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THE RELATIONSHIP BETWEEN ACCOUNTING REVENUES, INCOME AND EXECUTIVE PAY**DR. C. JOE UENG****PROFESSOR****DEPARTMENT OF ECONOMICS, FINANCE & DECISION INFORMATION SCIENCES
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YUAN ZE UNIVERSITY
TAIWAN****ABSTRACT**

This study examines the impact of revenues growth and income expansion on executive pay. Specifically this paper examines whether revenues or income growth has a greater impact on the executive pay. CEO compensation is utilized to be the proxy for executive pay in this study. Results indicate that executive pay is not dependent on either revenues or income growth. Rather, executive pay is highly dependent on the firm's stock returns.

KEYWORDS

CEO Pay, Executive Compensation, Firm Performance.

INTRODUCTION

Executive pay has long been a controversial issue the United States. Particularly of interest is how CEO pay is determined. Prior research has resulted inconsistent evidence. The purpose of the study is to find the relationships among revenues, net income and CEO pay. This study examines whether CEO pay is dependent on revenues growth and income expansion. Additionally, this study investigates whether CEO pay is determined by firm performance. In this study, the paper uses total stock returns as proxies for firm performance.

LITERATURE REVIEW

In his study of relationships among profitability, return on equity and executive pay package, Miller (1995) found that net profit, return on equity and earnings per share has a relationship with CEO's Pay. Marshall and Heffes (2004) provide evidence that on a number of key performance measures, companies fared better in 2003 than they did in 2002, and annual CEO pay reflected this improvement. Among the 350 companies studied, revenue grew by a median 7.2 percent, to \$6.2 billion; net income rose a median 19.2 percent, to \$318 million.

Prior studies suggest that the executive pay be highly related to the firm's performance (Jensen and Murphy 1990, Murphy 1985). According to the wealth maximization hypothesis, managers are hired to act in the best interest of shareholders. Consequently, their compensations are designed by their performance in terms of the wealth creation for the shareholders. Other empirical studies also document the same finding. Hogan and Sigler (1998) studied the determinants of CEO pay. They included a number of variables, including CEO tenure, income, sales (revenues) stock returns and the firm's beta. Only return and beta are significant for all industries, whereas at the other extreme sales is significant for just four of eight. Tenure and net income are significant for seven of the industries, while variance is significant for six of eight.

Christensen et al. (2007) also provide evidence that residual income has a tie to CEO's pay. However, Mcquire (1962) stated that the relationship between executive compensation and sales appeared to be stronger than the relationship between compensation and profits. They suggested that CEO pay is more tied to sales level than to income level. Dorata (2008) stated that GAAP-based income has a relationship in the determination of CEO compensation. CEO cash compensation benefits when adjusted net income is either positive or negative, but clearly benefits most significantly from returns on common equity. Compensation committees place greater emphasis on obtaining future synergistic gains from merger transactions despite current year losses.

Natarajan (1996) studied the impact of firm's earnings and cash flows on the cash compensation paid to CEOs. The author suggested that company's earnings and cash flow measures together have a better association with cash compensation paid to CEOs of U.S.

Agle et al. (1999) suggested that CEO can impact company's annual revenues. Therefore, the shareholders' investment on CEO is worthy. Barro and Barro (1990) investigated the relationships among CEO pay, performance, and turnover rate for bank industry. They suggested that bank's net revenue has a relation with CEO's Pay.

Gaver and Gaver (1998) provided evidence that cash compensation is positively related to unusual earnings components that increase income, but is not related to unusual earnings components that decrease income. In United States has long had significant inequalities in income. Well-heeled CEOs have become symbols of the thoroughly documented increase in income inequality in the United States.

Boschen and Duru (2003) studied CEO long term financial gains from the firm and the firm's stock performance. They concluded that the CEO's long-run cumulative financial gain from unexpectedly good stock price performance is positive and significant. Ashley and Yabg (2004) studied the CEO pay and the quality of earnings. They found that a firm's persistent income stream provides useful information for CEO compensation.

This study intends to provide further empirical evidence on how revenues, income, and firm performance affect CEO pay.

DATA COLLECTION AND RESEARCH METHODOLOGY

Data on CEO pay were collected from Wall Street Journal CEO Pay annual survey 2008. Firm's revenues and income were collected from Yahoo Finance. Growth rate in revenues and net income were also calculated. The database includes all variables for year 2008. This study utilized regression models to examine the impact of revenues and income on the CEO pay. Stock returns were included in the model as the control variables. The study models the relationships as follow:

$$CEO\ Pay = \alpha_0 + \alpha_1REV_i + \alpha_2 \cdot INCOME_i + \alpha_3TSR07_i + \alpha_4TSR08_i + \alpha_5TSR05_07_i + \alpha_6\ TSR06_08_i + \epsilon_i$$

CEO pay is measured by using different variables. It includes Total Direct Compensation, total annual salary, total annual incentive, and total restricted stock grants.

RESULTS OF THE STUDY

Table 1 presents the descriptive statistics of variables in the Study. CEO pay is measured by different variables.

TABLE 1: DESCRIPTIVE STATISTICS OF VARIABLES IN THE STUDY

	N	Minimum	Maximum	Mean	Std. Deviation
2007 SALE	192	0	3,300	1,046.43	408.022
2008 SALE	169	0	21,000	1,195.71	1,582.52
2007 ANNUAL INCOME	191	0	67,900	2,784.26	5,900.64
2008 ANNUAL INCOME	169	0	13,946	1,448.82	1,826.92
% CHG FROM 2006: SALARY + ANNUAL INCENTIVES	94	0	345	27.31	45.401
% CHG ROM 2007:SALARY+ANNUAL INCENTIVES	140	-100	83	-14.47	36.75
2007 STOCK OPTION GRANTS	191	0	30,446	2,456.45	3,454.25
2008 STOCK OPTION GRANTS	169	0	28,450	2,422.54	3,462.35
2006 RESTRICTED STOCK GRANTS	197	0	33,013	1,137.22	3,048.20
2007 RESTRICTED STOCK GRANTS	169	0	28,830	1,047.63	2,666.98
2007 EQUITY	192	0	26,144	2,066.24	3,128.04
2008 EQUITY	167	0	15,748	1,983.16	2,624.43
2007 CASH	198	0	29,250	649.49	2,586.42
2008 CASH	167	0	29,250	722.06	2,612.25
2007 TOTAL DIRECT COMP.2 (000)	201	0	78,517	10,161.88	9,485.19
2008 TOTAL DIRECT COMP.2 (000)	169	0	49,928	8,631.06	7,230.77
% CHANGE FROM 2006:TDC1	86	0	772	46.5	118.864
% CHANGEFROM2007TDC1	140	-100	215	-7.7	42.637
2007 CHN IN NQ DEFCOMP. + PENSION VALUE	193	0	9,840	1,160.52	1,701.62
2008 CHN IN NQ DEFCOMP. + PENSION VALUE	167	-1,171	10,044	1,188.43	1,793.21
2007 ALL OTHER COMP. (000)	202	0	3,220	299.25	384.444
2008 ALL OTHER COMP. (000)	167	0	3,930	327.6	442.039
2007 TOTAL COMP (000)	198	0	78,522	11,586.97	10,077.79
2008 TOTAL COMP. (000)	167	0	51,778	10,378.39	8,104.80
2007 TOTAL REALIZED LIT (000)	205	0	73,098	8,347.52	12,432.83
2008 TOTALREALIZESLIT(000)	167	0	215,860	8,485.84	22,161.02
% CHANGE FROM 2006: COMPANYNET INCOME3,4	197	-427	248	-0.07	67.035
% CHANGE FROM 2007: COMPANYNET INCOME3,4	157	-900	686	-51.73	181.325
2007 REVENUES	199	1,061,169	172,738,000	21,949,635.97	27,022,751.53
2008 REVENUES	199	1,384,919	182,515,000	23,038,321.02	28,005,456.14
chg_REVENUE	199	-0.89	1.11	0.064	0.18129
2007 COMPANY TSR4	210	-69.1	181.1	9.2043	36.3682
2008 COMPANY TSR4	165	-63	54	-7.68	17.619
2005-2007 TSR4	206	-33	113.8	12.7471	21.33093
2006-2008 TSR4	166	-95	65	-34.26	25.031

