focus areas is available to the top management with the ability to drill down to each individual branch in each of the matrix being tracked. With the help of campaign management solution bank has managed to successfully execute 71 campaigns targeting 4.88 million customers.

CRM ISSUES AND CHALLENGES

The previous section described the various forms in which CRM was adopted and utilized, and in each case the pay offs have been worth while. This cannot be considered as the complete picture of CRM implementation. Many banks are still struggling to make proper use of this very useful mechanism. However, the adoption and utilization is dependent on a number of factors and impediments. Broadly the issues are pertaining to: People, Processes, Data and Technology. Also a major drawback is the general perception of CRM being a Technology imperative. There is a great need to understand that technology is only the enabler to CRM. In the real sense it is an organization wide strategy. The success of this depends on a careful integration of Organization's goals, structure, systems, processes and resources. Some common observations of CRM related problems in Banks are:

- Inability to recognize high value customers during interactions
- Not differentiating service levels based on the importance of each customer to the Bank
- Providing Customers the wrong level of service through the right channels or right level of service through the wrong channels
- Non optimizing cross-sell and up-sell opportunities because they lack information about how to the right customers, through the right channels at the right times
- Not effectively leveraging their diverse product and service suites to customize "Bundles" that meet the specific needs of high value customers at their various life stages
- Wasting resources on campaigns that do not target the customers most likely to respond and buy
- Missing opportunities to increase wallet share or reduce customer attrition because they are not tracking the predictive purchase and "Churn" indicators and communicating recommended responses to those who interface with customers
- "Under investing" in their most profitable customers and "Over investing" in their less profitable customers.

In the following section, we will examine the main issues leading to such problems:

CRM: TECHNOLOGY ISSUES

TECHNOLOGY COMPONENT OF A TOTAL CRM STRATEGY

The technology component of CRM offers banks a comprehensive understanding of its customers through data analysis and predictive modeling, to support sales and marketing Strategies. It enables:

- Single customer view - A managed and integrated view of the customer, drawn from all contact points and product purchases, enables financial institutions to better understand customers and therefore serve them more effectively.
- Predictions for profit - Banks can accurately predict which products and services will appeal to an existing customer, and which they are most likely to purchase.
- Customer lifetime value - Banks can calculate the probable profitability of a customer over their lifetime, ensuring that they don't alienate low-value customers with high-value potential.
- Personalized services - Businesses can segment the market into specific target groups by demographics or purchase types. With a closer understanding of customers by small segments, banks can adopt individual marketing approaches rather than relatively ineffective mass marketing.

The following are the impediments to CRM implementation in context of technology:

- a) Misconception about role of technology: Most officers perceive technology as a limited to record of information and transaction. The use of technology in further sophisticated information processing and dissemination is not done.
- b) Lack of Integration: There are multiple channels and multiple technologies in use simultaneously in customer interface, service and sales. The integration of this complex system of technologies is a challenge.

c) Empowerment to frontline staff: A Frontline staff has customer profile and data. Most of them have no motivation to further process these and make full utilization of these to provide better services and proactive selling effort. They are neither trained to use customer analytics nor to customize the bank's offering.

d) Underutilization: the single integrated view of customer, past transactions preferred mode of business are known, but no mechanism is in place to utilize this with aid of software like lead management and activity management for higher effectiveness in sales and service.

DATA ISSUES

The core of a successful CRM decision support system is a multidimensional data warehouse that:

- Integrates raw input from multiple sources and platforms, such as credit card, mortgage, and insurance and savings account systems.
- Integrates input from multiple contact point systems, such as ATMs, branch visits, Internet and call center transactions.
- Integrates with popular back-office systems (financial transaction processing, for example) and front-office systems (such as sales force automation).
- Transforms this raw data into cleansed, validated and structured information.

The issues related to data are:

a) Fragmented Data: banks have multiple repositories of data accumulated across various channels. Systematically collecting and organizing this huge data is big challenge.

b) Legacy Systems: Historical data collected from legacy systems tend not to have been collected in any standard form.

c) Quality of data: As huge amount of data has to be cleaned and a lot of missing data has to be identified and included. This process has to be carried out across branches which in addition to their core tasks have this work.

d) Lack of understanding, skill and initiative to manage and utilize data: Employees expected to organize and systematically manage data may not do efficiently because of the lack of understanding of the strategic perspective of this activity. They also lack the necessary infrastructure and skill to complete this task.

PEOPLE ISSUES

a) Lack of knowledge and skills in converting data to customer knowledge

b) Lack of motivation for utilizing the potential of CRM solution

c) Inadequate performance management parameters

d) Less or insufficient decision making authority : In order to use CRM concept towards customer centricity ,sufficient decision making power is required to provide customized, responsive and proactive services

e) Training: Staff lacks training in IT, its applications, the complete use of software and its applications as well as marketing skills, analytical skills, uses of customer information and service skills for implementation CRM.

PROCESS ISSUES

As CRM is an organization wide strategy the entire processes need to be aligned appropriately. Some important process issues are:

a) Change in Culture: The CRM implementation demands a change in organizational culture in terms of vision, mission, philosophy, and shared values. This encompasses a fundamental change in the organizational practices and employee behavior.

b) Breaking the silos: CRM can not succeed in Silo structure of departments. It demands integration and collaboration of all departments on a continuous basis. So, Breaking of silos prevalent in traditional organization structure is a challenge.

c) Change in Structure and Systems: CRM success lies in ownership of CRM by all departments with Marketing in the strategic role of combining efforts in all these towards better customer service. This basic structural change from product centric organization to customer centric organization faces impediments in terms of role conflicts, ambiguity, resistance and attitudinal impediments.

d) Demand for more proactiveness and flexibility: The former strict hierarchical and rigid structure has to be transformed to flexible, responsive and proactive structure. This demands top management support, proper training and efficient follow up systems. In addition to behavioral issues the full utilization of CRM benefits cannot be attained unless this is enabled.

CONCLUSION

Customers have grown to expect comprehensive financial services from a single point of contact. They are attracted by many new products and services that non-banking institutions have been offering. The challenge for banks is to package these products and services and deliver them through convenient, user-friendly channels. Only by integrating people, processes, and technology across business lines will banks be able to forge a portfolio of virtual banking services based on the priorities of specific customer market segments.

Consumer centric practices will be at the nucleus of functioning and business plans of Banks in the next decade. The banking sector will increasingly move towards a CRM banking where the banks will have to develop and service products suited at different phases of a customer's life. The true potential of CRM will be realized only when the CRM will get buy in from all stakeholders viz. IT ,Marketing, Operations and Top Management. With this integrated effort and supporting structures and processes, a culture revolving around customer centricity will enable banks to leverage on this asset. We can enumerate certain fundamental strategies for successful CRM in Banking;

1) An organizational transformation from product centricity to customer centricity

2) CRM led and supported by top management

3) Development and adoption of processes and procedures to enable and use CRM

4) Provision of infrastructural support for CRM implementation at all levels

5) Regular follow up of implementation and communication to stakeholders

6) Performance evaluation and incentives linked to adoption and implementation of CRM procedures

7) Ownership of CRM by marketing Department with IT Department in an enabling role

8) Development of Marketing organization structure which can strategically align all the related activities throughout the towards customer focus with CRM as a key initiative.

9) A continuous effort of awareness, training and information sharing should be oriented towards generating understanding, applications, technological aspects and marketing imperative, should be carried out.

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METHOD FOR DESIGN PATTERN SELECTION BASED ON DESIGN PRINCIPLES

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ABSTRACT

Day-by-day new design patterns are emerging. Patterns classified/grouped based on several factors. Each group contains more than one pattern. Within the group, patterns have close relationship with one another. Often, user's select design patterns based criteria's like purpose, problem scope, context, intent, and known uses. However, finding the correct design pattern remains complex task. The current paper describes a method for design pattern selection based on design pattern charectistics/principles. It is a kind of similarity search method. The method has two parts. Part-1 captures requirements in the form of a query, evaluates the query, and suggests a pattern. If part-1 fails to give a correct pattern, then part-2 suggests related pattern based on the inputs received from user in the part-1. The current paper mainly focuses on part-II.

KEYWORDS

GoF patterns, pattern classification, Design pattern search.

INTRODUCTION

The foundation for patterns had been laid by Christopher Alexander [7]. His work had inspired GoF (E.Gamma, R.Helm, Ralpha Johnson and J.Vlissides) for developing object oriented software-related patterns. The work in the current paper starts with the Gang-of-Four patterns (GoF). The GoF described 23 design patterns and represented these patterns in UML notations (Unified Modelling Language) in there text book "Elements of Reusable Object Oriented Software" in the year 1995. The GoF book describes design pattern as "Descriptions of communicating objects and classes that are customized to solve a general design problem in a particular context" [7]. In the fall of 1994, the Eric Gamma et al., have developed a pattern catalog containing Creational, Structural and Behavioural patterns. The catalog creation was part of Eric's Ph.D thesis [7,p.no 355]. The team GoF divides patterns into three groups based on the "problem and scope". The GoF patterns lay foundation for the current work in this paper. The GoF defines the patterns as follow

1.1 CREATIONAL PATTERNS

Creational design patterns deals with object creation and class creation mechanisms [7]. The basic form of object creation could result in design problems and increases complexity to the design. Creational design patterns solve the problem by somehow controlling this object creation [7].

1.2 STRUCTURAL PATTERNS

"Structural Design Patterns are Design Patterns that ease the design by identifying a simple way to realize relationships between entities" [7].

1.3 BEHAVIOURAL PATTERNS

"Behavioural design patterns are design patterns that identify common communication patterns between objects and realize these patterns. These patterns increase flexibility in the communication between objects" [7].

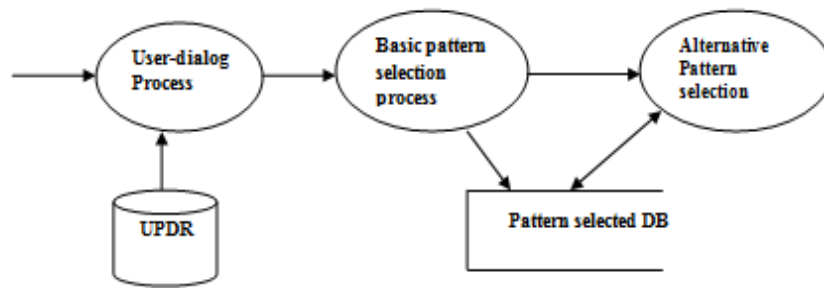
The remaining part of the paper has been organized as follows:

Section 2 describes Alternative pattern selection method, section 3 describes implementation – pseudo code and section 4 describes related work, section 5 describes system execution flow. And section 6 describes conclusions.

2. ALTERNATIVE PATTERN SELECTION METHOD

The basis for the method is from similarity based searches. Several similarity based searches are becoming popular in several applications. For example, clustering techniques use similarity based distance measures. The objective of the method is to identify a suitable alternative pattern based on the user preferences. The fig 2.1 represents a DFD (data flow diagram) of the overall view. The system has user dialogue component (UDC). The UDC poses questions to user and takes answers. Questions are created based on design principles (e.g Does the problem has coupling?). The Answers are stored in internal storage (a text file). Based on the answers, the system finds a pattern matching score and suggest a pattern [3]. If user not satisfied with suggestion, then the system invokes alternative pattern method. The present paper describes detailed description of the method with illustration. It was named as similarity_pattern_search [4]. The following figure 2.1 represents a data flow diagram of the system under consideration.

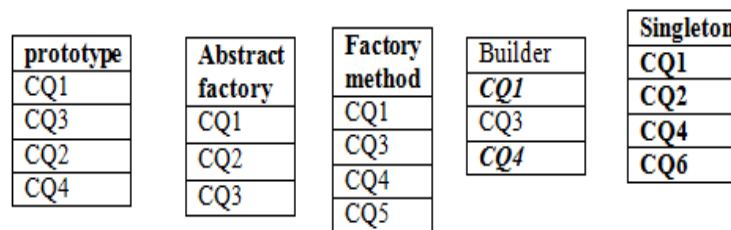
FIGURE: 2.1 PATTERN SELECTION OVERVIEW DFD



In the above figure 2.1, UPDR represents Unified Pattern Document Repository for design patterns. It contains patterns data and related questions in XML format [16]. GoF contains total 23 patterns divided into 3 categories [7]. The creational pattern category contains 5 patterns, namely abstract factory, Builder, Factory method, Prototype and Singleton. Each category can be considered as a cluster. Because, patterns in the same category possess some common characteristics. For selecting a pattern, user required to answer questions related a pattern. Questions are interrogative and binary. The designer of a system prepares questions and populates them into the pattern repository. The number of questions varies from pattern to pattern.

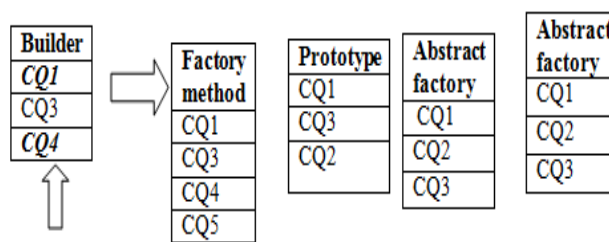
The method performs comparison between questions to find the similarity between patterns. Comparing between large strings or sentences is complex. Even for simple difference string matching fails. To overcome this difficulty, the researcher of the system assigns id's to each question (e.g.id for the question, Does the problem has coupling?: is QC1). For example, QC1 represents a question related to creational pattern. However, assigning ids is a human intensive task. The following figure 2.1 shows the logical view about the creational patterns with related question ids. The creational pattern explains object and class creations.

FIGURE 2.2 LOGICAL VIEW ABOUT THE CREATIONAL PATTERN



Factory method pattern represents classes and their relationships. It explains how to create a class. Whereas the remaining four patterns represents object creations. A class possess static charecterics and an object possesses dynamic characteristics. Prototype, Abstract Factory, Builder, and Singleton solve problems in object creation each differently. All these patterns have relationship with one another. Prototype pattern explains how to create objects using prototypical instance and create new objects by copying the prototype [7]. "Abstract factory explains how an interface creates families of related or dependant objects without specifying concrete classes" [7]. "Factory method lets subclasses to decide which class to instantiate" [7]. Builder pattern explains the construction of complex object from its representation [7]. Singleton pattern explains how a class can have single instance. Each question has been given codes like CQ1, CQ2, CQ3 and CQ4. Similarly the remaining patterns questions are given codes. Some questions are common between patterns. Hence, the same code appears. In the fig.2.1 CQ3 is one of the common question in Prototype pattern, abstract factory pattern, factory method pattern, and builder pattern. At the end of the first interaction (i.e part-I), the system has suggested Builder pattern (represented with an arrow mark pointed to Builder pattern in Figure 2.3)

FIGURE.2.3 BASIC FLOW SELECTION



If user is not satisfied with it Builder pattern, then the system invokes alter native method. The system search for alternative pattern in the remaining four. So, the probability of finding the best alternative pattern is ¼. The fig 2.3 shows alternative pattern group. The Builder pattern contains three questions. i.e CQ1, CQ3, and CQ4. If user has given answers for the questions CQ1 & CQ4 and user has not given the answer for the question CQ3 in part-1. Selected questions are called answered questions and they are kept in an array called "Selected Questions" and unanswered questions are kept in an array called 'NonSelectedQuestions'. Now, the method has acquired knowledge about user requirements. In the beginning the system knows only the query (see fig. 5.1). As the system narrow down the requirements through question and answers, the system keep acquiring the knowledge. Based on the knowledge acquired, the method search for an alternative pattern. In other way, the method search for similarity between the current pattern under consideration with the remaining patterns. The resultant of the similarity is measured on a numeric score. The pattern whichever gets highest score will be suggested as an alternative pattern within the same group. The next section explains the implementation of the method.

3. IMPLEMENTATION

This section explains the pseudo code of the implementation and description of the method.

The following variables hold the user selected questions.

Let SelectedQuestions (in Builder pattern) [] = {CQ1, CQ4}

Let NonSelectedQuestion (in Builderpattern) [] = {CQ3}

Selected Questions indicates the features matching with the features which the user is looking for. Conversely, NonSelectedQuestions indicates the features which the user is not looking for. The alternative pattern selection method considers these issues for selecting a pattern. Both SelectedQuestions and

NonSelectedQuestions are considered in the similarity score calculation. The implementation details for finding the similarity score of the method (pseudo code) are as follows:

Similarity Score Method:

Begin

```
[1] Score =0; MaximumScore=0;
[2] For I=1 to N-1
/* for each pattern in alternative group */
[3] For J=1 to N-Questions
/* Questions in each alternative pattern */
Begin
[4] if Selected Question matches with questions in the
AlternativePatternQuestion [i] then Add 1 to Score;
/* Comments – for example, CQ1 is matching in the
abstract factory pattern. Hence, Score = Score + 1. */
[5] If NonSelectedQuestion matches in the
AlternativePatternQuestion [i] then subtract 1 from
Score;
End;
[6] Hashmap (AlaternativePattern, score)
[7] If Score > MaximumScore then set
MaximumScore=Score;
End;
```

On successful execution of the method, the following table 1 shows the similarity scores between Builder pattern and the remaining four pattern in that group.

TABLE 1: PATTERN MATCHING SCORES

	Abstract factory	Factory method	Prototype	Singleton
Builder Pattern	0	2	0	2
	Score=0	Score=2	Score=0	Score=2
	Maximum Score=0	Maximum Score=2	Maximum Score=2	Maximum Score=2

In the table 1, the maximum score is 2. In the current situation, two patterns have got the same score. Then the method selects one among the two. In case, user is not satisfied with the Factory method, then singleton would be preferred.

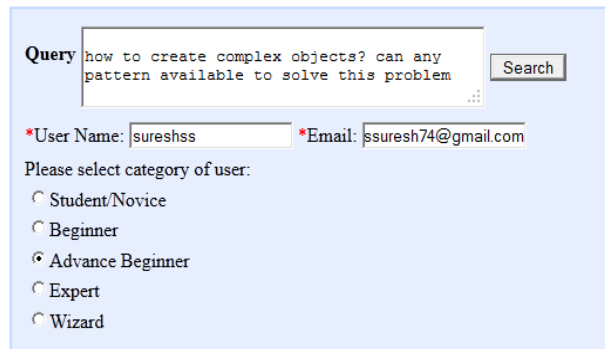
4. RELATED WORK

It is found that various authors have proposed methodologies, and models for design pattern selection. Brief details about each of them are given as follows: In 1995, the Gamma et.al [7] had described object oriented design patterns. The brief details were explained in the introduction. The GoF authors explained patterns relationships [7, p.no, 12]. They highlighted how do more than one pattern would be applicable for the given situation. For example, Façade pattern solves object communication problem within subsystem. It provides a single simplified interface to communicate with the subsystem. It means only one Façade object is required. Hence, Façade objects follow Singleton pattern. The purpose of the singleton is to provide global point of access [7]. Similarly, abstract factory requires single instance. Hence, it too follows Singleton pattern. These relationships were situation dependant. For one situation more than one pattern may be applicable. The current method in this paper focuses on design characteristics which the user is trying to include solving the problem. In 2001, Albin-Amiot [1] presented a Box tool for choosing a design pattern. The tool provides access to the design pattern repository. Each pattern is annotated with a shortcut. The method is different from what we have proposed in this paper. In 2003, David Kung et al [2] proposed a methodology for constructing expert systems which suggests a design patterns to solve problems faced by designers. They presented a prototype – the Expert System for Suggesting Design Pattern (ESSDP) which implements the methodology. The ESSDP selects a design pattern based on the user’s requirements. A user interacts with the system in a question-answer manner, which helps to narrow down the selection process. The ESSDP suggest only one pattern at a time. ESSDP was tested with 11 subjects. In 2006, Khalid et al [15] developed a tool for teaching design patterns to students to recognize appropriate pattern. It mainly simplifies the design pattern learning curve. It provides interactive environment. No evaluation or experiment was reported. In 2006-2007, Aliaksandr et al [14] published the report, “choosing the right design pattern: An implicit culture approach (SICS)”. A multi-agent system was proposed that supports programmers in choosing the design pattern suitable for the given situation. In SICS, personal agents transfer knowledge among users for reusing their experience to know the suitability of the pattern. In 2007, Sarun Intakosum and Weenawadee Muangoan proposed a model for design pattern retrieval [13]. The proposed model contains two parts. The first part was concerned with development of search index and the second part was concerned with calculation of index weight. The experiment was conducted with GoF patterns in the repository. The system was tested with 105 queries consisting of single-word, two-word, and three-word to compare retrieval performance. The result shows 70 percent in average in retrieving a suitable design pattern. No knowledge based or characteristics based pattern retrieval was observed. In 2008, Luka Pavlic et al [12], proposed a Ontology based pattern repository (OB DPR) based on semantic web technology and developed a tool to operate on it. The tool was built using Artificial Intelligence techniques to improve the efficiency of design pattern selection. Also explicit and implicit knowledge of users was captured for further development of intelligent services. In 2009, Weenawadee Muangon and Sarun Intakosum [11] proposed a model for pattern selection using case-based reasoning (CBR) and Formal Concept analysis. A Design pattern was represented in a case-base. FCA was used to analyze the case-base for obtaining knowledge. Several methods were developed for learning indexes. No experiment and results were observed.

5. SYSTEM EXECUTION FLOW

This section shows the system execution flow with an example query. This gives outline of the system under consideration. Figures.5.1 to 5.6 are the resultants of part-I Whereas Figures. 5.7 to 5.9 are resultants of part-II (i.e alternative method). Figures. 5.1 shows the home page of the system. It contains text area for entering the user query.

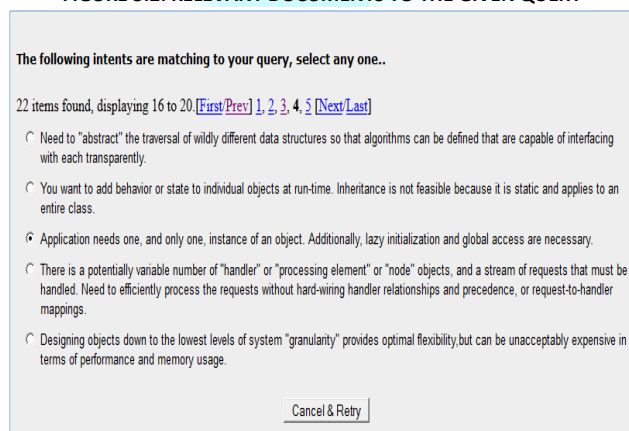
FIGURE 5.1: HOME PAGE OF DESIGN PATTERN SUGGESTION SYSTEM
Knowledge Driven Decision Support System for Design Pattern Selection



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Upon executing the query figure 5.2 shows matching document for the given query. User has to select one of the matching intent, then immediately user will be asked questions related to that particular pattern.

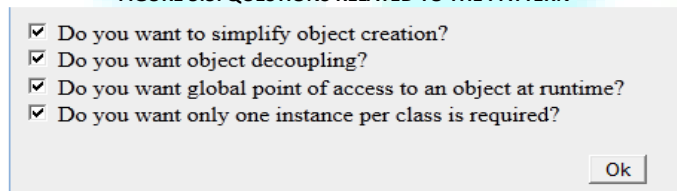
FIGURE 5.2: RELEVANT DOCUMENTS TO THE GIVEN QUERY



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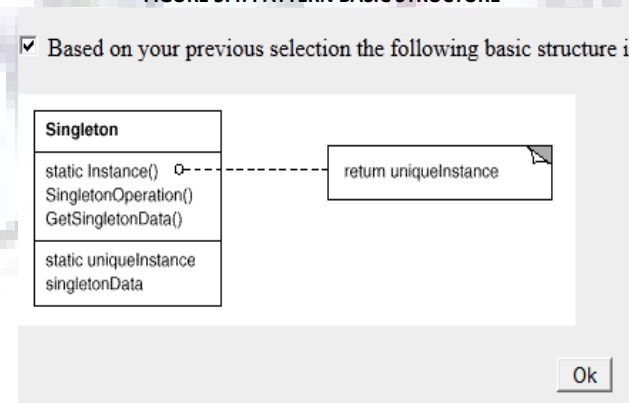
Figure.5.3 shows pattern questions posed by the system. The questions are related to properties of the pattern. User selects the properties and then click on 'OK' button.

FIGURE 5.3: QUESTIONS RELATED TO THE PATTERN



The following Figure 5.4 shows the question related to the pattern structure. User selects the pattern structure if it is matching his requirements.

FIGURE 5.4: PATTERN BASIC STRUCTURE



The following Figure. 5.5 shows the final page with comment, pattern suggested and user feedback.

FIGURE 5.5: FEED BACK PAGE

Comment : Strongly Recommended.

Suggested pattern : SingletonPattern

For more details and history of the suggested pattern [click here..](#)

Feedback:
 Is the suggested pattern satisfies your requirements. Yes No
 How would you rate the system in a scale of 1-10? 1-4 5-7 8-10

The system has suggested strongly "Singleton pattern" as suitable pattern for the user problem. However, user decision is final. In the feedback, user has given low rating and chosen 'No' option. Upon clicking the submit button, the system search for alternative pattern. The following fig. 5.6 shows the alternative pattern.

FIGURE 5.6: ALTERNATIVE PATTERN SUGGESTIONS.

Comment : Alternate Pattern

Suggested pattern : BuilderPattern

For more details and history of the suggested pattern [click here..](#)

Feedback:
 Is the suggested pattern satisfies your requirements. Yes No
 How would you rate the system in a scale of 1-10? 1-4 5-7 8-10

The following figure.5.5 suggestion as Singleton. The fig. 5.6 shows the alternative pattern as Builder. Both singleton and Builder patterns solve the complexities in object creation and also falls into the same group.

6. CONCLUSION

A user requires an alternative pattern under the circumstances: when not sure about a query, when the initial query is inappropriate, and when difficult to write a new query. Finding alternative pattern based on user preferred characteristics is important. Suggesting only one pattern at a time and reprocessing the same problem statement (with/without changes) for finding the alternative pattern is a time consuming task. Hence, to overcome the problem, the above said method is implemented. However, the method has a limitation. It can suggest best alternative pattern within the group only. In future we would assess the feasibility of extending the method to find best alternatives among the pattern groups. However, finding alternative pattern among the groups may deviate at large from what user requires. User decision and acceptance is important. However, practically experienced users could identify the related or alternative patterns easily than non-practical experienced users.

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INVESTMENT OPPORTUNITIES OF SERVICE SECTOR IN INDIA

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ABSTRACT

At the dawn of the 21st century, all the industrialized countries donned the avatar of 'service economy', at least when measured in terms of percentage of workforce employed, strictly following the three-sector hypothesis proposed by Allan Fisher (1935) and Colin Clark (1940). According to this hypothesis during the course of economic progress, the main focus of an economy's activity shifts from the primary, through the secondary and ultimately to the tertiary sector. Thus service sector is an important component of any country's economy. It has a direct and significant bearing on the GDP of a country, leads to job creation, and also provides crucial inputs for the rest of the economy; It thus has a significant influence on the overall investment climate of a country, which is an essential determinant of growth and development. In line with the global trend, service sector in India has also grown rapidly in the last decade. If we look at the growth statistics of India it is evident that for more than a decade, the growth of India so far is driven by its service sector. Service sector of India with its remarkable performance has emerged out as its fastest growing sector of the country leaving behind agriculture and manufacturing sector. In the absence of which the Indian economy would not have been able to achieve a strong and dominating place on the world platform. This research paper through seven parts including Introduction, Significance of the study, Objectives, Research Methodology, Literature Review, Importance of the service industry to the Indian economy and the conclusion emerging through the study makes an attempt to explore investment opportunities of service sector in India.

KEYWORDS

Service Sector, Investment opportunities, India.

1. INTRODUCTION

Services have come to dominate our economies. Whether you manage a traditional service firm or a manufacturing company, adding value through services has become an essential way to compete. Today customers are looking for service value, comprehensive solutions, and memorable experiences" (Gustafsson, Johnson, 2003).

This statement clearly indicates the importance of service industry to an economy. During the initial stages of economic development agriculture sector occupies the status of being the most important sector. But as the economic development gains momentum agriculture loses its primacy, giving way first to a rise in the industrial sector, then to a rise in the service sector. These two consecutive transitions are called industrialization and post-industrialization/ deindustrialization. All the developed countries including USA and UK have passed through these phases and the growing economies are either going through this transition or will be in future. So Service sector eventually is responsible for sustaining the economic development of the economies and India is not an exception to this.

Post-independence India struggled very hard to create an identity for itself from the scratch. The period of liberalization of Indian economy helped it to recover from slow paced economic growth. The current economic statistics of India are promising it to be the super power in the world. Now, the Indian economy boasts of a stable annual growth rate, booming capital markets, and rising foreign exchange reserves. The emergence of India as one of the fastest growing economies in the world in the 1990s can be attributed, to a large extent, on the rapid growth of its service sector. It has played a vital role in the transition of India from being the land of snake charmers to the Silicon Valley of Asia.

1.1 CLASSIFICATION OF SERVICES SUB SECTORS IN INDIA

As per the National Accounts classification of the services sector following are the service sub sectors in India.

TABLE 1: SERVICE SUB- SECTORS IN INDIA

Sector	Activities Included
Trade, hotels and restaurant	
Trade (distribution services)	Wholesale and retail trade in commodities both produced at home (including exports) and imported, purchase and selling agents, brokers and auctioneers.
Hotels & Restaurants	Services rendered by hotels and other lodging places, restaurants, cafes and other eating and drinking places.
Transport, storage and communication	
Railways	
Transport by other means	Road, water, air transport, services incidental to transport.
Storage	
Communication	Postal, money orders, telegrams, telephones, overseas communication services, miscellaneous.
Financing, insurance, real estate and business services	
Banking	Banks, banking department of RBI, post office saving bank, non-bank financial institution, cooperative credit societies, employees provident fund.
Insurance	Life, postal life, non-life.
Dwellings, real estate	
Business services	
Legal services	
Community, social and personal services	
Public administration, defense	
Personal services	Personal services Domestic, laundry, barber, beauty shops, tailoring, others.
Community services	Community services Education, research, scientific, medical, health, religious and other community.
Other services	Recreation, entertainment, radio, TV broadcast, sanitary services.

Source: Banga Rashmi (2005), Critical Issues In India's Service-Led Growth, ICRIER Working Paper No. 171.

1.2. IMPORTANCE OF SERVICE SECTOR FOR AN ECONOMY**1.2.1 AT GLOBAL LEVEL**

If we take a rear view we can see that Service sector is one of the most important sectors for an economy. At the global level the total world export of commercial services accounts for US \$ 3.7 trillion led by developed western countries in terms of share and by Asian countries in terms of growth rate. Since 2008 exports of commercial services by the Asian countries are expanding on an average by 13 per cent annually. Countries like China, India and Singapore are among the top traders of Services.

After the economic crisis of 2008:

- Asia led by India and China witnessed a rapid growth of commercial services, its exports rose by 22 per cent in 2010;
- Where as in European Union the export of services grew merely by 3 per cent, Central and South America, the Caribbean and the Commonwealth of Independent States recorded a growth of 12 per cent;
- While North America by 9 per cent and Africa by 10 per cent.

Thus the equations are changing and emerging economies like India and China are now playing a leading role in commercial services trade at global level.

If we combine the service trade of European Union (27) by ignoring intra EU trade then the EU (27), the USA, China, Japan and India with same ranks both in exports and imports of commercial services are the top five exporters and importers of commercial services. Only China and Japan are net importers of commercial services in the list of top five. India is an important player in the global commercial services trade. Five years back India's share in the total world trade of commercial services was merely 2.8 per cent and now it has increased to 4.3 per cent. In 2010 its exports grew by 33 per cent and imports by 45 per cent, making India the most dynamic exporter of commercial services.

1.2.2 AT NATIONAL LEVEL

Following the economic liberalization the service sector of India has gained prominence in the economy as it accounts for the largest share (68%) of the GDP, growing very rapidly at the rate 10 per cent annually. After Agriculture it occupies second place in generating about a quarter of total employment, attracting a very high share in foreign direct investment (FDI) inflows and sharing about one-third of total exports of the country, and recording very fast (27.4 per cent) export growth through the first half of 2010-11.

TABLE 2: SECTORAL PERCENTAGE SHARE OF GDP

Year	Agriculture & Allied Activities	Industry	Services
1950-51	55.28	10.65	34.07
1960-61	50.81	13.18	36.01
1970-71	44.31	15.46	40.23
1980-81	37.92	17.45	44.63
1990-91	31.37	19.80	48.83
2000-01	23.89	19.99	56.12
2005-06	19.54	19.36	61.10
2006-07	17.4	28.7	54.0
2007-08	16.8	28.7	54.4
2008-09	15.8	28.1	56.1
2009-10	14.7	28.1	57.2
2010-11	14.5	27.8	57.7
2011-12	19.2	25	55.1

Source: Tiwari Sanjay (2011), Service Sector in India: Performance and Reforms, *International Journal of Multidisciplinary Research*, Vol.1(7) and Exim Bank of India.

2. SIGNIFICANCE OF THE STUDY

As noted, Indian Service sector is emerging as a promising sector of the country by offering a lot of opportunities to all the stakeholders. It is therefore important to understand the dynamics of this sector. With this objective in consideration an attempt has been made through this paper to explore the investment opportunities of service industry in India by analyzing the current performance of its various sectors and sub sectors.

3. OBJECTIVES AND RESEARCH METHODOLOGY OF STUDY

This research paper is designed to evaluate the investment opportunities in India:

- To know the importance of Service Sector.
- To analyze the contribution of sectors and sub sectors of service industry in India
- To explore the investment opportunities of service sector in India

The study is based on secondary sources of data. The data and material to carry out this research was collected, marshaled and analysed to draw inferences and conclusions. Sources of data were largely from the various issues of Economic Survey, published by Government of India and Ministry of Commerce and Industry, Reserve Bank of India bulletin, Scholarly articles, Journals, and reports of WTO, World Bank etc. The present research is based on Explorative as well as descriptive research design.

4. LITERATURE REVIEW

Rath, Deba Prasad and Raj, Rajesh (2006) in their research paper titled "Analytics and Implications of Services Sector Growth in Indian Economy" stated that the higher growth in services sector has added a dimension of stability to India's growth process. Growing complementarity between the industrial and services sectors augurs well for the medium-term growth performance of the Indian economy. Unlike other commodity-producing sectors, which have either seen a stagnant growth or decline in employment, they found that the services sector has generated some employment opportunities.

Tiwari Sanjay (2011) in his research paper titled "Service Sector in India: Performance and Reforms" concluded that India's potential for service economy is matchless as there is burgeoning middle class with enhanced aspirations. Their changing consumption pattern, growing retail, emerging domestic & international market for IT/ITES has opened new vistas of service subsectors (lifestyle based consumer services like personal care, health care etc.). With the revival of US economy and potential market of Indian IT-BPO sector in different parts of the world and the rise in domestic demand, the service led economy will definitely propel into higher trajectory in near future.

Banga Rashmi (2005) in her research work on "Critical Issues in India's Service-Led Growth" conducted a literature survey which argued that when an economy grows, both demand and supply factors operate that lead to higher growth in the service sector as compared to the other sectors and also lead to a larger share of service sector in total employment. These factors are:

A. Demand-Side Factors

- High-income elasticity of demand for final product services,
- Slower productivity growth in services that leads to higher employment potential and
- Structural changes within the manufacturing sector, which make contracting out services more efficient than producing them in the firm or household.

B. Supply-Side Factors: Trade Liberalisation and Reforms

- Increased trade
- Higher foreign direct investments in services and

c) Improved technology

A) Demand-Side Factors

a) High-Income Elasticity of Demand for Final Product Services

Massimiliano Cali et. al. (2008) in their briefing notes on “The contribution of services to development and the role of Trade Liberalisation and Regulation” opined that the process of development generally coincides with the growing role of services in the economy. Many services offer key inputs to all or most other business e.g. infrastructure services such as energy, telecommunications and transportation; financial services which facilitate transactions and provide access to finance for investment; health and education services which contribute to a healthy, well-trained workforce; and legal and accountancy services which are part of the institutional framework required to underpin a healthy market economy. These service sectors are thus a key part of the investment climate, and can have a much wider impact on overall business performance and the level of investment, and hence growth and productivity in the economy. Trade in services can help create opportunities for countries to expand their outputs of services in sectors where they have a comparative advantage, thus creating jobs, contributing more to GDP and generating foreign exchange.

Gordon Jim and Gupta Poonam (2003) in their research paper “ A Tale of Two Giants: India’s and China’s Experience with Reform” discussed that the acceleration in growth of the service sector in India in the 1990s was due to fast growth in the communication, financial services, business services (IT)and community services (education and health). The other sectors grew at a constant or trend growth rate. According to them the factors such as high income elasticity of demand and increased input usage of services by other sectors are responsible for services growth in India. However, other factors such as economic reforms and the growth of services exports also played an important role in accelerating services growth in the 1990s. The findings of the paper suggest that there is considerable scope for further rapid growth in the Indian service economy and Indian service exports have strong future growth prospects.

Rath, Deba Prasad and Raj, Rajesh (2006) in their research work found that the higher growth in services sector has added a dimension of stability to India's growth process. Growing complementarity between the industrial and services sectors augurs well for the medium-term growth performance of the Indian economy. Unlike other commodity-producing sectors, which have either seen a stagnant growth or decline in employment, we found that the services sector has generated some employment opportunities. In the aftermath of nearly one and a half decades of sustained growth, services sector has led to widening of not only the tax base but also the buoyancy of taxes. With regard to inflationary impact of services sector expansion, the paper finds that growing service sector share in GDP has coexisted with low and stable inflation on account of inflation moderating forces operating, *inter alia* through the synergy between the two growth drivers.

5. IMPACT OF SERVICE SECTOR ON THE INDIAN ECONOMY

Indian economy today stands as one of the most influential and attractive economy of the world. Given the magnitude of services growth in India and its inter-linkages with other sectors of the economy, it is important to discuss the performance of different sub sectors of the service industry in India. The following table brings out clearly the rank and share of different sub sectors of service in international trade:

TABLE 3: INDIA’S SECTOR-WISE RANK AND SHARE IN WORLD EXPORTS/ IMPORTS OF SERVICES

Services		Rank		Share		Percent change in 2010
		2009	2010	2005	2010	
Transportation Services	Export	13	10	1.0	1.7	21
	Import	13	5	3.0	4.8	31
Travel Services	Export	14	12	1.1	1.5	27
	Import	-	-	-	-	-
Other Commercial Services	Export	4	3	3.1	4.9	36
	Import	8	5	1.9	3.5	66
Communication Services*	Export	4	5	-	2.1	-5
	Import	11	7	-	2.0	-7
Construction Services*	Export	12	-	-	-	-
	Import	13	10	-	1.6	-8
Insurance Services*	Export	7	8	-	2.0	17
	Import	7	7	-	3.1	24
Financial Services*	Export	7	7	-	1.5	64
	Import	5	3	-	3.9	81
Computer and Information Services*	Export	2	2	-	19.2	-
	Import	4	7	-	2.6	12
Other Business Services*	Export	6	7	-	3.8	-
	Import	6	6	-	3.3	-89
Personal, Cultural & Recreational Services*	Export	5	8	-	1.3	-28
	Import	12	-	-	-	-

Source: Economic Survey 2011-12.

In the year 2009 and 2010 India was ranked among the top ten exporters of services in the world for most of the services leaving transportation, construction, communication where it ranked 13th and 11th respectively. In import of services also India is among the top importers of services. In terms of share India's share is on the rise and is still growing.

TABLE 4: INDIA’S EXPORT OF SERVICES

S. No.	Commodity Group	Value (US\$ Billion) 2010-11	Percentage Share				CAGR 2000-01 to 2008-09	Growth Rate*			
			2000-01	2010-11	April-September			2009-10	2010-11	April-September	
					2010-11	2011-12				2010-11	2011-12
1	Travel	15.3	21.5	11.5	10.9	12.9	15.3	8.9	28.8	26.2	38.7
2	Transportation	14.3	12.6	10.7	11.0	12.8	23.8	-1.2	27.7	26.5	36.1
3	Insurance	1.9	1.7	1.5	1.5	1.7	23.1	11.9	22.5	10.2	38.8
4	GNIE	0.5	4.0	0.4	0.4	0.4	-6.2	13.4	21.3	9.5	30.6
5	Miscellaneous	100.9	60.3	75.9	76.2	72.1	30.4	-12.4	42.1	35.3	10.7
	a) Software Services	55.5	39.0	41.7	42.7	45.2	28.2	7.4	11.6	11.688	24.1
	b) Non-software services of which:	45.4	21.3	34.2	33.5	26.9	33.8	-40.3	113.4	5.6	-6.3
	i) Business Services	24.1	2.1	18.1	18.5	15.9	65.3	-39.4	112.4	111.4	0.3
	ii) Financial Services	6.5	2.1	4.9	5.2	4.2	37.5	-16.6	76.3	64.9	-6.7
	iii) Communication Services	1.6	7.0	1.2	1.3	1.1	9.2	-46.6	27.2	2.3	1.1
Total Services Exports		132.9	100.0	100.0	100.0	100.0	26.4	-9.4	38.4	32.7	17.1

Source: Economic Survey 2011-12.