Table 2 presents the correlation coefficients among all variables. Annual income is highly correlated with variables that measure CEO pay. The correlation coefficients between income and stock returns are also significantly positively correlated. The correlations between sales and CEO pay and stock returns are somewhat weaker than those between income and the same variables. The results seem to indicate that income is more significant in determining CEO pay. Furthermore, the results also suggest that when income is higher, stock returns tend to be higher.

TABLE 2: CORRELATION COEFFICIENTS AMONG VARIABLES

r	CR	07 NI	08 sale	08 AI	07 SAI	08 SOG	07 TDC	08 AOC	08 TC	08 TRs	07 TSR4	08 TSR4	05-07 TSR4	06- 08 TSR4
CR	1	0.355**	-0.008	0.098	0.085	0.014	-0.013	0.035	-0.005	0.158*	0.358**	0.367**	0.384**	0.224**
07 NI	0.355**	1	0.037	0.228**	0.257**	0.058	0.300**	0.082	0.001	0.116	0.406**	0.397**	0.335**	0.435**
08 Sale	-0.008	0.037	1	0.178*	0.016	0.03	0.021	0.186*	0.219**	0.085	0.05	0.095	0.335**	0.049
08 AI	0.098	0.228**	0.178*	1	0.411**	0.423**	0.334**	0.278**	0.632**	0.251**	0.235**	0.381**	0.335**	0.288**
07 SAI	0.085	0.257**	0.016	0.411**	1	0.108	0.539**	0.033	0.165	0.103	0.027	0.312**	0.335**	0.474**
08 SOG	0.014	0.058	0.03	0.423**	0.108	1	0.251**	0.224**	0.610**	0.032	0.051	0.15	0.335**	0.143
07 TDC1	-0.013	0.300**	0.021	0.334**	0.539**	0.251**	1	-0.03	0.235**	0.058	0.05	0.284**	0.335**	0.394**
08 AOC	0.035	0.082	0.186*	0.278**	0.033	0.224**	-0.03	1	0.428**	0.242**	0.034	0.031	0.335**	0.063
08 TC	-0.005	0.001	0.219**	0.632**	0.165	0.610**	0.235**	0.428**	1	0.463**	0.156*	0.276**	0.335**	0.097
08 TRs	0.158*	0.116	0.085	0.251**	0.103	0.032	0.058	0.242**	0.463**	1	0.332**	0.280**	0.335**	0.125
07 TSR4	0.358**	0.406**	0.05	0.235**	0.027	0.051	0.05	0.034	0.156*	0.332**	1	0.564**	0.335**	0.148
08 TSR4	0.367**	0.397**	0.095	0.381**	0.312**	0.15	0.284**	0.031	0.276**	0.280**	0.564**	1	0.335**	0.678**
05-07 TSR4	0.384**	0.335**	-0.021	0.190*	-0.049	-0.001	-0.006	-0.018	0.075	0.298**	0.825**	0.562**	0.335**	0.132
06-08 TSR4	0.224**	0.435**	0.049	0.288**	0.474**	0.143	0.394**	0.063	0.097	0.125	0.148	0.678**	0.335**	1

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

NI	Net Income
AI	Annual Income
SAI	Salary annual incentive
SOG	Stock Option Grant
TDC	Total Direct Compensation
AOC	All Other Company
TC	Total Company
TRs	Total Realize slit
05-07 TSR	The average total Stock Return from 05 to 07
06-08 TSR	The average total stock return from 06 to 08
CR	Percentage change in revenues from 07 to 08
CI	Percentage change in income from 07 to 08

Table 3 presents the results of regression analysis. Six different independent variables, proxies for CEO pay, are analyzed in six separate models. Those six variables include Total direct compensation, total annual salary, total annual incentive, Percentage change in total direct compensation from 07, Total Stock Option Grants, and Total Restricted Stock Grants. Independent variables include revenues growth rate, income growth rate, and total stock returns.

Regression results of CEO PAY on several explanatory variables, estimated coefficients and their t-statistic in parenthesis, R-squares, and F-values and the significance.

$$CEO\ PAY = \alpha_0 + \alpha_1\ CHG\ REV_i + \alpha_2 \cdot CHG\ INCOME_i + \alpha_3\ TSR07_i + \alpha_4\ TSR08_i + \alpha_5\ TSR05_07_i + \alpha_6\ TSR06_08_i + \epsilon_i$$

TABLE 3: RESULTS OF REGRESSION ANALYSIS

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent variable	TDC	SAL	AI	TDC_CHG	SOG	RSR
chg Revenue	-0.111	-0.03	-0.087	-0.015	-0.027	-0.025
chg income	-0.024	0.042	0.079	0.114	0.007	0.203***
07 company TSR	0.112	0.132	0.102	0.064	0.108	-0.032
08 company TSR	0.540***	0.177	0.321***	0.379**	0.115	0.963***
05 07TSR	-0.166	-0.226	-0.001	-0.188	-0.156	-0.327***
06-2008 TSR	-0.185	-0.089	0.029	0.038	0.068	-0.714***
Adj. R- Squire	0.126	0.012	0.137	0.154	-0.006	0.368
F-Statistic	4.624	0.701	5.01	4.86	0.857	15.62
Sign of F	0	0.65	0	0	0.528	0

CEO PAY	CEO PAY based on different proxies
TDC	Total Direct Compensation
SAL	Total annual salary
AI	Total Annual Incentive.
TDC_CH	Percentage change in total direct compensation from 07
SOG	Total Stock Option Grants
RSR	Total Restricted Stock Grants
TSR	Total Stock return
05-07 TSR	The average total Stock Return from 05 to 07
06-08 TSR	The average total stock return from 06 to 08
Chg revenue	Percentage change in revenues from 07 to 08
Chg income	Percentage change in income from 07 to 08

***, **, * indicates significance at the .01, 0.05 and 0.10 levels respectively.

All regression models are both multicollinearity- and heteroscedastic-consistent.

According to the results from Table 3, neither accounting revenues nor income is significant in determining CEO pay. Stock returns, however, are statistically significant in the models. Evidence in the study seems to suggest that financial performance, such as stock returns, is more significant than accounting performance, such as revenues and income, in determining CEO pay.

CONCLUSIONS

This study examines the impact of revenues and income on CEO pay. The results indicated that neither is significant in determining CEO pay. Stated differently, higher revenues and/or higher net income do not warrant a higher CEO pay. This study also provides the evidence that stock returns are statistically significant in determining CEO pay. According to the models, the CEO pay is highly dependent upon on the stock returns. Four years of Stock returns immediately preceding to CEO pay is the most significant determinant.

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TRAFFIC FATALITIES AMONG CHILDREN THAT IS CAUSING EXTENSIVE ECONOMIC DAMAGES

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ABSTRACT

In this study the traffic accidents that result in children fatalities is investigated by grouping and comparing several countries. Hierarchical Clustering analysis is used in order to determine similar and different countries according to the children death in traffic accidents. Multidimensional scaling analysis, on the other hand, is used to show the situation of countries and the unknown relation between units in multidimensional space. Cluster analyses showed that, it is possible to separate the countries into 6 groups. Turkey is found to be the most different country from the others where Portugal also forms a single group. The similarities and dissimilarities among the countries are also discussed. It is shown that Turkey and Portugal form single groups, among others. Turkey is found to be lack of safety measures which results in the high dissimilarity between the other countries and Turkey. It is clear that the situation of Turkey in terms of child traffic fatalities is alarming and needs special attention.

KEYWORDS

Child; Safety; Safety system; Traffic accident; Traffic fatality.

1. INTRODUCTION

Being a major global problem, traffic accidents affect all part of the society. According to the World Health Organization's (WHO) report, 2.1% of the deaths in the worldwide and 25% of the deaths in accidents are due to the traffic accidents. Studies showed that if traffic accidents keep going up with the same rate, in 2020 they became the 1st reason for all types of death and will become even worse than AIDS (Peden et al., 2004).

Traffic accidents are commonly accepted as one of the biggest risk for the children health as they are the main reason for the injuries and even deaths for children, and are responsible for 40% of the deaths of children younger than 15 (Peden et al., 2004). As the transportation capability of the current societies has increased, children have been beginning to travel more. However, when designing the roads and the vehicles, this fact hadn't taken into account. As children are different from adults in terms of adaptation, the roads and the vehicles that are designed for adults and the traffic situation create a huge problem for the children. This shows the importance of the traffic safety for the children. Children rarely cause traffic accidents, but have a part as pedestrian, bicycle driver or passenger. In fact, most of these accidents can be avoided. It is showed that the number of traffic accidents that are resulted in children death in developing countries is more than the ones in developed countries (UNICEF, 2001). Considering the fact that the number of vehicles in developing countries is less than the developed ones, the reduced number of fatalities can be dedicated to the safety systems. Moreover, it is previously reported that with the usage of these safety systems avoided the increase in children fatalities more than 70% for the baby seat, 50% for the children seat (SpineCare Foundation, 2005) and 45% for the safety belt (Elvik et al., 1997). Therefore it can be stated that, by the regular use of safety belt, child safety seat, and protective helmet, the severity of the injuries can be reduced.

As another key parameter, the vehicle speed has also effects on the children death. Increase of speed from 30 km/h to 50 km/h increases the death of pedestrian children 8 times (Upadhyay and Sharma, 2004). In addition there is a significant relation between the speed and the severity of the injuries. With the limitation of 20 km/h provided %70 of sectional decrease on pedestrians (Webster and Mackie, 1996).

In Turkey, the risk of the exposure of young children to traffic accidents is at the highest level among other countries (IRTAD, 2004). Children who live in Turkey are 3.43 times more likely to die in a traffic accident than Swedish children, as a pedestrian, passenger, or bicycled (IRTAD, 2004; Christie et al., 2004). Children younger than 14 who live in Turkey have a risk of death more than 11 times of Japanese child, 8.4 times of English child, 3.1 times of German child, 2.7 times of Spanish child, and 2.3 times of French child do because of traffic accidents during vehicle travel (IRTAD, 2004). This situation may have different causes. Beside of the traffic culture of countries, socioeconomic (Peden et al., 2004; Plasencia and Borrell, 2001; Hyder and Ghaffar, 2002) and socio-demographic factors have affect on the death in traffic accidents (van Beeck et al, 1991).

Main aim of this study is to determine similar and different countries and to compare and group them in terms of child traffic fatalities. The grouping and comparisons are made by Hierarchical Clustering and Multi Dimensional Scaling (MSD) Analyses. Although the situation of other countries is presented, special attention is given to the Turkey's situation as it needs urgent actions. The groups and comparisons are discussed in detail in order to understand the key problems in traffic accidents that involve children and several suggestions are proposed in order to reduce the risks.

2. MATERIAL AND METHODS

In this section the methods that are used throughout the study are presented and discussed. Basically two analyses techniques are used in this study. Hierarchical clustering method of cluster analyses technique is used for the separation of countries into homogenous groups in terms of injured children in traffic accidents. Aim of the cluster analyses is to collect similar or different objects together, and make collective description by using the variables obtained from objects. This method is entirely based on numerical data where the number of groups is not known beforehand. The most basic concept of the analyses is the similarity. All the methods of the analyses are based on similarity criterions (Junghagen, 2000) whose rate of choose is subjective (Johnson and Wichern, 2002). In hierarchal clustering method, number of clusters is an unknown. The most similar individuals, depending on the detected criterions, take part in the same cluster. Clustering continues till the last object takes a part in the most similar cluster at the variables set (Oktay, 2001). Clustering methods used in this are: Group Average (Un-weighted Pair-Group), Distance Type: Euclidean, Scale Type: Standard Deviation. The Number Cruncher Statistical Systems (NCSS) used for the analysis.

In addition, Multidimensional Scaling analysis is also used in order to test the success of grouping, and to present the relationship and situation between objects in a multidimensional space. This is done by showing the structure of objects in a k dimensional space depending on the distances between n objects or units according to p ($k < p$) variables. Multidimensional scaling analysis is a method that helps to expose the unknown relationship between units in cases where the distance can be calculated (Özdamar, 2002). Stress measure in MSD analyses represents the fitness of the original distance and the calculated distance from the original values by several methods calculated (Özdamar, 2002). The best fitted position between the data and the solution is obtained by the stress measure. The number of dimensions is equal to the number of the coordinate values which are used to determine the place of a point in the spatial seem, namely the number of axes (Shepard, 1972). If the number of dimensions increases, stress number will decrease and conformity increases. If the number of dimensions decreases, stress number will increase and conformity decreases.

The variables that are determined in this study, in terms of situation of children at the traffic accidents are as follows (IRTAD, WHO, WorldBank and Turkish Statistical Institute):

- X1: The number of children who died in traffic accidents per 100 thousands children.
- X2: The number of pedestrian children who died in traffic accidents per 100 thousands children.
- X3: The number of bicycled children who died in traffic accidents per 100 thousands children.
- X4: The number of passenger children who died in traffic accidents per 100 thousands children.