TABLE 5: INDIA'S IMPORTS OF SERVICES

S. No.	Commodity Group	Value (US\$ Billion) 2010-11	Percentage Share				CAGR 2000-01 to 2008-09	Growth Rate*			
			2000-01	2010-11	April-September			2009-10	2010-11	April-September	
					2010-11	2011-12				2010-11	2011-12
1	Travel	11.1	19.2	13.2	13.8	19.1	16.4	-0.9	18.9	15.1	39.7
2	Transportation	13.9	24.4	16.5	18.2	20.7	17.4	-6.9	16.3	33.2	14.5
3	Insurance	1.4	1.5	1.7	1.9	2.0	22.5	13.7	8.9	6.3	3.6
4	GNIE	0.8	2.2	1.0	1.0	1.0	12.1	-33.8	56.2	49.4	9.2
5	Miscellaneous	56.9	52.6	67.6	65.1	57.2	17.5	32.5	53.9	65.5	-11.2
	a) Software Services	2.2	4.1	2.6	3.2	1.6	20.1	-42.7	49.5	39.9	-47.5
	b) Non-software services of which:	54.7	48.6	65.0	61.9	55.6	17.3	40.1	54.1	67.1	-9.4
	i) Business Services	27.8	7.0	33.0	35.2	34.3	40.3	17.8	53.8	62.6	-1.7
	ii) Financial Services	7.5	13.5	8.9	9.1	10.9	5.2	56.9	61.2	68.0	21.1
	iii) Communication Services	1.2	0.9	1.4	1.4	2.0	30.8	24.7	-15.0	-14.2	42.8
Total Services Imports		84.1	100.0	100.0	100.0	100.0	17.2	15.3	40.0	48.3	1.0

Source: Economic Survey 2011-12.

5.1 TRADE

- Retail is considered as the 'SUNRISE' sector of the economy.
- The value of trade (including wholesale and retail in the organised and unorganised sectors) in India's GDP has grown from Rs. 4,33,963 crore in the year 2004-05 to Rs. 7,42,621 crore in 2010-11.
- In January 2012, the govt. of India has allowed 100% FDI in the single brand retail sector and on September 14, 2012 the Government allowed 51% FDI in multi-brand retail but foreign retailers must get approval from state governments where stores will be located.

5.2 TOURISM, INCLUDING HOTELS & RESTAURANTS

- Not only a growth engine but also an export growth engine and employment generator
- The number of foreign tourist arrivals in India increased from 5.78 million in 2010 to 6.29 million in 2011, registering a growth of 8.9 per cent (Financial Express, May10, 2012).
- During the same period Foreign Exchange Earnings (FEE) were Rs. 77,591 crore with a growth of 19.6 per cent (Incredible India, 2012).
- A Hospitality development and Promotion Board has been set up at central level to monitor and facilitate clearance/ approval for hotel project both at central and state level.

5.3 TELECOM AND RELATED SERVICES

- India's telecom network is ranked as second largest in the world next only to China
- India's telecom sector received foreign direct investment (FDI) of Rs.48,220 crore in the last 11 years - 8 percent of the total FDI the country received (Northern Voices Online).
- According to consultancy firm Boston Consulting Group (BCG), The sector is expected to witness up to US\$ 56.3 billion investments and the market will cross the US\$ 101 billion mark in five years (OIFC).

5.4 IT AND IT ENABLED SERVICES (ITeS)

- As per the estimates of software industry body National Association of Software and Service Companies NASSCOM, in 2011-12 India's IT & BPO sector revenues were US\$ 87.6 Billion and
- The Indian IT-BPO sector is expected to grow up to US\$ 100 billion during FY 2012
- As a proportion of national GDP, IT & ITeS revenues have grown from 1.2% in 1997-98 to 7.5% in 2011-12.
- This sector is also a generator of skilled employment with direct employment expected to reach 2.8 million in 2011-12 as compared to 2.5 million in 2010-11.

5.5 CONSTRUCTION SERVICES

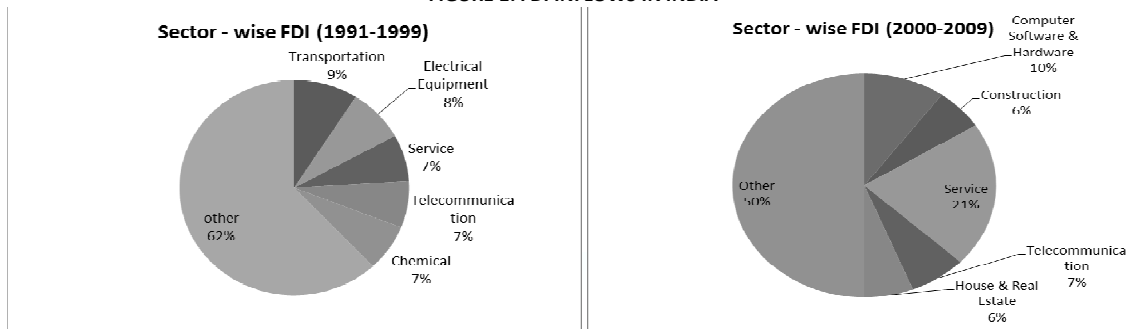
- FDI upto 100% under automatic route is allowed in townships, housing, built-up infrastructure and construction of development projects
- Service sector's importance is clearly seen in its contributions to different aspects of the economy which is greater than the combined contribution of industrial and agriculture sectors. This sector had accounted for 68 per cent share in the country's GDP and it was the topmost country in terms of increase in its services share in GDP (7 percentage points) followed by Spain and Canada (5.3 percentage points each), UK (4.5 percentage points) and Italy (3.2 percentage points). After Agriculture, Service sector occupies second place in generating employment opportunities in the country. According to a report of the National Sample Survey Organization's (NSSO) in the year 2009-10 for every 1000 people employed in India service sector employed 241 from rural and 683 from urban India. The contribution of the Services Sector has increased very rapidly in the India GDP for many foreign consumers have shown interest in the country's service exports. This is due to the fact that India has a large pool of highly skilled, low cost, and educated workers in the country. This has made sure that the services that are available in the country are of the best quality. The foreign companies seeing this have started outsourcing their work to India especially in the area of business services which includes business process outsourcing and information technology services. This has given a major boost to the Services Sector in India, which in its turn has made the sector contribute more to the India GDP.

6. FDI IN INDIA'S SERVICE SECTOR

FDI to developing countries in the 1990s was the leading source of external financing and has become a key component of national development strategies for almost all the countries in the world as a vehicle for technology flows and an important source of non-debt inflows for attaining competitive efficiency by creating a meaningful network of global interconnections. It provides opportunities to host countries to enhance their economic development and opens new vistas to home countries to optimize their earnings by employing their ideal resources. India ranks fifteenth in the services output and it provides employment to around 23% of the total workforce in the country.

Following an international trend, FDI inflows into India have shifted away from manufacturing, and towards services sector.

FIGURE 1: FDI INFLOWS IN INDIA



Source: Narendra Singh Bohra, et.al.(2011)

The figures reveal that during the first decade of economic reforms in India (August 1991 to December 1999), Indian service sector was unable to attract FDI, but in the second decade (January 2000 to March 2009), due to the growth of sub sectors like IT, Financial Services, Insurance sector etc., the composition of foreign direct investment in India changed in favour of service sector (Narendra Singh Bohra, et.al.(2011).

Thus the flow of FDI in Indian service sector is boosting the growth of Indian economy. The top five sectors attracting highest FDI in the country are financial and non-financial Services sector, tele-communications, computer software and hardware, housing and real estate and construction activities.

6.1 SERVICES ATTRACTING HIGHEST FDI EQUITY INFLOWS

TABLE 6: SERVICES ATTRACTING HIGHEST FDI INFLOWS IN INDIA (Rs. Crore)

Sector	2009-10	2010-11	2011-12	Cumulative Inflows	Percentage of total
Service Sector (Financial and non-Financial)	19,945	15,053	21,431	1,42,539	20.1
Telecom	12,270	7,542	8,969	57,035	7.9
Computer software and hardware	4,127	3,551	2,626	48,940	6.9
Housing and real estate	14,027	5,600	2,544	48,819	6.9
Construction	13,469	4,979	7,635	46,216	6.5

Source: Business Line

Though, due to global economic and economic crisis FDI in all main service industries including business services, finance, transport, communications and utilities declined from US\$ 392 billion in 2009 to US\$ 338 billion in 2010, resulting in sectoral FDI decline from 33 per cent to 30 percent in this period. FDI is a tool for economic growth through its strengthening of domestic capital, productivity and employment. FDI also plays a vital role in the up gradation of technology, skills and managerial capabilities in various sectors of the economy.

7. CONCLUSION

The foregoing analysis reveals that services hold immense potential to accelerate the growth of an economy and promote general well-being of the people. It offers innumerable business opportunities to the investors. This sector has the capacity to generate substantial employment opportunities in the economy as well as increase its per capita income. Without it, Indian economy would not have acquired a strong and dominating place on the world platform. Thus, service sector is considered to be an integral part of the economy that includes various sub-sectors spreading all across the country. It in fact is sine qua non for the future growth of India.

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THE IMPACT OF CONTRIBUTORY PENSION SCHEME ON EMPLOYEE STANDARD OF LIVING OF QUOTED FIRMS IN NIGERIA

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ABSTRACT

This study seeks to determine the relationship that exists between the Impact of the Contributory Pension Scheme and standard of living in Nigeria. In line with this objective, the population of the study is the one hundred and eighty-two (234) firms quoted on the first-tier market of the Nigerian Stock Exchange and ten (10) quoted firms selected as sample size based on the fact that they are some of the companies that had complied with SAS 8. The study utilized data from secondary source. Data were obtained from the annual accounts and reports of the (10) quoted firms that made up the sample of the study and the World Bank data profile on gross national income per capita in Nigeria. The time frame for the study is ten years, covering the period of 2001 to 2010. The techniques of analysis used in the study were the Pearson Correlation Coefficient and qualitative grading. From the results, we discovered that a significant relationship exist between the Impact of the Contributory Pension Scheme on employee retirement benefits and standard of living. This further implied that the application of this scheme by quoted firms in Nigeria had significant influence on standard of living. The study recommended that government should ensure that complex institutional changes that are required by the pension reform should be effectively executed and must be timely. These include determining the solvency of the National Pension Funds. They should start new institutions such as the national and regional pension payment programmes and the distributive transfer programmes and make sure that there are effective regulations and supervisions. Also, pension reforms should needs to be complemented with other reforms in the economy such as social security, labour market and financial sector in order to have an overall effect on the economy. Finally, policies should be formulated towards the integration of the defined benefits and defined contributions plan and work towards institutionalising the multi-pillar system of the economy

KEYWORDS

Contributory Pension Scheme, Employee, Standard of Living, Quoted Firms, Nigeria.

1.0 INTRODUCTION

Pension Scheme which was meant to provide for old age when one has retired from service has turned out to become a burden on the people and the government. These Nigerian workers who have worked tirelessly for the growth and development of the country will end up passing through many hurdles to get their retirement benefits. Pension as a scheme is designed to cater for the welfare of the pensionable retired workers both in the public and private sectors. The working lives of employees move continuously towards a certain direction that is, from employment, to grow, to retirement, some are fortunate to save enough money to take them through the retirement period; while a majority leaves the service with little or no savings at all. Ideally, there, governments and organizations need to identify a way of accommodating and adequately rewarding employees' past efforts through organized pension plans, so that it can achieve the goals of their existence (Rabelo, 2002). Essentially, this is often thought different retirement policies which include the Defined Benefit (pay-as-you-go) Scheme, the National Provident Fund Scheme and in particular the new Contributory Pension Scheme that is expected to be fully funded.

However, some of the existing Pension Schemes seem inadequate and/or ineffective. In Nigeria, for instance, Statement of Accounting Standards number 8 (SAS 8) was issued in 1991 to direct and guide businesses on the determination and reporting of pension and retirement benefits. Its growing tribute, however, emerges from divergent schools of thought namely, the contributory, the noncontributory and the hybrid schools of thought (Kantudu, 2005). The first school of thought, emphasizing on contribution, is advocated by most accounting standards setting bodies as well as by writers (Campbell and Feldstein, 2001). These scholars argued that should the employees contribute a certain percentage to the plan the employee will be able to receive the entire or part of the benefits at retirement, or in case of termination of appointment or dismissal. The hallmark of the contributory theory is operational efficiency in computation and funding. The second school of thought (the non contributory) also advocated by some accounting setting bodies (McGill, 1984; and Byrne, 2003). According to the school, employers alone should fund the pension asset. The belief of this school was that the singular funding made by the sponsor encourages and attracts more qualified and dedicated employees into the organization. Under this arrangement, the benefit is defined by a formula, and pension at retirement is paid either as a lump sum amount or as a life annuity (SAS 8, 1991). In between the two extremes lies another school – the hybrid, with the view that on an aggregate basis, the active working employees of the firm should always provide the funds for the firms' pensioners (Feldstein, 1996). In other words, companies should pay pensioners out of the company's cash flow (Hendriksen and Van Breda, 1992). This is because the cash flows generated are as a result of the employees' efforts and contributions, and hence they deserved a share of it especially now that they are unproductive. But an apparent limitation of this argument is that it can only hold if current employees are not out numbered by pensioners (Klumpes and McCrae, 1999).

Therefore, the gross in adequacies and mismanagement of the most of our adopted pension policies with their attendant frustrating effects on the sustenance of both the retired workers and the economy at large has often call for their constant review in Nigeria as obtains in other part of the world. Pension Schemes exist to provide post-retirement benefits to employees. Pension Scheme was introduced into Nigeria during the colonial era to provide old age income and security to British citizens working in the country upon retirement. All along, and until very recently, Nigeria embraced and adopted the traditional Defined-Benefits (D-B) plan that has failed to yield the desired benefits for most workers and several economies where it has been adopted. The Defined-Benefits (D-B) plan, which usually specifies the entitlements of workers after a minimum qualifying year of service, has lost favour with most countries, including the most developed countries of Europe and North America. In fact, Ambachtsheer (2007) noted that many corporate employers are abandoning their traditional Defined-benefit plans, while many of the Defined Benefits plans that remain are financially important to offset the huge indebtedness.

Thus, it is imperative that the privilege of receiving gratuity and pension appears the greatest manifestation of the victory of labour in his fight with the employer over his exploitation after several years of productive services. Hence, pension reform became necessary as a result of the malady which ravaged Pension Schemes through the activities of the old Pension Board. With the bad administration of Pension Schemes in Nigeria, the hope of the pensioner became bleak, as many verification exercises were embarked by old Pension Board to mock the pathetic pensioners. This eventually escalated their agony as their labour

became in vain. Many of these pensioners lost their lives as a result of these exercises which do not yield any good dividend. Indeed, today people have resorted to self-help to secure their life in retirement. Thus fueling corruption and other vices (Fanimo et al, 2007).

The Pension Act repeals all previous legislations regulating the administration of pension benefits in Nigeria. The Pension Reform Act, 2004 appears to be a neoliberal piece of legislation which ideas are relevant in explaining the evolution and development of pension system in Nigeria (Aborisade, 2008). With the virtual collapse of the African Welfare System, the new Pension Act attempts to have as its primary objective, the encouragement of savings among employees so that in retirement they are not impoverished and the establishment of a uniform set of rules regulations and standards in the public and private sectors of the Nigerian economy on matters of pensions. Fundamentally, the Pension Reform was designed at ensuring that all employees receive their entitlements as and when due, assist improvident individuals by ensuring that they save in order to cater for their livelihood during old age. The question remains, what is the impact of the application of the Contributory Pension scheme on employee retirement benefits and standard of living. In the same vein, the new Contributory Pension Scheme will save the economy much of its heavy debt burdens inherited from previous schemes, facilitate adequate funding of employers pension plans, create enhanced opportunity for the citizens in all works of life, add more value to the final entitlements of workers, promote the development of capital markets, foster investment opportunities; promote national savings and, macroeconomic development (Pension Reform Act, 2004).

It is against this backdrop that the Federal Government in June 2004 through the enactment of the Pension Reform Act, 2004, introduced a New Contributory Pension Scheme. The new Pension System is based on individual Retirement Savings Account managed by private financial institutions. This makes it imperative to determine the relationship that exists between the Impact of the Contributory Pension Scheme on employee standard of living of quoted firms in Nigeria.

2.0 CONCEPTUAL FRAMEWORK

2.1 CONCEPT OF PENSION PLANS

The first step towards understanding pension plans or employee retirement benefits as Wolk, Tearney and Dodd (2002) posit is to recognize the fact that the phrase "pension plan" means a different thing to different people and organizations. Thus, an appropriate starting point for a discussion on pension plans or retirement benefits is the conceptualization of the subject matter. Statement of Accounting Standards (SAS 8), 1991 (1) states that many charitable organizations, government, and business establishments provide retirement benefits for their employees. Retirement benefits can consist of monthly payments to former employees or a lump sum upon attainment of a specified retirement age, and may include additional payments in case of death or disability. In determining the type of plan and the level of benefits and features it provides, it is necessary for the sponsoring organization to answer some pertinent questions: (a) Can the company afford expenses of establishing and maintaining the plan? (b) Will the establishment of the pension plan help the sponsor to attract and keep employees? (c) Does a competitor have a similar pension plan? (d) Considering governmental restrictions, is this undertaking worthwhile?

Depending on how benefits are specified or funded, a retirement plan can be either a Defined Benefit (DB) or Defined Contribution (DC) Plan (SAS 8, Para. 13:8). These methods are now discussed in the subsections that follow.

DEFINED BENEFIT (DB) PLANS

The defined benefit plan pays an individual benefit that is defined by formula, usually without reference either to the amount of contributions an individual has made to the plan or to the level of investment returns that the pension plan has earned on its assets (Byrne, 2003). Under the DB plan, the pension is defined either as a specific Naira amount or by a general formula based on salary. As Wolk, Tearney and Dodd (2002) state, when benefits are defined by a general formula, two alternatives exist: (a) benefit is either based on career average salary multiplied by years of service or (b) final salary (usually the average of regular compensation a few years prior to retirement) multiplied by years of service.

In his opinion, McGill (1984) states that the benefits in Defined Benefit plan may be paid either as a single lump sum amount at retirement date, or alternatively as a life annuity. When the benefit is lump sum, the payment represents a multiple of the defined base i.e. the final regular salary average over statutory years, multiplied by the assumed percentage for each year of service. However, if the benefits are defined as life annuity, the same principle is used, but in this case the benefit is paid each regular pay period and represents a fraction of the final average period.

The problem with Defined Benefits plans is that the scheme exposes the employee to accrual risk (the risk that funds set aside today, do not accumulate at the expected rate of return) to the firm, given a workers earnings history retirement benefits are certain (Orszag and Greenstein, 2000). Furthermore, Revsine, Collins and Johnson (2002) observe that a Defined Benefits plan raises many financial reporting complications. The main complication relates to the amount to be charged to pension expense in each year while the covered employees are working. Another complication results from the fact that only the benefit formula is specified and not the benefit amount.

Given the complicated nature of the Defined Benefits plans, the question to ask is how accurately and efficiently could organizations determine what the periodic pension expense should be over the span of the employees' working careers. In search of an answer to this question, Revsine, Collins and Johnson (2002) state that the following factors should be estimated:

1. What proportion of the workforce will remain with the organization long enough to qualify for benefits (vesting) under the plan?
2. At what rate will salaries rise over the period until eventual retirement?
3. What is the anticipated life span of covered employees after retirements i.e. over what length of time will the pension benefits be paid?
4. What is the rate of return to be earned on the investments made with the cash contributed by the employer to fund the plan?
5. What is the appropriate discount rate that should be used to reflect the present value of the future benefits earned by employees in the current period?

DEFINED CONTRIBUTION (DC) PENSION PLANS

Under the Defined Contribution (DC) plan, the employer and often the employees make contributions to a fund or a plan at intervals and in specified amounts. The fund or plan generates earnings that enhance its value (SAS 8). In Defined Contribution plans, the final benefit depends on the value of the participant's accumulated account balance. Thus, by definition DC plans are always fully funded and the investment risk is entirely borne by the employee (Rabelo, 2002).

The pitfall in this case is that due to irregular or small contribution or poor investment returns the participant may not accumulate a sufficient amount of money to provide for an adequate replacement rate in retirement. Another problem with the Defined Contribution plan is that it transfers risk to those who may be least qualified to manage it (Bodie, Hammond and Olivia 1999). This Mullainathan and Thaler (2000) caution that individuals may not be well placed to make the strategic investment decisions this greater responsibility entails. For instance, a Watson Wyatt (2001) study finds that the returns of pension plans with employee-directed investments lagged professionally managed funds by some 2% per year on average. Other writers have suggested that the Defined Contribution pension system is a crisis waiting to happen when current generations, having made minimal (or no) contribution their to Defined Contribution plan, retire with inadequate pension asset balances (Samwick and Skinner, 1998).

Furthermore, Revsine, Collins and Johnson (2002) and Forker (2003) identified two main sources of risk associated with Defined Contribution plans. One source is the uncertainty about rates of return on investments in the Defined Contribution accounts. Employees may be uninformed about their investment choices, lack the confidence to manage their own retirement money, or suffer from poor stock market and bond returns. The other source of uncertainty relates to variability in future earnings. Defined Contribution plans have payouts based on a worker's average earnings over a whole career but lack explicit mechanisms to pool earnings risk across workers.

From the foregoing discussion we discern that the Defined Contribution seems to better than the DB pension plan option. This view is anchored by the fact that in recent years there have been significant shifts to the Defined Contribution pension plan in other parts of the world, including UK and US. The same conclusions were reached by Mullainathan and Thaler (2000); and Byrne (2003).

2.2 OBJECTIVES OF PENSION PLANS

Even though SAS 8 is not specific on the objective (s) of pension plans or employee retirement benefits, paragraphs 3 and 4 as can be construed are very much explicit in stating the issues involved and the objectives of the statement. Paragraph 3 states that the main issues involved in accounting for retirement benefits are the determination of the: (a) amount due to employees before or after the date of implementation of a plan, (b) amount of funding required in order to meet employees' entitlements upon retirement, and (c) amount of information to be disclosed in financial statements. Thus, the primary objectives of this

statement, as per paragraph 4, are to (a) narrow the differences in the methods or manner used in measuring the amount of retirement obligations under retirement benefits plans; (b) allocating the cost of the plan and recognizing resulting gains or losses to the accounting periods; and (c) disclosing as accurately as possible, the plan and the effects of the plan implementation on the reporting enterprise. Incidentally, Wolk, Tearney and Dodd (2002) observe that the central issue in accounting for the effects of pension plan involves the measurement of retirement expenses and liabilities for the sponsoring company.

2.3 THE EMERGENCE OF PENSION REFORM ACT 2004

The Pension Reform Act 2004 ("The Act"), a compulsory Contributory Pension Scheme has been established for all categories of workers in the Federal Public Service, Federal Capital Territory and in the private sector. The scheme is a marked departure from the pay as-you-go Defined Benefit (DB) Schemes that existed in the public sector and improves the pension situation in both the private and public sectors by making full funding of all schemes compulsory. The new scheme is a defined Contributory Pension Scheme in which monthly funded contributions are made by employee and employer. The funded contributions are held by a Pension Fund Custodian (PFC) and managed and administered on the contributors' behalf by a Pension Fund Administrator (PFA) of the employee's choice. The activities of the PFCs and PFAs are regulated by the National Pension Commission (PenCom) (Peterside, 2006).

The emergence of the New Contributory Pension Scheme was a clear determination of the Federal Government to reorganize, modify and refocus the devastated Nigeria pension scheme. Moreover, Pension Schemes in Nigeria which was characterized by weak administration, restrictive investment policies and widespread corruption was on the verge of collapse called for a Pension System that is privately managed with uniform rules, regulations and standards, which is expected to encourage savings and to better workers' retirement benefits; increase fiscal discipline and create a pool of long-term funds available for economic development.

Hence, emerged New Pension Scheme and the enactment of Pension Reform Act 2004 aimed at making Pension Scheme actualize its objective. However, the Pension Reform Act 2004 was designed among others to provide a system that is financially sustainable, simple and transparent, less cumbersome and cost effective as well as encourage savings among workers. This is therefore to ensure that employee who has worked would be able to receive his or her retirement benefits as and when due. This would definitely prevent the vagaries of poverty and hardship in old age and retirement. This is expected to establish a system that would guarantee the retiring workers will receive their benefits generated by their own savings in addition to government subsidy (Ehijeagbon, 2008).

In line with its objective, the National Pension Commission (PenCom) was established to regulate, supervise and ensure effective and efficient pension administration in Nigeria. Hence, to ensure good management of pension funds under the new Pension Reform Act, which introduced Contributory Pension Scheme in Nigeria, the commission licensed and approved eighteen (18) Pension Funds Administrators and four (4) Pension Fund Custodians were registered along side (Atufe, 2007).

By and large, to avoid the incidence of bleak future for Nigerian workers, the Commission must remain focused and steadfast in monitoring all the Pension Fund Administrators and Custodians to ensure that all the agony experienced by pensioners over nonpayment of their entitlements is consigned to history.

2.4 THE IMPLICATIONS OF THE CONTRIBUTORY PENSION SCHEME ON THE NIGERIAN WORKERS

Against the backdrop of the problems that affected the performance of the old Pension Board and; the determination of the Federal Government to revive and refocus the Nigeria Pension Scheme introduced the new Contributory Pension Scheme which was meant to guarantee and reassure the hope of Nigerian workers after retirement. The problem of sprawling and unprecedented growth in public sector pension liabilities has been put under check. Thus, the new Contributory Pension Scheme which was a re-birth of the old Pension Scheme that is expected to have some of the following implications on the Nigerian workers.

The new Pension Scheme is fully funded, which means old age income is guaranteed unlike the old pension scheme. This means that, money is contributed into individual employee's Retirement Savings Account (RSA) so that when he or she retires there will be money in his or her RSA to pay his pension.

The money in the RSA is safe as no other person, not even the individual account owner(s) can access the account until the attainment of the retirement age of 50 years and above. Also the account holder/employee on retirement from service is no longer at the mercy of government or employer and is assured of regular payment of retirement benefits. While employees who joined the scheme at age 45 and above may need additional or voluntary contribution beyond the stipulated 15% (employee and employer) to achieve a replacement rate above 50% of terminal salary as pension (Balogun, 2006).

There will be capital appreciation in form of additional cash inflow accruing to the pension funds in the RSA resulting from the investment of the pension funds by the Pension Funds Administrators. Depending on the level of risk a retired employee could bear: he should utilize a proportion of the amount in his RSA to procure annuity from a licensed insurance company (Balogun, 2006).

The supervisory role of the National Pension Commission through the inspectorate department will help to checkmate collaborative tendencies that may exist between Pension Fund Administrators and Pension Fund Custodians. Employees should seek more knowledge on investment and pension matters in order to take informed decisions on the management of RSA.

The minimum capitalization and assets base requirement registration is such that the future of the Nigerian pensioners would be highly assured.

The failure or liquidation of a PFA will not in any way affect the funds assets in the RSA which are kept with the PFC. This will further strengthened the assurance(s) of the Nigerian workers.

The involvement of the Private Operators (PFAs and PFCs) to manage, invest and keep the pension funds was meant to avoid the misuse of pension funds and other financial malpractices that ravaged the former Pension Board. This will further enhanced and sustain the hope of Nigerian workers and its pensioners to be able to live undependable life.

Employee has up to date information on his Retirement Savings Account (RSA) and prerogative to decide who should be his PFA. Employees may consult Benefit Consultants to advise them on the best PFA to engage.

The value of the balance in the RSAs and the programmed withdrawals at exist from service are subject to the total amount of accrued rights if any monthly contributions, accruals on investment and the rate of inflation.

There are employment opportunities in the new pension industry.

3.0 METHODOLOGY

This study is aimed at determining whether or not the Contributory Pension Scheme has an impact on employee standard of living of quoted firms in Nigeria. This made the researcher to provide answer to the research question, be able to achieve the objective of the study and to test the research hypothesis. The population of the study is the two hundred and thirty-four (234) quoted firms on the floor of the Nigerian Stock Exchange (NSE). Therefore, the type of research design employed for this study is an Ex-post facto. The study utilized data from the secondary source. Data were obtained from the annual reports and accounts of the ten (10) quoted firms that made up the sample for the study for the period 2001 - 2010.

Therefore, since the population of this study comprises the entire firms quoted in the first tier market for the Nigerian Stock Exchange and, sequel to the fact that there may be difficulty of coverage in studying the entire population due to the pattern of the distribution of that population, size or cost. Also because of the similar features of the elements making up a population, sufficient knowledge of the entire population can be got from studying a few of the elements, while more thorough study and detailed analysis could be done using a sample than when dealing with the entire population amongst others, hence there was a need to determine the sample size for the study (Onwumere, 2005).

The samples were drawn randomly; thus ten (10) quoted firms were selected for the study (Asika, 1991 and Abdul-Maliq, 2006). They include First Bank of Nigeria Plc, Glaxo Smithkline Plc., Unilever Nigeria Plc., Dunlop Nigeria Plc, Mobil Oil Nigeria Plc, Guinness Nigeria Plc, Flour Mills Nigeria Plc, P.Z. Nigeria Plc, Evans Medical Plc and Nigerian Breweries Plc. They were also selected on the record that the firms have been complying with the application of the Contributory Pension Scheme on employee retirement benefits in their annual reports and accounts for over a decade. In the same vein, a sample time frame of ten years was used for the study, covering the period 2001 to 2010.

In line with the research objective, research question and hypothesis of the study, data utilized for this study were basically from secondary source. Data were obtained from the annual accounts and reports of the ten (10) quoted firms that made up the sample for the study. While related published materials served as

useful source for the literature review. These include journals, textbooks, newspapers, magazines, public documents, retrieved internet materials and relevant bodies such as National Pension Commission (PenCom), Nigerian Stock Exchange, Central Bank of Nigeria, Securities and Exchange Commission, Federal Office of Statistics, Pension Funds Administrators and Custodians, Consultant Organizations and Commercial banks among others.

In this study, data generated through the secondary source were being subjected to empirical test and statistical analysis. The study utilized data from the secondary source. Data were obtained from the annual reports and accounts of the ten (10) quoted firms that made up the sample for the study for the period 2001-2010 and in the same vein, the World Bank data profile on Gross National Income per capita used in determining standard of living in Nigeria. and qualitative grading using a compliance index (Onwumere, 2005 and Abdul-Maliq, 2006).

In the same vein, the second hypothesis which states that there was no relationship that exists between the Impact of the Contributory Pension Scheme on employee retirement benefits and standard of living was tested using the Pearson Product Moment Correlation Coefficient (Onwumere, 2005 and Abdul-Maliq, 2006). Data from secondary sources were obtained from the annual accounts and reports of the ten (10) firms selected as sample size and the World Bank Data profile on Gross National Income per capita (Atlas method, US\$) for measuring the standard of living in Nigeria. As noted, data collected in this study were analyzed using the Pearson's Moment Correlation Coefficient.

The correlation technique tries to determine if there was a change in y when there was a change in x. while the basic idea of a correlation is to determine if y changes as x changes and vice versa. Hence there may be a correlation without a causal relation. It further involves assessing the strength of the relationship between two interval or ratio variables.

It measures the strength of the linear association between variables.

Thus, the research adopted model is:

$$r = \frac{\text{Cov}_{X,Y}}{S_X \cdot S_Y}$$

Where:

- r = Correlation Coefficient
 - Cov_{X,Y} = Ratio of Covariance between X and Y
 - S_X = Standard Derivation of X
 - S_Y = Standard Derivation of Y
- (Gereud and Brian, 1997 and Monga, 2000).

4.0 DATA PRESENTATION AND ANALYSIS

Having specified the research methodology for this study; this section focused on presentation, estimation and analysis of the data as well as the interpretation of the results obtained. In view of this, the hypothesis earlier formulated was subjected to test and the results highlighted.

4.1 DATA PRESENTATION AND ANALYSIS OF THE PEARSON MOMENT CORRELATION COEFFICIENT

The Pearson Correlation Analysis was used for the analytical presentation of the data and testing of hypothesis two which states that there is no relationship that exists between the impact Contributory Pension scheme on employee retirement benefits and standard of living. The reason for this method was because the study involved mostly secondary data that required running the data therein. Data were obtained from the ten (10) sampled quoted firms annual accounts and reports for the Impact of the Contributory Pension Scheme on employee retirement benefits and the World Bank data profile on Gross National Income per capita in Nigeria for measuring the standard of living in Nigeria. They are therefore adopted to establish this evaluation exercise.

However, the disclosure requirements or variables are enshrined in Statement Accounting Standards (SAS 8) see table 4.1 below. These are obtained and concisely organized for the purposes of first, comparison with the annual reports and accounts of the ten (10) sampled firms covering the period from 2001 – 2010; second, for scoring; and third for grading and evaluation.

Table 4.1 REQUIREMENTS OF STATEMENT OF ACCOUNTING STANDARDS 8 (SAS 8)

Paragraph	Requirements of SAS 8	Rep. by Variables
76	The existence of pension plans and categories of the employees covered by the plan	r ₁
76	Provision of retirement benefits under the advance financing system.	r ₂
60	Disclosure in notes of the accounting and funding methods and changes thereto	r ₃
76	Classification of funded retirement benefit as either a DC plan or DB plan; with the characteristics of each documented.	r ₄
76	Disclosure of accounting policies in notes with respect to funding	r ₅
61	Disclosure in notes of the provision made for pension or retirement cost for the year.	r ₆
57	Disclosure in notes of the actuarial gains or loss in the year and how they are treated.	r ₇
76	Accruing and charging of full retirement benefit to periods they relate in order to cover the active lives of employees.	r ₈
76	Disclosure in notes of the actuarial method used and changes thereto.	r ₉
58	Constant review of retirement benefits to cover the working lives of employees.	r ₁₀

Source: Statement of Accounting Standards 8 (SAS 8).

Table 4.1 Presents the requirements of the Accounting for Employees Retirement Benefits as contained in Statement of Accounting Standards 8 (SAS 8), which the ten (10) sampled listed firms have been applying or expected to comply with. These requirements are ten (10) in number as could be seen from the table. But for clarity in the presentation and analysis, the requirements are given numbers. For instance r₁, r₂, r₃, r₄, r₅, r₆, r₇, r₈, r₉ and r₁₀ represented the ten (10) requirements of Accounting for Employees' Retirement Benefits as specified by the Statement of Accounting Standard 8 of 1991, which enables the researcher to construct a compliance or application index.

To this effect, the data used to test the hypothesis is presented in the table below for the Pearson Moment Correlation Coefficient:

TABLE 4.2: SAS 8 COMPLIANCE INDEX

	FIRMS	Firms average application of the requirements of Statement of Accounting Standards (SAS 8), for ten (10) period (1998 – 2007)										Total scores	Expected Application	Total Application
		r ₁	r ₂	r ₃	r ₄	r ₅	r ₆	r ₇	r ₈	r ₉	r ₁₀			
1	First Bank of Nigeria Plc	5	5	10	4.0	10	10	0	5.0	2.3	5.0	56.3	100	5.63
2	Smithkline	5	5	10	7	10	10	0	5.0	0	5.0	57	100	5.7
3	Unilever	5	5	10	10	10	10	3	5.0	3.7	5.0	66.7	100	6.67
4	Dunlop Nigeria	5	5	10	4.4	10	10	10	5.0	5.1	5.0	69.5	100	6.95
5	Mobil Oil	5	5	10	3	10	10	5	5.0	6.6	5	64.6	100	6.46
6	Guinness	5	5	10	3	10	10	3.0	5.0	3.4	5	59.3	100	5.93
7	Flour Mills	5	5	10	3.0	10	10	0	5.0	0	5	53	100	5.3
8	Nigerian Breweries Plc	5	5	10	3	10	10	5.0	5.0	6.3	5	64.3	100	6.43
9	PZ Nigeria	5	5	10	3.0	10	10	0	5.0	0	5	53	100	5.3
10	Evans Medical	5	5	10	6	10	10	2	5	1.7	5	59.7	100	5.97

Source: Annual Reports and Accounts of Quoted Firms in Nigeria 2001-2010

Table 4.2, presents the data and analysis of the data on the impact of the Contributory Pension Scheme on employee retirement benefits of quoted firms in Nigeria. The first column contains the names of the sampled. The next 10 rows show the average data for the ten (10) firms for 10 years. While the last two rows show the average score, and total application or index of firms in Nigeria.

TABLE 4.3: CORRELATION COEFFICIENT DATA

Firms	Total Application	GNI per capita (Atlas method, US\$)
First Bank of Nigeria Plc	5.63	260.0
Glaxo Smithkline Plc	5.7	270.0
Unilever Nigeria Plc	6.67	308.0
Dunlop Nigeria Plc	6.95	310.0
Mobil Oil Nigeria Plc	6.46	280.0
Guinness Nigeria Plc	5.93	330.0
Flour Mills Nigeria Plc	5.3	340.0
Paterson Zochonis Nigeria (PZ) Plc	5.3	380.0
Evans Medical Plc	5.97	430.0
Nigerian Breweries Plc	6.43	620.0

Source: Extract from table 4.2 & World Bank, 2010

Table 4.3, shows the data used to test hypothesis two which states that there was no relationship between the Impact of Contributory Pension Scheme on employee retirement benefits and standard of living in Nigeria. The total application data were extracted from table 4.2 (see appendix v) and Gross National Income per capita in Nigeria used for the measure of standard of living in Nigeria (Atlas method, US\$).

TABLE 4.4: PEARSON MOMENT CORRELATION COEFFICIENT RESULTS

	Total Application	GNI Per Capita
Total Compliance Pearson Correlation	1	.112
Sig. (2-tailed)		.759
N	10	10
GNI Per Capita Pearson Correlation	.112	1
Sig. (2-tailed)	.759	
N	10	10

Source: Pearson Moment Correlation Coefficient Result using SPSSWIN

Table 4.4 depicts the result of the Pearson Moment Correlation Coefficient showed that there was a significant influence of the Impact of the Contributory Pension Scheme on standard of living at 0.759 as indicated by the 2-tailed test. This was further confirmed that a significant relationship exists between the application of the Contributory Pension scheme and employees' standard of living of quoted firms in Nigeria. This significant impact on standard of living was as a result of the improvement in the application of the Contributory Pension Scheme by quoted firms in Nigeria. This result rejected the null hypothesis and therefore accepted the alternative that there was a positive relationship between the Impact of the Contributory Pension scheme and standard of living.

RESEARCH FINDINGS

It is pertinent to note that the interpretation of research findings represents a key component in the research process. Due to this reason, results of research must be well spelt out so that it can be reasonable and presented in such a way that it would be meaningful and well understood. To determine the relationship that exists between the Impact of the Contributory Pension Scheme on employee retirement benefits of quoted firms in Nigeria and standard of living. In line with research question and the research hypothesis, the commonly used Pearson Product Moment Correlation Coefficient was used to determine the relationship that exists between the Impact of the Contributory Pension Scheme on employee retirement benefits and standard of living in Nigeria. From the results, we discovered that a significant relationship exist between the Impact of the Contributory Pension Scheme on employee retirement benefits and standard of living. This further implied that the application of this scheme by quoted firms in Nigeria had significant influence on standard of living.

5.0 CONCLUSION

Contributory Pension Scheme is a dawn for pension fund management in Nigeria with obvious benefits for employers, employees, government and society as a whole. Today, we have a remarkable piece of legislation, a transparent, consultative and responsive regulatory framework and regulator and a burgeoning industry that is attracting significant investments and positively affecting the society.

In the same vein, Hozzmann, Orentein and Rutkowki (2003) assert that Pension Reform has received greater attention in Western, Central and Eastern Europe than any other topic on the economic reform agenda even though the process in individual countries is uneven. In the years to come, we anticipate that the inherent benefits of the new Contributory Pension Scheme as well as the increased level of application, compliance and focused implementation will yield significant benefits for the nation.

Consequently, the Pearson Product Moment Correlation Coefficient was used to test the hypothesis two which was meant to determine the relationship that exist between the Impact of the Contributory Pension Scheme on employee retirement benefits and standard of living. The empirical evidence obtained for the coefficient showed that there was a significant relationship between the Impact of the Contributory Pension Scheme on employee retirement benefits and standard of living. This further explained that the Impact of the Contributory Pension Scheme had significant influence on standard of living. In this direction, we make the following recommendations:

Government and the National Pension Commission must ensure effective monitoring, supervision and enforcement of the provisions of the Pension Reform Act, 2004 that introduced the new Contributory Pension Scheme in Nigeria.

Firms and other organizations must ensure effective implementation, compliance and application of the elements of the new Contributory Pension Scheme that will enhance employee retirement benefits.

The National Pension Commission must encourage compliance with the Act and ensure uniformity of application among firms in Nigeria.

The National Pension Commission must ensure that genuine Pension Funds Administrators and Custodians are licensed to forestall any fraudulent collaborative tendencies and to guarantee that pension funds are in safe hands.