- X5: The ratio of male children fatalities (younger than 4) to the total male fatalities at the traffic accidents.
- X6: The ratio of male children fatalities (age 5-14) to the total male fatalities at the traffic accidents.
- X7: The ratio of female children fatalities (younger than 4) to the total female fatalities at the traffic accidents.
- X8: The ratio of female children fatalities (age 5-14) to the total female fatalities at the traffic accidents.
- X9: The number of vehicle per individual in the country.
- X10: The ratio of children fatalities (younger than 4) to the total fatalities at the traffic accidents.

3. RESULTS

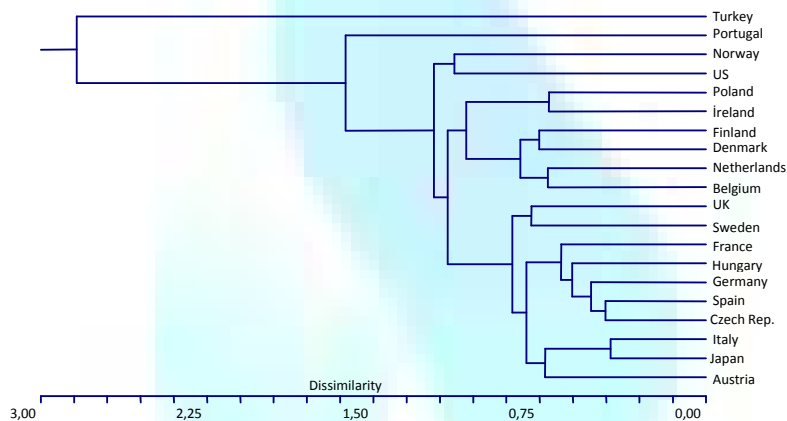
In this section the results obtained from the analyses are presented. First of all, by the cluster analyses following results are obtained: Cophenetic Correlation: 0.945230; Delta (0.5): 0.122038; Delta (1.0): 0.142556. As a result of the cluster analyses, it is showed that the countries can be divided into 6 groups when cluster limitation pre-value is used, which is given in Table 1.

TABLE 1: THE GROUPED COUNTRIES

1 st group	2 nd group	3 rd group	4 th group	5 th group	6 th group
Ireland	Belgium	Austria/Hungary	US	Portugal	Turkey
Poland	Denmark	Japan/Italy	Norway		
	Finland	Czech Rep./UK			
	Netherlands	France/Sweden			
		Germany/Spain			

The Cophenetic correlation, which is the Pearson correlation between real and predicted distances, is determined as 0.94523. Being higher than the basic value of 0.75, it is showed that the grouping is successful. Also since the values of Delta(0.5) and Delta(1.0) are pretty less than the determined value, success compliance is found to be acceptable.

FIG. 1: COUNTRY GROUPS OBTAINED BY THE HIERARCHICAL CLUSTERING METHOD



The most similar countries are Italy-Japan and Spain-Czech Rep. Turkey is the most different country from the others (Figure 1). Moreover, interpretations are conducted by the location of the countries in a multidimensional space in terms of children who died in traffic accidents. Proximity matrix that consists of dissimilarity value is calculated as a Euclid distance and MSD analyses are applied by the XLSTAT software.

FIG. 2: STRESS VALUES

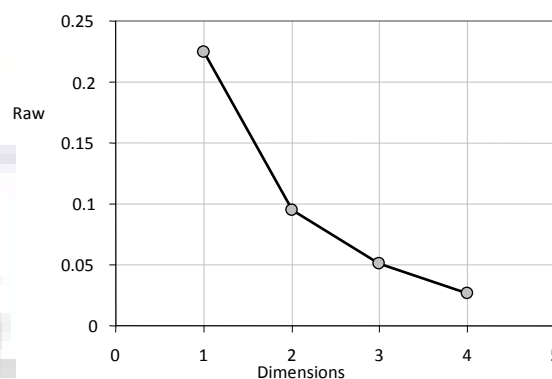


TABLE 2: THE DIMENSIONS AND THE STRESS VALUES

Dimensions	1	2	3	4
Kruskal's stress (1)	0.226	0.095	0.051	0.027
Iterations	500	290	150	173
Convergence	0.000	0.000	0.000	0.000

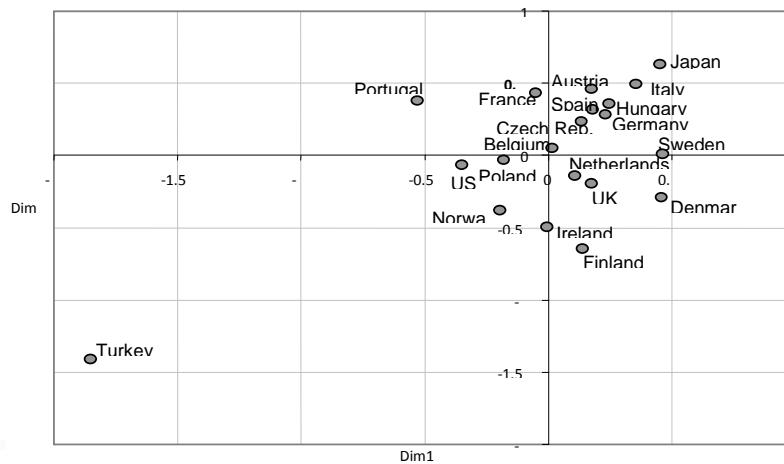
The number of dimensions is decided by the comparison of minimum stress values that are calculated statistically step by step from those who have a few number of dimension seems. For this purpose a plot is generated where the horizontal axis involves the dimensions and the vertical axis involves stress values. In this graph, the dimension corresponds to the sudden decreases in the stress values are accepted as the most available dimension (Churchill, 1991). Observing Table 2 and Figure 2 it can be seen that two dimensioned solution is the most suitable one. Kruskal's stress value (1) is found to be 0.095 which is well adapted on two dimension solutions.

TABLE 3: COORDINATE VALUES

	Dim1	Dim2
Austria	0.175	0.461
Belgium	0.016	0.049
Japan	0.452	0.634
Czech Rep.	0.135	0.237
Denmark	0.462	-0.291
US	-0.347	-0.063
Finland	0.140	-0.646
France	-0.052	0.436
Germany	0.232	0.285
Hungary	0.250	0.356
Ireland	-0.001	-0.498
Italy	0.355	0.495
Turkey	-1.849	-1.409
Norway	-0.192	-0.381
Poland	-0.180	-0.034
Portugal	-0.530	0.376
Spain	0.182	0.317
Sweden	0.465	0.010
Netherlands	0.112	-0.142
UK	0.176	-0.194

As can be seen from Table 3 and Figure 3, Turkey is pretty much different than other countries in the first and the second dimensions. When Figure 3 is examined, it can be seen that Austria, Japan, Czech Republic, France, Germany, Hungary, Italy and Spain's; UK, Netherlands and Denmark's; Norway, Ireland and Finland's are placed in the same group. In this point of view, the MSD analyses provided supporting results to the cluster analyses.

FIG. 3: THE VIEW OF COUNTRIES IN TWO DIMENSIONAL SPACES



As a similar result, it can be clearly seen from Figure 3 that Turkey constituted another cluster by itself with a pretty much different value than the other countries. Observing Figure 1, it can be deduced that the similarity between countries is also captured by the MSD method. There is more similarity between Czech Republic-Germany, Germany-Spain, Germany-Hungary, Hungary-Spain, Japan-Italy, Czech Republic-Spain, Hungary-Italy, Netherlands-UK and Germany-Italy than the others in terms of children traffic fatality (Table 4). The most different countries are Japan-Turkey, Italy-Turkey, Turkey-Sweden, Austria-Turkey, Germany-Turkey, France-Turkey and the comparisons of Turkey with the rest of the countries as can be seen at Table 4.

TABLE 4: THE MOST SIMILAR AND DIFFERENT COUNTRIES BY MSD ANALYSIS

Pairs	Dissimilarity	Rank	Pairs	Dissimilarity	Rank
Czech Rep. - Germany	1.134	1	Japan - Turkey	15.134	190
Germany - Spain	1.256	2	Italy - Turkey	14.436	189
Germany - Hungary	1.286	3	Turkey - Sweden	14.047	188
Hungary - Spain	1.294	4	Austria - Turkey	13.907	187
Japan - Italy	1.326	5	Germany - Turkey	13.595	186
Czech Rep. - Spain	1.354	6	France - Turkey	13.431	185
Hungary - Italy	1.440	7	Hungary - Turkey	13.408	184
Netherlands - UK	1.440	8	Turkey - Spain	13.352	183
Germany - Italy	1.530	9	Czech Rep. - Turkey	13.076	182
Czech Rep. - Hungary	1.637	10	Denmark - Turkey	12.660	181
Belgium - Czech Rep.	1.795	11	Belgium - Turkey	11.972	180
Belgium - Poland	1.881	12	Turkey - Portugal	11.751	179
Italy - Spain	1.913	13	Turkey - UK	11.671	178
Czech Rep. - France	1.938	14	Turkey - Netherlands	11.479	177
Austria - Germany	1.941	15	Turkey - Norway	11.458	176
Austria - Spain	2.106	16	Ireland - Turkey	11.378	175
Austria - Czech Rep.	2.143	17	Turkey - Poland	11.348	174
Belgium - Netherlands	2.146	18	Finland - Turkey	11.220	173

4. DISCUSSION

From the foregoing analysis, as a common result, it can be stated that there is no similarity between Turkey and the other countries in terms of children death in traffic accidents. Turkey which sacrifices the children in much more proportion than the others is placed as the most hazardous country (IRTAD, 2004; Christie et al., 2004) where 74% of children fatalities are due to the traffic accidents. Observing the usage of child restraint systems and amount of child death because the traffic accidents in Turkey, will answer the reason why Turkey sacrificed more kids than the other countries. There is a respectable relation between the development level of countries and apportionment of kids on the accidents (Darcin and Darcin, 2007). This situation shows a clear truth: traffic is an educational and cultural problem (Darcin and Darcin, 2004).

Behavior of adults and traffic culture also affect the differences of countries in children death at the traffic accidents. Depending on the education level of adults, usage of child restraint system increases (Russell et al., 1994). Usage of drivers' safety belt is the most prominent indicator of child restraint system usage (Russell et al., 1994; Decina and Knoebel, 1997; Edwards and Sullivan, 1997; Miller et al., 1998). Turkey must provide a high importance on the safety systems inside the vehicles as it is in a worse situation much more than the other countries, in order to reduce the severity of the injuries. The rate of pedestrian younger than 14 died at the traffic accident in Turkey is quite high (Christie et al., 2004). Pedestrian education by age groups to develop education of pedestrian must be kept topical by voluntary associations as practical complementary of school education. Special attention must be taken about obeying the speed limits where the children are intensively living.

Turkey doesn't show any similarity with the other countries. 74% of children traffic fatality in Turkey occurs in a vehicle. Turkey must care child safety system usage much more than the other countries to prevent the children death. Children deaths cause from bicycle are the fewest in Turkey, whereas this is one of the basic reasons of children death of traffic accident in the other countries. As a result the children death reasons are not same with the other countries and the difference of these reasons are sourced from lack of basic safety system usage in Turkey that the other countries used.

As another country which seems to form a single group is found to be is the Portugal. Both the hierarchical clustering and MSD analysis support this result. It is also stated after a series of surveys that the child fatality in Portugal is mainly for the pedestrian children, with high values different than the other countries (UNICEF, 2001). Portugal is at the second place for the annual deaths among children aged 1 to 14 caused by transport accidents. It is also reported that only Portugal, among existing EU members, had a worse record over 1991-95 (Christie et al., 2004). Therefore this suggests that Portugal, in particular, to tackle their problem of injuries among young children.

The countries which are collected at the second group according to the hierarchical clustering analysis (Table 1) are the Belgium, Denmark, Finland, and Netherlands. Firstly these countries are successful in terms of child fatalities. Their similarity comes from the measure they have taken. It is well shown that, the speed reduction measures and signalized crossing in these countries are well applied and maintained (UNICEF, 2001). They have those measures outside many schools. Moreover they conduct national publicity campaigns for the children safety. US and Norway which forms the fourth group (Table 1) have a similar GDP per capita. Also, their situation about child traffic fatality is similar for pedestrian and bicyclist children (UNICEF, 2001; Christie et al., 2004).

5. CONCLUSIONS

In this study the countries are grouped and compared in terms of children death in traffic accidents. Two methods are used for the analysis, Hierarchical Clustering and Multi Dimensional Scaling Analysis. As a main result it is shown that the countries can be divided into six groups. The similar and dissimilar countries are obtained and discussed. It is shown that Turkey and Portugal form single groups, among others. It is clear that the situation of Turkey in terms of child traffic fatalities needs special attention.

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IMPACT OF CONSUMER PRICE INDEX, REAL EFFECTIVE EXCHANGE RATE INDEX, PER CAPITA INCOME AND DISCOUNT RATE ON PAKISTAN'S STOCK MARKET INDEX

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ABSTRACT

Stock market indexes and macro-economic variables have significant relationship and it has been a topic of keen interest for researchers, academics and professionals all over the world. Various studies on this topic have been conducted and revealed a little ambiguous but more well-known relationship of macro-economic variables with stock exchanges. This study focuses upon the relationship of macro-economic variables and their impact on Karachi Stock Exchange index (KSE100). The study is about explaining the impacts of four independent macro-economic variables i.e. real effective exchange rate index, discount rate, per capita income and consumer price index on a dependent variable KSE 100 index. The study covers the time period from 1992 to 2012 and data analysis has been performed by Statistical Package for Social Sciences (SPSS) on time series data of 21 years. The results of the study explain a positive impact of consumer price index and effective real exchange rate index on KSE 100 index. Negative impact has been manifested by discount rate and consumer price index (inflation) on KSE 100 index. Independent variables of the model explain 92% of variation on stock market at high level of significance. The study also suggests that government should take remedial measures to control inflation and discount rate in favor of economy. Government should announce such monetary policy that could control inflation and discount rate for long-run benefit of country. Government should also take measures to stop the currency depreciation to boost economy and KSE index. Policies for appreciation of currency lead the country towards high rate of capital flow from abroad that is a key issue in any developing capitalistic economy like Pakistan.