The government should ensure that complex institutional changes that are required by the pension reform should be effectively executed and must be timely. These include determining the solvency of the National Pension Funds. They should start new institutions such as the national and regional pension payment programmes and the distributive transfer programmes and make sure that there are effective regulations and supervisions.

Also, pension reforms should needs to be complemented with other reforms in the economy such as social security, labour market and financial sector in order to have an overall effect on the economy.

Finally, policies should be formulated towards the integration of the defined benefits and defined contributions plan and work towards institutionalising the multi-pillar system of the economy

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BAHAWALPUR****ABSTRACT**

In this era of global market to keep the existing customers in hand has increased. Global market changes like severity of competition, changing in customer perception and diversification. According to this situation of global market, complaint is an important issue that has to be investigated. Customer complaining behavior plays very important role in any company and it is key to success. Complaints solve the many problems and enhance the performance of the firm. The purpose of this research paper is to investigate an integrated model to understand the impact of variables on complaining behavior (CB). Convenience sampling method is used to evaluate the effect of different variables on CB. The method was based on self-administrated questionnaires and collected data from the sample of 150 individuals who experience the dissatisfaction related to their bank accounts. We use the regression analysis to evaluate our variables. The analysis shows that attitude, perceived value and politeness having more impact on CB. The results show that politeness has stronger influence on the CB and experience has less influence in CB. This study recommended that company should encourage the consumers to complaint and intensify their attitude towards complaining.

KEYWORDS

Attitude, Complaining behavior, past experience, Perceived value, Politeness.

INTRODUCTION

Complaining is a pervasive and important form of social communication. In business we believe customer is a king, so if anything that annoy our king will uproot our business. To resolve this issue national and multinational concerns are very sensitive and caring about their customers. Consumer behavior is a vast field in business and deals in with all levels and every aspects of it. It deals with individuals, groups, communities or organizations and all the process they have been going. Most prior the process they use for selection security purposes and dispose of services, experiences or any new ideas, new innovations to assure needs, wants and demands and the effect of these process having on that customer and the social order. It all helps to make value the consumer decision-making course of action at both stage; individuals and groups. It deals with the demographic and behavioral characteristics of individual consumer to understand the people's needs, wants and demands. It helps to understand the influence of friend, family and society on consumer and it helps in achieving the better goal. Customer behavior deal with different levels through which customer goes through, from purchasing the product to consumption.

Complaining behavior knowledge helps the companies in different areas such as knowledge about bad service, better service availability and infrastructure; understand the customer perception about quality and helping in setting the long-term goals (Harrison-Walker, 2001; Johnston and Mehra, 2002). According to customer must complain about the dissatisfied product and they must be appreciating to complain about dissatisfied product. Because if customer does not complain about dissatisfaction to any of it, the company will suffer a great loss by losing its consumers. It helps the companies to improve their services and make the better quality products to prevent from bad experience (Rust et al. 1996; and Tax and Brown, 1998).

IMPORTANCE

1. Impacts and consequences of the possibility for future survival on service provider's capabilities and efficiencies.
2. It may help in reducing the negative impression and satisfy them by giving attention to their complaints.
3. It also helps to obtain customer's feedback, help in future decisions, and enhance the customer's satisfaction, profit and loyalty. (Kelley et al. 1993; Fornell and Wernefelt 1987)

OBJECTIVES

1. To give the organization an approach towards their customer's complaints dealing manner for their business.
2. To find out the weak spots and
3. To help the organization by giving them recommendations to improve their complaint dealing behavior. Singh (1991) debates on this issue by saying that suppliers should have to be familiar with the amount of customer displeasure in the market and the dealing of service improvement are the most important aspects of customer trust, benefits and dissatisfaction. Tax et al. (1998) have also added in this regard that efficient solution to the customer's problems will have a good impact on winning back customer's faith and a surety. Thus, dealing of the problem is of crucial importance in asserting and growing the relationship and strengthening the bond with someone who has paid for goods and services as pointed out by (Dwyer et al.1987; Parasuraman 1991). The important elements which affect the complaining behavior are as follows:
 - Hesitancy to pointing out complains Word of mouth is often enough
 - Low relationship involving the amount of dissatisfaction and the probability to complain
 - Theory of Planned Behaviour
 - Expected Results
 - Normative influence
 - Controlling factors

An objection from the purchaser and a consequent require of service improvement will prove how well the company will go in the coming future and the more years to come. When a difficulty arises, the organization's reaction has the possibility to develop a solid customer/company bond or to transform a small problem into a big one. According to (Power and Driscoll 1992) by improving an organization customer's retentively rate by 20%, it will provide a similar outcome on 23 percent net income as bringing down the cost up to 10%. Moreover, it has been expected that by reducing client complaints amongst unhappy clients by merely 5%, an organization can pull off a net income up to 25 to 85% (Reichheld and Sasser Jr. 1990). According to (Brown 2000) dealing of a problem is an important asset for any organization to develop 30 to 150% ROI. The compensation for a client's receptivity is greater than normal and a better reply to the complaint will be used to improve from an adverse event and will ultimately ensure the organization's profit in the time to come. As it was pointed out, in the first place client's reaction and complaints are important factors for meliorating dissimilar prospects of an organization and assist the owners to produce an established corporation. An efficient objection managing process can be a vital tool for improving the quality. Many researchers have pointed out this fact that client's opinion and objections should be entertained and promoted by an organization to achieve what customer really wants, as they generate important information (Tax and Brown, 1998; Nyer and Gopinath, 2005; Reynolds and Harris, 2006). There may be 24 noble customer complaints businesses.

A client who does not express his discontent or displeasure to the organization when facing adverse services is of special importance to any business. Normally it is believed that receiving response from clients about the services provided by an organization are of significant importance and if the company is unable to attain such precious response from the clients, the chance to solve any state of difficulty that needs to be resolved and to hold back the customer, sometimes gone (Hirschman 1970). In addition, the organization's repute can undergo harm from negative word-of-mouth amid unhappy clients (Richens 1983b). Frequently it is maintained that deficiency of response from unhappy and discontented clients symbolizes a failure in both expected and existing clients. Hence, it is of vital importance to recognize the customer's service assessment by improved information about the adverse service experience, and about the behavioral process.

It is evident that establishments cannot react to a complaint until the customer complains of it. Still, managerial actions to promote customers to complain have not always been successful, because they have not pay attention on the suitable variables, which determine and control complaint behavior and non-voice complaining. By centering on the related variables to encourage complaints would help the company to proactively target precise areas, which requires attention. By doing this, it will serves the company to set up a more useful and efficient customer complaint dealing program. On the other hand, it should be kept in mind that a program can only be able to accomplish its purpose, if it reaches its aimed target audience, the quality of the program exclusively will not decide its success and ultimate value to the company.

RESEARCH QUESTIONS

1. Is there any relationship among attitude, past experience and perceived value?
2. How these variables effect the complaining behavior of customers?
3. How would factor of politeness affect the complaining behavior of the customers?

LITERATURE REVIEW

COMPLAINING BEHAVIOR

A massive amount of theories has been practical to the study of complaining behavior(CB).(Oliver 1997;Jhonston 1995;Ganesh et al 2000;Folkes 1984a;Ladwein and Crie 2002;Blodgett et al 1997).Definitely, Expectation-Disconfirmation Theory(EDT) is the most common functional theory. This theory argues that size of disconfirmation experienced is linked to satisfaction, where customer's early expectation is associated by disconfirmation(Wilton and Tse 1988;Parasuraman et al.1985;Dover and Olson 1979;Oliver 1980;Anderson 1973).The (EDT) suggests that the thing that is being estimated from the practice then the quality of service is supposed to be poor and the customer becomes discontented and complaint responses may connect to it(Wilton Singh and Tse 1988;Oliver 1980;Gronroos 2000;Landon Jr.and Day 1977a;Surprenant and Churchill 1983;Drew and Bolton 1991;Berry et al.1985;Bearden 1983).this theory has been criticized ,on the other hand, both for theoretical and practical reasons(Decarlo and Teas 2004;Teas 1993;Taylor And Cronin Jr 1992).The most important part of the criticism concerns the reliance on gap scores that are resulting from calculation,i.e., the difference between anticipated service and theoretical service. A standard-based sector of tolerance was urbanized based on this further investigative research and criticism (Ziethaml et al., 1993; Parasuraman and Berry 1991).Bloemer and poiesz (1991) recommended that to expose expectations, as a region would be suitable rather than as distinct points on a scale. Simultaneously, Parasuraman and Berry (1991) recommended that the sector of easiness should occur between customer's preferred level of service and the stage of service that the customer considers sound. The area of acceptance is a range of performance that the customer think it will be quite suitable for him. Inside the range of sector, the customer will accept any discrepancy and any change will only have a minor effect on perceptions of service quality that is crucial aspect of this zone (Strandvik, 1994). Service quality will be effected when presentation is outside this range(Johnston,1995).Below satisfactory levels any service experience in the range of tolerance will increase the opportunity for complaining and create customer aggravation(Tronvoll,2008b.Stauss et al 2005). Consumer unsatisfied

problem or distasteful experiences will related most likely with consumer complaint behaviour. This is because consequently complaints and negative thoughts will guide to bad experiences. Arndt and Hawes, (2007) found that higher level of consumer complaints show discouraged consumer. As such, negative feelings would direct by bad experience and optimistic feelings would lead by good experiences, which both of these experiences would resulted a complaints behavior for either a good report or bad.

In complaint behavior a variety of factors play a main role such as demographic factors such as age, gender and education level (Han et al., 1995). Age differences were considered in the chance of having a dissatisfying experience, the demand for complaint measures and the effects of determinants on complaint behavior (Ferrer and Lee, 1999). Higher level of education was connected with the number of complaints because high-educated people know where and how to complaints (Herman and Edgecombe et al 1995 Morganosky and Mayer, 1987; Han et al 1995; Landon and Day 1977) based on earlier result, compared to the uneducated people. Lower income and education groups according to Paim and Haron (2008) have been well known as having most problem in too many deals and deceptions in the market compared to other consumer groups. While, Psychology and personality factors as leading variables caused delay from complaining due to the panic of stress (Davidow and Dacin, 1997). In count, consumers tend to have a lower self-assurance and anxious to capture a risk towards complaining behavior. The consumers who are less conservative and confident (Liu and Keng, 1997). While, mature are less expected to report a dissatisfying experience, though those who do state dissatisfaction is expected to take action just like young consumers (Ferrer and Lee, 1999).

RELATIONSHIP BETWEEN ATTITUDE AND COMPLAINING BEHAVIOR

Attitude towards complain (ATTC) can be defined as major principle in authenticity of an unsatisfied customers' obtaining reimbursement from the company (Richens, 1987). In the era of severe competition, not only service firms but also every manufacturing firm tries to attain a group of trustworthy and gainful people by providing excellent services (Zemke et al., 2007). However, mistakes can be occurred in spite of all the care in service businesses, especially tourism and hospitality services (Babakus et al., 2003). Thus, firms require organizing the valuable and competent solutions. For this reason, first they have to know how members of their target market judge and complete, in other words, what are their (ATTC) (Bodey and Grace ET AL., 2007). Numerous researchers have told that attitudes (ATTC) (personal Norms and/or societal benefits) influence complaint responses including voices and negative word-of-mouth (Oh et al., 2004). "Consumers who have a more optimistic ATTC maybe because they are self-assured of success, or because they may not feel particularly while doing a complaint are more expected to complain than those who have a pessimistic ATTC. (Bodey and Grace, 2007, p. 187). Likewise, Cho and Joung (1999) interpreted ATTC as attitude towards restore seeking where they found a well-built relationship between attitudes and authentic restore seeking. Similarly, Richens (1982) supported the relationship between 'Attitude toward redress seeking' and 'redress seeking intention'. Blodgett et al. (1995) put forward that consumers who are reluctant to redress seeking will just wordlessly depart and/or connect in negative word-of-mouth behavior. On the other hand, ATTC was related to one's intentions or behavior to complain in other words, generally, consumers with a more optimistic ATTC have a larger propensity to complain (Bodey and Grace et al., 2007)

H1: Attitude has a direct affect on complaining behavior

RELATIONSHIP BETWEEN EXPERIENCE & COMPLAINING BEHAVIOR

A massive amount of theories has been applied to the study of complaint behavior (Folkes 1984a; Johnston 1995; Blodgett et al. 1997; Oliver 1997; Ganesh et al. 2000; Crie and Ladwein 2002). Definitely, the theory, which is used most commonly, is the Expectation Disconfirmation Theory (EDT). This theory argues that satisfaction is associated with the size of the disconfirmation experience, where disconfirmation is related to the customer's preliminary prospect (Parasuraman et al., 1985). The EDT suggests that if the product is not according to the customer's expectation and its quality service is expected to be bad. In this case, customer will not satisfy and he may involve in complaint response. (Churchill Day and Landon Jr. 1977a; Oliver 1980; Bearden 1983; Berry et al. 1985; Singh 1988; Tse and Wilton 1988; Bolton and Drew 1991; Gringos 2000). Theory is criticized for the various reasons like practical and theoretical reasons (Teas and DeCarlo et al., 2004). The primary area of criticism tells the dependence on gap scores i.e., the difference between customers' supposed service and predictable service. Customer will purchase the products by reviewing its experience. In this sense good or bad experiences takes a lot of importance. If the customers have good experience then they will be more confident while purchasing. However, if he had a bad experience, he will engage not only in complaint responses but also moved from that product to its alternative.

Various studies also highlight the importance of customer's past experience. Dissatisfaction has more harmful effect for new customers than regular customers who have strong relationship based on their previous dealings (Wetzel's, 2000). Some researchers report that customer awareness causes satisfaction, which has more influence on the succeeding loyalty. Highly experienced customers will have more experience while they making purchase. Their satisfaction will create loyalty with the trader (De Ruyter et al., 1998). In our context if the customers who have no experience about the particular product and service, they are more likely to complain about their bad experience. In this case, they will be less committed and less loyal with the trader. CCB most possibly related with consumer unsatisfied problem or disgusting experiences. This is because awful experiences can direct to pessimistic feelings and as a result, complaints. Hawes and Arndt (2007) found that if there are more complaints then there are more dissatisfied customers. Likewise bad experiences would direct to a pessimistic feeling and fine experiences would lead to optimistic feelings.

H2: past experience has a direct and positive effect on complaining behaviors.

RELATIONSHIP BETWEEN WORKPLACE ENVIRONMENT AND EMPLOYEE SATISFACTION

According to Singh (1989), perceived value (PV) defines as the differences between the consumer personal findings and the value of benefit through direct complaint and the expenditure incurred. Value cover the wide area of privileges and interest recovery such as refund and reduction, change of faulty goods, approving service and the expenditure involve such as energy and time save, that we will loss in clash for replacement and change of product. The conceptualization of PV is the most mottled of all constructs, which form a critical part of buyer accomplishment models. According to Oliver and Rust (1994), adopt a microeconomic view that, value is combination of what we gain (usefulness received from quality) and what we sacrificed (costs). The value's concept is constituted from qualitatively different types of value like liveliness, class, aesthetics etc (Holbrook, 1991). PV is the combination of scarifies, risk and cost and these are very important components of PV, especially in the case of services. In another conceptualization model the most important factor of PV are measureable and affective benefits while risk and cost are the independent factors in this model (Snoj and Pisman Korda, 2007; Cronin et al., 2000). Risks and cost are ultimately related to PV and harmfully influence consumer satisfaction. The construct of sacrifice includes the factors the effort and time involved in before purchase and the purchase process actually happened (price factors) and non-price factors (Zeithaml, 1988; Monroe, 1990). The risk related with attractiveness, social order and protection in purchase.

H3: Perceived value has a direct affect on complaining behavior.

RELATIONSHIP BETWEEN POLITENESS & COMPLAINING BEHAVIOR

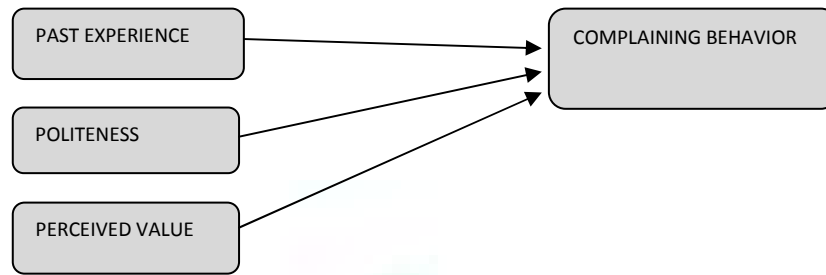
Brown and Levinson et al., (1987) describe face as the direct communal value people competently claim for themselves and the politeness theory describe in two different type of faces: "negative face and positive face". Positive Face concerns the need for support. As such, it recognizes that we each have self-esteem and expect that other people see us as we see ourselves. Negative face is constituted by procedure, self-effacement and moderation. The interface style of politeness is related with customer CB because complaint is a hostile act from the very first in its nature. Politeness response in three different ways e.g. voice, third party action and private action. Polite customer use less voice response for making complaint as compared to impolite customer. Although the third party action is equally used by the polite and impolite customers. The companies prefer the direct complaint instead of the third party action in order to save the company's goodwill. Company tries to compensate the customer from the dissatisfied product so that customer do not involve in third party action. Polite and impolite customers are involved in private action rather than the voice response although the voice response is an opportunity for the manager to identify the problem and resolve it so it increases the company's profitability.

H4: Politeness has a direct and positive effect on complaining behavior.

PROPOSED MODEL OF THE RESEARCH

According to the given research hypothesis a model is developed which is as under:

FIGURE 1. PROPOSED MODEL



RESEARCH METHODOLOGY

The current research is descriptive in nature. Descriptive research can be 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 judgments (Creswell, 1994). The main objective of the descriptive research is verification of the developed hypothesis that reflects the current situation. This type of research provides information about the current scenario and focus on past and present.

SAMPLE/DATA

For the research process, to judge the impact of selected variables on the complaining behavior through the questionnaire to understand the impact of variables on the complaining behavior. Samples of 150 respondents were asked to participate in self-administered questionnaire. The population for the research is the people who are having bank accounts and who face the complaining problems. The studies based on non-probability sampling technique that is, convenience sampling. This sampling technique is used to collect the data from large number of population speedily and with economically.

INSTRUMENT AND SCALES

The survey questionnaire of our study contain on two sections. First section consists on the respondent personal and demographic variable. It contains the respondent's information about gender, age, income, status, and bank account. The second session contains the independent variables that are important to understand the dependant variable "complaining behavior". The independent variable is attitude, perceived value, past experience, and politeness. We analyze the impact of these variables on complaining behavior. This section based on the past literature and already used questionnaire. The scales of study were adopted from the previous literature and published studies. The scales of our study are as follows:

TABLE 1: SCALES OF STUDY

Variables	Items	References
Perceived value of complaint	If you believe that the company will; Respond properly to your problem, will you complain directly? Respond satisfactorily, will you complaint directly? Prevent it from reoccurring, will you complain directly?	Richins',1980
Attitude towards complaint:	I feel uncomfortable, if not complain directly about dissatisfactory product or service to the company. I feel obliged to complain directly about dissatisfactory product or service to the company. People should not complain that much for it happens(in reverse) It is unnecessary to ask for change or return, if the failing product or service does not much cost (in reverse) When I have a problem with a product, even if it is cheap, I usually complain, ask for a refund or to change a product. Normally, I am reluctant to present a complaint even if the product I have purchased is no good/faulty. In general, I am more likely to complain, ask for refund or to change the product than other people I know.	Adopted from Blodgett et al., 1993, P.414, 1997, P. 195.
Past experience:	Have you complained to a retail store in the last six months? Have you complained directly a lot to the company? You have complained how many times directly to the company so far (converted into seven point scale)	Blodgett et al.,1993
Politeness:	When making a request , I am as direct as possible It's OK for people to be forceful in order to get their way I am comfortable asking people whom I barely know personal question I feel free to express my opinion when I disagree with someone I am forceful in order to get my way. If asked whether or not I like something, I will frankly say if I do not like it.	Brown and Levinson,1987
Complaining behavior:	I find bit embarrassing to complain Complaining about an unsatisfactory product is my duty. The more frequently I have to use the product the more likely I am to complained it is faulty. Firms are usually willing to provide repairs for faulty products.	Singh's ,1989

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. After collecting the completed questionnaires, these questionnaires were coded and entered into SPSS sheet for regression analysis.

RELIABILITY ANALYSIS

Overall Cronbach's alpha of customer complaining behavior questionnaire all variables in our study are more than acceptable and recommended value 0.50 by Nunnally (1970) and 0.60 by Moss et al. (1998). This shows that all the 23 items were reliable and valid to measure the opinions consumers towards customer complaining behavior.

TABLE 2: RELIABILITY ANALYSIS

Scales	Items	Cronbach Alpha
Attitude	7	0.634
Past experience	3	0.852
Politeness	6	0.576
Perceived value	3	0.585
Complaining behavior	4	0.612

RESULTS AND ANALYSIS
PROFILE OF THE RESPONDENTS

Personal and demographic information such as gender, age, income, education level, status and bank account are presented in the following table:

TABLE 3: PROFILE OF THE RESPONDENTS

Variables	Category	Frequency	Percentage
Gender	Male	80	53.3
	Female	70	46.7
Age	15-20 Years	48	32
	20-25 Years	80	53.3
	25-30 Years	11	7.3
	30-35 Years	5	3.3
	Above 40 Years	6	4
Income	Below 15000	78	52
	15000-25000	33	22
	25000-35000	6	4
	35000-45000	14	9.3
	45000-55000	3	2.0
	Above 55000	16	10.7
Education	Matriculation	2	1.3
	Inter	14	9.3
	Bachelor	48	32
	Master	74	49.3
	MS/M.PHILL	11	7.3
	PHD	1	0.7
Status	Student	123	82
	Employed	23	15.3
	Businessman	3	2.0
	House wife	1	0.7
Bank account	UBL	21	14
	HBL	82	54.7
	ABL	3	2
	NBP	1	0.7
	Others	43	28.7

HYPOTHESIS TESTING

ATTITUDE & COMPLAINING BEHAVIOR

According to the results of the study, attitude has a direct and positive relationship with complaining behavior. The attitude has a significant positive relationship with ($\beta=0.368$) and ($p=0.000$) that means the attitude contributes 36% to complaining behavior. This study validates the hypothesis.

EXPERIENCE & COMPLAINING BEHAVIOR

According to the results of the study, attitude has a direct and positive relationship with complaining behavior. The attitude has a significant positive relationship with ($\beta=0.368$) and ($p=0.000$) that means the attitude contributes 36% to complaining behavior. This study validates the hypothesis.

PERCIVED VALUE & COMPLAINING BEHAVIOR

According to the results of the study, attitude has a direct and positive relationship with complaining behavior. The attitude has a significant positive relationship with ($\beta=0.368$) and ($p=0.000$) that means the attitude contributes 36% to complaining behavior. This study validates the hypothesis.

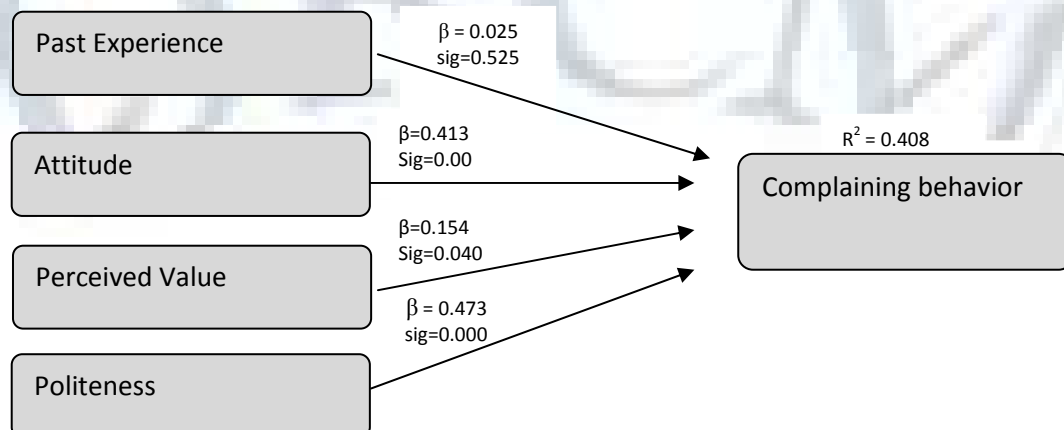
POLITENESS & COMPLAINING BEHAVIOR

According to results of the study, politeness has a direct and positive relationship with complaining behavior. The politeness has a significant positive relationship with ($\beta=0.417$) and ($p<0.000$). That means the politeness contributes more than 42% to complaining behavior. This result of the study validates the hypothesis.

TABLE 4: REGRESSION RESULTS

Hypothesis	Model variable	Beta estimated	Standard error	Coefficient of regression(t value)	P-value	Results
H	POLITENESS	0.473	0.081	5.845	0.000	Supported
H	PVC	0.154	0.064	2.845	0.040	Supported
H	PASTEXP	0.025	0.039	0.638	0.525	Not supported
H	ATTC	0.413	0.080	5.166	0.000	Supported

FIGURE 2. REGRESSION RESULTS OF THE MODEL



DISCUSSION

The imperial study in our research shows that PV, Politeness, Past Exp. and ATTC are important variables that have a great control on customer's tendency to make a complaint directly, the controllability of the problem and the reaction of the firm to its customers to shrink their complaints. The present studies also provide insight into a company's customer relationship management practices. If the company wants to get feedback from its customers for improving the quality then it should enhance the perception of the possible outcomes, if complained to. Numerous practices can be taken into account such as establishing guarantees and warranty system for the products which they are selling, by improving the function of customer service centers, and freely cooperate with customer complaints by showing what has been done and how it can be achieved. Secondly enhance PV of complain and politeness can contribute to increase customer's direct complaints in a number of ways. Thirdly, to reduce the customer complaints, it can introduce compensation to the public by giving some discount and allowances. Finally, company should reduce customer perception of hostility by showing that company really cares about their customer benefits and rights through a commitment.

Depicting and eliminating the factors that leads to customer dissatisfaction is possible only by ensuring customers to convey their dissatisfaction about the products to the company. By doing so, company will reach not only its economic targets but can also achieve its social targets. We complain only in the two situations, first when we do not get very good service or when the product does not work according to our expectations. Problems for the companies that we do not complain to the firm instead of this we complain to our children, to our wives, and colleagues. This complaining behavior shows actual challenge for the firm that which wants to improve customer service and get feedback about their products. Customers are not especially very confident. They hesitate to complain about their products and some time they hurt when the made a complaint. Therefore, in our communication we need to give a clear statement that we will not be insulted but we want to know what you think. This distance assures people that they can plan and accomplish complaints without sensitivity that they are confronting the service donor directly.

LIMITATIONS AND FUTURE RESEARCHES

The first drawback is the size of sampling which we used is relatively small. Therefore, it restricts the overview of the research. Further research may also seek to address some of the theoretical and practical drawback of the existing study. Researcher needed to expand this scale by accumulated more items by containing to this phase of oral behavior. Furthermore, researcher may require accomplishing further test to reveal the dynamic strength of the customer complaints. To eliminate the customer complaints investment can be made and it will be helpful to build the relationship succession in long-term orientations. By recruiting and training definite contact personnel, organization can minimize its complaints. By taking a macro overview of the firms, it should assure to its customers that the firm is not playing the fake tricks as mass of the rivals in the industry. This basis of differentiation could be profitable when the rivals have pessimistic picture in this perspective. In the modern era, Customer, Change and Competition are the main keywords for the business. In order to compete with the competitors and to meet the customer's changing in demands, the firm should have to introduce innovative products. It should take practical steps to hold the customers. As Weingand indicates Change is today's one constant and no organization can break out its presence and effect.

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A RELIABLE COMPUTERIZED ACCOUNTING INFORMATION SYSTEM; WHAT SECURITY CONTROLS ARE REQUIRED?

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ABSTRACT

The objective of this study is to explore security controls that can be integrated into the design, development and implementation of the Computerized Accounting Information Systems to ensure information reliability and to propose an effective framework for categorizing Security Controls towards the attainment of information reliability. A critical literature review and empirical study using field observations and personal interviews were used to gather data, which was then analyzed and modelled, using Structured Analysis and design models to reflect security controls identified for implementation in the Computerized Accounting Information Systems. Schwartau's Time Base security model therefore presented an effective framework for categorizing identified controls. The results of the study however indicated that, three categories of security controls, which are Preventive controls (Access Control, Authentication, Authorization, Input (Data Entry) Control, and Cryptographic mechanism), Detective controls (Non-repudiation, Anti-Virus Programs, Information Integrity Control, Impersonation Control, and Analysis of Security Audit logs) and Corrective controls (Database Recovery control, and Application Recovery control) are essential for ensuring the reliability of information generated from CAIS. Accordingly, it was recommended to implement security controls in an integrated fashion to create multiple layers of security and to sensitize users at all levels on the need and importance of having controls in a Computerized Accounting Information Systems.

KEYWORDS

Computerized Accounting, Security Controls, Information Reliability, Controls Categorization.

INTRODUCTION

Computerized Accounting Information System defined as a computer-based system that processes financial information and supports decision making in the context of coordination and control of organizational activities (Sajady et al., 2008); is designed to keep track of all payments for strategic financial decision making.

Computerized Accounting Information System (CAIS) encounters serious security threats that may arise from the weakness of their security controls or from the nature of the competitive environment as the need for information is greater (Hayale and Khadra, 2006). At the same time, the very survival of organization depends on correct management, security and confidentiality of their information (Eduardo and Marino, 2004), since information assets constitute a significant proportion of an entity's market value (ITGI, 2001). Consequently security threats related to CAIS require a great attention from auditors and accountants in order to be recognized and minimized by evaluating organization security controls (Greenstein and Vasarhelyi, 2000). Several professional committees, such as AICPA that published SAS No.94 in 2001, have undertaken this endeavour, even though it was late. However, these initiatives were in the form of general instructions, and nothing specific viewed to be considered as detailed guidance to the auditors in their work, (Boynton, 2001; Kinusn, 2002).

In 2002, the Sarbanes-Oxley act called for "real time" disclosure of information on material changes in the financial conditions or operations of publicly held companies. As a result, organizations are more concerned with timeliness and quality of financial performance information (Uday, 2004). In view of these, the responsibility has increased dramatically on the accounting profession and information systems auditors, to quickly recognize and assess the risks that are associated with Computerized Accounting Information Systems in the IT environment and define detailed security controls framework to be maintained. This paper therefore identifies Security Controls (SC) that can be integrated into the design, development and implementation of CAIS to ensure information reliability. The study also aims to propose an effective and working framework for categorizing CAS security controls towards the attainment of information reliability.

LITERATURE REVIEW

A Security Control is a system that prevents, detects or corrects unlawful events in an organization. The purpose of a security control is to reduce losses (risks) by lowering likelihood of occurrence or by reducing the impact after a risk has occurred.

A growing body of research indicates that the existence and adequacy of security controls to protect Computerized Accounting Information System (CAIS) implemented in Institutions of Higher Learning (IHL) is essential for the assurance of confidentiality, integrity and continuous availability of vital information for business continuity. The adequacy of security controls in this research is therefore defined as the ability of implemented security controls to ensure confidentiality, integrity, and availability of information to support managerial decision making. *Confidentiality* means security controls must prevent the disclosure of information to unauthorized individuals or systems; *Integrity* means that controls must prevent unauthorized modification of information and *Availability* means that implemented controls of CAIS must ensure prevention of unauthorized withholding of information or resources (Gollman, 2006). In other words implemented controls must not deny authorised users access to information.

Section 302 of the Sarbanes-Oxley Act requires the CEO and the CFO to certify that the financial statements fairly present the results of the company's activities and requires them to certify that they have evaluated the effectiveness of the organization's internal controls. Security is a key component of internal control and systems reliability. The Trust Services Framework developed by the AICPA and the Canadian Institute of Chartered Accountants addresses a subset of the issues covered by COBIT, focusing specifically on five aspects of information systems controls and governance that most directly pertain to systems reliability: Security, Confidentiality, Privacy, Processing Integrity, and Availability.

Buttross and Ackers (1990) conducted a theoretical study in which they discussed microcomputer security exposure and microcomputer organizational, hardware, software and data security controls. Their study provided security controls checklist that could be used to help the internal auditors in evaluating computer security. Some of these security controls were selected for implementation in this study.

Henry (1997) carried out a survey on 261 companies in the US, to determine the nature of their accounting systems and security in use. Seven basic security methods were presented in his study. These methods were encryption, password access, backup of the data, viruses' protection, and authorization for system changes, physical system security and periodic audit. Relevant controls from this study were selected for implementation in this study.

Another study, carried out by Qurashi & Siegel (1997), assured the accountant's responsibility to check the security of the computer system. The researchers carried out a theoretical study to develop a security checklist. This list covers the following four security controls groups, which are Client policy, Software security, Hardware security and Data security.

The IT Governance Institute (ITGI) and the Information Systems Audit and Control Foundation (ISACA) (1992) developed the Control Objectives for Information and Related Technology (COBIT). COBIT provides managers, auditors, and IT users with a set of generally accepted IT control objectives to assist them in maximizing the benefits derived through the use of IT and developing the appropriate IT governance and control in their organizations. Many of the COBIT security controls were selected and incorporated in the proposed security controls to be empirically tested in the CAIS environment at the PUCG.

Moscove and Stephan (2001) consider that e-business organizations should maintain a group of control procedures to protect their systems from any possible threats, such procedures includes:

1. Physical access control procedures.
2. Password control procedures.
3. Data encryption such as public key encryption.
4. Disaster recovery plan (DRP).
5. Software-based security control, such as firewalls.
6. Intrusion detection software to detect unauthorized entrance into the system

In a study carried out by Zviran and Haga (1999) to evaluate password security as one of the most common control mechanisms for authenticating users of CAIS, it was found that despite the widespread use of passwords, little attention has been given to the characteristics of their actual use. The study investigated the core characteristics of user-generated passwords and the associations among those characteristics.

Abu Musa (2006) also performed an empirical study to investigate and evaluate the existence and adequacy of implemented CAIS security controls in Saudi organizations using a proposed security controls checklist. The proposed security controls check list included; organizational controls, hardware and physical access control, software control, data security control and off-line data and program security control.

Drawing upon Abu-Musa (2006), Microsoft Corporation (2006) took the study a step further and categorized security controls under Organizational, Operational and Technological controls, with each of the categories consist of preventative controls, detection controls and management controls.

In a very recent publication, SANS Cyber Defense (2010) presented a Consensus Audit Document stating the Twenty Critical Security Controls for effective cyber defense. These Top 20 Controls were agreed upon by a powerful consortium brought together by John Gilligan (previously CIO of the US Department of Energy and the US Air Force) under the auspices of the Center for Strategic and International Studies. Members of the Consortium include NSA, US Cert, DoD JTF-GNO, the Department of Energy Nuclear Laboratories, Department of State, DoD Cyber Crime Center plus the top commercial forensics experts and pen testers that serve the banking and critical infrastructure communities. Security controls presented included;

1. Inventory of Authorized and Unauthorized Devices
2. Inventory of Authorized and Unauthorized Software
3. Secure Configurations for Hardware and Software on Laptops, Workstations, and Servers
4. Boundary Defense
5. Maintenance, Monitoring, and Analysis of Security Audit Logs
6. Application Software Security
7. Controlled Use of Administrative Privileges
8. Controlled Access Based on Need to Know
9. Continuous Vulnerability Assessment and Remediation
10. Malware Defenses

IMPORTANCE OF THE STUDY

The study has the significance of reducing accounting related losses by presenting security controls necessary for achieving organizational pre-defined control objectives. From a practical standpoint, IS developers, Auditors, IT users and practitioners alike stand to gain from the findings of this study. The results could enable them to better understand and secure their CAIS and to champion IT development for the success of their businesses. While there have been several studies on information security controls implementation in Organizations in Europe and other parts of the world, very limited (if not zero) studies have been conducted on African organizations, hence this study bridges the existing research gap. It is also imperative to realize that all previous studies on the subject only identified generic information security controls, with few on accounting systems but failed to show how these controls can be integrated into the general design and implementation of accounting systems to achieve information reliability. The researcher at the time of this research was also unaware of any studies that identified security controls for direct integration into the design, development and implementation of computerized Accounting Systems. Hence the results of this study can provide valuable insights for CAIS developers, accountants and IS auditors, and lead to a better understanding of design and development issues concerned with security controls implementations in CAIS.

STATEMENT OF THE PROBLEM

In view of the above this study attempts to answer the following questions: (1). *what security controls are necessary for ensuring the reliability of information generated from Computerized Accounting Information Systems (CAIS)?* (2). *which framework is effective for categorizing CAIS security controls to achieve information reliability?*

OBJECTIVES

The study strives to achieve the following objectives; (1). To identify security controls for direct integration into the design, development and implement of CAIS. (2). to propose an effective and working framework for categorizing CAS security controls towards the attainment of information reliability.

RESEARCH METHODOLOGY

This study was conducted at the Presbyterian University College Ghana, a private university with a student population of about 1,500 and total staff strength of about 200. The college has a well equipped accounts department headed by the college's finance director. All cash inflows and outflows within the college are solely handled by the college's finance department which is equipped with computerized accounting information system (CAIS) developed in-house and used on all its campuses, thus, making it an appropriate case for this study. The department maintains several books of accounts for the college, notable ones include, assets, payroll, petty cash, fees payment and others. However, in order to ensure a comprehensive study into the operations of the department, two of these accounts (Fees-payment and Payroll) are used to show how security controls can be integrated to ensure information reliability in these accounts, since the same process can be replicated in all other accounts in the college. These accounts were selected for analysis because the core business of the college's accounts department is to collect fees (revenue) and pay salaries (expenditure) to employees.

The research design chosen for this research is the exploratory. The choice of qualitative method of data collection including interviews and observation is largely guided by the unstructured nature of the research question "what security controls are necessary for ensuring the reliability of information generated from Computerized Accounting Information Systems (CAIS)". The qualitative method was used because it allowed the researcher to gain a qualitative understanding of the underlying reasons to the problem using a small sample size and non-statistical data analysis to develop an initial in-depth understanding of or solution to the problem.

The study starts with a critical review of existing literature on accounting information systems and security controls so as to identify generic security controls possible for implemented in computerized accounting system, and to identify an effective model for categorizing these controls. Empirical results from existing literature and previous studies (Abu-Musa (2006), Microsoft (2006), Buttross and Ackers (1990), Zviran and Haga (1999), Henry (1997), SANS (2010), Sarbanes-Oxley Act and COBIT (2005)) were reviewed for the identification of generic security controls. However, to categorize the identified security controls towards the assurance of information reliability, Schwartau's (1999) Time Based Security model which categorized controls into preventive, detective and reactive was used. The model was selected as effective for achieving this goal due to its ability to show the relationship between security controls and their effect on information reliability.

Questions for interviews and artefacts for observation were also formulated based on existing literature. After a careful consideration of selected questions and artefacts, two rounds of separate interviews were conducted to; (1) gather requirements for the development of a new system; and (2) ascertain the existence and effectiveness of security controls identified at the PUCG. Existing accounting system (Fees payment & payroll accounts) at the PUCG was then analyzed to identify functional and non-functional requirements for the development of an accounting system. Model-driven approach which emphasizes the drawing of pictorial system models to document and validate a system was employed for analyzing the existing accounting system at the PUCG. The existing fee-payment and payroll accounts selected for the study were modelled using flowchart for subsequent analysis and investigations. This gave the researcher a perfect idea of the existing business processes which served as guide for designing a new system.

This was succeeded by a design of a new accounting system equipped with the carefully selected security controls for integration and implementation based on functional requirements and framework adopted during the literature review. Flowcharts again served as the tool for creating the new design. The new design was then implemented with a selected programming language (Visual Basic 2008), database management system (MySQL 5.0) and cryptographic mechanisms (encryption algorithm – blow fish and hash function – MD5 influenced by the fact that, no attack has been discovered to be successful on these cryptographic mechanisms as of the time of this research (BrightHub, 2010)).

To evaluate the newly developed system, users at the PUCG were divided into direct users and indirect users. Direct users are those users who use the system in their day to day operations at the college whereas indirect users are those who benefit from information generated from the system for decision making. Interview with Direct users helped to capture functional and non-functional requirements. A self administered questionnaire was used to evaluate the acceptability of the new system in two main areas – that is functional requirement acceptability and security controls acceptability. Ten users from the PUCG who interact directly or indirectly with the accounting system were selected for this purpose. These users included the President of the College, Finance director, College registrar, Accountant and Accounting Assistant, internal auditor and Assistant, Network Administrator and two accounts clerks. The questionnaire was made up of two sections (Functional requirements and Security controls) with a total of six open ended questions. Data gathered was categorized using the two section, was reduced and eventually interpreted for conclusion to be drawn.

FINDINGS/RESULTS AND DISCUSSIONS

The study sets out with the objective to identify Security Controls (SC) that can be integrated into the design, development and implementation of Computerized Accounting Information Systems (CAIS) to ensure information reliability. This was to be achieved through a critical review of existing studies and empirical studies on the Presbyterian University College Ghana (PUCG).

A careful analysis performed on the data collected from the Presbyterian University College Ghana (PUCG) Accounting System (through interviews and observations) to identify requirements (functional and non-functional) for the development of the proposed system, showed that the PUCG had implemented **physical security** and **Authentication** (username and password) as preventive controls but inadequately implemented; as usernames and passwords are stored in plaintext in the database. There was also no mechanism to hold users accountable for their actions (**Non-repudiation**). There were no **Access Controls** as a user could access any part of the system without any restrictions. Sensitive financial information was also stored in plaintext without any **Encryption** in the database. **Periodic backups** at remote locations which would return the system back to its normal operation should any error occur was also not present. Finally, information confidentiality, and integrity was also not ensured. The absence these security controls therefore made information generated less useful and reliable for decision making at the PUCG.

After the implementation of the new design at the Presbyterian University College Ghana (PUCG), a usability evaluation was carried out to ensure the ease of acceptability of the new system (Security Enhanced CAIS). The evaluation was based on the categorization presented in the CAIS security control model developed. The usability evaluation indicated that Indirect users (top management) showed a more positive attitude and exhibited immense understanding and concerns towards implementation of security controls in a CAIS whereas direct users showed very little understanding and concern on the need for security controls in CAIS

Various researchers have in the past presented security controls for ensuring information reliability but only a few have direct relationship with Accounting systems, notable ones are Abu-Musa (2006), Microsoft (2006), Buttross and Ackers (1990), Zviran and Haga (1999), Henry (1997), SANS (2010), Sarbanes-Oxley Act and COBIT (2005). Based on existing literature and the empirical study conducted on the PUCG Accounting System, the following Security Controls, presented in tabular form, were identified as effective for direct integration into the design, and implementation of Computerized Accounting Information System. These security controls are summarized and described in the table below:

TABLE 1: SECURITY CONTROLS

SECURITY CONTROLS	DESCRIPTION
1. User Access Control	This is a mechanism for restricting access to certain information based on a user's identity and membership in various predefined groups
2. Authentication	Authentication is the process of verifying a claim of identity.
3. Authorization	Determining what informational resources users are permitted to access and what actions they will be allowed to perform.
4. Input (Data Entry) control	Data entry errors arising from human negligence
5. Cryptographic mechanism	The use of cryptographic mechanisms such as encryption, hashing and digital signatures to ensure information confidentiality and integrity.
6. Database Recovery Control	This controls ensures that the systems restores to normal operation after an error has occurred, using a remote backup of the database.
7. Application Recovery Control	A control to ensure timely repair of all corrupt application using backups on removable media.
8. Analysis of Security Audit Logs	A control to monitor and track system behaviour that deviates from expected norms
9. Impersonation Control	This security control is used to detect masquerades mounted on the system.
10. Information Integrity Control	A control to determine any compromise in the database. It determines whether unauthorized changes have been made to information stored in the database.
11. Anti-Virus Programs	An application software to detect and respond to malicious software, such as viruses and worms
12. Non-Repudiation	A Security control to ensure that a user performing an action in the Computerized Accounting System cannot falsely deny that he or she performed that action

The table above (table 1) shows the results from the critical literature review and the empirical studies conducted on the Accounting System at the Presbyterian University College Ghana to identify security controls which can be integrated into the design, development and implementation of Computerized Accounting Systems to ensure information reliability.

These security controls are discussed below:

User Access Control: This is a mechanism for restricting access to certain information based on a user's identity and membership in various predefined groups (Microsoft, 2006). In this study, user access control was found to be a mechanism for ensuring that, users in the CAS environment are allowed access, only to

information for which they are authorized to access; thus ensuring confidentiality and integrity of information. However, the sophistication of the access control mechanisms should be in parity with the value of the information being protected - the more sensitive or valuable the information the stronger the control mechanisms need to be. Access control is essential for ensuring information reliability, therefore every user of the CAIS must be assigned an Access Level by the System Administrator and this Access Level must determine the privileges to be enjoyed by the user. This therefore helps in ensuring segregation of duties as various users are assigned various roles based on their access rights, hence information reliability is achieved. User access control is essential for ensuring information reliability, in that access control seeks to prevent activities that could lead to a breach of security (Sandhu and Samarati, 1994) and provides administrators with the capability to regulate who can perform what action, where and when, in what order and in some cases under what relational circumstances (NIST, 1998; Baker and Grosse, 1995).

User Authentication: authentication is an essential security control for ensuring the reliability of information generated from CAIS, and its relevance cannot be understated. Authentication is the process of verifying a claim of identity. Detecting and preventing unauthorized access to CAIS by internal and external parties has become an important issue. The results of Furnell and Dowland's (2000) study revealed that traditional methods of user authentication and access security control do not provide comprehensive protection and offer opportunities for compromise by various classes of abuse. Most commonly authentication establishes the identity of a user to some part of the system, typically by means of a password. More generally, authentication can be computer-to-computer or process-to-process and mutual in both directions. Authentication must require that the person, process, or device making the request provides a credential that proves it is what or who it says it is. For example, in the CAIS environment, users must provide identification and authentication key (two way authentication) for the system to verify. Whenever a user enters his identification (say e.amankwa – a claim of identity), the system requests for an authentication key (a secret code known to only the user) and then scans its database to find a match. If it finds a match, then the user is authenticated and is therefore granted access into the system else access is denied. This security control helps in ensuring that only authorized users are allowed into the CAIS and is effective for ensuring accountability and reliability in the CAIS environment. It is also imperative to know that users identification (usernames) and authentication codes (passwords) used in this study were hashed with the message digest five (MD5) cryptographic hash function to ensure that any attack on the communication medium or on the database to retrieve usernames and passwords proved futile. Authentication enables organizations to provide secure access to digital data and applications thereby save significant costs in their ongoing business activities. Costs incurred through information leakages such as court fines, and investigations are avoided.

However, the human aspect of the CAIS made it difficult to implement authentication. In this study users comprised both the young and the aged with several responsibilities within the institution. Such users for fear of forgetting their passwords write them in their dairies and on stickers for future reference. This therefore compromises the security policies and controls introduced in the system and thereby reduce information reliability.

User Authorization: After a user has successfully been identified and authenticated then it must be determined what informational resources they are permitted to access and what actions they will be allowed to perform (print, view, create, delete, or change); this is called Authorization. Authorization is the process of assuring that users have access to the functionality and information that they require and no more. In this study authorization is derived from the identity of a user, authentication key and access level as assigned by the system administrator. Aspects of the system to be accessed by the different access-levels created were based on business rules that exists the PUCG. This rule permitted users at access-level 1 to access all parts of the system, where level 2 could access also access all parts except the creation of new user accounts and system configuration. Level 3 users on the other hand could only enter data into accounts.

Cryptographic Mechanism: Cryptography is used to transform usable accounting information into a form that renders it unusable by anyone other than an authorized user. The most frequently applied Cryptographic schemes are; Encryption algorithms, Digital signatures and Cryptographic hash functions (Gollmann, 2006). Cryptographic mechanisms used in the CAIS environment include Encryption and hash functions. Although several encryption algorithms exist, the Blowfish algorithm which is symmetric (uses a single key for encryption and decryption) was selected for implementation due its strength over other algorithms. No attack has been discovered to break the blowfish encryption (BrightHub, 2010), and this simply means that once sensitive information for strategic decision is encrypted no unauthorized user can temper with it; hence reliability is guaranteed. However due to the symmetric nature of the blowfish algorithm, its strength is highly dependent on the secrecy of the encryption key (password or pass-phrase for encrypting information) in the CAIS environment. The responsibility information reliability is shifted from the users and now rests with the programming team who must be held accountable for any compromise.

Input Controls (Data Entry): this refers to data entry errors which have the potential of reducing the reliability of accounting system information. The CAIS must therefore ensure that all data entered are validated correctly before update. For example the system must ensure that data entered for numeric textboxes are numeric values and not string values, as this may lead to unexpected results and sometimes system crash

Non-Repudiation: The technique used to ensure that someone performing an action on a computer cannot falsely deny that he or she performed that action. Non-repudiation provides undeniable proof that a user took a specific action such as transferring money, altering payroll figure, or printing a report. In a CAIS an internal audit log is used for ensuring non-repudiation. Information such as username, date, time and operations performed by every user of the system is automatically captured into the system's log file for future auditing. This helps to ensure proper accountability within the CAIS environment and eventually leading information reliability.

Anti-Virus Programs: Designed to detect and respond to malicious software, such as viruses and worms. Anti-virus software provides a comprehensive security for the CAIS environment. They can be signature-based or heuristics-based or both. In signature-based antivirus, signature files are developed by security vendors to prevent and detect known threats. Although this is very common on the market today, it is prone to zero-day attack (an attack that exploits the vulnerabilities in an application before it becomes known to the developer) due to the numerous sophisticated tools available to virus writers. Heuristics-based anti-virus software on the other hand analyzes the behaviour of codes on access and intercepts possible threats before execution. Heuristics-based anti-virus reports threats based on suspicions and often results in false-positive. In view of these setbacks an anti-virus solution for the CAIS environment must combine both heuristics and signature files and must be updated at frequent intervals to ensure optimal protection against known and emerging threats.

Information Integrity Control: Makes it possible for system administrators and information systems auditors to determine whether unauthorized changes have been made to information stored in the database. For example a cryptographic hash function such as message digest five (MD5) can be used to hash all sensitive financial information and be stored in temporary database table. Whenever information is retrieved from the operational database table, it must be subjected through the same hash function and after compare the current and previous hash values of the retrieved information. If the two are in agreement then it means information integrity has not been compromised and is therefore reliable for strategic business decision making. However if the previous is different from the current then it means that unauthorized changes have occurred and this must be investigated by analyzing the security audit log to determine the author, date and time stamps of the changes.

Impersonation Control: this security control is used to detect masquerades mounted on the system. This control is triggered automatically when an unauthorized user tries to log into the system with the identity of an authorized user. The effectiveness of this control is achieved programmatically by blocking or suspending user accounts which failed to authenticate for three consecutive times. Owners of such user accounts must inform the system administrator for their user accounts to be activated again. This helps to ensure that only authorized users are granted access into the system and thereby enhance the reliability of information.

Analysis of Security Audit Logs: this control makes it possible to monitor and track system behaviour that deviates from expected norms. It helps in detecting, understanding, and recovering from security breaches. An internal security audit log introduced at every operation part of the CAIS records details of users' actions such as operation performed, date, time and username. This information can help in detecting and correcting system breaches when provided for analysis on time. In view of this, this control help in presenting the most recent operations recorded in the audit log in three days interval by automatically sending a print command to printer connected to the administrator or auditor's computer. To ensure such vital information does not get into the hands of unauthorized users, users' access level is considered before sending the command. As a result, security breaches are detected and corrected on time.

Database Recovery Control: this control requires backup systems to be made at offsite locations to facilitate the restoration of lost or corrupted data. In the event of a catastrophic incident, backup media stored offsite makes it possible to store critical business data on replacement systems. This control helps to ensure availability of information in the CAIS environment at all time.

Application Recovery Control: This control requires that copies of application setup for installation and repair be kept on removable storage devices to restore the system back into operation in the event the one in use corrupts or malfunctions. This control helps to ensure availability of the system and subsequently information for timely decision making.

However, in an attempt to identify an effective scheme for classifying those security controls which can be integrated into the design, development and implementation of CAS, the study also found that three (3) categories of Security Controls are needed for ensuring the reliability of information generated from CAIS.

A study conducted by Hayle & Khadra (2006) to evaluate the level of Control Systems effectiveness in Computerized Accounting Information Systems (CAIS) that is implemented in the Jordanian banking sector to preserve confidentiality, integrity and availability of the bank's data and their CAIS categorized CAIS security controls according to their functions under the following;

1. Fraud and error reduction control.
2. Physical access.
3. Logical access.
4. Data security controls.
5. Documentation standards.
6. Disaster Recovery Plan.
7. Internet, communication and e-banking controls.
8. Output security controls.

Abu Musa (2006) in study to investigate and evaluate the existence and adequacy of implemented CAIS security controls in Saudi organizations, categorized CAIS security controls under Organizational security controls, hardware and physical access control, software control, data security control and off-line data and program security control.

Microsoft Corporation (2006) on the other hand, categorized security controls under Organizational Controls, Operational Controls and Technological controls; with each of the categories consist of preventative controls, detection controls and management controls.

Buttross and Ackers (1990) in their study in which they discussed microcomputer security practice, categorized security controls under Organizational controls, Hardware controls, Software controls, Data and data integrity controls.

Schwartau's (1999) Time Based Security (TBS) model categorizes security controls under preventive controls, detective and corrective (reactive) controls. The model focuses on the relationship between preventive, detective and corrective controls and evaluates the effectiveness of an organization's security by measuring and comparing the relationship among them. That is, if the time it takes an attacker to break through the organization's preventive controls is greater than the sum of the time it takes to detect that an attack is in progress and the time it takes to respond to the attack, then the organization's security procedures are effective. However, if the time it takes an attacker to break through the organization's preventive controls is less than the sum of the time it takes to detect that an attack is in progress and the time it takes to respond to the attack, then the organization's security procedures are ineffective. Hence information is unreliable. Using Schwartau's (1999) Time Based Security (TBS) model the following is expressed:

Pt = the time it takes an attacker to break through the organization's preventive controls

Dt = the time it takes to detect that an attack is in progress

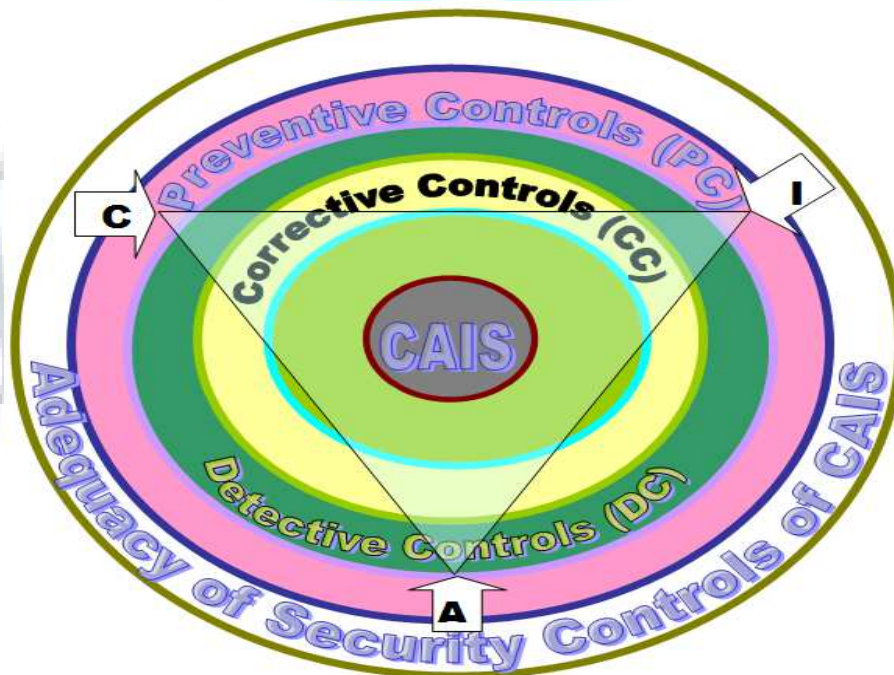
Ct = the time it takes to respond to the attack

If $Pt > Dt + Ct$, then the organization's security procedures are effective.

If $P < Dt + Ct$, then the organization's security procedures are ineffective

Based on the components of the TBS model above, security controls are categorized in this study under Preventive (Pc), Detective (Dc) and Corrective controls (Cc). However, to achieve information reliability, Confidentiality, Integrity, and Availability (CIA) which are essential components for achieving an organization's business and governance objectives over IT resources (COBIT & the Trust Services framework) were selected to develop a model for implementing Security Controls in the Computerized Accounting Information System (CAIS). These components therefore enforce multiple layers of controls in order to avoid having a single point of failure. Multiple Security Control layers increases effectiveness and thus information reliability because even if one procedure fails or is circumvented, another may function as planned. Security Controls, (categorized under Preventive, Detective and Corrective controls) together with the other information security components (CIA) are modelled to show how each layer offers protection to achieve Information Reliability (IR) in the CAIS environment. This conceptual model is shown in Figure 1 below.

FIGURE 1: CAIS SECURITY CONTROL CONCEPTUAL MODEL



The conceptual mode above (figure 1) expresses the relationship between the three categories of security controls identified. As Security Controls (SC) restricts access to authorized user only; it also ensures that, the confidentiality (C) of sensitive organizational information is protected; provides for processing Integrity (I) by preventing submission of unauthorized or fictitious transactions as well as preventing unauthorized changes to stored data or programs; and provides protection against a variety of attacks, including viruses and worms, thereby ensuring that the system is available (A) when needed.

Using Schwartau's (1999) Time Based Security (TBS) model, the CAIS security control model above (in figure 1) expresses two main relationship between CAIS information (Info), the time it takes an attacker to break through the organization's preventive controls (PC), the time it takes to detect that an attack is in progress (DC), the time it takes to respond to the attack (CC), confidentiality (C), Integrity (I) and Availability (A).

1. If $PC > DC + CC$, then $Info = C + I + A$, hence Info = reliable

2. If $PC < DC + CC$, then $Info \neq C + I + A$, hence Info ≠ reliable

The first case (1) expresses that if the time it takes an attacker to break through the organization's preventive controls is greater than the sum of the time it takes to detect that an attack is in progress and the time it takes to respond to the attack, then information generated from CAIS is said to be confidential, integrity maintained and available in a timely manner, hence information is reliable. However, if the time it takes an attacker to break through the organization's preventive controls is less than the sum of the time it takes to detect that an attack is in progress and the time it takes to respond to the attack (expressed in 2 above), then information generated from CAIS is said to be exposed, integrity compromised and unavailable to users, hence information is unreliable.

The table below (table 2) therefore shows the selected security controls for integration into the design and implementation of CAIS to ensure information reliability, classified under Preventive Controls, Detective Controls and Corrective Controls.

TABLE 2: CATEGORIZED CAIS SECURITY CONTROLS

PREVENTIVE CONTROLS (PC)	DETECTIVE CONTROLS (DC)	CORRECTIVE CONTROLS (CC)
Access Control	Non-repudiation	Database Recovery control
Authentication	Anti-Virus Programs	Application Recovery control
Authorization	Information Integrity Control	
Input (Data Entry) Control	Impersonation Control	
Cryptographic Mechanism	Analysis of Security Audit logs	

Since the continuous sustainability of an organization depends heavily on reliable financial information generated from accounting systems, which translates into strategic decisions, security controls are therefore required in such systems to prevent known and unknown events with the capability of preventing the organization from reaching its set objective. **Preventive controls** are therefore designed in Computerized Accounting Information Systems to arrest known error that may occur. However unknown error that the system could not prevent and have occurred in the system must be detected as soon as possible for correction. SANS (2010) Cyber Defense states that "for those attacks that are successful, defenses must be capable of detecting, thwarting, and responding to follow-on attacks, as attackers spread inside a compromised system". Therefore, since Preventive Controls are never 100 percent in blocking all attacks, **Detective controls** are required in the CAIS environment to detect all error that might have bypassed preventive controls so as to ensure that decisions are not made based on the erroneous information from the system. **Corrective Controls** on the other hand involve the need for the system to react to incidents to take corrective actions on a timely basis. Many rely on human judgment. Planning and preparation are important. The system must eventually be restored after errors are detected and this can be achieved with the careful design and implementation of corrective controls in the CAIS.

The study's finding is therefore in agreement with Flowerday and Rossouw (2005) who identified preventive, detective and corrective controls as relevant for ensuring effectiveness of systems and integrity of information.

Since information is a major asset in organizations, and the continuous existence and sustainability dependent on information, any known incident with the potential to compromise the integrity of such vital information must be prevented from occurring. The existence of preventive controls means that the organization can make informed and reliable decisions and thus increase its information value. Costs incurred from investigating all such incidents are also avoided. However, since security is not a destination but a journey (Baker and Wallace, 2007) and hacking tools are growing fast ahead of security controls, provisions must be made to detect any case of incident occurrences in the CAIS. This helps to acknowledge the occurrence of errors and subsequently return the system to its normal operation.

The finding also corroborates that of Microsoft Corporation (2006) which classified each of the information system security controls under preventative, detection and management controls. COBIT's (2005) framework and Abu-Musa (2006) also agree with study's finding that, controls are needed to ensure more timely and reliable information from information systems. Although the finding replicates that by other researchers, the current study moves a step further by exploring implementation issues which were not considered in the previous studies. For example the current study points out specifics of security controls implementation in the CAIS environment; such as cryptographic mechanisms, programming language, database management system as well as the system architecture for implementing security control. The finding therefore has important implications for developing Computerized Accounting Information Systems in Institutions of Higher Learning.

CONCLUSIONS AND RECOMMENDATIONS

The main objective of this study was to investigate security controls necessary for ensuring the reliability of information generated from Computerized Accounting Information Systems (CAIS) and to propose a framework for categorizing CAIS security controls.

To achieve this, the proposed (12) security controls and classified in table 2 above need to be implemented in an integrated fashion as depicted in the CAIS security control model (in fig 1.0). This simply means that Preventive controls must be accompanied by Detective controls and subsequently Corrective controls. When CAIS security controls are implemented in an integrated manner, it would create multiple layers of security which increases effectiveness and ensures information reliability because even if one security layer fails or is circumvented, another may function as planned. Thus implementing Security Controls in an integrated fashion would contribute immensely towards the assurance of information reliability in the CAIS environment.

Cryptographic mechanisms must be used to aid implementation to achieve optimal protection. Cryptographic mechanisms including encryption, hash functions and digital signatures should be implemented as the final layer of the preventive controls. These mechanisms strengthen authentication procedures and play an essential role in ensuring and verifying the validity of CAIS transactions. There CAIS developers and designers need to understand cryptographic mechanisms to ensure proper integration and implementation.

According to Baker and Wallace (2007) "Security is not destination but a journey", therefore organizations must ensure periodic maintenance and upgrade of their computerized systems so as to prevent possible zero-day-attacks such systems. Since no system is full-proof, periodic maintenance and upgrade must be performed from time to time in order to solve all system errors detected to avoid future occurrences.

It is also imperative to know that, technical approaches alone can't solve all security problems for the simple reason that information security isn't merely a technical problem (Baker and Wallace, 2007), therefore in order to achieve information reliability in Computerized Accounting Systems, managerial policies and controls must equally be strengthened and users must also be sensitized on the relevance and need for controls to exist in CAIS through periodic training and workshops. People play a critical role in CAIS environment. Therefore, training is a critical preventive control as employees must understand and follow the organization's security policies. All employees should be taught why security measures are important to the organization's long-run survival. User of the CAIS must be abreast with current security threats to the entire organization and its inherent information. User must be trained on the need to enforce policies such as; never open unsolicited e-mail attachments, only use approved software, never share or reveal your passwords, and taking steps to physically protect laptops. Training is also needed to educate employees about social engineering attacks, which use deception to obtain unauthorized access to information resources. Executive support, Organizational and attitudinal change at all levels are essential for the successful implementation of a CAIS.

SCOPE FOR FURTHER RESEARCH

Further research could be undertaken to develop a value model for the implementation of security controls in CAIS, which would allow an in-depth analysis of the costs and benefits in a more organized way. The e3-value model can be used as tool for determining the actual economic value created by the implementation of security controls in CAIS. Further research is also needed to investigate the challenges in the implementation of security controls in Computerized Accounting Information systems in Institutions of Higher Learning in Ghana.

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TRUST IN LEADERS - VITAL FOR EMPLOYEE MOTIVATION AND COMMITMENT: A CASE STUDY IN SELECTED CIVIL SERVICE BUREAUS IN AMHARA REGION, ETHIOPIA

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ABSTRACT

The objective of the study was to assess the level of trust employees and subordinates have on their superiors in particular and the management team in general in selected civil service Bureaus in Amhara region, Ethiopia. Among 13 civil service bureaus in the region a total number of 150 employees from three selected bureaus (Amhara Education Bureau, Amhara Regional Bureau of Justice and Amhara Regional Bureau of Agriculture and Rural Development) were included in the study which were selected randomly. Subordinates' and employees' level of trust in their superiors and management team of their respective organization was measured via a trust measurement questionnaire. Trust as construct was measured using six dimensions namely competence, integrity, dependability/reliability, openness / honesty, concern for employees and identification. The result of the study showed that most often the trust of employees and subordinates on their superiors and management team of their organization varies from "sometimes" to "fairly often" in the scale. Hence even if the level of trust of employees and subordinates in their superiors in particular and management team of their organization in particular is encouraging there is a need for more effort to scale up it.

KEYWORDS

competence, concern for employees, dependability, identification, integrity, openness, trust.

INTRODUCTION

How much do you trust others? How much do you trust your spouse, friends and relatives, public policy makers', managers, preachers, the media etc? The level of trust that one has on spouse, friends and relatives, policy makers etc have a crucial impact on how the respective institutions /individuals involved in a particular relationship function and perform (Putnam, R. D., 1993). Trust has been the basic concern of researchers in public administration, management; development and governance for long. For example, in public administration the trust of citizens on government and its role for civic engagement; in corporate management the trust of stockholders in corporate managers and leaders have been concerns of research for long. Trust plays a make or break role in any situations that involves the interaction of two or more people/organizations. The level of trust one have on the other and vice versa directly affects how effectively and efficiently the parties function and perform.

Trust as a value has a central place in our society. The following quotations from Ethiopian oral literature show how trust as a value is embedded in our social system.

Once upon a time a given rain feed agricultural society faced a challenge of drought and famine since the rain was not coming on time as expected. Elders of the generation arranged a prayer whereby any part of the society should participate to ask God to bring the rain for them. On the date of the prayer any one was going to the prayer area. There was only one child who had an umbrella among the large number of people who are going to the prayer. The child was surprised why the other people do not have umbrella but still other people were surprised with the child for the fact that the child is with an umbrella. Fortunately one of the adults who are going to the prayer asked the child why he carried an umbrella. The child responded that "we are going to pray to God to give us the rain, for sure our God will give us the rain hence I came up with an umbrella to protect my self from the rain".

There has been a media known for undependable news and the majority of people do not trust the news from that media. One day in the weather forecast program of the media it was announced that a strong storm is going to come in a given part of that constitute and the media advised the people to leave their area. However the people assume that it is business as usual that they do not trust the media. Unfortunately the storm happened that day and the people were seriously damaged.

There was a person who shots loud for calling help of his neighbors .When the neighbors come out to help him he is making it for joke that there was no any problem. After the person repeatedly makes such a joke once a day he faced a real danger and he shot for help of his neighbors. Unfortunately no one come out to help the guy since the people assumed that he is making the usual joke. They never trusted him.

All the above situations show the importance and value of trust in different contexts. The child trusted in God that the rain will come; the people do not trust the media and they were destroyed; the neighbors don't lend their hand to the guy who shots for help since they do not trust him. In line with the above analogy one can imagine what could happen if leaders, administrators, policy makers, and development planners' effort if they do not get the trust of people/clients whom they lead and/or serve. By the same token one can easily imagine how it will be difficult to get employees committed, motivated and engaged to achieve organizational objectives if the employees do not trust the leaders and management teams of their respective organization. Trust occupies a pivotal position in leadership and management literatures (Knack, S. and P. Kiefer, 1997). Particularly the level of trust that subordinates and employees have on the management team and their superiors is highly correlated with subordinates commitment, motivation and hence achievement of organizational objectives (Korsgaard, M.A., Schweiger, D.M., & Sapienza, H.J., 1995).

Trust, the basic glue between the superiors and subordinates can be a basic source of competitive advantage for organizations since it cannot be imitated or replicated easily by competitors (Jones & George, 1998). According to scholars in organization behavior (Jones & George, 1998) commitment and motivation of employees to their organization and hence their corresponding performance is a function of two major factors: ability and willingness. Though these two factors are crucial for scaling up employees performance, willingness is much more crucial since employees could not make use of their ability at full capacity in the absence of willingness to perform. Sadly employees may use their ability adversely if they do not have the necessary level of trust in their superiors. Willingness much of the time is a matter of motivation. Many factors mainly monetary and non monetary come into play in this regard. Trust, a non monetary factor is an important ingredient in this regard .The level of trust that subordinates has on the management team in general and their superiors in particular directly affect their productivity and efficiency (Cummings, L.L. & Bromiley, P., 1996).

REVIEW OF LITERATURE

The term trust belongs to the domain of the concept social capital. Though the definition of trust varies from context to context, recently many trust researchers have reached broad agreement on a definition of trust in the management and leadership context: trust is the willingness to be vulnerable based upon positive expectations of the intention or behavior of another, under conditions of risk and interdependence (Mayer et al., 61995).

The role of social capital in general and trust in particular is well documented theoretically and empirically. Social capital influences directly a wide range of economical, political, social and organizational phenomena. Trust occupies a central place in this regard (Fairholm, G., 1994).

A growing body of empirical and theoretical literature suggests that "social capital" in general and trust in particular influences a wide range of significant economic, political, social and organizational phenomena. For example, Arrow (1972) and Fukuyama (1995) believe that the level of trust in a society strongly predicts its economic achievement. Putnam (1930) using a cross-sectional dataset from Italy indicated that local governments and governmental institutions are

more efficient and effective where there is greater civic engagement and public trust. Knack and Keefer (1997) also showed that an increase of one standard deviation in country-level of trust predicts an increase in economic growth of more than one-half of a standard deviation. Besides La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997) claimed that a standard deviation increase in trust increases judicial efficiency by 0.7 and reduces government corruption by 0.3. All the above empirical and theoretical literature is sufficient evidence about the role of social capital in general and trusts in particular in different economical, political, social and legal contexts. Like the above political economical and legal cases the link between leadership and trust is also well documented in management and leadership literature. Research in this regard shows that while the loss of trust between superiors and subordinates is the cause of much conflict, increased cost, decreased profitability, staff turnover, loss of morale, stress and anxiety etc its presence will result in the opposite (Fairholm, G. (1994) Hence organizations public or private, profit or non profit should be concerned about the level of trust subordinates and employee's have in their superiors and management team of their organization. This research is an attempt towards this end in selected civil service bureaus in Amhara region, Ethiopia.

NEED/IMPORTANCE OF THE STUDY

As noted above trust occupies a central place in management and leadership literature. It directly affects employees' motivation and commitment and consequently their productivity and efficiency. Theoretical and empirical evidences are abundant about the role of trust in organizational efficiency and effectiveness. Despite this fact many of the researches in organizational leadership and management focused on of leadership traits of effective leaders and leadership styles. Hence there is a paramount of importance for research on the level of trust employees have on leaders. In addition the research out put will have a vital importance for researchers, academics and practioniers in the area of leadership and management.

STATEMENT OF THE PROBLEM

Existing knowledge base (both theoretical and empirical discourse) in leadership and management is highly skewed to the discussions of leadership traits and different theories of leadership. Researchers and scholars have much focused on how to identify leadership traits that characterize a "good" leader and on synthesizing different theories of leadership. Researchers have given much emphasis in assessing if leaders in different capacities have the required leadership traits and which leadership theory(s) and trait(s) are suitable for a particular situation. Issues on leadership in most cases were addressed in line with this approach. For example organizations in their attempt to recruit and select leaders and managers showed keen interest to see if the candidates have the so called "leadership traits". Educators were much concerned on how to instill leadership traits to leadership and management students and trainees. The basic rationale behind such doctrine is that individuals who have the leadership traits will be successful leaders.

However successful leadership today demands more than leadership traits. Today leaders and managers operate within a competitive and dynamic leadership environment. Leadership theory nowadays should stress on authenticity and relationships among employees and leaders; superiors and subordinates; public policy makers and the public. In this regard there is a valid reason to put trust at the center of leadership and management research. Today since superior-subordinate relationships are changing the management doctrine of vertical and hierarchical relationships should be revisited.

Leaders, managers, and administrators may be visionary, experienced, talented, motivated and committed to achieve organizational goals and objectives. They may be endowed with a full range of leadership traits required for effective and efficient leadership; however their effort will be futile if they do not get the trust of employees and subordinates. The missions and objectives of the organization must be shared among their subordinates and the whole community of the organization. Therefore leaders must get the trust of their subordinates in particular and employees in general for organizational goals to be achieved. Organizational goals and mission should be equally shared and valued by the management and employees of an organization.

The fact that trust has a direct effect on employees' motivation, commitment and productivity is sufficiently documented both theoretically and empirically (Cummings, L.L. & Bromiley, P., 1996). Organizations should understand the level of trust that employees have in the management group. Trust directly affects performance profitability and other organizational performance (Creed, W.E. & Miles, R.E. (1996). Before leaders and managers think of participation, motivation, achieving or excelling targets they should know to what level they are trusted by the employees in general and subordinates in particular. In line with this the basic research question here is: to what extent do employees in Amhara region civil service organizations trust the management team in general and their superiors in particular.

OBJECTIVES

The prime objective of this study is to examine the level of trust the employees have in their leaders in general and management team in particular in selected civil service bureaus of Amhara Region, Ethiopia.

HYPOTHESIS

In line with the above broad objective the following specific hypotheses are made for the research

- Ho 1: The level of competence of leaders (superiors in particular and management team in general) is low as perceived by subordinates and employees.
- Ho 2: The level of Integrity of leaders (superiors in particular and management team in general) is low as perceived by subordinates and employees.
- Ho 3: The level of dependability of leaders (superiors in particular and management team in general) is low as perceived by subordinates and employees.
- Ho 4: The level of honesty exhibited by leaders (superiors in particular and management team in general) is low as perceived by subordinates and employees.
- Ho 5: The level of concern for employees exhibited by leaders (superiors in particular and management team in general) is low as perceived by subordinates and employees.
- Ho 6: Identification to the organization exhibited by leaders (superiors in particular and management team in general) is low as perceived by subordinates and employees.

RESEARCH METHODOLOGY

RESEARCH DESIGN

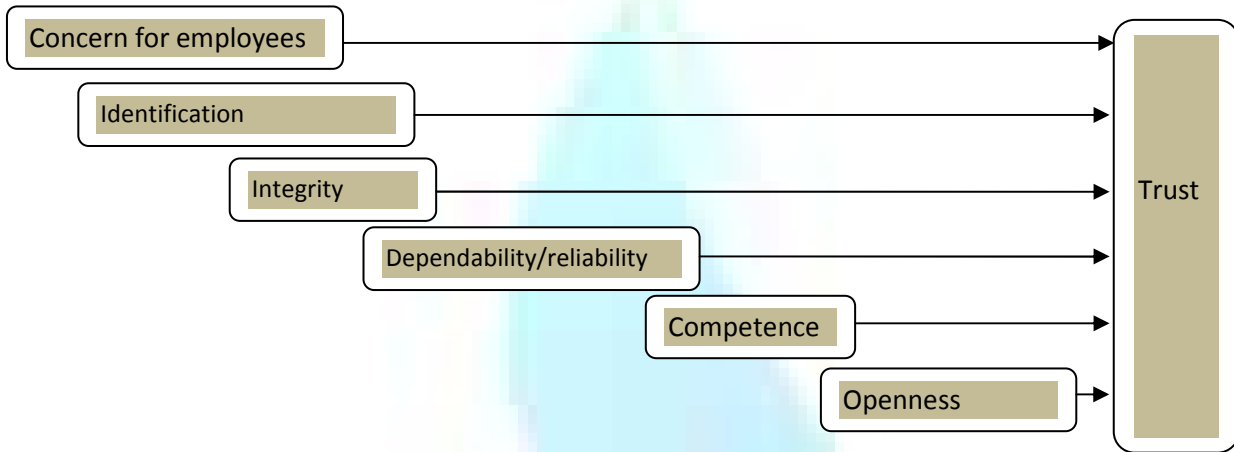
This research was a descriptive cross sectional survey research. Data was collected from a sample of employees selected from different line bureaus of Amhara region. A questioner with five point scale (not at all, once in a while, sometimes, fairly often, frequently) was administered to this end. The purpose was to examine the level of trust employees of the selected bureaus have on their superiors in particular and the management team in general. As far as sampling is concerned a two stage random sampling was applied. In the first stage from 13 line bureaus in Amhara region three of them (Amhara Educational Bureau, Amhara Regional Bureau of Justice and Amhara Regional Bureau of Agriculture and Rural Development) were selected randomly. At the second stage from each selected bureau 50 research subjects/employees were selected randomly from the payroll sheet of the organizations under consideration.

CONCEPTUALIZATION AND MEASUREMENT

Measurement of trust has been a controversial issue. Different people approached the concept in different ways. Some scholars prefer the use of survey instruments while others prefer for games and experiments (Rotter, J. B. (1967)) to measure trust of employees in their superiors in general and the management team in particular. For the sake of this research I subscribed to survey methods with a likert scale that contains different attributes of trust measured in a five point scale (not at all, once in a while, sometimes, fairly often, and frequently). For The sake of this paper I have defined six trust dimensions (competence, integrity, dependability/reliability, openness/honesty, concern for employ and identification) and I used different attributes to measure each trust dimensions. The constructs and attributes used to measure trust are modified and adopted from the work of Katie Delahaye Paine- (Katie Delahaye Paine 2003). For the sake of this research the dimensions used to measure trust and their working definition is given below.

Competence: The belief that an organization has the ability to do what it says it will do. It includes the extent to which we see an organization as being effective; that it has the ability to achieve it's the objectives
Integrity: The belief that an organization is fair and just
Dependability/Reliability: The belief that an organization will do what it says it will do; that it acts consistently and dependably.
Openness and Honesty: This dimension involves not only the amount and accuracy of information that is shared, but also how sincerely and appropriately it is communicated.
Concern for Employees: Concern for employees includes the feelings of caring, empathy, tolerance and safety that are exhibited when we are vulnerable in business activities. Sincere efforts to understand contribute to high levels in any relationships.
Identification: Identification measures the extent, to which we hold common goals, norms, values and beliefs associated with our organization's culture. This dimension indicates how connected we feel to management and to co-workers.

based the on the above definition of trust dimensions the research is conceptualized in the following way.



RESULTS & DISCUSSION

Trust for the purpose of this paper is measured as a function five constructs namely competence, openness/honesty, and concern for employees, reliability/dependability, identification and integrity. Data collected on these basic attributes is summarized and interpreted as follows.

TABLE 1: SUMMERY OF TRUST ATTRIBUTES

	Min	Max	Mean	Standard Deviation
1. Competence				
I am highly satisfied with the organization’s overall efficiency of operation.	1	5	3.38	1.137
I am highly satisfied with the overall quality of the products and/or services of the organization.	1	5	2.83	1.202
I am highly satisfied with the capacity of the organization to achieve its objectives.	1	5	3.44	.996
I am highly satisfied with the capability of the organization’s employee and management team	1	5	3.64	.889
Over all competence mean			3.32	
2.Opens /honesty				
I can tell my immediate supervisor when things are going wrong.	1	5	3.38	1.102
I am free to disagree with my immediate supervisor.	1	5	3.15	1.169
I have a say in decisions that affect my job.	1	5	3.25	.997
My immediate supervisor keeps confidences.	1	5	3.29	1.144
I receive adequate information regarding how well I am doing in my job.	1	5	3.45	1.100
I receive adequate information regarding how I am being evaluated.	1	5	3.02	1.194
I receive adequate information regarding how my job-related problems are handled.	1	5	3.48	1.087
I receive adequate information regarding how organizational decisions are made that affect my job	1	5	3.08	1.165
Overall openness/honesty mean			3.26	
3.Concern for Employees				
My immediate supervisor listens to me	1	5	3.25	.997
Top management is sincere in their efforts to communicate with employees.	1	5	3.29	1.144
Top management listens to employees’ concerns.	1	5	3.45	1.100
My immediate supervisor is concerned about my personal well being.	1	5	3.02	1.194
Top management is concerned about employees’ well being.	1	5	3.48	1.087
My immediate supervisor is sincere in his/her efforts to communicate with team members.	1	5	3.08	1.165
My immediate supervisor speaks positively about subordinates in front of other	1	5	3.25	.997
Over all concern for the public mean	1	5	3.26	1.144
4.Reliability/Dependability				
My immediate supervisor follows through with what he/she says.	1	5	3.28	1.027
My immediate supervisor behaves in a consistent manner from day to data	1	5	3.43	.996
Top management keeps their commitments to employees.	1	5	3.42	1.098
My immediate supervisor keeps his/her commitments to team members.	1	5	3.63	1.108
I believe that this organization takes the opinions of people like me into account when making decisions.	1	5	3.38	1.102
This organization can be relied on to keep its promises	1	5	3.15	1.169
I am very willing to let this organization make decisions for people like me.	1	5	3.25	.997
Overall reliability/dependability mean	1	5	3.36	1.027
5.Identification				
I feel connected to my peers.	1	5	3.68	.989
I feel connected to my organization	1	5	3.44	.996
I feel connected to my immediate supervisor.	1	5	3.64	.889
My values are similar to the values of my peers.	1	5	3.42	1.018
My values are similar to the values of my immediate supervisor.	1	5	3.72	1.071
Overall identification mean			3.58	
Integrity				
This organization treats people like me fairly and justly	1	5	3.31	1.055
Whenever this organization makes an important decision, I know it will be concerned about people like me.	1	5	3.18	1.160
Sound principles seem to guide this organization’s behavior.	1	5	3.34	1.053
This organization does not mislead people like me	1	5	3.47	1.129
Overall integrity mean	1	5	3.32	1.062

Source: own survey 2013

COMPETENCE

the belief that an organization has the ability to do what it says it will do was the first dimension used to measure trust of employees on their superiors and management team in selected line bureaus of Amhara region, Ethiopia. Employees of organizations should develop the confidence that the management team in general and their superiors in particular in the organization are competent enough to meet the objectives of the organization. Employees by and large should have the confidence that their organization is effective and efficient that it have the ability to achieve organizational objectives. As in can be noted from table 1 above the mean value of items used to measure competence of superiors and management team as perceived by employees varies from a maximum of 3.38 to a minimum of 2.83 while the over all mean value of the items used to measure competence is 3.32. This implies that employees’ perception of the competence of their superiors to achieve organizational objectives varies from “once in a while” to “some times” in the scale while the overall mean of competence implies “some times”. Hence the hypothesis that the level of trust employees have on the competence of their superiors and management team is negligible is rejected since the result of the study reveals that employees in the case organizations have a reasonable level of trust on the competence level of their superiors and management team which varies from “once in a while” to “some times” in the five point scale used to measure trust.