KEYWORDS

Pakistan Stock Market Index, Macroeconomic Variables, Time Series Data, Currency Appreciation, Consumer Price Index, Real Effective Exchange Rate, Per Capita Income.

INTRODUCTION

The role of stock markets is considered indispensable in the development and growth of any modern economy. It is hard for an economy to prosper in the absence of stock markets. These markets help an economy towards the mobilization of its domestic resources and channelize them towards the productive investment (Comincioli, 1995). The performance of stock market is gauged by looking at the movements in its index, which is affected by multiple factors. These factors may include companies' specific, domestic (macroeconomic, social & political) and international factors.

The focus of this particular study is to identify the impact of certain macroeconomic variables on the stock market index of Pakistan. Currently, three stock exchanges are functioning in Pakistan named as Karachi Stock Exchange (KSE), Lahore stock Exchange (LSE) and Islamabad Stock Exchange (ISE). For conducting this study, KSE-100 index has been taken as sample. Karachi Stock Exchange (KSE) was inaugurated in 1947 but KSE-100 index was introduced in 1991 which transferred on electronic processing system in 1998 later on.

There are multiple macroeconomic variables that can leave impacts on stock market index of Pakistan such as inflation, exchange rates, gross domestic products (GDP), interest rates, foreign exchange remittances, domestic & international oil prices, money supply, trade balances, country reserves, foreign direct investment etc. Most significant and vital economic variables that may affect the developing countries including Pakistan are Consumer Price Index, Real effective Exchange Rate Index, Per Capita Income and Discount rate. There are a number of studies, which have revealed the impact of these variables on stock market index but this particular research will focus to trace down the effects of some of these variables specifically on KSE-100 index. The relationship between macroeconomic variables and stock market index has always been a source of immense attraction for finance practitioners since many years.

An upward movement in price of goods and services in an economy is termed as Inflation. It generally occurs due to increasing demand of goods and services exceeding their money supply. The purchasing power of people is affected by inflation, which results in less saving leading to an increased money supply. As a matter of fact, limited savings decrease the economic growth by restricting the investment in the economy. For assessing the impact of inflation on the economy, Consumer Price Index (CPI) has been used in this study. The weighted average of prices of consumer goods and services is termed as CPI. It is calculated by using changes in prices for each item and then averaging them.

Real effective Exchange Rate Indexes the weighted average of a country's currency adjusted for the effects of inflation relative to an index or basket of other major currencies. The weights are determined by comparing the relative trade balances with each other country within the index in terms of one country's currency.

Per Capita Income is a measure of the amount of money earned per person in a certain country. It is used as a means of evaluating the quality of life and living conditions in different areas of the country. It can be calculated by dividing a country's national income by its population.

Discount rate is the interest rate central banks charge to commercial banks for providing credit/loan to commercial banks. In order to control inflation, it is used as a tool of monetary policy i.e. central bank increases the discount rate for commercial banks in the times of elevated inflation. It is used for controlling excessive money supply in the country. The banks cut down the provision of loans to the customers when they are left with limited funds, which ultimately affect further businesses and investments. This study will assess how discount rate can have an impact on investment in stock market and how it is related to stock market index.

The motive of the paper is to explore the influence of selected macroeconomic variables i.e. inflation, Real effective Exchange Rate Index, Per Capita Income and Discount rate on KSE 100 index. Various studies have been conducted in the past in order to identify the relationships by using different macroeconomic variables according to researchers' choice like Taulbee (2001), Nishat & Shaheen (2004), Sing (2009), Sohail and Hussain (2011) and Ali (2011). However, it is continuing discussion whether macroeconomic variables significantly affect the stock market index or not.

LITERATURE REVIEW

Findings of a study by Nishat and Shaheen (2004) revealed a relationship between specific macroeconomic variables and the performance of KSE. For this purpose, they took the data of Karachi Stock Exchange from 1973 to 2004. They employed the vector error correction model to find out the relationship

between the macroeconomic variables and KSE performance. They found a causality relationship between economy and the stock market. Analysis of results indicated that inflation had a negative impact whereas industrial production had a positive impact on the prices of stocks in Pakistan.

Ahmad Z, Ahmad Z, Khan S and Javaid U (2011) conducted a study to find out the relevant variables that causes the stock price movements in KSE. For this purpose, they build ARIMA model to identify the relevant macroeconomic variables and their impacts on stock price movement. They used time series data from 1961 to 2009, which was collected from World Economic Indicators. The result of the Study showed a negative and significant impact of inflation and exchange rate on the stock prices and a positive but weak (insignificant) influence of economic growth on the equity prices KSE.

Ali et al (2009) conducted a study to test the causal relationship between equity prices and some macroeconomic variables in Pakistani stock exchanges. For study purpose, they took data from Federal Bureau of Statistics of Pakistan and KSE from June 1990 to December 2008 in order to analyze the causal relationship between selected macro-economic variables (indicator) and equity prices. They adopted different statistical techniques including unit root ADF test, Granger's causality test and Johansen's co-integration test. The result of the study showed co-integration between stock exchange prices and industrial production index. However, there was not found any causal relationship between exchange rate, inflation and stock exchange prices in Pakistan.

Leea C, Doong S and Choua P examined the relationship between equity price and currency exchange rate along with the exploration of their correlation influenced by the stock market volatility. For this purpose, they used Conditional Correlation and Generalized Autoregressive Conditional Heteroscedasticity methods. They took the weekly data from Indonesia, Korea, Malaysia, Philippines, Taiwan and Thailand for the period 2000 to 2008. The study found out that there were significant price spillovers from stock market to foreign exchange market in Indonesia, Korea, Malaysia, Thailand and Taiwan. The correlation between stock market and foreign exchange market was found affected by the stock market volatility. It was analyzed that the correlations used to become higher in Asian emerging countries except in Philippines when their stock market became volatile.

T. Patra and S. Poshakwale (2006) conducted a study to examine the short run as well as the long run equilibrium relationship between a set of macroeconomic variables (trading volume, money supply, inflation and exchange rate) and equity prices in the emerging Greek stock market. Granger causality, Co-integration methods and the Error-Correction Model were used to find out the relationship. For this purpose they took the data of Greek stock market from 1990 to 1999.

It was cleared from analysis that trading volume, money supply and inflation have prominent short run as well as long run equilibrium relationship with equity prices in stock exchange of Athens. There was no causal relationship witnessed between the exchange rates and stock prices. It was also found that the inflation had a negative impact on the equity prices and the exchange rate had a weak relationship with stock prices.

Pal K and Mittal R (2011) conducted a study to test the long-term association between selected macroeconomic variables (exchange rate, interest rate, inflation rate, and gross domestic savings) and capital markets of India. For this purpose, they used the quarterly data from January 1995 to December 2008. Statistical techniques of Unit root test, the co-integration test and error correction mechanism (ECM) were applied in order to determine the relationship. The results of the study revealed that inflation, foreign exchange rate and interest rate have significant impact on Indian stock markets but GDS was observed as insignificant on the other hand.

Akbar et al (2012) conducted a study to examine the relationships between KSE100 index and some specific macroeconomic variables. For this purpose, they gather the data for period starting from 1999 to 2008. They used error correction model (ECR), analyzed and filtered the data by different statistical techniques like granger causality test to make the relationship clear between macro-economic variables and stock prices in KSE100 index. As a result of sophisticated statistical techniques on this data researcher found macro-economic variables and equity prices were unidirectional causality. It was obvious that Stock price were positively related with M2 (money supply) and interest rate whereas foreign currency exchange reserve and inflation were negatively related.

Akmal S (2007) conducted this study to investigate the relationship between inflation and stock market price. For this purpose, data was collected about the variables from 1971 to 2006. ARDL, co-integration, Error Correction Approach technique was used to analysis the data. The study showed that the stock prices are hedged against inflation in long-run but in short-run this practice did not prevail.

Abdalla I and Murinde V (2010) conducted the research to find out the interaction between stock prices and exchange rates in emerging financial markets. The researchers take the data from Philippines, Pakistan, Korea, and India. For the purpose of study data has been taken from IFC stock price index and the real effective exchange rate over 1985:01 to 1994:07. They applied some new econometric techniques to a BVAR model of stock prices and exchange rates in order to test for Granger-causality between the two variables. The results have found that exchange rate impact the stock prices in Korea, Pakistan and India. Whereas stock prices Granger-cause exchange rates in the Philippines.

Kolari j and Anari A (2001) conducted a study to examine the fisher effect on the stock prices. They used stock and goods price data from six industrial economies. They used different statistical techniques to analysis the data. The study revealed that long-run elasticity of stock prices with respect to goods prices remained above and range of the price is from 1.04 to 1.65 that supported the Fisher effect. It ultimately led us to conclude that inflation has a short-run negative impact on stock returns but chances of positive in long run.

OBJECTIVES

Objectives of this paper are to trace association between macro-economic variables and KSE 100 index by using regression technique. The paper will also focus on determining the nature and strength of relationship between macro-economic variables and KSE 100 index along with tendency of their movements.

METHODOLOGY

Time series data of selected variables has been gathered on annual basis from 1991 to 2012 in this analysis. This paper traces the effects of independent variables (consumer price index, per capital income, discount rate and real effective exchange rate index) on dependent variable (KSE 100 index). It is assumed in this study that all other variables, which can influence KSE 100 index, remain constant during the analysis time period. This assumption will also guide for better understanding of OLS technique. Least Squares (NLS and ARMA) technique has been used in my quantitative analysis.

DATA COLLECTION SOURCES

The time series analysis in the study is based on secondary data retrieved from different reliable sources, which has been used to trace and compile the data for analysis. Real exchange rate index and CPI data has been taken form World Bank Indicators (WDI) of Pakistan published by World Bank. Discount rate average data has been gathered from SBP and Federal Bureau of Statistics. KSE index data has been retrieved from KSE website and SBP published reports. The year 2005 has been taken as base year for CPI and Real Exchange Rate Index whereas KSE 100 index is monthly average data of financial year.

MODEL SPECIFICATION

$$KSEI = \alpha + \beta_1 PCI + \beta_2 Dis + \beta_3 REXI + \beta_4 CPI + \epsilon$$

KSEI = Karachi stock exchange index (base year 1991)

PCI = Per Capita income % of GDP of Pakistan

Dis = Discount Rate

REXI = Real Exchange Rate Index (base year 2005)

CPI = consumer price index (inflation level, base year 2005)

ϵ = error term

Validity of instrument and reliability of data are key issues in secondary data analysis. Reliability and validity are pillars upon which Research Empire is built and generalization foster afterwards. High Value of Durban Watson (2.23) shows that there is no issue of auto correlation among residuals. It may also be inferred from the result that data is unbiased form autocorrelation problem. There is a strong position to claim that residuals have also normal distributions, which have been measured by K-S test. Value of K-S test (67%) is more than the level of significance (alpha), hence confirms the test result.

Another test of homoscedasticity reveals that residual have zero mean value. Extensive quantitative data reliability techniques confirm the claim of unbiasedness.

HYPOTHESIS

Null hypothesis: REX index, CPI, Dis and PCI have no significant impact on KSE 100 index

P. value is less than 1% in the analysis, which refers to the failure of acceptance of null hypothesis. So, it can be said that independent variables in the study have significant impact on KSE 100 index.

E-Views software has been used to ascertain the stationarity issue in the data by implying unit root test. All the independent variables in the analysis are stationary at some level i.e. first level of difference or on second level of difference. Major data analysis has been performed by statistical Package for Social Sciences (SPSS) i.e. normality test, autocorrelation testing, homoscedasticity at 5% of level of significance that is norm of good secondary data analysis.

DATA ANALYSIS

The model in our study is based on classical linear regression and provides satisfactory unbiased results by fulfilling its assumptions. These assumptions have also been tested by various tests i.e. K-S test, Normality test, Durban Watson tests and unit root tests. Therefore, it can be concluded that:

- Model has linearity in the parameters
- Model has no multicollinearity issue
- All the variables are stationary

EMPIRICAL FINDINGS

Data in table 1 reveals that the model under study is statistically significant. P value of model is less than 1% at high level of significance.

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	75.7224	11279.2891	4941.6186	4169.86225	21
Residual	-3272.86328	2497.68408	.00000	1215.80515	21
Std. Predicted Value	-1.167	1.520	.000	1.000	21
Std. Residual	-2.408	1.837	.000	.894	21

a. Dependent Variable: KSEI

This result clearly shows that the independent variables have significant impact on Karachi stock market index.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.960 ^a	.922	.902	1359.31148	2.234

a. Predictors: (Constant), CPI, Dis, Rex, PCI
b. Dependent Variable: KSEI

This model has also high explanatory power of .92, which means that 92% of variation of index level have been explained by chosen independent variables i.e. REX index, CPI, Dis and PCI. Only 8% variation is caused by other variable that are not included in the model.

HIGHLIGHTS OF RELATIONSHIPS

Per capita income (PCI) and real exchange rate index (REX) have positive relation to KSE 100 index. Inflation (CPI) and Discount rate have negative relationship with KSE 100 index.