OPENNESS /HONESTY

The second dimension used to measure trust of employees in their superiors in particular and the management team in general was openness /honesty. Openness/honesty refers to not only the amount and accuracy of information that is shared, but also how sincerely and appropriately it is communicated. As it can be noted from table 1 above the mean value of items used to measure honesty/ openness varies from a minimum of 3.02 to a maximum 3.38 while the mean value for the overall honesty /openness amounts to 3.26. Consequently both the individual values and mean values of items used to measure honesty of superiors and management team of the case organizations as perceived by employees varies from ‘some times’ to ‘fairly often’ in the scale. Consequently the hypothesis that states that the level of honesty exhibited by leaders as perceived by subordinates and employees is negligible is rejected as the result of the

study confirms that openness /honesty of superiors and management team varies 'some times' to 'fairly often' which shows that leaders have a reasonable level honesty as perceived by their subordinates.

CONCERN FOR EMPLOYEES

The third component used to measure trust of employees on leaders and superiors was concern of management team for employees which refers to feelings of caring, empathy, tolerance and safety that are exhibited by superiors and the management team. The degree to which employees feel that they are valued by their leaders in particular and the management team of their organization in particular plays a make or break role in their commitment, motivation and productivity. Employees should feel that they are valued and cared by their superiors. As it can be noted from table 1 above the mean of items used to measure concern of officials (superiors and management team) to the employees varies from a minimum of 3.02 to a maximum of 3.48 while the overall mean equal to 3.26. Once again as per the scale used in this paper the mean values varies between "some times" to 'fairly often'. Consequently the hypothesis that states that the level of concern of superiors and management team for employees as perceived by employees is negligible is rejected since the result of the study affirms that superiors and management team of the organization gives a considerable level of attention and concern for employees of the organization.

RELIABILITY/DEPENDABILITY

Reliability/Dependability refers to the belief that an organization leaders and management team will do what they say they will do; that it acts consistently and dependably. As it can be noted from table 1 above reliability/dependability mean scores on items used to measure it vary from a minimum of 3.15 to a maximum of 3.68 with a mean value of 3.26. As per the scale used one can reasonably conclude that reliability/dependability of leaders and management team as perceived by employees varies from "some times" to "fairly often". Consequently the hypothesis that states the level of dependability of leaders (superiors in particular and management team in general) is low as perceived by subordinates and employees is rejected since result of the study confirms that employees have a considerable level of trust on the reliability of their superiors and management team of their organization.

IDENTIFICATION

Identification measures the extent, to which employees of an organization hold common goals, norms, values and beliefs associated with the organization's culture. This dimension of trust indicates how connected employees feel to management team and other co-workers. It measures the level of belongingness employees have to their organization. Mean scores of items used to measure identification of employees to their organization varies from a minimum of 3.42 to a maximum of 3.72 with an aggregate mean value of 3.58 which leads to a conclusion that identification of employees to their organization as per the scale used in this paper varies from "some times" to "fairly often". Hence the hypothesis that states employees have no at all identification to their organization is rejected for good as the research out put confirms that employees have a reasonable level of identification to their organization that varies from "some times" to "fairly often".

INTEGRITY

Integrity in the context of this paper refers the belief that organizational leaders and management team actions and practices are fair and just in the eyes of the employees. Fairness and justice have a far reaching impact on employees' commitment, motivation and productivity. Measure of items used to measure integrity of leaders as perceived by employees varies from a minimum of 3.18 to a maximum of 3.47 with a mean value of 3.32. Once again according to the scale used to measure trust in terms of integrity of leaders as perceived by subordinates is with in the scale "some times" to "fairly often". Hence the hypothesis that states leaders' level of integrity as perceived by employees is low is rejected for good since data confirms that leaders have a reasonable level of integrity as perceived by employees though more effort is needed to boost it up.

FINDINGS

The basic motive of this research was to measure the level of trust employees in the case organization have on the leaders (superiors and management team) of the organization. The premise for this research was that trust on leaders will boost up the commitment and motivation of employees their by increasing their productivity. Hence organizations should understand the level of trust employees have on the management team and device appropriate strategies. Concern for employees, identification, integrity, dependability/reliability, competence, and openness were used as major indicators to measure trust of employees in their superiors in general and management team of their organizations in particular. A five point scale (not at all, once in a while, sometimes, fairly often, frequently) was used to measure each indicator. Findings of the study confirm that trust of employees of the case organizations on their leaders as measured by the above proxies (Employees, identification, integrity, dependability/reliability, competence, and openness in most cases vary from 'some times' to 'fairly often'.

RECOMMENDATIONS/SUGGESTIONS

In general terms existing literature tells us that the level trust employees have on the management team of their organization directly affects commitment and motivation of employees to their organization and hence their productivity. Hence organizations should measure the level of trust employees have on the management team and device appropriate strategies. As far as civil service organization in Amhara region, Ethiopia is concerned this research shows that employees have a reasonably encouraging level of trust on the management team. Hence the future actions should take two possible actions. Firstly leaders should capitalize on existing level of trust and make all efforts to maintain this level .second more effort is expected to scale up the trust to higher level by analyzing the areas where in gaps do exist.

CONCLUSIONS

At the end of this research, what one learns is the role of trust of employees on the management team of their respective organizations on employees' commitment, motivation and associated productivity. Then after organizations should measure the level of employees trust in their management team for any possible action. As far as civil service organization in Amhara region, Ethiopia is concerned this research shows that employees have a reasonably encouraging level of trust on the management team. Hence, the future actions should take two possible actions. Firstly leaders should capitalize on existing level of trust and make all efforts to maintain this level .second more effort is expected to scale up the trust to higher level by analyzing the areas where in gaps do exist.

SCOPE FOR FURTHER RESEARCH

The prime purpose of this study was on measuring the level of trust that subordinates and employees have on superiors in particular and the management team in general in selected civil service institutions in Ethiopia, Amhara region. Based on this research should focus in two major area of researchers .first as this research primarily focused in measuring the level of trust employees have on leaders in general and management team of their organization in particular understanding the level is part of the game hence future researches should focused on the causes for the present level and think of methods to scale it up. Second since trust is a complicated issue to measure in this research six proxies are used to measure it. More rigorous analysis of trust using more proxies could be another important future research direction.

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THE IMPACT OF ADOPTING COMPUTERIZED ACCOUNTING INFORMATION SYSTEMS FOR EFFECTIVE MANAGEMENT OF ACCOUNTING TRANSACTIONS IN PUBLIC INSTITUTIONS: CASE OF KENYA SCHOOL OF GOVERNMENT

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ABSTRACT

This study sought to find out the impact of Computerized Accounting Information Systems in the quality of accounting information produced, the impact of adoption of Computerized Accounting Information Systems on performance in the accounting department, the effectiveness of Computerized Accounting Information Systems in detection of errors and fraud in public institutions and also how far have public institutions have adopted Computerized Accounting Information System in carrying out accounting transactions and managing them. The findings of the study were intended to help managers in public institutions how to manage accounting transactions to derive maximum benefits from these accounting transactions as a way of achieving organizational goals and to be used by those who are interested to carry out research in the line of accounting transactions management. The research took place in Kenya School of Government where managers and all staff members who are involved in the management of accounting transactions were used as the target population. Data collected was analyzed using SPSS software version 12. The findings showed that majority of those who are involved in the management of accounting transactions understand what the management of accounting transactions means and the adoption of Computerized Accounting Information Systems has an effect on the overall management of accounting transactions in public institutions. The study recommended for continuous implementation of Computerized Accounting Information System to ensure continuous improvements. Further studies should be done in other public institutions including other operational areas.

KEYWORDS

Computerized Accounting, Information systems, Accounting transactions, Kenya School of Government.

INTRODUCTION

BACKGROUND OF THE STUDY

The adoption of computerized accounting information systems (CAIS) in organizations has been playing important roles toward the overall achievement of the organizations' goals and objectives. Accounting information systems (AIS) are tools which when incorporated into the field of information and technology system, well designed to help in the management and control of matters related to firm's economic – financial area, the stunning advancement in technology has opened up the possibility of generating and using accounting information from a strategic view point. Since this is important for all organizations it's more important even for public institutions which need information to deal with higher degree of uncertainty in decision making. We talk about uncertainty as a lack of information compared to what a decision maker needs to make a decision (Gabraith, 1973), and the fewer administrators are able to predict the outcome from their actions.

Information development is essential for improving or developing new context to support management, strategy and decision making (Lee, Strong et al 2002). Furthermore, accounting information is important in organization as it requires quality information to improve efficiency and effectiveness of their operations for increased productivity.

IT has profoundly changed most organizations and their information needs, and accounting must adjust to these changes (Mohd Salleh, 2000). Accounting, being the source of financial information, will inevitably be affected by rapid development of IT. Thus, computerized accounting system was introduced to change manual conventional accounting system to take advantage of IT advancement.

Survey conducted by (Davis 1997) found that the introduction of computer in accounting, called computerized accounting information system, enable more complex transactions done effectively and efficiently to produce information. Mohd Salleh (2000), views that the usage of CAIS can relieve the user from the mundane tasks, which was previously done manually.

The use of CAIS allows for immediate and accurate access, efficient knowledge sharing, efficient cost effective, as well as comprehensive information of which is critical for a successful organization. As viewed by (Walsham, 1993; and Gallier, 1990) in their research, organization need accounting information for their daily operation so that they can plan, implement, report and make management and strategic decisions to get the extra competitive advantages.

Good accounting information can lead to success of an organization, while poor accounting information may lead to failure of the organization (Bovee 2004, Redman 2008). As a consequence organizations are more concerned with timeliness and quality of financial performance information (Uday 2004). Public institutions like any sector need to apply computerized accounting information systems by improving the quality services, planning, and in making decisions.

Kenya School of Government (KSOG) is a public government institution that was established by transforming the previously Government Training Institutes of Mombasa, Matuga, Baringo, Embu and Kenya Institute of Administration for the need of training public servants and carry out research and consultations on behalf of the government of Kenya. Hence it has many transactions, that it has to carry every day and they require proper accounting management.

LITERATURE REVIEW IN COMPUTERIZED ACCOUNTING INFORMATION SYSTEM

Accounting information system is considered as a subsystem of management information system (MIS). To regard accounting as an information system, perhaps, is the latest definition of accounting. For the first time in 1966, the American Institute of Certified Public Accountants (AICPA) stated that: "Accounting actually is information system and if were more precise, accounting is the practice of general theories of information in the field of effective economic activities and consists of a major part of the information which is presented in the quantitative form".

Computerized accounting systems are software programs that gather the various accounting information related to sales, purchases, receivables, payables, cash receipts, cash disbursements, and payroll. And in this procedure the financial statement is generated (Islam, 2010). Most of the accounting information is generated from transactions. Transactions of firms have both accounting and non accounting attributes. During the early days of computerization of AISs, accounting system used to be isolated from other information systems and served as operational; support systems. Today, as more powerful, flexible, economical, and user-friendly software and hardware have become available, the trend is toward a logical arrangement where a single system can support both accounting and operational needs. Today's accounting systems are closely tied into and may even be fully integrated with other information systems and ensure that relevant accounting information gets to the expected user in time.

An information system is means of collecting, entering, and processing data and storing, managing, controlling, and reporting information so that an organization can achieve its objectives or goals (Romney et al., 1997). He further argues that this definition of information system indicates that an information system has four components; data, software, output and users.

CAIS AND THE PERFORMANCE IN PREPARATIONS OF ACCOUNTING TRANSACTIONS

In a recent study (Nasrin, 2010) some attributes were identified to find out the influence of using computerized accounting software (CAS) by the users and their perceptions about this. The users believed that using CAS would help him or her better attain significant rewards and they feel comfortable in using CAS. Social influence was one of the most important factors that affected users to use CAS to improve their workability and performance and it was found that most of the respondents agreed that their performance could be better every time by using CAIS.

Computer and accounting are important elements for any competitive company or organization. Such importance is attributed by the rapid changes in the business environment. (Banarjee and Lloyd, 1995) found that over 90 percent of their respondents use computers in their organizations. They also found that the use of computer assists organizations in distributing, storing, retrieving, archiving, registering and controlling access to information. Banarjee and Lloyd's study is supported by (Zarowin, 1998) which found that the use of computers enabled users to manage, find, retrieve and compose the information at a faster rate which in turn would enable management to make more accurate planning, decision-making and resource allocation.

Read (1996) argues that the use of IT as one of the strategies for the firm to have competitive edge in a new global market. The primary purpose of CAIS is the collection and recording of data and information regarding events that have an economic impact upon organizations and the maintenance, processing and communication of such information to internal and external stakeholder.

Cameron (2006) explained that by using paper-based accounting, there is the cost of material, time, and money. When a piece of paper becomes a document, it has to be filled and stored, and it costs for storage space, securing, heating, and air conditioning the space. Regular purging of old files will time consuming, and misfiled document will be hard to search for and retrieve it leading to time wastage.

CAIS sometimes referred to as paperless system has become a need for business process, especially for a company that has higher volumes and more transaction because it will demand a computerized system (Webster 2004). James Blaylock (2005) believed that, "Going paperless is no longer an option, but must for a Certified Public Accountant". With the trend of moving in this direction, it is imperative to go paperless in order to keep up with the competition and improve on efficiency.

Systems will be useful when information provided by them is used effectively in decision-making process by users. The ongoing revolution in information technology (IT) has had a significant influence on computerized accounting information system (CAIS). Accounting activities that were previously performed manually can now be performed with the use of computers. That is, accountants are now able to perform their activities more effectively and efficiently than before (Dalchi and Tennis, 2004). The revolution in the information systems, which started in the early 1950s when the first business computers became available, is still in progress to ensure that it keeps abreast with technology as this will see the accounting transactions being simplified as compared to the to the use of manual AIS (Nash, 1989).

Computerized AIS accelerates preparation of financial statements and overcomes the human weaknesses in data processing (Muhammad Sori, 2010: 36). Davis D. & Dunn P. (2005) gave the following as some of the advantages that accrue from the use of CAIS; Improved accuracy, Saving money, Improvement in Reporting Capabilities, Speed, Easy to Use, Integration and linking, Automatic Document Production, Storage and Back-up and, Enhanced internal controls.

IMPORTANCE OF THE STUDY

- The findings of this study are expected to provide administrators in public institutions with awareness on the benefits of using CAIS as a continuous improvement tool and challenges to expect while implementing these systems.
- The findings of the study would be used as a point of reference by future researchers who would take interest in the line of AIS

STATEMENT OF THE PROBLEM

Accounting transactions are fundamental activities in any public institution, therefore it is of great importance that these activities are carried out properly to ensure smooth running of the institution. The use of accounting information systems (AIS) has been playing an important role towards the carrying out of these transactions. Although the information generated from AIS should be effective in decision making, there has been a lot of concern on the quality of information produced by manual AIS, the performance of these systems in terms of efficiency and detection of errors and fraud that has been rampant in most government organizations. Therefore this research intended to look into the impact of computerized of computerized accounting information system (CAIS) and the quality of information produced, performance in carrying out transactions, efficiency and also detection of errors and fraud in accounting systems in public institutions.

GENERAL OBJECTIVES OF THE STUDY

To find out the effect of adoption of CAIS on the management of accounting transactions in public institutions.

- To investigate how far have public institutions adopted CAIS in carrying out accounting transactions and managing them
- To determine the impact of CAIS in the quality of accounting information produced
- To find out the impact of adoption of CAIS on performance in the accounting department.
- To determine the effectiveness of CAIS in detection of errors and fraud in public institutions.

HYPOTHESIS

- That there is no significant relationship in the adoption of CAIS and the quality of accounting information produced.
- That there is no significance relationship between the adoption of CAIS and performance in the accounting department
- That there is on significant relationship in the adoption of CAIS and detection of errors and fraud in accounting transactions in public institutions.

RESEARCH METHODOLOGY**RESEARCH DESIGN**

The study adopted a descriptive survey design because it helped in systematic collection and presentation of data in order to asses the adoption of CAIS in public institutions as regards to information quality, performance, detection of errors and fraud in management of accounting transactions

RESEARCH INSTRUMENTS

This study used a questionnaire and personal interviewing as an instrument for collecting data. The questionnaire and personal interviewing was preferred to the other research instruments because they are cheaper, the questionnaire covers a relatively large sample, it can be reused, it has a greater validity and it is rapid. Also personal interviewing was used to reinforce the clarity not well captured in the other tools of data collection

DATA COLLECTION AND PROCEDURES

The study used both primary and secondary sources of data. Primary data was collected using personally administered questionnaire between the month of October and December 2012. The nature of the study, as well as what is expected of the respondents was explained. The confidentiality of the respondents was also assured. The questionnaires were distributed to the respondents and filled questionnaire were collected after four days. Interviewing was also done on the same period.

DATA ANALYSIS

Data was analyzed using descriptive statistics and inferential statistics. SPSS version 12 was used due to its quickness and simplicity in analyzing the data collected and also due to its availability. Inferential statistics including chi-square test was used to test hypothesis. Coding was done in the questionnaire by assigning numbers to variables to enhance descriptive analysis. Descriptive methods such as modes were used to identify the most frequent CAIS used by public institutions to manage accounting transactions. Inferential statistics was used by inferring the results of sample size to the whole population.

DATA ANALYSIS, INTERPRETATIONS AND DISCUSSIONS
THE USE OF COMPUTERIZED ACCOUNTING INFORMATION SYSTEMS

TABLE 1: RESPONSE ON USE OF CAIS

	Frequency	Percentage
Yes	13	65
No	7	35
Total	20	100

Source, research data

As it can be seen from the above table 65% acknowledges that there is the use CAIS at KSOG in the management of accounting transaction while 35% said that there is no use of CAIS in management of accounting transactions

CHALLENGES IN MANAGEMENT OF ACCOUNTING TRANSACTIONS IN KSOG

TABLE 2: RESPONSE ON CHALLENGES IN MANAGEMENT OF ACCOUNTING TRANSACTIONS

	Frequency	Percentage
Yes	15	75
No	5	25
Totals	20	100

Source, research data

75% acknowledged that there are challenges in management of accounting transactions in KSOG while 25% said that there are no challenges in management of accounting transactions.

TYPE OF CHALLENGE FACED IN MANAGEMENT OF ACCOUNTING TRANSACTIONS IN KSOG

TABLE 3: RESPONSE ON TYPES OF CHALLENGE

	Frequency	Percentage
Lack of management support	3	15
Incompetent staff	2	10
Lack of resources	7	35
Lack of employee commitment	3	15
No challenge	5	25

Source, research data

25% said that the main challenge they face in management of accounting transactions is lack of management support, 10% said its incompetent staff, 35% said its lack of resources, 15% said lack of employee commitment and 25% said there is no challenge in the management of accounting transactions.

THE LEVEL OF ADOPTION OF CAIS AT KSOG

TABLE 4: RESPONSE ON LEVEL OF ADOPTION

	Frequency	Percentage
V. good	3	15
Good	7	35
Moderate	2	10
Poor	1	5
Don't know	7	35
Totals	20	100

Source, research data

15% of the respondents said that the adoption of CAIS in the management of accounting transactions in KSOG is very good, 35% said its good, 10% said its moderate.

MANAGEMENT OF ACCOUNTING TRANSACTIONS

UNDERSTANDING THE TERM MANAGEMENT OF ACCOUNTING TRANSACTIONS

TABLE 5: RESPONSE ON UNDERSTANDING THE TERM MANAGEMENT OF ACCOUNTING TRANSACTIONS

	Frequency	Percentage
Yes	16	80
No	4	20
Totals	20	100

Source, research data

80% of the respondents acknowledged that they understood the term management of accounting transactions and 20% said they didn't understand the term management of accounting transactions.

TABLE 6: RESPONSE ON EFFECT OF CAIS ON THE QUALITY OF ACCOUNTING INFORMATION PRODUCED

	Frequency	Percentage
Yes	13	65
No	7	35
Total	20	100

Source, research data

It can be seen from the above table 65% of the respondents said that there has been an impact in the quality of accounting information produced through the adoption of CAIS in the management of accounting transactions while 35% said their is no impact.

EFFECT OF CAIS ON THE QUALITY OF ACCOUNTING INFORMATION PRODUCED

TABLE 7: RESPONSE ON HOW CAIS HAS INFLUENCED THE QUALITY OF ACCOUNTING INFORMATION PRODUCED

	Frequency	Percentage
Highly increased	6	30
Increased	3	25
Moderately increased	2	10
Lowly increased	2	10
No effect	7	35
Total	20	100

Source, research data

From the above table it can be observed that 30% of the respondents said that the quality of accounting information produced had highly increased due to the adoption of CAIS in the management of accounting transactions, 25% said it had increased, 10% said it had moderately increased.

CAIS ON THE PERFORMANCE IN THE MANAGEMENT OF ACCOUNTING TRANSACTIONS IN KSOG

TABLE 8: RESPONSE ON EFFECTS ADOPTION OF CAIS ON THE PERFORMANCE IN THE MANAGEMENT OF ACCOUNTING TRANSACTIONS

	Frequency	Percentage
Yes	12	60
No	8	40
Total	20	100

Source, research data

It can be seen from the above table 60% of the respondents said that adoption of CAIS in management of accounting transactions had effect while 20% said there is no effect.

INFLUENCE OF CAIS ON THE PERFORMANCE IN THE MANAGEMENT OF ACCOUNTING TRANSACTIONS

TABLE 9: RESPONSE ON HOW ADOPTION OF CAIS HAS INFLUENCED THE PERFORMANCE IN THE MANAGEMENT OF ACCOUNTING TRANSACTIONS

	Frequency	Percentage
Highly increased	6	30
increased	2	10
Moderately increased	3	15
Lowly increased	1	5
No effect	8	40
Total	20	100

Source, research data

30% of the respondents said that effect of adoption of CAIS in the management of accounting transactions on performance has been very good, 10% said its good, 15% said its moderate 5% said its poor and 40% said there is no effect.

EFFECT OF ADOPTION OF CAIS ON THE LEVEL OF FRAUD IN ACCOUNTING DEPARTMENT

TABLE 10: RESPONSE ON EFFECT OF ADOPTION OF CAIS ON THE LEVEL OF ERRORS AND FRAUD IN ACCOUNTING DEPARTMENT

	Frequency	Percentage
Highly reduced	5	25
Reduced	3	15
Moderately reduced	1	5
Lowly reduced	2	10
No effect	9	45
Total	20	100

Source, research data

25% of the respondents said that the level of errors and fraud in accounting and procurement department has highly reduced, 15% said it has reduced, 5% said it has reduced moderately, 10% said it has lowly reduced and 45% said there is no effect

H0₁: The most public institutions have not adopted CAIS in carrying out accounting transactions and managing them.

TABLE 11: RELATIONSHIP BETWEEN THE ADOPTION OF ICS AND MAINTENANCE COST LEVEL AT KSOG

		Effects of adopting ICS on maintenance costs level					Total	
		Very good	Good	Moderate	poor	No Effects		
Maintenance Cost of fixed assets at KSOG	Yes	Count	3	7	2	1	0	13
		Expected Count	1.95	4.55	1.3	0.65	4.55	13.0
		%within level of adoption of CAIS	23.07%	53.85%	15.38%	7.69%	0.0%	100.0%
	No	Count	0	0	0	0	7	7
		Expected Count	1.05	2.45	0.05	0.35	2.45	7.0
		%within level of adoption of CAIS	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total		Count	3	7	2	1	7	20
		Expected Count	3.0	7.0	2.0	1.0	7.0	20.0
		%within level of adoption of CAIS	15.0%	35.0%	10.0%	5.0%	35.0%	100.0%

Source, research data

Chi square=8.00, df=4.0, p=0.092

From the table above it can be seen that the value of chi square test is 8.00 which greater than the value of p which is 0.092 hence the null hypothesis is not true.

H0₂: That there is no significant relationship in the adoption of CAIS and the quality of accounting information produced.

TABLE 12: RELATIONSHIP BETWEEN THE ADOPTION OF CAIS AND THE QUALITY OF ACCOUNTING INFORMATION PRODUCED KSOG

		Effects of adopting CAIS and the quality of accounting information produced.					Total	
		Highly increased	increased	Moderately increased	Lowly increased	No Effects		
Quality of accounting information produced	Yes	Count	6	3	2	2	0	13
		Expected Count	3.9	1.95	1.3	1.3	4.55	13.0
		% within quality of accounting information produced	46.15%	23.08%	15.38%	15.38%	0.0%	100.0%
	No	Count	0	0	0	0	7	7
		Expected Count	2.1	1.05	0.7	0.7	2.45	7.0
		% within quality of accounting information produced	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total		Count	6	3	2	2	7	20
		Expected Count	6.0	3.0	2.0	2.0	7.0	20.0

Source, research data

Chi square=5.50, df=4.0, p=0.240

From the table above it can be seen that the value of chi square test is 5.50 which greater than the value of p which is 0.240 hence the null hypothesis is not true.

H0₃: That there is no significance relationship between the adoption of CAIS and performance in the accounting department

TABLE 13: RELATIONSHIP BETWEEN THE ADOPTION OF CAIS AND PERFORMANCE IN THE ACCOUNTING DEPARTMENT AT KSOG

		Effects of adopting of CAIS and performance in the accounting department					Total	
		Highly increased	increased	Moderately increased	Lowly increased	No Effects		
performance in the accounting department	Yes	Count	6	2	3	1	0	12
		Expected Count	3.6	1.2	1.8	0.6	4.8	12.0
		% within performance in the accounting department	50.00%	16.67%	25.00%	8.33%	0.00%	100.0%
	No	Count	0	0	0	0	8	8
		Expected Count	2.4	0.8	1.2	0.4	3.2	8.0
		% within performance in the accounting department	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total		Count	6	2	3	1	8	20
		Expected Count	6.0	2.0	3.0	1.0	8.0	20.0

Source, research data

Chi square=8.50, df=4.0, p=0.075

Chi square=8.50, df=4.0, p=0.075

From the table above it can be seen that the value of chi square test is 8.50 which greater than the value of p which is 0.075 hence the null hypothesis is not true.

H0₄: That there is on significant relationship in the adoption of CAIS and detection of errors and fraud in accounting transactions in public institutions

TABLE 14: RELATIONSHIP BETWEEN ADOPTION OF CAIS AND CASES OF ERRORS AND FRAUD KSOG

		Effects of adopting CAIS on fraud and errors					Total	
		Highly Reduced	Reduced	Moderately Reduced	Lowly Reduced	No Effect		
Cases of fraud and errors	Yes	Count	5	3	1	2	0	11
		Expected Count	2.75	1.65	0.55	1.1	4.95	11.0
		% within Cases of fraud and errors	45.45%	27.27%	0.09%	0.18%	0.00%	100.00%
	No	Count	0	0	0	0	9	9
		Expected Count	2.25	1.35	0.45	0.9	4.05	9.0
	% within Cases of fraud and errors in	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	Count	5	3	1	2	9	20	
	Expected count	5.0	3.0	1.0	2.0	9.0	20.0	
	%within Cases of fraud and errors in KSOG	25.0%	15.0%	5.0%	10.0%	45.0%	100.0%	

Source, research data

Chi square=10.00, df=4.0, p=0.45

From the table above it can be seen that the value of chi square test is 8.00 which greater than the value of p which is 0.092 hence the null hypothesis is not true.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

FINDINGS

In relation to adoption of CAIS in carrying out accounting transactions and managing them, 65% of the respondents said that there was use of CAIS in management of accounting transactions and the chi square tested at positive 8.00. In regards to the impact of CAIS in the quality of accounting information produced, it was observed that 65% of the respondents showed that the adoption of CAIS has improved the quality of accounting information produced the chi square tested positive 5.50. to determine the impact of adoption of CAIS on performance in the accounting department, 60% of the respondents showed that the adoption of CAIS improved the performance in the finance and procurement department the chi square tested positive 8.50. in relation to the effectiveness of CAIS in detection of errors and fraud in public institutions, the study showed that 55% of the respondents were of the opinion that CAIS has improved the detection of errors and fraud the chi square tested at positive 10.00.

CONCLUSIONS

Research findings show a general understanding of accounting information systems as a tool to improve the public institutions' management of accounting transactions. This implies that if implemented and applied in public institutions CAIS would improve on the quality of information, error and fraud detection and high efficiency in management of accounting transactions in these public institutions. This is attributed to the fact that most of the respondents have worked in the in the institution for a period of more 2-3 years as such seen the application of CAIS being effective in the management of accounting transactions The research therefore concludes that the adoption of CAIS on management of accounting transactions has led to high efficiency and reduction of errors and fraud, also the quality of accounting information produced has increased. Public institutions should therefore ensure fully adoption of CAIS to ensure effectiveness in their accounting transactions.

RECOMMENDATIONS

The existing CAIS in public institutions prove to be of much importance regarding the management of accounting transactions. The implementation of these systems can therefore ensure quality in management of accounting transactions in public institutions which in turn ensure smooth running of public institutions. The adoption of CAIS is a continuous process which should be continuously implemented to promote the day to day running of public institutions. The issue of proper management of accounting transactions should be encouraged in all public institutions as a way of ensuring that those transactions are well recorded, there operations are delegated to responsible personnel. The error and fraud level in management of accounting transactions should be kept as low as possible to ensure that transactions in public institutions are managed well.

RECOMMENDATIONS FOR FURTHER RESEARCH

The study was carried out only in one type of public institution, that is, KSOG. We therefore recommend that further research should be carried out in all of the public institutions in Kenya to determine whether the accounting transactions are well managed

The research also only focused on the management of accounting transactions in public institutions but did not research on other activities that may affect the institutions. We therefore recommend that research should be undertaken on other activities to determine whether they are run as intended

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INCLUSIVE GROWTH THROUGH FINANCIAL INCLUSION: A STUDY OF INDIAN BANKING SECTOR

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ABSTRACT

The banking industry in India is undergoing a transformation since the beginning of liberalization. Modernization in banking is changing banking services, products and operational methods of banking. Technology has brought about strategic transformation in the working of banks. With the passage of time, banks are also adding services to their customers. The Commercial Banks in India has witnessed unprecedented growth in branches i.e. 83993 as at Mar 2010 with total 170 number of banks having Deposit of Rs.47,52,456 cr. & Credit Rs.27,85,637 cr. and allowing 74% foreign investment in Private Sector Banks since 2004 and more liberalized policy in opening of more Foreign banks since 2006. Then a question comes to the mind that in spite of so much development and reforms is banking services available to mass in four corners of the country? The untapped potential with regard to financial inclusion needs to be harnessed using cost effective technology solutions and appropriate business models that make small value transactions viable. During 2009-10, the Platinum Jubilee year of the Reserve Bank, the flagship project was the outreach programme aimed at financial inclusion and financial literacy. The present paper is a humble attempt to review present status of Indian Banking Industry and Financial Inclusion, analyze various important regulatory initiatives taken by the Reserve Bank of India regarding Financial inclusion along with problems associate with it and suggestion for its improvement.

KEYWORDS

Banking Industry, Financial Inclusion, Inclusive Growth.

INTRODUCTION

The banking industry in India is undergoing a transformation since the beginning of liberalization. Modernization in banking is changing banking services, products and operational methods of banking. Technology has brought about strategic transformation in the working of banks. With the passage of time, banks are also adding services to their customers. The Commercial Banks in India has witnessed unprecedented growth in branches i.e. 83993 as at Mar 2010 with total 170 number of banks having Deposit of Rs.47,52,456 cr. & Credit Rs.27,85,637 cr. and allowing 74% FDI/FII in Private Sector Banks since 2004 and more liberalized policy in opening of more Foreign banks since 2006. Then a question comes to the mind that in spite of so much development and reforms is banking services available to mass in four corners of the country?

Out of the 6,00,000 habitations in the country, only about 5 per cent have a commercial bank branch. Just about 40 % of the population across the country has bank accounts, and this ratio is much lower in the north-east region of the country. People with debit cards comprise 13 % and those with credit cards comprise only 2 %. The untapped potential with regard to financial inclusion needs to be harnessed using cost effective technology solutions and appropriate business models that make small value transactions viable. During 2009-10, the Platinum Jubilee year of the Reserve Bank, the flagship project was the outreach programme aimed at financial inclusion and financial literacy. The Reserve Bank chose 160 remote unbanked villages to convert them into villages having 100 per cent financial inclusion with each household having at least one credit facility along with effective grievance redressal mechanism and awareness.

OBJECTIVES

The paper has been conceived with the following objectives in mind:

- Review present status of Indian Banking Industry and Financial Inclusion
- Identify the aims of Financial Inclusion in Banking industry
- To analyze various important regulatory initiatives taken by the Reserve Bank of India regarding FI
- To examine the role of banking sector in FI, including various problems and prospects associated with it and suggestion for improvement.
- To assess the impact of FI on Indian Commercial Banks during last decade

RESEARCH METHODOLOGY

The present study is descriptive in nature to provide clear information on financial inclusion in banking industry in India and also focus on some fact. For this purpose secondary data were collected. The secondary data were collected through newspapers, magazines, books, journals, conference proceedings, Government reports and websites.

CONCEPT OF FINANCIAL INCLUSION

The **Committee on Financial Inclusion** headed by Dr. Rangarajan defined Financial Inclusion as "the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at affordable costs".

According to **Raghuram Committee on Financial Sector Reforms** financial inclusion is expanding access to financial services, such as payments services, savings products insurance products, and inflation-protected pensions.

Financial inclusion is delivery of banking services at an affordable cost to the vast sections of underprivileged and low income groups. In short, financial inclusion means access to savings, loan and remittances to the entire population of the country. An open and efficient society is always characterized by the unrestrained access to public goods and services. As banking services are in the nature of public goods, financial inclusion should, therefore, be viewed as availability of banking and payment services to the entire population without discrimination of any type.

AIMS OF FINANCIAL INCLUSION

Financial inclusion is important for the poor as it provides them opportunities to build savings, avail credit, make investments and equips them to meet emergencies. A combination of regulatory mandates, cost effective technology solutions and implicit and explicit incentives and moral suasion has been used to increase financial penetration of affordable banking services particularly in the rural and unorganized sectors. The main objectives of financial inclusion are:

- to take banking services to everybody to meet their entire savings, credit and remittance needs initially;

- to cater to the needs for all other financial products and services subsequently;
- to focus on the villages with a population above 2000 initially;
- to cover villages with a population below 2,000 over a period of next 3 to 5 years;
- to provide banking services to entire population residing in urban and metro areas through a functional approach;
- to involve stakeholders like NGOs, industry associations, mutual fund companies, and society at large.

STEPS TOWARDS FINANCIAL INCLUSION

Financial inclusion is being accorded top most priority by the Government and the Reserve Bank and is a central part of the policy agenda which needs to be carried forward in cost effective means particularly through use of effective technological solutions. In the context of initiatives taken by RBI are:

- 1. NO FRILLS ACCOUNTS:** The Reserve Bank of India (RBI) had, in its Annual Policy Statement 2005-2006, asked all the banks to introduce no-frills. Account for low income individual with zero or low minimum balances and charges. The nature and number of transactions in these types of accounts are limited. RBI had also instructed all the banks to make extensive publicity for such no-frills accounts to enable financial inclusion. All the nationalized banks and some private banks had responded quickly to this RBI instruction, followed by the other private and foreign banks.
- 2. RELAXATION ON KNOW-YOUR-CUSTOMER (KYC) NORMS:** KYC requirements for opening bank accounts were relaxed for small accounts in August 2005; thereby simplifying procedures by stipulating that introduction by an account holder who has been subjected to the full KYC drill would suffice for opening such accounts. The banks were also permitted to take any evidence as to the identity and address of the customer to their satisfaction. It has now been further relaxed to include the letters issued by the Unique Identification Authority of India containing details of name, address, and Aadhaar number.
- 3. INTRODUCTION OF GENERAL CREDIT CARDS:** With a view to helping the poor and the disadvantaged with access to easy credit, banks have been asked to consider introduction of a general purpose credit card facility up to Rs. 25,000 at their rural and semi-urban branches. The objective of the scheme is to provide hassle-free credit to banks. Customers based on the assessment of cash flow without insistence on security, purpose or end-use of the credit.
- 4. BUSINESS CORRESPONDENTS (BCS) AND BUSINESS FACILITATORS (BFS) MODEL:** The Reserve Bank permitted banks to engage BCs and BFs as intermediaries for providing financial and banking services. The BC model allows banks to provide doorstep delivery of services, especially cash-in-cash-out transactions, thus addressing the last-mile problem.
- 5. USE OF TECHNOLOGY AND MICRO CREDIT :** Recognizing that technology has the potential to address the issues of outreach and credit delivery in rural and remote areas in a viable manner, banks have been advised to make effective use of information and communications technology (ICT), to provide doorstep banking services. Micro credit to the poor, especially through Government sponsored schemes such as Swarna Jayanthi Gram Swarozgar Yojana (SGSY), Swarna Jayanthi Shahari Rozgar Yojana (SJSRY), Self Help Groups (SHG), Prime Minister's Employment Generation Programme (PMEGP), and Scheme for Rehabilitation of Manual Scavengers (SRMS) etc.
- 6. BRANCH AUTHORIZATION IN TIER III TO TIER VI CENTRES:** To address the issue of uneven spread of bank branches, domestic scheduled commercial banks were permitted to freely open branches in Tier III to tier VI centres with a population of less than 50,000 under general permission, subject to reporting. In the northeastern states and Sikkim, domestic scheduled commercial banks can now open branches in rural, semi-urban and urban centres without the need to take permission from the Reserve Bank in each case, subject to reporting.
- 7. NEW BRANCHES IN UNBANKED RURAL CENTRES :** To further step up the opening of branches in rural areas so as to improve banking penetration and financial inclusion rapidly, the need for the opening of more bricks-and-mortar branches, besides the use of BCs, was felt. Accordingly, banks have been mandated to allocate at least 25% of the total number of branches to be opened during a year to unbanked rural centres.
- 8. CONSOLIDATION OF REGIONAL RURAL BANKS (RRBS):** The Central government has kicked off a major consolidation exercise among RRBs which will play an important role in the country's scheme of financial inclusion. The number of banks will be cut to 46 from 82 after the merger process. A consolidation of existing rural banks will make them more viable.

BENEFITS OF INCLUSIVE FINANCIAL GROWTH

- **Growth with equity:** In the path of superpower we the Indians will need to achieve the growth of our country with equality. It is provided by inclusive finance.
- **Get rid of poverty:** To remove poverty from the Indian context everybody will be given access to formal financial services. Because, if they take loans for business or education or any other purpose they get the loan to pave way for their development.
- **Financial Transactions Made Easy:** Inclusive finance will provide banking related financial transactions in an easy and speedy way.
- **Safe savings along with financial services:** People will have safe banking savings along with other allied services like insurance cover, entrepreneurial loans, payment and settlement facility, etc.
- **Inflating National Income:** Boosting up business opportunities will definitely increase GDP and this will be reflected in our national income growth.
- **Becoming Global Player:** Financial access will attract global market players to our country that will result in increasing employment and business opportunities.

PROBLEMS FACED BY THE BANKS

Although steps have been taken by the banks to deliver the banking services and credit facilities to the vast sections of the population belonging to the disadvantaged and low income groups, it is still a challenging task. This is because of following reasons:

- Due to limited literacy, especially financial literacy, there is lack of awareness about the financial services and products;
- The financial products are unsuitable for low income groups and the attitude of banks towards such customers is unfriendly & un-empathetic;
- The low income groups cannot fulfill KYC norms due to lack of proper documents regarding identity, address, income proof, etc;
- The fees charged by banks are exorbitant & nontransparent; apart from this the terms and conditions are burdensome;
- There is a lack of communication due to language barriers.
- There are psychological and cultural barriers to adopt new financial products and services.

Hence, in order to achieve proper Financial Inclusion, it is necessary for the banks to overcome the above-mentioned challenges in due course of time.

ASSESSMENT OF THE IMPACT OF FINANCIAL INCLUSION

Financial Inclusion is an important priority of the Reserve Bank as only 30 % of the commercial bank branches are in rural areas and only 61 % of the country's population has bank accounts (Annexure). It is both a national commitment and a policy priority especially when a large section of population lacks access to even the most basic formal financial services. The Reserve Bank has taken the task of financial inclusion in mission mode and has fostered an enabling regulatory and policy environment by liberalizing branch licensing, mandating banks to open 25 % of new branches in un-banked rural centres, permitting large number of entities including corporates to function as Business Correspondents (BCs) and Business Facilitators (BFS), introducing innovative products and encouraging use of technology for reaching the unbanked.

SUGGESTION FOR IMPROVEMENTS

The Bank being the key player in the money market can accelerate the financial inclusion process by adopting the following schemes in the strategic plan:

- Increasing enrolment of SHGs (Self-helped group) through bank linkage programme.

- Designing appropriate product on the basis of the requirement of a particular group of borrower.
- Leveraging technology to reduce the opportunity cost of financial inclusions in the rural areas.
- Applying business facilitator and correspondent model more intensively.
- Inspecting the infrastructure of rural branches of the banks.
- Speed up the complaints disposal process both at bank and ombudsmen level
- Effectively arranging the consumer literacy programmes based on target group
- Simplifying the loan process and documentation

CONCLUSION

The objective of inclusive growth with stability emphasized in the Eleventh Plan (2007-2012) is not possible without achieving universal Financial Inclusion. The concept of inclusion should be seen as a process of including the excluded as agents whose participation is essential in the very design of the development process, and not simply as welfare targets of development programmes. The banks will really have to gear up in the near future for successful implementation of Financial Inclusion plans. Long-term growth sustainability critically depends on achieving inclusive growth. In turn, financial inclusion is a necessary condition for achieving this. It allows people to contribute to as well as benefit from economic growth. To support inclusive growth through financial inclusion, the Reserve Bank of India has been encouraging banks to open no-frill accounts with inbuilt overdraft facility, developing suitable recurring deposits, remittance facilities suited for pattern of cash flows for poor and rural households, small loans for entrepreneurial activity and offering micro insurance facility. India remains a country with substantial growth potential, given the natural resources, human capital endowment, demographic dividends, its knowledge base and increasing openness. However, the potential can only be reaped through technology improvements, productivity enhancements, reducing energy deficits, development of infrastructure, stepping up saving and investment, pursuit of inclusive growth and lowering inflation on an enduring basis.

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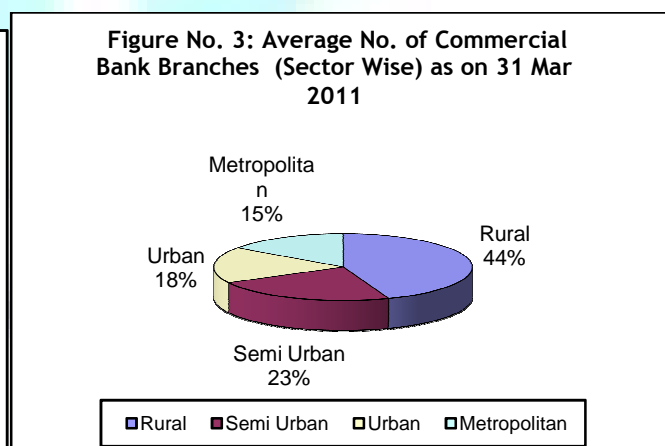
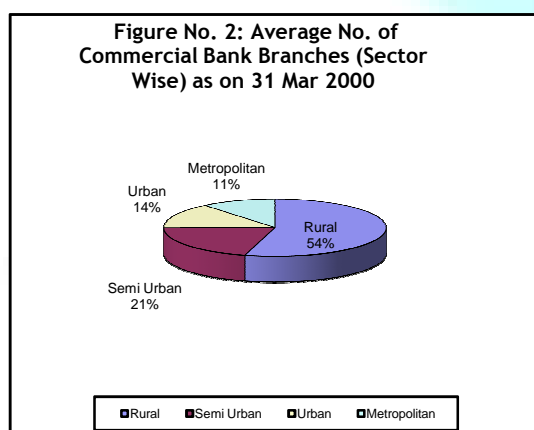
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ANNEXURE

TABLE NO. 1: GROWTH OF COMMERCIAL BANK BRANCHES IN INDIA 2000-11

Population Group	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Rural	32734	32562	32380	32303	32121	32082	30579	30551	31076	31667	32289	33602
Semi Urban	14407	14597	14747	14859	15091	15403	15556	16361	17675	18969	20358	23048
Urban	10052	10293	10477	10693	11000	11500	12032	12970	14391	15733	16653	19156
Metropolitan	8219	8467	8586	8680	8976	9370	11304	11957	12908	14178	14693	17274
Total	65412	65919	66190	66535	67188	68355	69471	71839	76050	80547	83993	93080

Source: Reports on trend and progress of banking in India, RBI, Mumbai, 2000-2011



A CONCEPTUAL MODEL FOR VENDOR SELECTION IN IT OUTSOURCING: AN APPROACH INSPIRED BY THE MONEYBALL THEORY**DIANA LÓPEZ-ROBLEDO****RESEARCH SCHOLAR****SCHOOL OF BUSINESS AND ENTREPRENEURSHIP****UNIVERSITY OF TURABO****PUERTO RICO****EDGAR FERRER****ASST. PROFESSOR****SCHOOL OF BUSINESS AND ENTREPRENEURSHIP****UNIVERSITY OF TURABO****PUERTO RICO****MARIA LUGO-SALLS****RESEARCH SCHOLAR****SCHOOL OF BUSINESS AND ENTREPRENEURSHIP****UNIVERSITY OF TURABO****PUERTO RICO****JOSÉ BEAUCHAMP-COUTO****RESEARCH SCHOLAR****SCHOOL OF BUSINESS AND ENTREPRENEURSHIP****UNIVERSITY OF TURABO****PUERTO RICO****LEILA VIRELLA-PAGAN****RESEARCH SCHOLAR****SCHOOL OF BUSINESS AND ENTREPRENEURSHIP****UNIVERSITY OF TURABO****PUERTO RICO****ABSTRACT**

Moneyball theory is about fielding a successful baseball team on a limited budget. This theory states that some player's attributes are usually undervalued in the baseball market while other attributes are overvalued. Under the gaze of the Moneyball theory, a judicious evaluation of attributes provides means for finding value in places where competitors are not looking. We used the Moneyball theory to study the vendor selection problem in IT Outsourcing. We model the vendor selection problem from the teambuilding perspective as a multi-objective optimization problem, where one organization requires multiple services from different vendors in a multiple sourcing network. The discovered model and the corresponding methods will be useful to the academicians, practitioners, and managers for making appropriate policy formulations for IT outsourcing.

KEYWORDS

Moneyball theory, IT outsourcing, vendor selection, IT management.

INTRODUCTION

The Moneyball theory was shaped for fielding a successful baseball team on a limited budget. This theory states that some player's attributes are usually undervalued in the baseball market while other attributes are overvalued. Beside the management of baseball teams, Moneyball theory has been applied in other areas such as human resources and management. Overall, it is an interesting theory that can be applied to resource management, i.e., Moneyball can be used to make important decisions on what resources are needed at some point, within a budget.

In the competitive world of innovation and IT (Information Technology), organizations are trying to develop new products on their industry, making optimal use of the human capital available to them on a global scale. In today's global economy, which is driven by knowledge as services, more IT Companies are pushed to outsource services in order to increase profits. A study performed by Deloitte consulting (Tihanyi, 2005) revealed that participants originally engaged in outsourcing activities for a variety of reasons: cost savings, ease of execution, flexibility, and lack of in-house capability. In contrast with these ideas, the study highlights that instead of simplifying operations, many companies have found that outsourcing activities can introduce unexpected complexity, add cost and friction into the value chain, and require deeper management skills. The results present a fundamental stage of what the problem may be when deciding to outsource IT capabilities.

IT OUTSOURCING

Since 90's there were companies trying to deal with business and technology changes occurring rapidly and also cut Information Technology (IT) costs (Sadiq, 2010). From that perspective, managers started to think on important decisions concerning outsourcing as they realize the uncertainty involved in that decision. Outsourcing is defined as having work that was formerly done inside the organization performed by an external organization (Sadiq, 2010). Outsourcing contract is viewed as repurchasing through supply contracts the products or results of certain activities by firms delegated for such activities (Michela & Carlotta, 2011).

Some common tasks that organizations have been outsourcing are credit collection, salaries and contribution, computer services, customer service and research and development. Outsourcing is a concept that can be used in any department of an organization. For example, a common outsourcing decision on large companies is to select a vendor for taking care of their call center. In this case, they are no longer worried about customer services related to calls performed which in a large company may be high (Michela & Carlotta, 2011).

Christopher & Tanwar (2012) studied Knowledge Management Systems on the process of outsourcing. They stated that when a company decides to outsource customer service, it faces the complex task of training a whole new group of employees on the particulars of an unfamiliar product line. Also, it is challenging to deal with people from diverse backgrounds, experience, education, and age. This can be the critical point where a Knowledge Management System needs to be taken into account, which can make the transition easier, while significantly lowering the cost of training. This aspect can be used as a negotiating point to lower the price of outsourcing contracts. A Knowledge Management System is like 'the legs of a three-legged stool, if one is missing the stool will collapse' (Christopher & Tanwar, 2012).

In our research, we are going to focus solely on outsourcing IT services. In order to keep with competitive advantage in one specific area, organizations decided to focus on their product or service and rely on IT specialists to take care of their IT infrastructure, applications and/or services. This helps organizations concentrate more on their competencies (Ziolkiewicz, 2011). Different researches had been performed in order to understand why companies outsource IT services. Wang (2008) cited several studies to specify expected benefits and reasons to outsource. Some of these benefits and reasons are cost reduction, improved cost control, improved technology or technical services, focus business on core competencies, access to new technologies and technical talents, and improved flexibility.

Additional to these benefits, outsourcing of IT involves risks, both for the client and the vendor who is the service provider (Sadiq, 2010). Agrawal and Haleem (2012) performed a study of IT risks and they concluded that a 10-year contract with an IT outsource vendor may actually restrict flexibility and increase costs and renegotiating any contract could become far more expensive than changing internal commitments. They found evidence to support the improved performance by firms that provide short-term and low-weight contracts to vendors (Agrawal & Haleem, 2012). This research empirically supports the link between IT outsourcing implementation and firm's operational and financial performance in different types of outsourcing contracts. Outsourcing with a single vendor, under a fixed-priced, exchange-based, and long-term contract may sometimes make sense at the beginning of the contract, but not make sense three years later (Agrawal & Haleem, 2012).

One aspect of outsourcing is the employee's perspective while a second one may be related to the vendor's perspective of IT outsourcing. Sadiq (2010) performed a research with data collected from employees located in Saudi Arabia to explore the employees' attitude towards outsourcing IT services. Although outsourcing may be related to job displacing, the research found that respondents on that country do not see much threat to job security and also proved that outsourcing played a positive role in career advancement. This finding may be explained by the fact that in Saudi Arabia there is a tendency to hire displaced employees or just transferred them to the outsourcing company. Also, the study identified commitment from vendors as a factor in outsourcing decision, specifically if the vendor is committed to success of customer and/or if the vendor is committed to success of employees.

One study was performed from two complementary surveys carried out in late 2007. The first group involved 3,014 human resources managers and the other more than 6,000 United States workers from different occupations. Within technology services and telecommunications industries, over 40% of firms reported offshoring some type of work. Of the five occupations with the highest displacement rates, all but machine operators were technology-related which supports the perception that US IT workers have high rates of displacement related to outsourcing (Tambe & Hitt, 2010). The study also suggested that workers who do not provide personal services are being displaced at a higher rate.

Levina and Ross (2003) explored a vendor-client proposition that help us to understand outsourcing of IT projects. Their proposition explained that an IT application management vendor can deliver value through experience-based competencies, which defines client satisfaction, improves reputation and this leads to increase number of projects controlled by the vendor. Finally, the project enhances the vendor core competencies and helps build a client-vendor relationship. Although this vendor-client proposition has shown as a real approach, not every organization will have the same experience about IT outsourcing. For example, evidence has shown that complete IT outsourcing has not always ended with a cost reduction. In addition to costs, outsourcing is becoming more a strategic decision (Ziolkiewicz, 2011). Wang (2008) concluded that firms must do more than outsource their IT and managers must understand that potential benefits of IT outsourcing do not reduce the importance of maintaining in-house IT capability. This can be supported by a study where 70% of outsourcing clients presented at some point significant negative experiences with outsourcing and also 25% of clients who participate in the study brought outsourcing services back in-house (Tihanyi, 2005). This study also revealed 57% of participants absorbed costs for services they believed were included in the contracts with vendors. When the organization decides to outsource, the contract must be specific enough to clearly regulate every key aspect and at the same time flexible enough to allow the parties to face the consequences of unforeseen events without conflicts arising (Michela & Carlotta, 2011). It is necessary to define the evaluation criteria for the performances and what will happen if these criteria are not fulfilled. Cooperation between the vendor and the organization is needed. The most important and complex phase in the IT outsourcing is the selection of the vendor after considering the impact of the decision to outsource on the achievement of the mission and strategies of the organization, including costs, quality, flexibility, and the meeting of deadlines (Michela & Carlotta, 2011).

Undoubtedly, outsourcing is related to Knowledge Management. Christopher and Tanwar (2012) highlight some important challenges on Knowledge Management, which may be associated to the outsourcing vendor selection. The first challenge quite interesting is that many countries get into outsourcing, thereby increasing competition. The second challenge is the need to a change in culture from 'knowledge is power' to 'knowledge-sharing is power'. The third challenge is that continuously changing information and business environment puts pressure on employees to learn and perform with a very narrow margin of error. Therefore, companies who avoid outsourcing at all might become followers rather than leaders in the market.

The variation in outsourcing behavior from company to company is what made researchers to examine the determinants by which companies decide to outsource its IT services (Dibbern, 2012). There are some factors already identified for IT outsourcing and they are divided on contextual and motivational factors but are not independent of each other. Motivational factors are those reflecting motivations for or against outsourcing and contextual factors are those reflecting the IT outsourcing context. Although these factors have been identified on IT, they are not related to the Moneyball theory which is the focus on our research. So, the Moneyball theory is discussed in the next section to be able to complete our factor's identification process based on this theory.

The relationship between the industry characteristics and the IT outsourcing is an interesting study presented in (Qu, 2011). The study found valuable results related to IT outsourcing and industry characteristics. First, they found that industry munificence is positively associated with IT outsourcing and it can be explained because the development of in-house IT infrastructures may be too time-consuming to support the typical rapid expansion in munificent industries, so the reliance on IT outsourcing will be high in such industries. They also demonstrated that industry dynamism is positively associated with IT outsourcing because it offers more flexibility. The study suggests that organizations should consider utilizing IT outsourcing to improve performance. The author also states "that managers should be mindful about duplicating other firms' outsourcing decisions, as firms from diverse industries are motivated to use IT outsourcing for various reasons" (Qu, 2011). Functions with strategic importance should be kept inside (Ziolkiewicz, 2011). Viewing IT outsourcing as a strategic decision makes us bring the Moneyball theory in order to evaluate the vendor selection process, when to outsource, what factors to consider to compare within vendors, and how to assign a value to each factor. The Moneyball theory will be discussed later on.

THE MONEYBALL THEORY

Michael Lewis wrote the book titled "*Moneyball: The Art of Winning and Unfair Game*" to explain how the low-budget team in baseball wins so many games. Moneyball theory was originally used on a group of undervalued professional baseball players and executives, many of whom had been discarded as low competitive players for moneyed franchises in the Major League Baseball (Lewis, 2004). Some arguments made by professionals related to baseball were that the baseball game was ceasing to be an athletic competition and becoming a financial one. Lewis stated in the book that the financial disparities meant that only the rich teams could afford the best players and the poor team was almost certain to fail. The key point addressed by Lewis in his Moneyball theory was not focused on how much money you have but on how well you spend it. Traditionally, a baseball team manager was looking five tools on their team players: the

abilities to run, throw, field, hit, and hit with power. Oakland's manager, Billy Beane, started looking for inefficiencies in the financial distribution on the team and also examined every aspect in the team building process. Lewis stated that Oakland's players were all the victims of an unthinking prejudice rooted in baseball's traditions (2004). To eliminate this prejudice, Billy Beane allowed them to demonstrate their true worth.

Based on the original Moneyball theory, we may emphasize that it is a technique used by a baseball team's manager with a limited budget who decided to use a non-traditional process to select each of the players. The most valuable players are usually the one who costs more. In order to deal with the limited budget, the Moneyball theory used a different approach to assign value to each player and also optimize the team's performance. The team resulted more successful than its opponents. As stated by Wolfe (2006), the Moneyball theory must not be seen only about baseball; it is also about human resource management, innovation, resistance to change, competitive advantage and achieving excellence. There are business people whose mind just sees value on something that has already been tested and provided evidence for what it can do. They are not open to new talents or will not tolerate giving a chance to a new opportunity, in terms of personnel capacity or technology. Resistance to change will prevent some managers from deciding to outsource. But, as explained by the Moneyball theory, there may be resources inside or outside the organization that may be undervalued or overvalued by management and if they are identified and used better they may bring benefits in form of knowledge, economic saving or any other type of advantage.

As explained above, each baseball team manager evaluates their team members based on different values. Based on this, it seems important to identify values and risks involved with IT outsourcing because values must be exploited and risks should be minimized, even when they may not be eliminated at all. Agrawal and Haleem (2012) identified some risks of IT outsourcing based on different literature and evidence. They mentioned the following risks: lack of organizational learning and loss of innovative capacity, eventual competition from supplier, high cost of switching of IT vendors, loss of control, harmful to employee morale, hidden costs, and technological complexity.

Cloud computing is emerging as a new strategy on IT outsourcing (Flinders, 2012). It considered that the cloud model breaks the customer/supplier relationship which is important to deliver value to customers (Levina and Ross, 2003). Outsourcing IT services or hardware definitely is critical decision that require, especially in small-size organizations, where a limited budget is almost a rule, and managers need to focus on finding a balance between complete IT outsourcing or in-house and evaluate which one will bring more advantages. Evaluation of factors on IT vendors will be inspired on the Moneyball theory, optimizing resources in-house, dealing with a limited budget and also using an outsource IT vendor.

The Moneyball theory has been briefly analyzed in the context of business for team building. Armstrong (2012) suggested that every large organization would gain long-term benefits by applying the Moneyball theory on recruitment of human resources. Managers of an organization may believe that their experience will help them select the best candidate for a job position, but in order to do the tasks they may also need to be able to forecast the employee's performance. The organization may develop a predictive model to evaluate important job skills and characteristics. If organizations use models for personnel selection, they gain an advantage over competitors that refuse to do so (Armstrong, 2012).

It may be also possible to apply the Moneyball theory for team building in the context of IT outsourcing. It is not a good idea to select a single vendor for IT services and it is better to select different vendors for different purposes and/or applications (Agrawal and Haleem, 2012). A long-term contract with a single vendor will not have the best solution, neither outsourcing a strategic function of the company. Therefore, this vendor selection process is a team building process where the company must evaluate each vendor option for all the functions that may benefit from outsourcing. Some factors affect the final outcome of the outsourcing process, vendors must be committed to the company and there are some risks needed to afford no matter which vendor is finally selected. Risks are not eliminated when deciding to outsource, but the Moneyball theory may help in identifying different ways in which those risks may be reduced. Based on the literature discussed above, we identified some factors which have to be considered in order to apply the Moneyball theory for the vendor selection process in IT outsourcing.

CONCEPTUAL FRAMEWORK

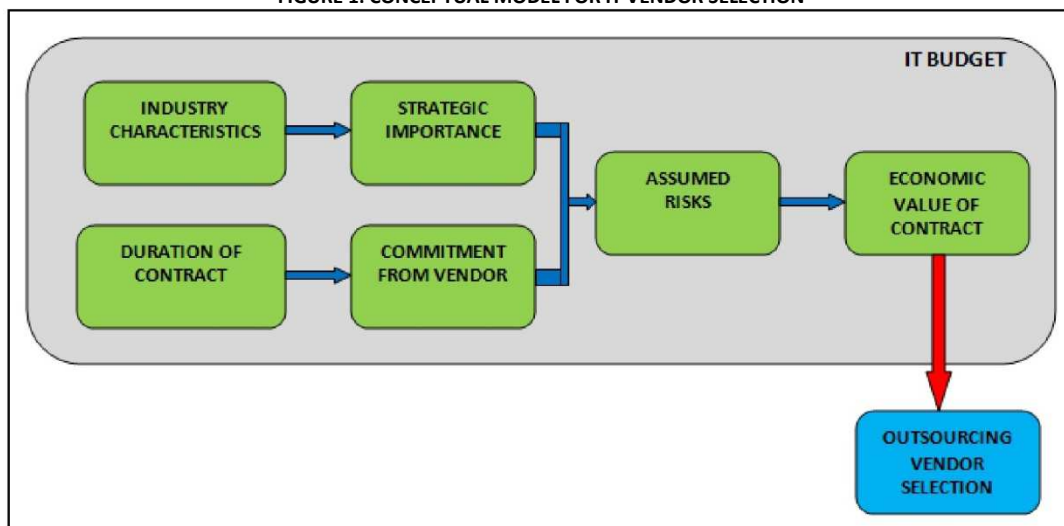
In order to develop a conceptual model for vendor selection in IT outsourcing we had identified different factors throughout the literature. Each of them had been associated to the outsourcing process in IT and will finally have an impact on the outsourcing results for each organization. As a result, our conceptual model includes the factors shown in Table 1.

TABLE 1: FACTORS TO CONSIDER WHEN OUTSOURCING IT SERVICES

Factor to Consider	Description	Literature Source
Duration of Contract	Long-term contract with an IT outsource vendor restrict flexibility and increase costs. IT outsourcing improved performance by firms that provide short-term contract.	Agrawal and Haleem (2012)
Industry Characteristics	Industry dynamism is positively associated with IT outsourcing because it offers more flexibility. Industries are motivated to use IT outsourcing for various reasons.	Qu (2011)
Assumed Risks	Companies may present some risks when outsourcing IT, for example: lack of organizational learning and loss of innovative capacity, eventual competition from supplier, high cost of switching of IT vendors, loss of control, harmful to employee morale, hidden costs, and technological complexity.	Agrawal and Haleem (2012)
Economic Value of Contract	Companies and vendors must clearly define on their contract what is included as part of the contract so companies do not absorb costs for services they believed were included in the contracts with vendors.	Tihanyi (2005)
Commitment from Vendors	The vendor must be committed to success of customer and/or committed to success of employees.	Sadiq (2010)
IT Budget	Companies must not focus on how much money they have but on how well they spend it.	Lewis (2004)
Strategic Importance	Functions with strategic importance should be kept inside.	Ziolkiewicz (2011)

Table 1 presents a brief summary of statements from previous literature which highlights the importance of considering them before making an outsourcing decision. Studies have shown findings which positively or negatively affect the outsourcing process. Based on the factors shown in Table 1, we made the conceptual model shown in Figure 1.

FIGURE 1: CONCEPTUAL MODEL FOR IT VENDOR SELECTION



In the following section we are going to explain each of the factors used on our conceptual model. In addition, we are going to describe the importance of each of the factors in the process of selecting an IT vendor to outsource.

INDUSTRY CHARACTERISTICS

Having the correct decisions depends of the type of business and how hard is hiring the right people or getting the specialized tools to develop the correct application. Flexible and dynamic organizations will tend to outsource IT services. Identifying the industry characteristics will help the organization determine the strategic importance of the function they want to outsource.

STRATEGIC IMPORTANCE

As stated in the literature, it is not a good idea to outsource every task in the organization because there is a risk to loss control over your business. Therefore, functions that represents a strategic advantage on the organization must be kept in-house. It is necessary to identify if the task or process the organization is trying to outsource represents a strategic function or not. If the function represents a strategic advantage in the organization, the risks involved will be higher because the organization may loss control and the competition may gain advantage over them.

DURATION OF CONTRACT

Organizations may select a vendor and agree to use the same vendor for a specific time period. The duration of the contract may be short-term or long-term. In our model, a short-term contract is any period of time up to three years. A long-term contract will be any contract more than three years. A long-term contract is also related to higher risks that the organization must assume because technology is a field of constant development and change. Long-term contract may use technology which has been replaced for a better one.

COMMITMENT FROM VENDORS

Organizations must select an IT outsource vendor who is committed either to the company's customers or employees. Vendors will help customers and/or employees to complete their daily tasks on the organization and employees need confidence on their vendors. Organizations need to be sure that vendors will be there every time they need help from them.

Vendors must offer some commitment with the organization, otherwise they will not be selected as an option. Vendor's commitment must be present regardless of the duration of the contract. But, in long-term contract organizations must look for vendors with high level of commitment and support to their business processes. Commitment is also necessary to reduce uncertainty.

ASSUMED RISK

When a company tries to get an outsource service there is a risk involved. Also it is possible to have service interruptions and lack of commitment related with the service. It is part of the contract to cover those risks. A company who contract services in order to outsource some of their own services may incur in some risks. Those risks must be assumed and should be known before they accept the contract. When the company makes an outsourcing long-term contract they are also increasing the assumed risk, which is related with the cost. So, the risks should be evaluated as they cannot be eliminated at all. The organization must evaluate the risks they want to deal with and this risk will depend on commitment from vendor, duration of contract, strategic importance and industry characteristics.

ECONOMIC VALUE OF THE CONTRACT

The organization must evaluate how much advantage may acquire from a contract, so they can get the best service and also selecting a cost-effective solution. One important decision is to get the most benefits without expending too much money. IT costs are high, because it requires to expend money in new equipment and by outsourcing this cost can be less.

Based on the Moneyball theory we may outsource using resources that presents the qualifications the company is looking for and also are not so expensive. It will be also important to clearly identify costs that are part of the contract and which costs are not covered on it. Companies need to be aware of the scope of the contract before they accept it.

IT BUDGET

As mentioned in the Moneyball theory, it is important to evaluate how well the organization will spend the money they have no matter if it is a limited budget. An outsourced vendor may provide the same kind of services without the cost related with IT services. Monitoring the experienced workers based on their capabilities may be more expensive. There are many consultants already retired or student with the capability to be developed which cost less than an expensive employee. Not only the budget depends on salaries, also a technology can be rented or acquire from vendors. If the company is small and does not need too much bandwidth or disk space they may share the space in servers located outside of the company. In that case they only pay for the space and bandwidth they use.

ANALYSIS FOR THE APPLICATION OF THE MODEL

The model presented in this research is not suitable for large organizations, because they must evaluate additional factors like different management levels and opinions, budget distribution between different facilities, hierarchy limitations for decision making process, among others. Therefore, the factors are intended to represent those needed to be evaluated in small or medium size organizations rather than large corporations. Companies need to be aware of different vendors available in the market as an IT solution because it may be a common mistake to select an IT outsource vendor known by their "brand name". Decisions to outsource is potentially biased by this brand, which make companies focus on only those companies which are recognized instead of giving the opportunity to new talents on outsourcing IT services. The Moneyball conceptual model will help the company to reduce bias on vendors with better brand name and just select the better option for what they need. As a simple example, small companies do not need to pay for 100 Gigabytes of Storage if they only need 5.

Companies need to select a vendor that is able to adjust to their needs, instead of having to adjust to what the vendor offers. Solutions provided by IT vendors should be tailored to the company business strategy.

The model is suitable for different situations. For example, an environment where the model may be useful is a new small business trying to enter into a specific market. Nowadays, almost all companies are trying to maintain databases in order to keep track of their customers, suppliers, inventory, employees or vendors. No matter what kind of business, they need IT technology or infrastructure. So, in this case the organization needs to decide if their budget allows them to have an IT department with servers and applications to support their daily operations. Otherwise, they may use the conceptual model inspired on the Moneyball theory to decide which functions are suitable for IT outsourcing and which vendor they must select. They must predict how each vendor manages uncertainty because a new business is always associated somehow with it. The organization must evaluate performance metrics for the different outsourcing vendors available based on what they need, instead of looking only at the credentials of each vendor. This way, they will end with a better company-vendor relationship. Also, current small businesses that are not IT specialists but need servers to support their databases may realize they are wasting physical resources instead of focusing on the service or product they provide to their customers. In most cases, companies buy servers with greater capabilities than what they really need, just in case their business grows so they don't need to buy additional servers. At the long run, this may result in waste of money and space. By using the conceptual model and the Moneyball theory they may decide for outsourcing, allowing their business to grow and focus on what they do better. Companies in this situation are subject to turn their datacenter to a vendor providing the storage service for what they really use instead of maintaining servers for what they expect to need in the nearby future. IT outsourcing in companies already established with servers may be better when they need to upgrade their servers or hardware, instead of substitute current equipment just to outsource the service.

Each business is unique in terms of what they need to be successful. In any case, it will be better to select a vendor for a short period of time so the company will be able to evaluate the interaction between them. Investing in a vendor, trusting them and give them access to the organization's data is not an easy process. Metrics should be used to evaluate and compare each option. The model presented may help the organization to evaluate and invest in vendors who are undervalued in the market for some reason but will bring your organization the best solution. Finally, the vendor selected need to embrace the organization's goal and objectives and commit to them. This will be the point of success or failure in the outsourcing decision.

CONCLUSIONS AND RECOMMENDATIONS

The literature presents several aspects that must be taken into consideration when evaluating outsourcing information technology services. The needs of each business are crucial to begin the assessment, as well as the company's budget. The technology changes rapidly and outsourcing IT services can be an option for many small and medium companies. The outsource strategy allows the company to focus on their most important goals or core business. The discovered model and the corresponding methods will be useful to the academicians, practitioners, and managers for making appropriate policy formulations for IT outsourcing. There are many benefits and reasons to outsource IT services, and it always involve risks for both (client and service provider). Some former employees of the company or retirees can be taken into consideration in the evaluation process of candidates; because they already know the company's philosophy, the employees, needs and goals, and the procedures. And most important, the company is fully aware of the competencies of these former employees and which of these are what they need to hire.

When making a contract for outsourcing of services, it is advisable to establish a short-term contract because it gives you the option to evaluate and make changes if the execution and results do not meet the company's expectations or needs have changed. The pros and cons should also be evaluated because technology-outsourcing services not always result in cost reduction. At the time of evaluating alternatives, using the Moneyball theory can help predict which vendor or applicant will be most effective or successful in meeting the needs of the company and keep the performance in a high level outcome.

A future recommendation is to conduct a study on small and medium companies in Puerto Rico to further validate the factors identified in our conceptual model, which are crucial in evaluating companies or independent resources to outsource IT services. The evaluation would be done by considering company size, business needs, type of business, budget available for this purpose, level of confidentiality, current costs for IT services, IT resources currently used, among others. Also, strategies or theories applied in the evaluation of vendors may be subject of study (for example, the Moneyball theory).

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HOME LOAN FRAUDS- BANKER'S NIGHT MARE

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ABSTRACT

The housing advances by the commercial banks are often prone to frauds. The frauds in the banks have the tendency to be detected late and, by the time the fraud is detected the culprit will have moved away from the place and evidence. Fraud is a concept that is generally understood, but whose characteristics are often not recognised until it is too late. Fraud has been defined by many in many ways. The Study Group on Large Bank Frauds set up by the Reserve Bank of India in 1997 has defined frauds in banks as "A deliberate act of omission or commission by any person, carried out in the course of a banking transaction or in the books of accounts maintained manually or under computer system in banks, resulting into wrongful gain to any person for a temporary period or otherwise, with or without any monetary loss to the bank". Inadequate legal frame in India makes it difficult to prove the things in courts. Slow judicial process makes prosecution slow, and from the punishment point of view bank frauds is safe as there is no risk of life it is therefore, easier to commit frauds. The potential damage, financial and reputational, means that this risk cannot be ignored; combating fraud therefore, requires an understanding of how and why it occurs, and the way by which it can be minimised. In addition to this, the pressure on the management to maintain income and earnings increases and as such frauds are every banker's night-mare and it's the need of the hour to restrict, mitigate and manage the frauds.

KEYWORDS

Frauds, Housing Finance, Priority Sector, Management, Mitigation, Mortgage Non Performing Assets (NPA).

INTRODUCTION

The Commercial Banks which are the largest mobilizer of the household savings in the India plays a predominant role not only, in the development of the agricultural and industrial sectors, but also in the development of housing. The Commercial Banks came to be more responsive to the social needs of the community only after the nationalization of the banks in 1969. Previously, the commercial banks were reluctant to tie up their short-term resources for long term lending such as housing, because there was no rational policy to induce them to lend for housing. Although, the commercial banks were indirectly assisting the financing of housing by subscribing to the bonds/debentures of the HUDCO and other Housing Boards, it was only in the wake of the Report of the Working Group on the Role of Banking System in providing finance for housing schemes that banks came to directly finance housing. (R.C. Shah Working Group, RBI report, 1978). The RBI issued the first set of housing finance guidelines to the Scheduled Commercial Banks (SCB) with a view to involve them in providing housing finance for certain types of housing schemes for the benefit of weaker sections of the society. Further, the Twenty- Point Programme of Government of India in 1975 laid a firm foundation for the entry of the commercial banks into the housing sector. All these factors are responsible for the commercial banks to enter the housing sector in a big way.

STATEMENT OF THE PROBLEM

The banks are financing around 30 - 35 percent of their retail advances to housing because it is considered safe, mortgage backed and instances of low NPA. However, housing finance is vulnerable to frauds which are worrisome to the bankers. It is even more worrisome to the banks, as they have to make 100% provision for these fraud loans once they are classified as a fraud. Fraud has been defined in different ways, as per the Indian Contract Act, Section 17 'Fraud' means and includes "acts committed by a party to a contract, or with his connivance, or by his agent with intent to deceive another party thereto, or his agent, or to induce him to enter into the contract". Further, the act also defines fraud as the "active concealment of a fact by one having knowledge or belief of the fact or any such act or omission as the law specially declares to be fraudulent".

The mantra of the banking business today is innovation, to beat the competition among the banks, launching of new products, providing additional features to the existing products is the need of the hour. In addition to this, the banks are developing and introducing Alternative Delivery Channels (ATMs etc.) to satisfy and retain the customers. Improvement in technology has brought about a complete paradigm shift in transactions and banking services. The computerisation of the banks in 1990-2000, by adopting Core Banking Solutions (CBS) and the introduction of the new alternative delivery channels (ATMs) to increase the operational efficiency, productivity and better risks management in the banks has to a large extent unfortunately universalised the frauds. The enormous increase in the banking business, introduction of new technology in the last decade in Indian banking and financial sector has also witnessed the increase in the incidents of frauds in the industry.

In this backdrop, the present paper attempts to trace the extent, types and impact of frauds in housing finance by the commercial banks. The present study is based on the following objectives:

OBJECTIVES

- To study the role of commercial banks in financing housing
- To study the types of frauds in housing finance
- To study the extent and impact of the frauds in housing finance
- To suggest measures to be adopted to manage and mitigate the frauds in financing housing by the commercial banks.

REVIEW OF LITERATURE

Fraud is one of the besetting evils of our times, although less dramatic, than crimes of violence like murder etc., fraud can inflict significant damage at organizational or individual level. Fraud is a concept that seems to have an obvious meaning until one tries to define it. As fraud exists in many guises and it is necessary to carefully define what it is, and to tailor policies and initiatives accordingly. Fraud has been defined in many ways. Lucian Vasiliu, Mathew Warren and David Mackay (Defining Fraud: Issues for Organizations from an Information System Perspective, 7th Pacific Asia Conference on Information Systems, 10-13, July 2003, Adelaide, South Australia), Wikipedia, and Webster Merriam has defined fraud as "Deceit, trickery, intentional perversion of truth in order to induce another, to part with something of value or to surrender a legal right". Fraud has also been defined by the Study Group on Large Value Bank Frauds set up by the Reserve Bank of India in 1997, as "A deliberate act of omission or commission by any person, carried out in the course of a banking transaction or in the books of accounts maintained manually or under computer system in banks, resulting into wrongful gain to any person for a temporary period or otherwise, with or without any monetary loss to the bank" (RBI Study Report, 1997).

The frauds have been classified into different types on the basis of the crime committed by insiders or outsiders as, Internal Frauds and External Frauds. Literature pertaining to the classification of frauds has discussed about the types of frauds and the modus operandi adopted by the fraudsters. Abhishek Sharma, in his article "Banking Fraud: Classification and Reporting" (January 2007, the chartered accountant, 1051), P.K.Kaul, has discussed the various types,

modus operandi and their mitigation in his guidelines to all Housing Finance Companies and Banks "Fraudulent Transactions in Housing Finance" (NHB Report, 2005).The definitions, extent and impact of the internal frauds has been well dealt in "Frauds and Internal Audit , Current views, examples, and resources".(Institute of Internal Auditors, September 2012).

The frauds in the mortgage finance by the commercial banks in India have been discussed vastly. The RBI-Master Circular – "Frauds- Future approach towards monitoring of frauds in NBFCs" ,(RBI Report, July 2011), and Deloitte`sFraud Survey shows that banks have witnessed a rise in the number of fraud incidents in the last one year, and the trend is likely to continue in the near future. "Indian Banking Fraud Survey-2012Navigating the Challenging Environment" (February 2012).TarunNangia has also discussed that the increasing amount of frauds in the banking sector is a disturbingfactor and the banking sector has lost a huge amount due the frauds. In his article "Increasing bank frauds disturbing CBI" Indian Express, August, 2012). Further, the articles Housing Loans and Various Types of Frauds Detected by Banks (Accommodation Times, 2012), ShounakMitra "Bank Frauds"(QuickBook.Online,Aug, 2008). Like-wise "Details of Housing Loan Fraud during the last 3 years"(WWW.jaabaali.com, January 2013) have discussed about the frauds in the Indian Banks.

The extent of fraud in the banks in general, and housing finance in particular is shocking. Ernst &Young in their book "India Fraud Indicator 2012 Increasing magnitude of fraud" (2012), have discussed that the business in India are constantly exposed to fraud risk. The losses suffered due to fraud amount to Rs.66 billion. The extent of frauds wasfurther detected by the publication by the Financial Express "PSU banks detect frauds worth 5.2croreduring April-Sept (Dec.2012). The Central Bureau of Investigation , policy division, in its report (June, 2011) has reported that the number of cases registered were 100 involving 133 public servants and in the report published during August2011, 124 cases were registered in general and from Scale I to top Management cumulatively around 274 bank employees were involved in bank frauds.

The literature regarding the various techniques to mitigate the frauds in housing finance by the commercial Banks discusses how the internal and the external frauds can be averted. Expressing concerns over the rise in banking frauds , the RBI has expressed that the underestimating the capital requirement for operational risks , like the loss from frauds, incurred by banks in India due to frauds have been on the rise.(Rising Losses due to bank frauds a worry"(B.S. Reporter, Mumbai, Dec.2012). ApoorvaYadav&JuhiMalviyahave suggested measures to be adopted to mitigate the frauds in the banks. A sound banking system should possess three basic characteristics to protect the depositor`s interest and public faith. They are a fraud-free culture, a time- tested Best Practice Code (BPC) and an in-house immediate grievance remedial system.(Enzine Articles, 2013). M.S. Phogat has suggested various precautionary measures in his article "Housing loan frauds in banks: Some Precautionary measure."(The Indian Banker, May 2006, vol.no.5, IBA)

ROLE OF COMMERCIAL BANKS

The commercial banks provide finance to housing on the guidelines of the RBI. The commercial banks disburse their funds for housing both directly and indirectly. Indirectly, it finances housing by way of subscribing to the bonds/debentures of HUDCO, and other Housing Boards and directly by providing finance to individuals for construction of their own houses. In 1982 the RBI, allocated Rs.150 crores to housing. Of the Rs.150 crores the commercial banks were advised to utilize Rs.65 crores for the direct finance and the remaining Rs. 85 crores for indirect financing. Apart from this, Rs. 10 crores was to be provided to assist the victims of flood in Gujarat for reconstructing and repairing their dwelling.

PRIORITY SECTOR LENDING

Housing has been considered as a priority sector lending by the commercial banks. However, prior to 1969housing loans were considered as personal loans and therefore, much importance was not given to housing finance. The National Credit Council meeting held during July 1968 emphasized that the commercial banks should increase their lending to the priority sector which includes agriculture, SSI, and other segments such as small businesses, retail trade, small road and water transport operators, professional and self-employed persons, housing, education loans, micro credit, software, among others.

The commercial banks have been directed by RBI time again to adopt various yardsticks to finance housing under the umbrella of priority sector. Like-wise,

- Direct housing loans to individuals by banks up to Rs.20 lakhs for construction of houses in urban and metropolitan areas will be eligible for inclusion under Priority Sector.
- Banks with the approval of their Boards were eligible to extend direct housing loans to the extent of Rs.25 lakhs in the rural and semi-urban areas to be considered as part of Priority Sector advances.
- Loans granted by the banks to the extent of Rs.1 lakh in rural and semi urban areas and Rs.2 lakh in urban areas for repairs, additions and alterations to individual borrowers, would be reckoned as priority Sector advances.
- Assistance granted to any governmental agency for the purpose of construction of houses not exceeding Rs.5 lakh per unit and all advances for slum clearance and rehabilitation of slum dwellers would be classified as priority sector advances and advances for the weaker sections

The following table indicates that the advances towards housing loan under priority sector have occupied the major portion of priority sector basket. During 2007 out of around 32.49 per cent of total priority sector advances the share of housing was 25.58 per cent and was 12.08 of the priority sector lending. There was a decline in the lending to housing and this was due to the direction of the RBI to concentrate on the other priority sectors.

TABLE 1

**Housing finance visa a visa other Priority Sector advances
(AMOUNT IN CROREAS AS ON MARCH END.)**

YEAR	2007		2008		2009		2010*		2011	
Total Bank loan Outstanding	1947099		2417006		2847713		3345169		4075647	
Total priority sector Advance	632647 (32.49)	%age priority sector	1079954 (44.68)	%age priority sector	1318611 (46.30)	%age priority sector	1647673 (49.25)	%age priority sector	1909131 (46.84)	%age priority sector
Agriculture & Allied Activities	230180	36.38	275343	25.49	338656	25.69	404354	24.54	460333	24.11
Micro & Small Enterprises	116908	18.47	204892	18.97	259998	19.72	377913	22.93	454995	23.83
Manufacturing	-	-	132698	12.28	168997	12.82	207321	12.58	229101	12.00
Services	-	-	72194	6.68	91000	6.90	170592	10.35	225894	11.83
Housing	161832	25.58	180715	16.73	197110	14.95	219360	13.31	230686	12.08
Micro-Credit	-	-	13337	1.23	16579	1.25	22085	1.34	26895	1.40
Education Loans	-	-	19942	1.84	27861	2.11	36431	2.21	43026	2.25
State - sponsored Orgs. for SC/ST	-	-	1701	0.15	2451	0.18	2077	0.13	2048	0.11
Weaker Sections	-	-	106714	9.88	139422	10.57	179226	10.88	204332	10.70
Export Credit	-	-	25233	2.33	27339	2.07	28314	1.72	31821	1.66
Others	123727	19.55	47185	4.37	49198	3.73	-	-	-	-

*Due to non-availability data as on March 2010 figures are as on April 2010
Source: RBI.Statistical Table Relating to Banks in India 2007-2011

RBI'S GUIDELINES

The allocation of funds by the RBI to the housing sector has enhanced manifold, at the end of 1994-95 the total allocation for housing finance has reached to Rs. 723.78 crores. (NHB report, 1992 & 96). As per the guidelines, the commercial banks normally provide up to 80 per cent of the total cost in respect of direct loans to Scheduled Castes and Scheduled Tribes, Economically Weaker Sections and Low Income Groups. However, only 50 per cent of the cost of the project is provided to the other categories, and charge an interest rate of about 12 per cent per annum. The banks further advance loans to public and private sector undertakings, for taking up construction activities for their employees. The Scheduled Commercial Banks, of late have been providing housing finance in a big way. The Government initiatives, encouragement to people for construction of houses, rebate under IT Act, interest rate concessions, long run repayment, triggered the banks into fierce competition for lending towards housing sector.

Housing loan outstanding:

The following table indicates that the advances of the commercial banks in financing housing have enormously increased. Between the periods, 2001-2011 the outstanding advances to the housing sector have increased from 4.71 per cent in 2001 to 8.48 per cent in 2011. In this context the commercial banks are playing a major role in financing housing

TABLE 2
Extent of Housing Finance by Schedule Commercial Banks from FY2000-2011

(Amt. in crores)

Year	Total Bank Credit Out Standing	Credit outstanding to Housing Finance	Percentage of Housing Finance to total Bank Credit
2001	538433	25412	4.71
2002	655993	32825	5.00
2003	855968	49066	6.49
2004	880312	85346	9.69
2005	1152467	126797	11.00
2006	1513842	182167	12.03
2007	1947099	228923	11.75
2008	2417006	248434	10.27
2009	2847713	284750	9.99
2010	3345169	306306	9.15
2011	4075647	345931	8.48

Source: Basic Statistical Returns of Schedule Commercial Banks in India RBI, Various Issues.

DEFINITION OF FRAUD

There is no single accepted definition of fraud. It is impossible to provide a comprehensive definition of fraud. Indeed, it may be possible to distinguish between two general types of definition: a general broader one and a criminal narrower one. However, all definitions have one thing in common "an element of dishonesty or deceit". There are many dictionary definitions of the word 'fraud'; each is similar but not exactly the same. According to Webster Merriam Webster has defined fraud as "Deceit, trickery, intentional perversion of truth in order to induce another, to part with something of value or to surrender a legal right". "An act of, deceiving or misrepresenting". Or "A person who is not what he or she pretends to be, one that is not what it seems or is represented to be". Fraud can be considered any falsification or misrepresentation by customer, employee or any third party with the intention to gain undeserved benefits. Generally speaking an act is considered fraud when losses occur, whilst the gain from this act is not simply about of money. Any type of advantage is a gain.

Fraud has also been defined by the Study Group on Large Value Bank Frauds set up by the Reserve Bank of India in 1997, as "A deliberate act of omission or commission by any person, carried out in the course of a banking transaction or in the books of accounts maintained manually or under computer system in banks, resulting into wrongful gain to any person for a temporary period or otherwise, with or without any monetary loss to the bank". The banking frauds constitute a considerable percentage of white-collar offences being probed by the police. Unlike ordinary thefts and robberies, the amount misappropriated in these crimes runs into lakhs and crores of rupees. Bank fraud is a federal crime in many countries, defined as planning to obtain property or money from any federally insured financial institution. It is therefore, considered as a white-collar crime.

The frauds in housing finance are broadly committed in two stages.

1. PRE -SANCTION STAGE AND

- The pre-sanction stage the non-adherence to Know-Your-Customer (KYC)
- Failure to identify factious accounts
- Sanction of higher amounts on the basis of fake/forged income documents without verifying
- Failure to assess inflated valuation of land and building, income.

2. POST -SANCTION STAGES

In the post-sanctioned stage, failure to verify the forged title deeds, photo-copy of the title deeds and other property documents, are predominant.

TYPES OF FRAUDS

The frauds in housing finance have been broadly classified as

- Internal frauds and
- External frauds.

INTERNAL FRAUDS

Internal frauds refers to the fraud due to the involvement of the insiders that the employees of the concerned bank. Internal frauds can be referred to as 'Acts intended to defraud misappropriate property or circumvent regulations, the law or bank policy which involves at least one internal party' for instance unauthorised activities, thefts and so on. The internal frauds are due to the active involvement of the staff both supervisor and clerical, either independent of external elements or in connivance with outsiders. The failure on the part of the bank staff to follow the meticulously laid down instructions and guidelines may also lead to internal frauds. Evidence shows that the internal frauds are because there may have been negligence or dishonesty at some stage, on part of one or more of the bank employees. One of them may have colluded with the borrower, or the bank official may have been putting up with the borrower's sharp practices for a personal gain. The proper care which was expected of the staff, as custodians of banks interest may not have been observed or may have been deliberately ignored.

Banks have however, not encountered high levels of collusion of employees, the incidence if the internal frauds are stray incidents where most the employees have been sincere and honest. The following table shows the number of internal frauds in the public sector banks during the period of May 2011 and August 2011.

The table shows that around 105 scale I & II officers, 121 Scale III to V officers, 28 officers between Scale VI to VIII, 15 of the subordinate staff are involved in the internal frauds.

TABLE 3

Internal frauds/Involvement of bank employees in frauds for the month of May and August -2011

Grade	MAY 2011			AUGUST 2011		CUMULATIVE FIGURE DURING THE YEAR AS ON AUGUST 2011			
	Reg	Investigation	Trial	Reg	Investigation	Trial	Reg	Investigation	Trial
SCALE-I-II	8	36	4	5	22	4	44	105	33
SCALE III-V	9	56	11	17	11	2	87	121	44
ABOVE VI-VIII	1	7	0	2	7	0	16	28	4
TOPMANAGEMENT/BORAD LEVEL APPOINTEES ABOVE SCALE VIII	1	4	0	0	0	01	5	0	
SUBORDINATE STAFF	0	8	6	0	0	0	9	15	15

Source: Monthly crime report of CBI for the month of May 2011 and August

EXTERNAL FRAUDS

External frauds commonly originate with or involve customers and vendors. Common frauds include cheque and credit card frauds, shoplifting, vendor and telemarketing frauds, and fraud perpetuated by ID theft. Like frauds committed internally in a business by its employees, external frauds can cause serious damage to the bank's finance. These types of frauds are abundant, to say the least. Only by staying alert 24/7/365 days can a business owner recognize and nip these scams in the bud.

THE TYPES OF EXTERNAL FRAUDS INCLUDE

Fabrication of income documents such as income tax returns, salary slips, balance sheets are instances of external frauds. The borrowers in connivance with the builders, promoters, estate agents, sellers, with a view to get larger amount of loans than the capacity of the borrower to repay, leads to frauds in financing housing.

1. Many a times, the other income of the applicants like agriculture, future rental incomes, income of non-working spouse, purportedly running hobbies like cooking classes, beauty parlors, and computer job works etc., are clubbed to inflate the income and secure higher loans. This too, is one of the reasons for the external frauds.
2. Disbursement of loans by way of demand drafts/bankers cheques are encashed by third party/agent /borrower also lead to external frauds. Frauds committed are encashment of bankers cheques/demand draft handed over directly to the borrower /agent and many times the borrower/agent himself will resort to fraud by opening a false account in the name of the payee which would be actually the vendor or the builder. In this case, the borrower will have not purchased any property but the amount will be paid by the banker which was encashed fraudulently by the borrower/agent himself.
3. Forged document. The title deeds are being forged by the borrower and builder by way of colored photo- copies of various document including nil encumbrance from the sub-registrars, fake stamp papers, and laminating the documents, etc., which are difficult to distinguish from the original documents.
4. The over-valuation of the property. The borrower in connivance with the builder/valuer will over- value the property and exorbitant valuation report and, induce the banks to lend higher loans than what the property is worth. The value of the property is also inflated by including various expenditures, additional amenities, fixtures, legal charges, society advance, and maintenance charges etc., which are non-existing leads to the external frauds.
5. Multiple financing. The fraudsters with an intention to defraud the bank in connivance with chairman/secretaries of housing co-operative society and borrowers prepare a number of original documents in respect of single flat and avail loans from several banks using those fake documents. In the process, the miscreants get the owners clear and marketable titles to the property certified by lawyers and in turn create equitable mortgage by depositing fake title deeds. On the other hand the borrower will make one genuine document and pay the stamp duty, register the same with the sub-registrar and thereafter they take colour Xerox with some changes and submit to various banks for the same property.
6. Cancellation of booking flats/property/. After the sanction and release of the first installment of loan amount, the booking of the flat/property by way of cancelling directly by the borrower with the collusion of the builder / promoter .In this case, under construction of the flats are booked and documents are registered and after availing the loan the borrower would go to the builder and cancel the booking and the builder refunds the money to the borrower without the knowledge of the bank.
7. The sale of the property by the loanee without clearing the loans is one of the factors of the external fraud. In this case, the property is sold by the borrower by way of duplicate/fake title deeds fabricated by the borrower even though the original title deed has been deposited with the bank.
8. Misrepresentation of the end use of the loan. The borrower avails a loan for the purpose of residential property however; he constructs / purchases commercial building. In this case, the borrower misuses the interest concession extended to the residential property.
9. Sale of the property by the builder without clearing bank's due availed by the builder. The builders sell the half constructed/semi-constructed flat /houses without clearing the bank loans which leads to huge loss to the banks.
10. Multiple registrations. There is a provision for the registration of the property at any one of the joint-sub-registrar's office where there are multiple registration offices. The fraudsters take advantage of this situation and register the same property at different sub-registrar offices and avail multiple loans on the same property from different banks which in due course will be a loss to all the loan advancing banks.

THE EXTENT AND IMPACT OF FRAUDS

There have been many attempts to measure the true extent of frauds but, compiling reliable statistics around frauds is not easy .As one of the key aspects of fraud is deception, it is difficult to identify and survey results often only reflect the instances of frauds that have actually been discovered .It is estimated that the majority of frauds go undetected, and even when a fraud identified it may not be reported for the reason that this may be that a company that has been a victim of fraud does not want to risk negative publicity, and more often it is hard to distinguish fraud from carelessness and poor record-keeping as such the extent of fraud is difficult to be measured.

The following table shows the bank-wise frauds of the public sector in housing finance. The frauds during the period 2009-10 has been alarmingly increasing. During 2009 the total number of frauds was 654 to the extent of Rs.13850.32 lakhs which increased to 706 frauds and the extent of fraud was around Rs. 21964.10 lakhs. However, due to the fraud risk management techniques the frauds in the housing finance has marginally declined compared to past few years. The number of frauds decline to 596 and the amount decreased to 18052.80 lakhs in 2011.

TABLE 4: BANK - WISE FRAUDS OF PUBLIC SECTOR BANKS (PSB) AMT. IN LAKHS

Sl. No.	Name of the Banks	Year 2009		Year 2010		Year 2011		Year 2012 Up to 30 th Sept.	
		No of Frauds	Amt. Involved	No of Frauds	Amt. Involved	No of Frauds	Amt. Involved	No of Frauds	Amt. Involved
1	State Bank of India	37	1643.36	101	5863.04	62	2905.31	25	335.15
2	SBBJ	9	347.2	15	238.17	13	137.12	4	55.01
3	SBH	5	144.06	11	499.84	5	133.46	7	124.2
4	SBM	7	139.08	5	1078.87	8	306.42	1	14.22
5	SBP	11	237.95	17	159.65	5	160.37	5	69.43
6	SBS	5	186.25	0	0	0	0	0	0
7	State Bank of Indore	0	0	2	20.4	0	0	0	0
8	SBT	9	118.47	4	62	11	236.68	2	11.35
9	Allahabad Bank	6	67.21	23	490.85	15	553.28	14	440.53
10	Andra Bank	1	4.53	6	58.27	26	2259.47	12	274.81
11	BOB	65	754.5	61	1167.6	24	411.8	16	168.23
12	Bank of India	33	386.79	44	609.28	21	210.29	21	111.43
13	Bank of Maharashtra	11	454.12	14	679.5	9	287.43	1	10
14	Canara Bank	28	954.84	27	537.41	14	231.53	7	240.9
15	Central Bank of India	35	691.03	29	4447.67	37	736.87	16	282.57
16	Corporation Bank	12	173.14	21	274.19	12	933.63	5	603.03
17	Dena Bank	13	315.92	18	341.04	20	459.11	2	50.75
18	IDBI .	81	813.28	42	988.81	81	2638.37	28	362.93
19	Indian Bank	23	870.21	23	395.48	21	379.83	6	68.82
20	Indian Overseas Bank	8	91.41	14	152.41	14	593.47	4	36.19
21	Oriental Bank of Commerce	11	168.57	50	629.19	8	167.69	7	76.85
22	PNB	27	284.72	18	178.03	21	1251.45	8	82.16
23	Punjab &Sind bank	11	84.93	4	61.83	5	122.6	3	402.93
24	Syndicate Bank	57	2194.68	26	369.8	20	345.4	26	677.01
25	Union Bank of India	14	215.7	22	459.84	15	320.98	17	379.98
26	United Bank of India	18	473.87	17	260.93	46	714.37	30	276.78
27	UCO Bank	36	691.71	62	1127.46	58	742.69	11	62.64
28	Vijayaya Bank	81	1342.79	30	812.53	25	813.16	10	322.87
	TOTAL	654	13850.32	706	21964.10	596	18052.80	288	5540.77

Source:www.jaabali.com

IMPACT OF FRAUDS IN HOUSING FINANCE

The impact of the frauds is worrisome to any banker as the Frauds have a multi-dimensional impact on the banks. Apart from influencing the image /reputation of the bank it also impacts on the management, culture, ethics and more importantly the share-holders money. The Reserve Bank of India has time and again issued various guidelines in plugging frauds and has directed the banks to provide 100 per cent provision or write-off such advances and claim tax benefits., which affects the profit of the banks and also the quality of the assets and providing regulatory capital.. The impact of the frauds in housing finance has been analysed in the following table. The write –off of the all bad loans including housing loans and compromise during March 2009 was to the extent of Rs.7084.48 crores which jumped to a whopping Rs. 17291.52 crores.

TABLE 5: THE EXTENT OF WRITE-OFF FOR THE PERIOD 2010-212SEPT.

Year	Amt. in Crores
2008-2009	7084.48
2009-2010	10965.75
2010-2011	17291.52

Source:Business Line-Feb 24,2009)

MITIGATING AND MANAGEMENT OF FRAUDS IN HOUSING FINANCE

The fraud management process involves three steps:

- Fraud prevention;
- Fraud detection; and
- Fraud investigation.

The best way to fight fraud is to prevent it. Prevention is mostly about improving the key risk processes.

For a bank, it is important that when dealing with customers, employees must ensure that they know the identity of the customer, what business they do with the bank and why they are undertaking each activity. It is the personal responsibility of every member of staff to ensure that they are aware of and that they can competently identify activities which may constitute fraud, can identify signs of suspicious behaviour by customers or staff and to know how they should report any concern regarding fraud, and to whom. All bank employees (specifically those in relevant positions) should be provided with the adequate and appropriate fraud prevention and awareness training.

- The rising incidents of fraud in housing loans ,and operational activity has sent warning signals to the bankers. The banks today are more focused on the fraud prevent and management function. The fraud management process involves three steps Fraud prevention, fraud detection, and fraud investigation. However, the best way to fight fraud is to prevent it as prevention is mostly about improving the key risk processes.
- It is of utmost importance that the banks when dealingwith customersmust ensure that they know the identity of the customer, what business they do with the bank and why they are undertaking each activity. It is also the personal responsibility of every member of the staff that they are aware of and that they can competently identify activities which may constitute fraud, can identify signs of suspicious behaviour by customers or staff and to know how they should report any concern regarding fraud, and to whom.
- All the bank employees especially those in relevant positions should be provided with the adequate and appropriate fraud prevention and awareness training.
- Fraud risk must also be analysed during the development of all new products within the bank to ensure that the product structure will help prevent possible fraudulent attempts. The approval process of the banks should be strictly considered from the fraud point of view of the bank.
- The bank should have a third party acquisition and monitoring policy in place which must include fraud related actions. The granting of loans or credit limits should be made only after considering the fraud risk as well as the credit risk associated with the applicant, the co-applicant and the guarantor.

- The bank should have a fraud response plan, which manages and reduces instances of fraud committed by employees /agents or by third parties of the bank and thus minimise the losses incurred. The purpose of the fraud response plan must be clearly to communicated to the employees.
- The Fraud Response Plan should have initial action, once a fraud has been detected and reported, to restrict further losses to the bank, and review the reasons for the incident, advice measures required to prevent future fraud. The banks should strengthen future response plan and recover any actual losses.
- The mitigation of the frauds in case of fabrication of income documents like income-tax returns, salary slips/balance-sheet etc., involves verification of salary slips with employer, income-tax returns with the concerned department, the salary drawn should be compared with the bank statement, cross verification of balance-sheet and above all personally interviewing and visiting the borrowers office/establishment.
- The fraud due to the loan amount disbursed by way of cheque/demand drafts are encashed by the third party/agents can be mitigated by issuing cheques in the name of the bankers of the builders with the bank account on it. The cheques should not be handed over to the borrower/agent/seller, and the bank's marketing officials should hand-over the cheques /demand draft to the property owner/builder at the registered address mentioned in the title deeds.
- The banks have to keep track of, and adopt an information sharing mechanism among other banks and HFCs, regarding the black-listed builders and developers. The agreement for sale document of the title should be in DEMAT form and, in addition to this, the banks should approach the sub-registrar's office to verify the genuineness of the stamp paper documents /registration receipt.
- To avert the over-valuation of the property to draw higher loan amount by the borrower in connivance with the builders to cheat the bank, it is necessary to get the property valued by two different and independent valuers, especially when the loan is above Rs. 25 lakhs.
- The banks to mitigate the frauds due to the multiple financing should insist on the original title deeds of the landed property on which the structure is built.
- The banks should insist upon the registration receipt by the Registrar of stamp office to avert the occurrence of the fraud due to the cancellation of the booking of flats/property in collusion between the customer and the builder.
- The banks to avert the fraud due to the sale of the property by the loanee without clearing the existing loan should create an Equitable Mortgage at the registrar's office by depositing the title deeds, and above all, the inter diligence plays a more important role to prevent this type of frauds.
- The bank should conduct timely verification /inspection of the property to ensure the end-use of the loans to avert the misuse of the misrepresentation of the end use of the loan.

SUGGESTIONS AND RECOMMENDATIONS

- While introducing new products within the bank the fraud risk must be analysed to ensure that the product structure will help prevent possible fraudulent attempts.
- The lending activity of the bank, which bears the greatest external and internal fraud risk should involve a fool-proof approval process
- The bank should have a third party acquisition and monitoring policy in place which must include fraud related actions.
- The granting of loans or credit limits should be made only after considering the fraud risk as well as the credit risk associated with the applicant, the co-applicant and the guarantor.
- A bank should have in place a Fraud Response Plan, which manages and reduces instances of fraud committed by employees/agents (internal fraud) or by third parties (external fraud) of the bank and thus minimizes incurred losses.
- The purpose of a Fraud Response Plan must be clearly communicated to the employees. The Fraud Response Plan should have been devised to define initial action and make persons responsible once a fraud has been reported and restrict further losses to the banks, review the reasons for the incident, advice on measures required to prevent future fraud, recommend actions that will strengthen future responses to fraud and,
- Fraud monitoring cell at all module of the banks should be established,
- Uniform registration norms of the property through-out the country should be adopted,
- Centralised land records should be maintained by the Government and available for verification,
- Registration of property in favour of bank's in the sub-registrar.
- Lastly, recover any actual losses.

CONCLUSION

Like any other crime, the frauds are to be dealt with stringent laws. However, the frauds in the housing finance/mortgage loans are detected late, because, of the nature of the housing advance which spans over a period of a minimum of 10-20 years. The key to minimising the risk of fraud lies in understanding the reasons for the frauds, identifying the areas that are risk-prone. The mitigation of the fraud should adopt suitable guidelines to prevent of the occurrence of the fraud. That is, plugging all the loop-holes which leaves gap for a fraud. The fraud risks are to be managed holistically and proactively. The fraud risks and controls should be considered as an objective of internal control activities, suitable training and awareness, necessary information and communication which are concise and timely are the need of the hour. In the end it is necessary to adopt controls to detect and prevent fraud. It is also needed for re- assessment of the Anti-Fraud Policy. However, more important than all the policies, the mitigation and management techniques, it is even more important to imbibe a culture of ethics both among the staff and the customer, to halt the frauds in the mortgage finance by the banks.

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ADVERSE EFFECT OF LOAN SECURITIZATION ON THE STOCK PRICES OF BANKS: EMPIRICAL EVIDENCE FROM EUROPE AND AMERICA

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ABSTRACT

Securitization through its influence on the off balance sheet is likely to become a crucial determinant of the stock prices after the 2007 financial meltdown. Depending on the tranche values and total assets of financial institutions, this paper tries to investigate the reaction of securitization on stock prices. The impact of securitization is analyzed by ordinary least square method in a semi panel structure model in addition to the effects of earnings and book value for the role they play in the market valuation of accounting information before and after the mandatory adoption of International Financial Reporting Standards. To supply more information to the Ohlson (1995) model, an alternative model is used in this paper. The evidence from the estimated model shows that higher securitization causes lower stock prices. Although earnings value does not have any impact on stock prices, book value has negative impact on stock prices. However, the value relevance of earnings and book value becomes significant after the compulsory introduction of IFRS.

KEYWORDS

Book value, Earnings per share, International Financial Reporting Standards (IFRS), Securitization, Stock price.

1. INTRODUCTION

Bank loan securitization has become a burning issue after the 2007 financial meltdown because of the dramatic increase in securitization of loans and its impact in the financial markets. In defining securitization, Agostina and Mazzuca (2009) explained it as an economic transfer of assets by an originating institution to a third party. Although, some economists have linked securitization of bank loan with the financial turmoil, Mordel (2010) considered it as a process of cash flow repackaging through which non-tradable assets are converted into liquid assets. Precisely, banks by selling interest from pooled loans can raise more capital which enable them to issue more loans by moving pooled loans off its balance sheet. Though by off balance sheet treatment, the credit risk is transferred and a new source of funding is created, it is argued that shareholders wealth is ruined which creates long term underperformance. (Franke and Krahnhen, 2005)

One might argue that the impact of securitization on the stock price and its relevance with market value may show significant results concerning the changing stock prices. This significance depends on how closely the accounting values and stock prices are related. (Senthilnathan, 2009) As a result, financial reporting standards play an important role in the information quality of securitization on the financial statements. Since 2005, all listed companies in the European Union are required to produce their financial statements in conformity with adopted International Accounting Standards known as IFRS/IAS. Particularly disclosing information regarding consolidation accounting and securitization of loans on balance sheet was made an essential rule. However, there are specific regulations on securitization for countries like UK, USA and more recently Belgium, France, Ireland and Italy (PWC, 2004)

This paper uses market value relevance as a proxy and tries to examine two issues, first, whether stock prices decreased because of securitization and second, whether value relevance increased as a result of IFRS application. Many studies have examined IFRS for its value relevance, by observing only European countries that voluntarily applied International reporting but omitted the impact of securitization. By contrast, impact of securitization is considered as an additional variable together with the earnings and book value in this paper. This paper also investigates the impact of these variables after the compulsory requirements of IFRS. Hence 64 financial institutions from Europe and USA from 1994 to 2011 were analyzed to see the value relevance of securitization, earnings and book value in order to qualify with the financial reporting standards.

The motivation of this research paper is to see whether securitization can be used as a determinant of stock prices regarding the recent financial crisis and for this purpose, both periods prior to financial meltdown in 2007 and after this crash is considered. Semi panel structure in OLS method is used to observe the securitization ratio and stock process of each bank together with earnings and book value in order to analyze the relation between stock prices and loan securitization of these institutions. This method is used because of highly unbalanced panel data structure. Moreover, in response to the research question, new variables are adopted to the equation which may have an impact on the dependent variable; the stock price, in order to conduct better regression analysis. For this reason, securitization is taken as the third independent variable in addition to other independent variables of earnings and book value in using Ohlson (1995) framework.

As a result, the empirical evidence shows that, after the compulsory adoption of the IFRS, the book value impact on stock price increased. On the other hand, it is observed that the IFRS adoption has no significant influence on earnings value; the impact of accounting earnings is significant on stock prices. Similarly, no significant effect on securitization is found because of the mandatory adoption of the IFRS. However, stock prices are significantly and negatively influenced by securitization.

This paper is structured in the following manner. First, it introduces the literature review by recognizing the ongoing debates on stock price reaction as a result of the bank loan securitization and the accounting variables when considering the IFRS adoption. The next section develops the methods for identifying the empirical framework, describes the data and the research constraints. Then the empirical results are presented with discussion about the robustness of the results and finally the last section concludes the discussion.

2. REVIEW OF LITERATURE

Relevant information plays an important role to investors as it conveys information for evaluating banks and their stock prices. Similarly, reliable information works as an incentive in capital market and optimal investment allocation. (Agostina et al., 2010) After the implementation of IFRS in 2005, all European companies must publish their financial statements in accordance with these IFRS rather than their local GAAP. This requirement raised a question that in the context of information processing on capital markets, which accounting standard is more value relevant. Previous studies regarding value relevance of the local GAAP and IAS shows that it is depended upon the model applied for valuation. According to Bart, Landsman and Lang (2008), greater the value relevance, higher will be the information quality. After observing different capital markets and by comparing local GAAP with IAS, a number of studies argue that IAS application provides better value relevance for accounting values and thus increases the quality of information compared to local GAAP (Bart et al., 20078; Swartz and Negash, 2006b; Bartov, Goldberg and Kim, 2005) In contrast, specific proposal given by Eccher and Healy (2000) states that accounting values under IAS compared to Chinese GAAP are not more value relevant. Hence, regarding Ball, Robin and Wee's (2003) claim of incorporating transparency and indexes in classifying countries according to their accounting standard might stress that accounting standard can rely only on the authority and compulsion.

It is worthwhile to mention that the findings of the studies before the mandatory adoption of IFRS/IAS may not be relevant after the compulsory application of these regulations. Many studies state that capital market is taking advantage of this mandatory reporting as it increases the value relevance of the listed firms. (Daske, Hail, Leuz, Verdi, Morais and Curto, 2007) Besides, O'Keefe (2011) highlighted that the quality of information is higher which are produced in

accordance with IFRS rather than that of the local accounting systems. Similarly, Agostino et al. (2010) highlights that, in transparent entities specially, the information quality regarding earnings and book value increased because of the introduction of compulsory adoption of IFRS/IAS.

Securitization is seen as a process of transferring non-tradable assets to liquid securities by the way of cash flow repackaging. (Mordel, 2009) This process enables the financial institute to remove assets from the books. According to the literature before the financial crisis, benefits of securitization include reduced funding cost, transferred credit risk, capital saving and new profit opportunities which can be advantageous comparatively. (Rosenthal and Ocampo, 1988; Gorton and Souleles, 2005; Affinito and Tagliaferri, 2008) On the other hand, securitization has been identified as one of the reasons for crisis, which is being emphasized after the financial meltdown. In this context, optimists considered securities as a financial innovation whereas pessimists have seen it as a cause of the crisis. (Ashcraft and Schuermann, 2008) Mainly, O & D model is considered as a reason for risky loans as it provides incentive to securitized bank to monitor their borrowers less which makes the loan more risky. (Affinito and Tagliaferri, 2008)

According to Calamiris and Mason (2004), because of the efficient contracting mechanism of securitization market, adverse selection cost is reduced as the need for equity capital goes down. On the other hand, complex nature of such structured products create asymmetric information which leads to the problem of moral hazard and adverse selection. (Mishkin, 2011) Bernanke (2007) also highlighted the valuation problem of such complex structured products. Although banks benefit from capital requirement regulations, securitization raises risks through misdirected incentives. (Affinito and Tagliaferri, 2008) The counter view on securitization points out the systematic risk because of the inadequate capital level in the balance sheet in the equity part of the securitized deals. (Higgins, 2009) So, it can be argued that after the financial crisis as a result of insufficient capital to recover losses, the banks with securitized loans are facing negative impact on their stock prices in the market.

Credit rating agencies (CRAs) also played an important role in the market of securitization. But these agencies might have misled the investors of securities as well as investors of the stocks of these banks. In connection to this issue, Mishkin (2011) states that risk taking behavior were incentivized because of the credit rating agency's erroneous rating which led to providing investors with inaccurate information.

As several economist linked financial turmoil with securitization, updated regulations have been implemented to prevent the negative impact of securitization. For example, Basel III, Tier 4 capital ratio has been increased to 6% from 4% after the crisis. Similarly, Core Tier 1 capital ratio is now 4.5% (McNelis, 2011) which was 2% before the crisis. This update allowed the banks to deal with large adverse events.

To sum up, based on the nature of the underlying assets and market conventions, securitization provides peculiar opportunities and risk. For example, it might be helpful for financial system if liquidity triggers securitization. On the other hand, banks can be exposed to risk if avoiding capital requirement is the reason of securitization. As a result, different opinions regarding securitization might provide different responses in capital market.

3. HYPOTHESIS

Standard OLS estimator in a semi panel structure is used to analyze the model depending on the highly unbalanced data structure. OLS regression is tested further with yearly and country dummies for each individual to deduce the effects of unobserved information which might be correlated with the explanatory variables. Barth, Landsman, Lang and Williams (2006) highlighted that; each country might have different market reactions as a result of institutional factors.

The null and alternative hypotheses that are set out to see whether securitization is a significant indicator in refining the stock price are as follows:

H₀: δ_s = 0 Securitization is not a determinant of the stock prices

H₁: δ_s ≠ 0 Securitization is a determinant of the stock prices

According to the hypothesis, the probability values are taken as a benchmark in order to comment on the acceptance or rejection of the hypothesis. Therefore, if the probability value is below or equal to 5%, null hypothesis is rejected and alternative hypothesis is accepted. (Studentmund, 2006)

4. RESEARCH METHODOLOGY

To reveal the relationship between accounting values and stock prices and to give information about the data used, this chapter indicates certain models. This chapter also provides the methodology that has been taken into consideration for analyzing the relationship. The main purpose of this research on value relevance is to see how closely the accounting book values and market prices are associated with each other. Conclusions will be drawn based on the findings to determine how much investors should be relying on information obtained from financial statements to determine the banks stock prices.

The Ohlson (1995) Framework which is the most popular development in capital markets, will be introduced first then the model extended by Agostine et al. (2010) will be augmented to identify the degree of reaction on the stock prices to the volume of securitization by the insertion of securitization in the model. The standard OLS estimation techniques of regression will be used in this empirical process to analyze the model.

Further, specific to the European countries, a robustness check is carried out by considering different time spans prior to and after the compulsory adoption of IFRS.

4.1 THE MODELS

Firstly, the Ohlson Model which considers dividend discount model (DDM) by examining dividends, future earnings and book value to build the origin of a valuation model is introduced. This model is based on 'clean surplus relation' (Source of the Model: Swartz, 2006a, pp.29-30; Swartz and Firer, 2006c, pp.70-71) and is explained as follows:

$$bv_t = bv_{t-1} + x_t - d_t \quad (1)$$

Where:

bv_t = Company book value at time t,

x_t = earnings for period t,

d_t = dividends for period t.

The clean surplus relation (1) can be examined further by removing infinite growth in book value, referring an accounting based expression for equity value, known as the residual income valuation model:

$$P_t = bv_t + \sum_{\tau=1}^{\infty} R_f E_t [x_{t+\tau}] \quad (2)$$

Where abnormal earnings are specified as;

$$x_t \equiv x_t - (R_f - 1)bv_{t-1} \quad (3)$$

Hence, abnormal earnings (~ a symbolizes abnormal) are calculated by subtracting change for capital from earnings where R_f denotes risk free rate.

Regarding the time variant behavior of normal earnings, the information dynamics are created by adding abnormal earnings and information other than abnormal earnings, v_t.

$$x_{t+1} = \omega x_t + v_t + \acute{\epsilon}_{1t+1} \quad (4a)$$

$$v_t = \gamma v_t + \acute{\epsilon}_{2t+1} \quad (4b)$$

Where the disturbance terms $\acute{\epsilon}_{1t+1}$ and $\acute{\epsilon}_{2t+1}$ are with zero means and constant variances, while the parameters of the process ω and γ are fixed and known.

On whole, the combination of equations (2), (4a) and (4b) reveals a linear equation for P_t :

$$P_t = \alpha_0 + \alpha_1 BVPS_{it} + \alpha_2 EPS_{it} + \alpha_3 postIAS_t + \alpha_4 BVPS_{it} * postIAS_t + \alpha_5 EPS_{it} * postIAS_t + \delta T + \epsilon_{it} \quad (5)$$

As a consequence of this model, net book value of assets, abnormal income and abnormal dividends as an indicator of other information contributed in forming the equation of valuation. In this relation, Swartz, et al. (2006c) stated that the book value and accounting earnings provide definite company value, so these should be considered as value relevant. Accordingly, this paper tries to evaluate the relevance of the accounting values especially securitization and whether the accounting values are significant enough to influence the stock prices after the compulsory application of the IFRS.

Agostino et al. (2010) paper is used as a base model of this paper, which uses the estimated model of value relevance of IFRS using fixed effects estimator. European banking industry from 2000 to 2011 was taken into consideration for examining the effect of compulsory application of IFRS. They used the following model (Source of the model: Agostino et al. (2010) pp.11):

$$P_{it} = \alpha_0 + \alpha_1 BVPS_{it} + \alpha_2 EPS_{it} + \alpha_3 postIAS_t + \alpha_4 BVPS_{it} * postIAS_t + \alpha_5 EPS_{it} * postIAS_t + \delta T + \epsilon_{it} \quad (6)$$

Where;

P_{it} = the stock price 6 months after the end of the fiscal year;

$BVPS_{it}$ = per-share book value;

EPS_{it} = earnings per share;

$postIAS_t$ = dummy coded 1 when IFRS become mandatory and 0 otherwise;

T = trend;

ϵ_{it} = composite error.

Their results suggest that after the compulsory application of IFRS, information quality of earnings and book value improves for transparent entities, while no significant value relevance impact on the book value was found as a result of this regulation. The findings of this research helped to come up with some questions like whether securitization can be a factor in determining stock prices and how value relevant it is after the compulsory introduction of IFRS, especially after the financial meltdown of 2007. These issues will be discussed in the result section of this paper.

4.2 METHODOLOGY

Ohlson model is used as a base of many studies for examining the value relevance of financial statement information using multiple regression techniques and panel data. This paper also uses Ohlson model as a frame and takes into account the extended model given by Agostino et al (2010) by using the OLS estimator in a semi panel structure because of highly unbalanced panel structure observations. The following model is estimated for this paper:

$$P_{it} = \alpha_0 + \alpha_1 BVPS_{it} + \alpha_2 EPS_{it} + \alpha_3 postIAS_t + \alpha_4 BVPS_{it} * postIAS_t + \alpha_5 EPS_{it} * postIAS_t + \alpha_6 SEC_{it} + \alpha_7 SEC_{it} * postIAS_t + \eta_s + \eta_t + \epsilon_{it} \quad (7)$$

The independent variables of earnings per share, book value per share and securitization ratio have been analyzed by using the data from European countries and United States to consider the mandatory adoption of IFRS. This equation (7) which was developed from Agostino et al. (2010) shapes the foundation of the empirical results of this paper.

Key to understand the equation (7);

- Values based on i-th firm (with $i = 1, \dots, N$) at time $t = 1993, \dots, 2011$
- P_{it} = Stock prices 3 months after the end of the fiscal year t;
- α_0 = An intercept
- $BVPS_{it}$ = Book value per share, measured by subtracting total liabilities from total assets and then dividing the result by common shares at time t;
- EPS_{it} = Earnings per share, measured by subtracting preferred dividends from net income and then divided by common shares at time t;
- $PostIAS$ = A dummy coded 1 when IFRS applied as a compulsory regulation, particularly in the listed companies in Europe after January 1, 2005, and otherwise coded 0;
- SEC_{it} = Securitization, measured by dividing bank's tranche values with their total assets at time t;
- $BVPS_{it} * postIAS_t$ = The multiplication of BVPS with PostIAS, used to see impact of the value relevance after the compulsory adoption of IFRS;
- $EPS_{it} * postIAS_t$ = The multiplication of EPS with PostIAS, used to see impact of the value relevance after the compulsory adoption of IFRS;
- $SEC_{it} * postIAS_t$ = The multiplication of SEC with PostIAS, used to see impact of the value relevance after the compulsory adoption of IFRS;
- η_s = The set of dummy variables capturing the heterogeneity among countries; $\eta_s = 1$ if $i \in S$, 0 otherwise
- η_t = The set of dummy variables capturing the heterogeneity among time series;
- ϵ_{it} = The composite error, composed of the individual effect of v_i reveals unobserved time-invariant bank characteristics and u_i which illustrates idiosyncratic shocks to market value ($\epsilon_{it} = v_i + u_i$).

For the sake of convenience, importance has been given to scalability in this model. As a result, earnings per share, book value per share and securitization ratio have been used. For comparability, the stock prices of all the companies are converted into the same currency, the US dollar value from the local currency. In equation 7, the BVPS, EPS and SEC show the values of fiscal year, whereas the stock prices show the values 3 months after the end of the fiscal year. Different time slices are taken into consideration to reveal the relationship between the value relevance of the accounting values and the stock prices in the robustness test section.

4.3 DATA DESCRIPTION

Financial institutions whose stocks are traded in capital markets both in the 10 EU countries (Belgium, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain and United Kingdom) and United States from 1994 to 2011 are observed in this paper. Longer time periods than the previous studies are taken in forming balance sheet items, securitization values and stock price by combining Bandscope and Bondware databases according to the id numbers of the institutions.

The estimation sample is limited to 310 observations because three different sources are used. In the data collection process, 1300 observations are found in Bondware only for securitization values of which 1000 banks had codes. Afterwards, when these observations are matched with data from Bankscope – Bureau van Dijk to get the balance sheet items, the observations reduced to 829. Next, when these 829 observations are matched with different files of Bankscope – Bureau van Dijk for stock prices, the observations again decreased to 417. Finally, the ultimate observation decreased to 310, when the available data for banks are considered for every year and for every variable estimated in the model. The data collected from these sources are in nominal values and in local currencies. The number of observations decreased to 310 in order to be convenient with IFRS since only consolidated accounts of listed groups are required to use IFRS. (O'Rourke, 2006) Moreover, to make a convenient comparison between stock prices and other values used in ratio, all stock prices of local currencies are converted into the US Dollar.

In order to explain any outliers, winsorization at the level of 3% is used similar to the previous studies (Bart et al., 2006; Agostino et al., 2010) for all the variables employed in the valuation model. Table 1 demonstrates the summary statistics of both winsorized (denoted by w) and the unwinsorized variables used in the valuation of the model.

TABLE 1: SUMMARY STATISTICS OF VARIABLES

Variable	Obs.	Mean	Std. Dev.	Min	Max
EPS	310	0.06	2.05	-12.57	3.14
EPS (w)	310	0.14	1.69	-5.68	2.74
BPS	310	1.22	0.5	0.32	9.21
BPS (w)	310	1.2	0.2	1	2
SEC	310	4.28	16.61	0	217.96
SEC (w)	310	2.52	0.02	0.02	14.97
December closing price	310	1	3.47	0	51.79
December closing price (w)	310	1.59	3.26	0.01	16.62
March closing price	310	177.78	462.84	0.1	54
March closing price (w)	310	1.56	3.25	0.01	15.59
Post IAS	310	0.31	0.46	0	1

(a) (w) represents for the winsorized variables

(b) December closing price stands for the stock price that is in the end of fiscal year

(c) March closing price stands for the stock price that is 3 months after the end of fiscal year

Table 2 shows the estimation done based on nationality after stated modification using 310 observations for 42 European listed banks and 22 banks in the United States. The table reveals that most banks from US and Italy has the highest observations where as it is fewest from Ireland, Belgium, Netherlands and Portugal. It also reveals that the panel data is highly unbalanced for the observation time period of 1994 – 2011.

TABLE 2: NUMBER OF BANKS, BANK YEARS AND YEARS OBSERVED FOR EACH SAMPLE COUNTRY

Country	Country-year obs.	Percent	Bank-year obs.	Percent	Banks	Percent
Belgium	10	8.85	12	3.87	2	3.13
France	13	11.5	29	9.35	3	4.69
Germany	7	6.19	10	3.23	3	4.69
Greece	6	5.31	14	4.52	4	6.25
Ireland	8	7.08	9	2.90	2	3.13
Italy	10	8.85	38	12.26	12	18.75
Netherlands	4	3.54	4	1.29	2	3.13
Portugal	11	9.73	14	4.52	2	3.13
Spain	14	12.39	48	15.48	7	10.94
UK	15	13.27	44	14.19	5	7.81
USA	15	13.27	88	28.39	22	34.38
Total	113	100	100	100	64	100

5. RESULTS & DISCUSSION

This section discusses the main findings of the value relevance before and after the mandatory application of IFRS. Different samples and structures are used for estimating the model and for better understanding an analysis for the robustness is also performed. OLS regression using both time and country dummies are used to take into account each specific characteristic as a result of highly unbalanced panel data. (Analysis (2), (3) & (4) on Table 3) Finally, 10 EU countries are analyzed as a robustness test for the value relevance before and after the compulsory introduction of IFRS. (Table 4)

As a result, the interaction of different dummies and stock prices permit better understanding of the analysis in the examination of the whole model. The model analyzed in sub-divided time spans ensures further understanding in specific circumstances and such circumstances in the mandatory adoption of the IFRS is the scope of this paper.

5.1 RESULTS

Table 3 indicates the results of OLS:

- Analysis (1) shows the base model (Agostino et al., 2010) including the SEC and POST IAS_SEC variable.
- Analysis (2) demonstrates the estimated results of analysis (1) with country dummies.
- Analysis (3) takes time dummies into consideration &
- Analysis (4) in order not to omit any characteristics takes into account both country and time dummies.

The model developed in equation (7) is further examined by re-estimating the model by replacing the closing price of March with December as a dependent variable. As a result, Table 3 is classified according to the stock prices 3 months after the end of the fiscal year and at the end of the same fiscal year.

TABLE 3: ORDINARY LEAST SQUARE ESTIMATES IN A SEMI-PANEL STRUCTURE

	Dep. Variable: closing price of March				Dep. Variable: closing price of December			
	Analysis (1)	Analysis (2)	Analysis (3)	Analysis (4)	Analysis (1)	Analysis (2)	Analysis (3)	Analysis (4)
Earnings per Share (EPS)	0.363 <i>0.015**</i>	0.001 <i>0.985</i>	0.310 <i>0.082*</i>	-0.078 <i>0.455</i>	0.353 <i>0.018**</i>	-0.001 <i>0.988</i>	0.357 <i>0.044**</i>	-0.037 <i>0.718</i>
Book Value per Share (BVPS)	0.581 <i>0.619</i>	-1.308 <i>0.091*</i>	0.018 <i>0.989</i>	-1.537 <i>0.070*</i>	0.815 <i>0.485</i>	-0.770 <i>0.316</i>	0.575 <i>0.668</i>	-0.814 <i>0.329</i>
Securitization Ratio (SEC)	-0.149 <i>0.021**</i>	-0.104 <i>0.006***</i>	-0.162 <i>0.018**</i>	-0.115 <i>0.003***</i>	-0.136 <i>0.035**</i>	-0.093 <i>0.013**</i>	-0.161 <i>0.018**</i>	-0.116 <i>0.003***</i>
Post IAS	-1.301 <i>0.091*</i>	-0.686 <i>0.147</i>	-1.016 <i>0.245</i>	-0.322 <i>0.610</i>	-1.164 <i>0.131</i>	-0.375 <i>0.424</i>	-1.032 <i>0.236</i>	-0.070 <i>0.909</i>
Post IAS_EPS	0.680 <i>0.691</i>	3.599 <i>0.0005***</i>	0.676 <i>0.701</i>	3.353 <i>0.001***</i>	0.084 <i>0.960</i>	2.961 <i>0.003***</i>	-0.065 <i>0.970</i>	2.554 <i>0.012**</i>
Post IAS_BVPS	1.504 <i>0.0003***</i>	0.866 <i>0.0004***</i>	1.626 <i>0.0002***</i>	0.842 <i>0.0007***</i>	1.650 <i>0.0001***</i>	0.965 <i>0.0001***</i>	1.762 <i>0.0001***</i>	0.949 <i>0.0001***</i>
Post IAS_SEC	-0.120 <i>0.314</i>	0.012 <i>0.862</i>	-0.115 <i>0.346</i>	0.011 <i>0.875</i>	-0.166 <i>0.166</i>	-0.027 <i>0.700</i>	-0.161 <i>0.018**</i>	-0.019 <i>0.783</i>
No. of observations	310	310	310	310	310	310	310	310
Number of banks	64	64	64	64	64	64	64	64

- (a) Analysis 1 represents the regression run without any dummies
- (b) Analysis 2 reveals the regression run with only country dummies
- (c) Analysis 3 reveals the regression run with only time dummies
- (d) Analysis 4 represents the regression run with both country and time dummies
- (e) Dep. Variable: closing price of March denotes the stock price 3 months after the end of fiscal year
- (f) Dep. Variable: closing price of December denotes the stock price at the end of fiscal year
- (g) Probability of each variable is reported in italics below the each coefficient estimates
- (h) (*), (**), (***) denotes the statistical significance at the 10, 5 and 1% level in order
- (i) Post IAS is a dummy coded 1 when IFRS applied as a compulsory regulation, otherwise coded 0
- (j) Post IAS_EPS (Post IAS_BVPS) is the influence of the post IAS dummy by EPS (BVPS)

Analysis (4) reveals the main findings of this paper which includes the dummies and the stock prices 3 months after the end of fiscal year. Other analyses capture the individual process of including heterogeneity among countries and time series. After the inclusion of both time and country dummies (Analysis 4, Table 3) for the March prices, the estimated model of this paper shows that EPS is insignificant. However, this EPS is statistically significant & positively related with stock prices after the mandatory introduction of IFRS. Thus, it can be argued that the value relevance and the information quality of earnings value increased after the application of new standards. Moreover, if the stock prices (December) of the same fiscal year is taken into consideration, it shows exactly same results of the March findings. On the contrary, if examined individually, it demonstrates distinctive results on earnings value. The results show that, when it is statistically significant, its interaction with the regulation is insignificant, and when it is insignificant, the interaction with the regulation is statistically significant.

Analysis (4) on Table 3 shows that at a 10% significance level book values are negatively associated with stock price when March prices are taken. However, when it interacts with the mandatory adoption of IFRS, impact on stock prices is still there but this time the significance is positive at 1% level. Similarly, when the stock prices of December are considered, a positive association can be seen between stock prices and book values after the integration of IFRS. Individual analysis demonstrates interesting findings in addition to the main findings estimated in equation (7). When interaction with IFRS is significant, the book value is insignificant, but for all analyses for March prices, its interaction is significant at 5% level when book value is significant at 10% level.

In all cases of table 3, the results reveal a negative relationship between stock prices and securitization which supports the findings of more the securitization, the less the stock prices. The result supports the common view which increased after the financial crisis. Using securitization as a balance off application and avoiding capital requirements are the likely reasons of the adverse impact on the stock prices, even though securitization has many benefits involved (Affinito and Tagliaferri, 2008). Thus it can be concluded that there is an adverse impact on the stock value when the banks announce securitization. (Farruggio, Michalak and Uhde, 2010) But the result is different for the securitized banks which interact with the IFRS requirement and shows that securitization is not value relevant. The result suggests that, in determining the banks' stock prices, IFRS requirement on securitization is insignificant.

It is worthy to highlight the common relevant finding based on the stock prices of both March and December. In relation to this, in all cases securitization is negative and significant and as a result it can be argued that, stock prices in the same fiscal year and 3 months after the fiscal year securitization has a negative impact on stock prices. Moreover, the interaction with the IFRS is insignificant which can be related with its balance off treatment (Higgins, 2010) and the value relevance of the banks disclosure (Hull, 2009). In the contrary, IFRS interaction plays a significant (both at 5% and 1% level) and positive role for the earnings and book value before the introduction of the regulation. Same as Agostino et al., (2010), there is evidence of increased impact of earnings on the stocks because of the compulsory application of IFRS.

5.2 FURTHER ROBUSTNESS CHECKS

As a robustness test, values from 10 EU countries are taken to examine the IFRS interaction and its compulsory application as all the listed companies has to publish the values according to the international standards. This regulation brought mainly quality and argued by many scholars to bring more transparency, comparability and credibility. (Agostino et al., 2010; Hail, Leuz and Wysocki, 2009).

Table 4 divided the observations before and after the mandatory adoption of the IFRS, concerning the value relevance of the explanatory variables after the IFRS requirement in January 2005. Stock price 3 months after the end of fiscal year (based on March prices) is used as a basis of this division. Increased coefficient of book value and its significance after the compulsory adoption of IFRS is the first result that came up from the table. Thus better value relevant results are provided by the interaction of book value with the regulation.

TABLE 4: ORDINARY LEAST SQUARE ESTIMATES OF EU-10 COUNTRIES BEFORE AND AFTER THE MANDATORY ADOPTION OF THE IFRS

	EU-10 Countries	
	Before the mandatory adoption of IFRS	After the mandatory adoption of IFRS
Earnings per Share (EPS)	0.343 <i>0.196</i>	0.750 <i>0.0007***</i>
Book Value per Share (BVPS)	-0.149 <i>0.446</i>	0.552 <i>0.002***</i>
Securitization Ratio (SEC)	-0.257 <i>0.038**</i>	-0.271 <i>0.016**</i>
Probability (F-stats.) overall	<i>0.03**</i>	<i>0.0001***</i>
Number of observations	126	96
Number of banks	33	33

- (a) Analysis based on the regression without any dummies
 - (b) Dep. Variable based on March which is the stock price 3 months after the end of fiscal year
 - (c) Probability of each variable is reported in italics below the each coefficient estimates
 - (d) (*), (**), (***) denotes the statistical significance at the 10, 5 and 1% level in order
 - (e) The time span for the before the IFRS is from 1994 to 2005
 - (f) The time span after the crisis starts from 2005 to 2011
 - (g) EU-10 countries includes Belgium, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain and United Kingdom
- Similarly, before the mandatory regulation earnings value does not have any impact but it becomes positive and significant after the mandatory adoption of IFRS. The results show that earnings per share has become more value relevant and have higher impact on the stock prices as a result of interaction with the IFRS.

Moreover, both before and after the IFRS requirement, findings on securitization indicate a negative and significant impact on the stock prices. Increased level of significance and slightly increased coefficients of securitization was the impact of this compulsory application. This is in consistency with the literature review that IFRS provides better quality information than the local accounting systems have. (O'Keeffe, 2011)

As a result, the interactions of the variables are statistically significant with relation to the mandatory application which is in coherent with the common view presented in Table 4. In summary, there is a positive and significant impact of earnings and book value on stock prices whereas the association is negative and significant between securitization and stock prices.

6. CONCLUSION

Identifying the impact of securitization on the stock prices of both European & American banks and the influence of mandatory adoption of IFRS on the value relevance of accounting items are the main purpose of this paper. More precisely, Ohlson (1995) model and Agostino et al. (2010) extension was utilized to determine whether securitization, earnings and book value of assets are significantly associated to the stock prices three months after the end of the fiscal year. According to the equation (7) estimated in this paper, the stock price and the securitization of loans have negative association and as a result, the lower the stock prices, the more the securitization. The evidence shows no impact on the stock price, though it still has negative coefficient term as a result of interaction between securitization and mandatory regulation. On the other hand, the book value became more value relevant as the significance of book value increased with the interaction. In case of earnings per share, the results indicate positive and significant impact after the interaction with regulation which was negative and insignificant before IFRS.

In investigating the IFRS adoption further, the result demonstrates negative coefficients as well as insignificant values on the earnings and book value before the introduction of mandatory application and it appears to playing a significant and positive role after the compulsory adoption. As a result, it can be argued that the value relevance increased after the mandatory introduction of IFRS.

To sum up, the relationship between the stock price and securitization are as expected and logical with the literature and common view; the more the securitization, the less the stock prices of the bank. Considering the value relevance, the results are more significant for earnings and book value; insignificant for securitization with the co-integration of IFRS depending on different analysis. Thus, the findings support that securitization is not likely to be value relevant even after the compulsory application of IFRS.

In this context, the regulations of IFRS and the principles of disclosure should be properly understood by the financial institutions for increasing the quality of information of their financial statements. Lastly, this paper, on the basis of the available data contributes that in the presence of mandatory application of IFRS, the value relevance of earnings and book value increased. However, although securitization has insignificant impact after the interaction with the IFRS requirement, it does reduce stock prices. Further research can be done to see when stock prices are used as a model of value relevance whether results differ depending on separate specifications and hypothesis.

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BAHAWALPUR****ABSTRACT**

The purpose of this research paper is to present the role played by the Brand commitment, brand trust, brand attachment, perceived quality and customer satisfaction. The present study was performed to illustrate the involvement of the cognitive and affective variables and also the variables of perceived quality and customer satisfaction in the building and formation of the brand loyalty. The scale is developed to measure the brand commitment, brand trust, brand attachment, perceived quality and customer satisfaction. The paper takes the forms of descriptive research. The current study used a sample of 150 customers from three different cities. The constructs in this study were developed by using the measurement scales which are taken from the past studies. The data was analysis by using SPSS. The tool of this study was evaluated for reliability. The result shows that these cognitive and affective variables are reliable. The result also shows that the brand trust has significantly impact on the brand commitment and also has a positive impact on brand loyalty. Further research in the article should try to examine the cognitive factors as a better knowledge. There are some limitations in this study and also the results of this studies indicates direction for adopting the further research which enhance the brand loyalty efficiently. The link of the perceived quality and brand loyalty needs to be investigated efficiently. The contribution of this research paper or article is that it provides the great important insights which played a magnificent role in the development and measurement of the factors or variables.

KEYWORDS

Brand loyalty, Brand trust, Brand commitment, Perceived Quality, Customer Satisfaction.

1. INTRODUCTION

For the marketing manager the developing and maintaining extended term relationship with customer's are important concerns. In this perspective, brand loyalty helps with improved accepting of the relationship of consumers and brand. Brand loyalty is a strategic purpose of marketing management particularly for consumer merchandise. As an issue of report winning a new customer becomes more and more uncomfortable and costly and it is regularly the loyal customer that pledges the growth at the survival of the brand. (Rosenborg and czepiel, 1983).

Brand loyalty leads to greater market share when the same brand is continually purchased brand loyal customer (Assael, 1998). Brands have happen to so vital to customer at retailers that, over 1000 related research studies were conducted from around the world in nine years from 1980's to 1990's (Light, 1997).

Similarly additionally brand loyalty leading strength does not constrained to be a marketing instrument only, but also it goes in front of this page to achieve invention and their survival in the market. Brand is helps to establish the organizations success in a scale that is better to the ability of a new plant or procedural enhancement while structure a strong brand allows the business, even in the toughest times, to put up for sale its invention at far above the ground price. There exists three major approaches of brand loyalty; the behavioural approach attitudinal approach researcher combined equally the behavioural and attitudinal approaches. For their beneficiary based on fact brand loyalty involves concurrently. At the same time a recurring buying behaviour and a affirmative attitude on the road to the brand (Dick and Basu, 1994.) Brand is individual of the variables that establish the worth of the organizing and managing in the aggressive conditions. Brands as insubstantial property are the most valuable resources that companies have and its worth for the ultimate purchaser. Its functions and importance that plays a critical role in the development of customer preference. This document is deliberate to transmit out the effect brand commitment, perceived quality and customer satisfaction on the brand loyalty.

Brand loyalty has been conceptualized as a user basis create that is resolute equally by behavioural reaction and mental awareness in the present instance phase, as fine as in the former instance periods (Dick and Basu, 1994).a re-evaluate of the narrative reveal that there may be two pretty discrete approaches to investigating brand loyalty. One appears to estimate the express task of different determinants on the brand loyalty. The significant associations among trust and commitment and connectivity among attachment and commitment have been recognized in earlier brand executive studies (Chaudhuri and Holbrook, 2001; Carroll and Ahuvia, 2006;Harris and Goode, 2004;). frequent labelled commodities are now piercing into every turn of customer's everyday being. customers are connected to different and various significant meanings to brand when building a acquisition conclusion. faithful clients merely buy commodities or services of convinced brands.

Definition of devotion to brand contrast so an immense compact among researchers; therefore, individual can barely locate a solitary meaning approved ahead among them. For that cause, we will tackle an integer of definitions of a variety of researchers and authors who addresses and learn the issue of the reliability of brand. He was solitary of who was waged a concentration to the explanation of loyalty in the history; he had been authorized with establishing the foundation of allegiance. Jacoby and chestnut defined trustworthiness to brand as partial behavioural reaction, articulated above instance by various conclusion building component in relative to single or supplementary of the alternatives contained by a well-built set thesis brand name (Jacoby and Chestnut). At nearby, it is broadly acknowledged that brand trustworthiness has an attitudinal and a behavioural factor close to it. Jacoby and Kyner (1973) have projected a designation of faithfulness that includes six essential circumstances. These are that brand name trustworthiness is the influenced behavioural comeback, by several executive item (a individual or cluster of people), with high opinion to one or more substitute brands away of a place of such brands, and is a task of emotional process. Bloemer and Kasper (1995) have considered the differences among (true) and (false) reliability (due to an apathy outcome). These authors have brought into being that true constancy implies, moreover recurring purchasing, a true dedication to the brand. Oliver (1997, 1999) has also evoked this concept of obligation in his study on satisfaction and brand loyalty affiliation.

Oliver (1999) distinct devotion as a profound interior assurance to repurchase the manufactured goods or package on an in progress source in the upcoming. On the former offer, Cunningham (2000) distinct loyalty as a proportion of generally purchases of a precise brand in contrast with other opponent brands. An amount of effects conclude brand name faithfulness. A purchaser develops product dependability merely as they acquire excellence manufactured goods or provision at the exact cost and formerly he gets it the client expects the equivalent from you. Now it is your liability to preserve the value at a sound value. You should also repeat them of the worth of their procure. Finally you should hearten them to purchase your creation or facility. Formulate yourself easily accessible and also develop your customer provision.

2. LITERATURE REVIEW

2.1. BRAND COMMITMENT

Kieslaer (1991) define the commitment as "the association that exists among an entity and its acts". Jonhson (1973) has conceptualized devotion as "the degree to which stroke is enthusiastic to the achievement of a contour of stroke". The integration devotion in the brand loyalty narrative contributes to a enhanced accepting of this occurrence and spreads its description away from its behavioural facet (Samuelson and Sandivik, 1997).Researchers in the customer performance region have adopted to notion to describe the constancy of the preference and the conflict to the convincing statement (Beatty et al., 1988; Ahluwalia et al., 2001).

In the union hypothesis and affiliation advertising fields, researchers emphasize the dual character of commitment; they differentiate among a calculated (designed) commitment and an effective (valuable) commitment (Allen and Meyer, 1990; kumar et al., 1994; Morgan and Hunt, 1994).Designed devotion express the scope to which user "sustain dependable purchase performance as stretched as remuneration close to the brand surpass the expenses switching to an additional product (Amine, 1998).The customer's attitude in the authority of the product (McQueen et al., 1993). The former variety of the commitment, which is general in the literature, is affective commitment. It is foundation on the delight to retain a bond with a colleague and on the expansion of touching affection. As of the customers viewpoint, of these two views of brand commitment, emotional commitment is the mainly efficient aspect on the predicting the keenness to continue the similar purchasing behaviour.

H1: Brand commitment has significant positive effect on brand loyalty.

2.2. BRAND TRUST

Trust is "the user assumption that the brand as embodied unit, commit itself to have a conventional act, in agreement with his anticipation, and to keep up this course in the distance end to end". Gurviez, 1998, 2002).belief has established to be a considerable forecaster of commitment (Frisou, 2000; Hess and Story, 2005). Brand trust has two mechanisms which are the most effective and efficient; here are the instruments, cognitive and affective. The cognitive element of trust refers to integrity. It can be originate as consumers regard as convincing the information on the product, its presentation, and its talent to gratify them. The affective constituent of trust is reliability. It is the customer's evaluative judgments interrelated to brand motivation on the road to them (Gurviez, 1998).reliability seems to manipulate certainly affective commitment and pessimistically designed commitment (De Ruyter et al., 1998).

H2: Brand trust has a positive effect on the brand commitment.

H3: Brand trust has positive effect on brand loyalty.

2.3. BRAND ATTACHMENT

Brand attachment can be measured as "a mental variable that refers to a tough and inalterable (The departure is hurting) sentimental response on the way to the band and the express correlation of emotional closeness with this individual" (Lacoeuilhe, 2000). In gap with the different factors causal to the justification of brand loyalty development, attachment allows secretarial for the intentionality of repetitive buying behaviour.

Brand affection influences the behavioural aspect of devotion in the course of brand assurance. This shows that the fondness urbanized by the buyer in the direction of the brand name, be able to be materialized as a fascination in the alternative and the buy of this product. Additionally, brand attachment happens as a part of affective commitment just before to the brand (Aaker, 1991; McQueen, 1993; Amine 1998).

H4: Brand attachment has a positive impact on brand commitment.

2.4. PERCEIVED QUALITY

The academic analysis perceived quality as confidential and biased. (Anderson and Sullivan, 1993; Chen, 2001; Olsen, 2002). Oliver's (1999) description of perceived quality is a universal customer termination of the authority of the invention or provision integrating buyer anticipation and perceptions. Complimentary customer package perceptions go in front to improved fulfilment (Anderson and Sullivan, 1993; Fornell et al., 1996; Olsen, 2002). Since Oliver (1999) suggest, noticeable quality is in the mind and lead largely satisfaction, which is an efficient reaction.

H5: Perceived quality has a direct positive impact on brand loyalty.

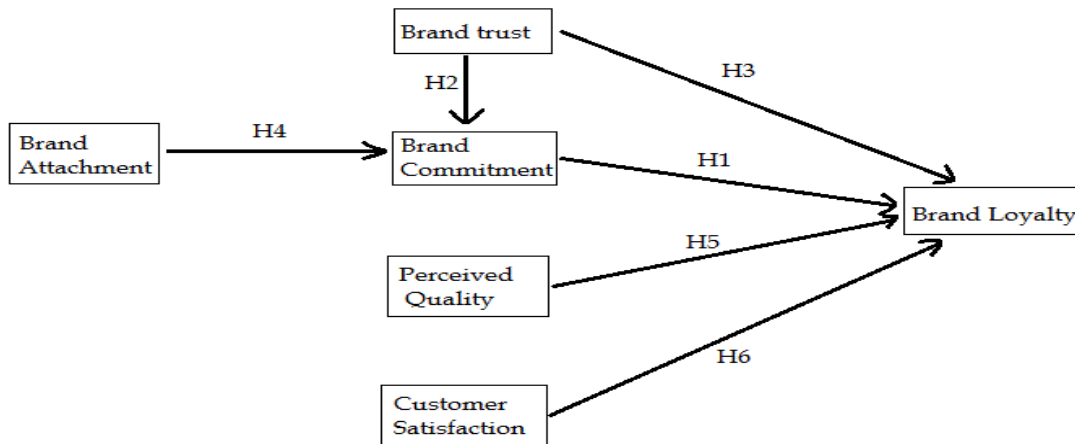
2.5. CUSTOMER SATISFACTION

In excess of the duration, abundant definitions of satisfaction have been worn in the market regulation. Giese and Cote (2000, p. 15) come to an end that the broad difference in defining the agreement of satisfaction is finest submissive in their explanation of satisfaction as " a outline sentimental reaction of shifting focus with a immediate particular face of purpose and limited time concentrating toward vital points of merchandise achievement and utilization.

We conceptualize satisfaction as a consumer's generally assessment of manufactured merchandise or facility in conditions of whether that manufactured merchandise or facility has met their requirements and prospect.

H6: Satisfaction has a direct positive impact on brand loyalty.

PROPOSED MODEL FIGURE 1:



3. METHODOLOGY

The research of the study is descriptive research. In the Descriptive research the specific situation and phenomenon are discuss and described. Instead of interpret the judgements, the research is used to explain the existing circumstances effectively (Creswell, 1994).The main vision of the descriptive research is to test the postulated hypothesis that reflects and shows the current set-up and focus on the past or current. Through the descriptive research the past and present situations can be described efficiently and effectively (Kumar 2005)

3.1. SAMPLE/DATA

To know the situation about the adoption and taking of the brand loyalty, sample is required. Without taking the sample no information and perceptive about the situation is done. In order to collect the data for understanding the situation of taking up of the brand loyalty, a sample of 200 respondents will ask to participate the in a self-administered questionnaire. The population for the current research is consumer in Pakistan.

The current study utilizes a non-sampling technique that is convenience sampling. Expediency sampling is the technique that obtains and gathers the relevant information from the sample or the component of the study that are conveniently available (Zikmund, 1997).through the expediency sampling technique the large numbers of surveys and information is collect. Expediency sampling is usually used for the collecting and gathering a large number of completed surveys hasty and economically (Lym et al., 2010).

For developing confidence in the survey results and making results representative, it is highly significantly important that a large number of participants are selected. By selecting the large number of participants the completed surveys are collect effectively. The sample size which is taking in our study is 150.This proposed sample size is quite good as compared to the several previous studies on the same topic. It is proved and ensured that the sample members posses two main qualification to participate in the self-administered surveys. First the sample member should be enough in income and having the knowledge about the functions of the cell phone. Second they never used this cell because in the case of experience regarding using cell, it definitely influences the attitude of the respondent.

We choose these sample members and participants from the different metropolitan cities of Pakistan. The two main clusters like working professionals and university students will target to assemble the sample data. The selection of the working professionals and students are based on the previous results of the studies of brand loyalty.

3.2. INSTRUMENT AND SCALES

The survey instruments of the current study concentrate on two most important purposes: Firstly to analyze the relationship of the different variables in the taking up of the brand loyalty. Secondly to accumulate information about the different features of the respondents that can be used to recognize the variations in the different categories. The survey instruments contain two phases. Phase 1 includes the different delicate and demographic variables. This determination will obtain the respondent's information about gender, age, income, education and status.

Phase 2: includes the vital variables that are central in the current study. These variables have much importance in the relevant study. The study reflects the past literature. These variables include brand loyalty, brand commitment, brand attachment, brand trust, perceived quality and customer satisfaction. This section of study which relates to the variables is developed and based on the already used questionnaire and the past research (Table 2)

The scale which lies in this study were taken and adopted from the previous published research and past literature. The variable brand loyalty has seven items and scales which have taken Jacoby (1971) Dick and Basu (1994). Brand attachment has four items and scales were taken from Lacoecilhe (2000) Cristau (2001,2006).Brand commitment has five items and scales were taken from Brand Robertson (1976) Morgan and Hunt(1994).Trust has five items and scales were taken from Gurviez (1998) Gurviez and Korchia (2002).Perceived quality has three items and scales were taken from (McConnell, 1968).Customer satisfaction has two items and scales were taken from (Bennett, Härtel, and McColl-Kennedy, 2005; Chaudhuri and Holbrook, 2001).

TABLE 2: SCALES OF THE STUDY

NO.	Variables	Items	References
1	Brand Loyalty	1. I intend to buy Iphone in the near future. 2. I intend to buy other products of Iphone. 3. I consider Iphone as my first choice in this category. 4. The next time I need Iphone, I will buy the same brand. 5. I get good value for my money. 6. I say positive things about Iphone to other people. 7. I will not buy a other brands if Iphone brand is available.	Jacoby (1971) Dick and Basu (1994)
2	Brand attachment	1. This iphone is very dear to you. 2. You feel emotionally connected to the iphone. 3. You are very attached to this iphone. 4. You have a bond with this iphone.	Lacoeuilhe (2000) Cristau (2001, 2006)
3	Brand commitment	1. I usually tell my friends that is a great iphone brand to work for 2. I really care about this iphone brand 3. I am proud to tell others that I am part of this iphone brand 4. It would take very little to cause me to leave this iphone brand. 5. For me this is the best of all possible mobile brands to work for.	Robertson (1976) Morgan and Hunt (1994)
4	Brand Trust	1. I trust this brand. 2. I rely on this brand. 3. This brand is safe. 4. Brand that meets my expectations. 5. This is an honest brand.	Gurviez (1998) Gurviez and Korchia (2002)
5	Perceived quality	1. Iphone is so of high quality. 2. The likely quality of iphone is extremely high. 3. The likelihood that iphone is reliable is very high.	(McConnell, 1968)
6	Customer satisfaction	1. Overall, I am satisfied with specific experiences with the iphone. 2. I am satisfied with my decision to purchase to iphone.	(Bennett, Härtel, and McColl-Kennedy, 2005; Chaudhuri and Holbrook, 2001)

3.3 PROCEDURE

The questionnaire was distributed amongst 200 respondents in Bahawalpur, Multan, and Lahore. The respondents in which questionnaire was distributed are selected based on the criteria above mentioned in the table. Before giving the questionnaire the main purpose and aim of the study and questions were explained to the respondents so that they can easily fill the questionnaire with relevant response. The questionnaire was filled by the respondents with relevant response. A total of 150 questionnaires were selected in which the respondents filled the questionnaire with related response and the rest of the questionnaire was not integrated in the further testing due to incomplete, irrelevant and illogical response. The irrelevant responses are not included in the study because it causes irrelevancies in the study. After collecting the concluded questionnaires, these questionnaires were coded and entered into the SPSS for regression analysis.

3.4 RELIABILITY ANALYSIS

Overall Cronbach's alpha of over variables are more than acceptable and recommended value 0.50 by Nunnally (1970) and 0.60 by Moss et al. (1998). This shows that 26 items were reliable and valid to measure the opinions of the consumers towards the brand loyalty.

TABLE 3: RELIABILITY OF MEASUREMENTS INSTRUMENT

Scales	Items	Cronbach'Alpha
Brand Loyalty	7	0.841
Brand attachment	4	0.750
Brand commitment	5	0.739
Customer satisfaction	2	0.687
Perceived quality	3	0.781
Brand Trust	5	0.749

4. RESULTS AND ANALYSIS

4.1 PROFILE OF THE RESPONDENTS

Personal and demographic information such as gender, age, income, education level and status are shown and presented in the following table. In this table the above information are presented with its categories, frequencies and percentages.

TABLE 4: PROFILE OF THE RESPONDENT

Variable	Category	Frequency	Percentage
Gender	Male	75	50.0
	Female	75	50.0
Age	18-25 years	145	96.7
	26-35 years	5	3.3
Education	Bachelor	2	1.3
	Master	136	90.7
	MS	12	8.0
Income	Below 15000	144	96.0
	15000-25000	3	2.0
	35000-45000	3	2.0
Status	Student	145	96.7
	Employee	3	2.0
	Unemployed	2	1.3

4.2 HYPOTHESIS TESTING

4.2.1. BRAND COMMITMENT AND BRAND LOYALTY

According to the results of the study, the variable of Brand commitment has a significant positive relationship with brand loyalty. Specifically the brand commitment has a significant positive relationship with ($\beta=0.215$) and ($p < 0.01$). That means the brand commitment contribute more than 21% to brand loyalty. Results of the current study validate the H1.

4.2.2. BRAND TRUST AND BRAND COMMITMENT

The regression result of the study confirms the positive relationship between brand trust and brand commitment. Particularly the brand trust has positive impact and relationship with brand commitment. The brand trust has positive relationship with ($\beta=0.506$) and ($p < 0.01$). Brand trust contributes more than 50% to the brand commitment. The Results of the study authenticate the H2.

4.2.3. BRAND TRUST AND BRAND LOYALTY

Regression analysis of the brand loyalty shows and presented that there is a significantly positive relationship between brand trust and brand loyalty with ($\beta=0.302$) and ($p < 0.01$). The results recommend that the brand trust contributes more than 30% to the brand loyalty. The result of the study support H3.

4.2.4. BRAND ATTACHMENT AND BRAND COMMITMENT

The regression result of the study confirms the significant positive relationship between brand attachment and brand commitment with ($\beta=0.634$) and ($p < 0.01$). According to these results brand attachment contributes more than 63% to the brand commitment. These results of the study authorize H4.

4.2.5. CUSTOMER SATISFACTION AND BRAND LOYALTY

According to the result of the study the variable of the customer satisfaction has a significant positive relationship with ($\beta=0.220$) and ($p < 0.01$). Results of the current study certify the H5.

4.2.6. PERCEIVED QUALITY AND BRAND LOYALTY

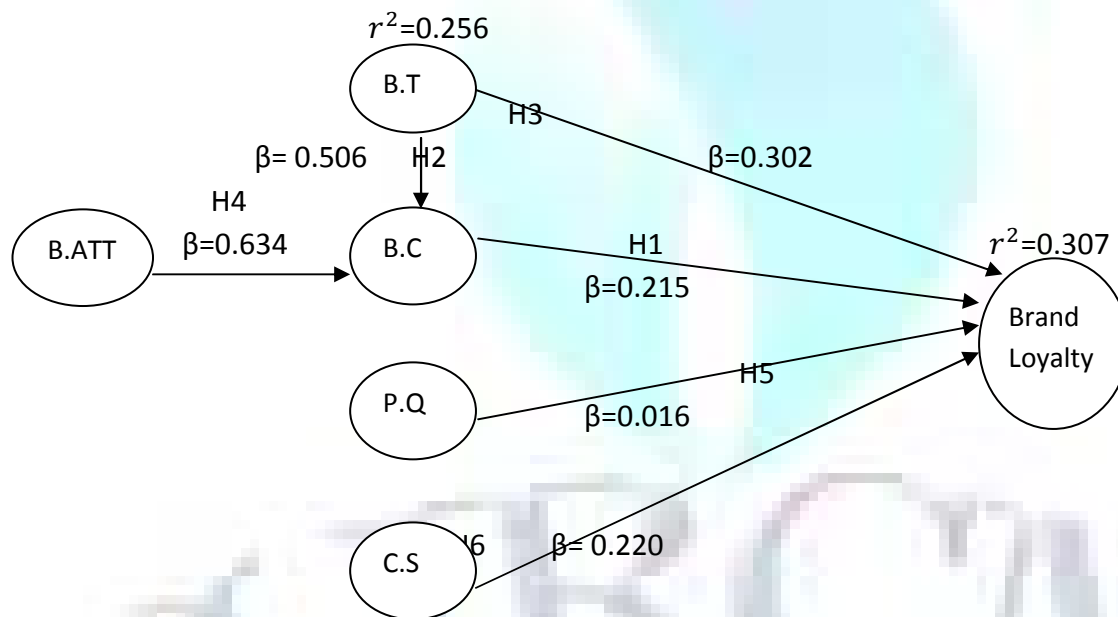
While taking into consideration the significance between perceived quality and brand loyalty, the results of the recent study shows no significant relationship between these two variables.

According to the results, there is no significant relationship between perceived quality and brand loyalty with ($\beta=0.16$) and ($p > 0.05$). Results of the study legalize the H6.

TABLE 5: REGRESSION RESULTS

Hypothesis	Model variables	Estimate	S.E.	C.R.	p	Results
H1	B.L ← B.C	0.215	0.132	2.656	0.009	Supported
H2	B.C ← B.T	0.506	0.081	7.130	0.000	Supported
H3	B.L ← B.T	0.302	0.154	3.655	0.000	Supported
H4	B.C ← B.C B.Att	0.634	0.073	9.966	0.000	Supported
H5	B.L ← P.Q	0.016	0.174	0.207	0.837	Unsupported
H6	B.LB ← B.L C.S	0.220	0.284	2.931	0.004	Supported

FIG. 2: STRUCTURAL MODEL RESULTS



5. DISCUSSION

Overall we find support for the postulated and tested hypothesis in our proposed model. Understanding and supervision of brand loyalty is particularly significant in consumer goods industries. Questionnaire contained two parts, first part of the study is related to demographic profiles and second part consisted of brand trust, perceived value, and brand loyalty. The tool was evaluated for reliability and validity. The results showed that the outline of brand trust, perceived value, and brand loyalty is a valid and reliable instrument. Data collected through the survey questionnaire were analyzed using SPSS.

Brand commitment leads to a repetitive buying behaviour of this brand. The approach adopted in this research takes into description of the behavioural considerations developed in the traditional theories as well as the attitudinal factors existing in the commitment. Commitment to the brand is a determinant aspect to reach the true brand loyalty. The relationship between the brand commitment and the brand loyalty is very significantly. The models which fit in brand commitment as a fundamental component of brand loyalty allowed a superior knowledge of the cognitive and affective factors in the pattern of this Phenomenon.

The factors which have a direct influence on brand loyalty are brand trust, customer satisfaction while the effect of the variable perceived quality would come as no surprise to the researchers. The relationship between the perceived quality and brand loyalty is not significant. The findings of the researchers conclude that perceived quality has no significant impact on the brand loyalty. The relationship between customer satisfaction and brand loyalty come as a surprise to the researchers. The researchers find that customer satisfaction has a highly significant effect on the brand loyalty. Dependable with past outcome from consumer studies, the pattern of results reported here suggests that satisfaction is antecedent to brand loyalty, at least in the Chinese context studied. When consumers visit retailing service stores, they are more likely to be satisfied with the outcome, which leads to improving brand loyalty.

The association between customer satisfaction and brand loyalty has been fine researched in consumer markets; focusing generally on quick affecting consumer goods (Fournier and Yao, 1997). Brand attachment has a significant positive impact on the commitment. The findings of the current study illustrate that there is a positive connection between brand attachment and brand commitment. Brand attachment results from the character played by the brand in maintaining consumer personality. Without a doubt, the brand constitutes a way of communicating about one's self-concept. When the brand is exciting with positive emotions, consumers become attached to brand, mainly when these emotions are correlated to live events or dear persons. Brand Attachment reflects the desire to retain, through the utilization experience, an emotional relation with some persons or satisfying situations (Lacoeuilhe, 2000). This issue shows that the liking developed by the consumer towards the brand, can be take place as a fixation in the selection and the purchase of this brand.

Brand trust is the most important factor which shows a significant positive direct impact on the brand loyalty. The findings of the current study conclude that there is a significant positive relation among brand trust and brand loyalty. Brand trust could accomplish brand loyalty through the formation of a highly valued exchange relation and to make consumers have the intensity of commitment to the brand psychologically and to share some information about his or her tastes, preferences, and behaviour (Chaudhuri and Holbrook, 2001), and this is the role of motivator factor. Additionally the brand trust has also a positive effect on the brand commitment. There must be a significant positive relationship between brand trust and brand commitment.

6. LIMITATIONS AND MANAGERIAL IMPLICATION

Based on the results of this study, decision maker have to pay equal or even more concentration to strategies and Measures that primarily help to build brand loyalty, such as corporate characteristics strategies, personal Communication, and merchandising. Marketers should, thus, take careful consideration of brand factors in the improvement of brand loyalty. This study and their results have several limitations and also indicate directions for further research. The primary limitation of this research is that it explores only one-product category, potentially limiting the generalizability to other domains. In General, findings of this research should be virtual with different product categories and brands.

Overall, we still need to develop a more detailed understanding, managing of the association between brand loyalty and other relationship marketing related variables. Overall, we still need to develop a more detailed understanding of the relationship between brand loyalty and other relationship marketing related variables such as brand experience. Comparable with several other studies, the sample size used in this study is considered very small it may be in large scale. The results of the study must, therefore, be treated with caution. The study can be strengthened by increasing the sample size and as well as participants in other environmental areas.

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