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	-64386.440	11725.860			-5.491	.000
Dis	-699.688	125.950	-.596		-5.555	.000
PCI	122.179	20.992	1.753		5.820	.000
Rex	177.706	58.728	.336		3.026	.008
CPI	-75.134	24.743	-.908		-3.037	.008

a. Dependent Variable: KSEI

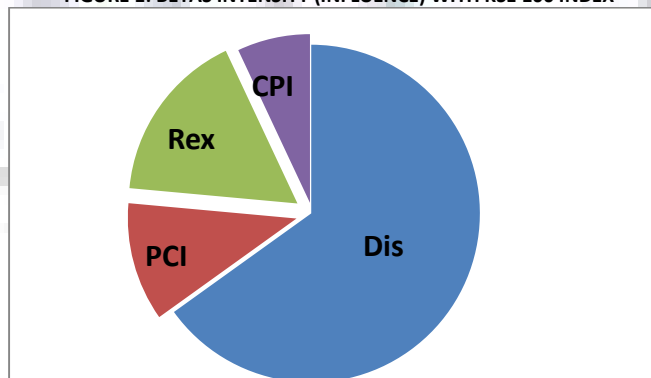
Regression coefficient (Beta) of CPI shows negative relationship with KSE index. One percent increase in inflation can decrease 75 points in index level of market by keeping other market factors constant.

Positive beta of per capita income depicts that 1 dollar increase of PCI of Pakistan can boost the KSE index level up to 122 point.

Positive regression beta of Real Exchange rate index also gives the hint to forecast that 1% increase in currency appreciation can boost 177 points of KSE 100 index.

Most influencing factor in the model is discount rate that can badly affect KSE 100 index. It means that 1% increase in discount rate may decrease 699 points market index.

FIGURE 1: BETAS INTENSITY (INFLUENCE) WITH KSE 100 INDEX



Betas intensity (influence) with KSE 100 index

The estimated regression model is:

$$KSEI = -67917.842 + 122.179 PCI - 699.688 Dis - 177.706 REX + 75.134 CPI$$

CONCLUSION AND FINDINGS

The key intention of the study is to judge the impact of selected macro-economic variables on Karachi stock exchange 100 indexes. A wide range of statistical data reliability techniques have been utilized in order to get clear-cut picture of the relationship between dependent and independent variables by overcoming all the assumptions of regression analysis and getting resulted values free from biasness. The findings of the study explain the tendency, nature of dependency and strength of relationship among variables.

The study has high value of explanatory power on less than one percentage of P. value, which makes the study more predictable with accuracy. Joint effect of independent variables on dependent variable has been ascertained with the help of F-test. Probability of F-test reveals that independents variables jointly affect the KSE 100 index at very low probability that is desirable in this analysis and give us confidence to predict the effect of findings.

The study reveals that discount rate and inflation have negative relation whereas per capita income and real effective exchange rate have positive relation with KSE 100 index on high level of significance. Discount rate can severely influence KSE index whereas inflation can affect minimal by our findings. Per capita income and real exchange rate index have average influence on KSE 100 index. Therefore the findings of this study help us to conclude how effectively our economy can manage its macro indicators in best interest of stock market’s growth which is most desirable in any capitalistic economy for smooth and progressive operation. My findings would also help monetary policy makers to establish a long run policy by viewing the effects of selected variables on secondary markets. The results of study have been aligned with literature on different market indexes all over the world and researches of this topic verify the nature of relationship that increases the value of the findings.

RECOMMENDATIONS

The study will help the professionals and policy makers to get further insight of economy by viewing the phenomena through different angels. Macro-economic variables play a role of booster for stock market indexes in any capitalistic economy. By controlling inflation and discount rate, index level can be increased in the economy, which can increase government revenue and provide investor confidence in secondary markets. Growth of any economy is tied up with the stock market of the country in short-run as far as in long-run. So, low inflation and low discount rate announced by government can increase the investment activities in economy along with high level of KSE index that is compulsory for economic development of Pakistan.

Government should adopt the following policies for the betterment of economy and KSE index:

- Interest rate volatility should be reduced by developing a well-designed monetary policy.
- Such policy should be adopted through which per capita income may increase and generate surplus investable wealth.
- Exchange rate fluctuations of Pakistani Rupees (PKR) should be minimized in order to avoid the currency depreciation for meeting short-run objectives.

Long-run currency appreciation will bring foreign direct investment in Pakistan owing to benefits i.e. market return plus currency appreciation return.

In a nutshell, government should pay special attention to selected macro-economic variables i.e. discount rate, inflation, exchange rate and per capita income to boost the KSE index that would ultimately lead the country toward prosperity.

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APPENDIX

TABLE 4: COLLINEARITY DIAGNOSTICS^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Dis	PCI	RexCPI
1	1	4.758	1.000	.00	.00	.00	.00
	2	.205	4.819	.00	.03	.00	.04
	3	.034	11.775	.00	.50	.00	.03
	4	.002	48.582	.03	.21	.09	.66
	5	.000	121.994	.97	.26	.91	.33

Dependent Variable: KSEI

TABLE 5: UNIT ROOT TEST OF REAL EXCHANGE RATE

Null Hypothesis: D(REX) has a unit root		
Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)		
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.123741	0.0054
Test critical values:	1% level	-3.831511
	5% level	-3.029970
	10% level	-2.655194

TABLE 6: UNIT ROOT TEST OF DISCOUNT RATE

Null Hypothesis: D(DIS) has a unit root		
Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)		
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.171543	0.0380
Test critical values:	1% level	-3.831511
	5% level	-3.029970
	10% level	-2.655194

TABLE 7: UNIT ROOT TEST OF PER CAPITA INCOME

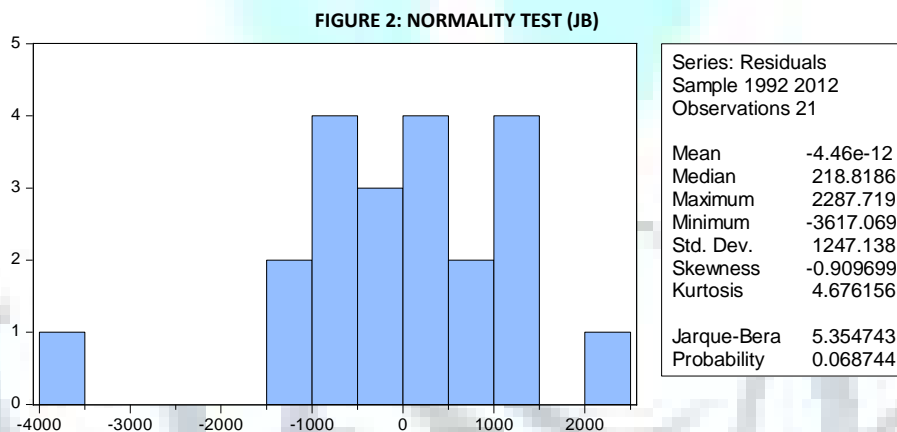
Null Hypothesis: D(PCI,2) has a unit root		
Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)		
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.527987	0.0003
Test critical values:	1% level	-3.857386
	5% level	-3.040391
	10% level	-2.660551

TABLE 8: HETEROSKEDASTICITY TEST: BREUSCH-PAGAN-GODFREY

F-statistic	4.486765	Prob. F(4,16)	0.0127
Obs*R-squared	11.10224	Prob. Chi-Square(4)	0.0254
Scaled explained SS	11.84611	Prob. Chi-Square(4)	0.0185

TABLE 9: BREUSCH-GODFREY SERIAL CORRELATION LM TEST

F-statistic	0.253120	Prob. F(2,14)	0.7799
Obs*R-squared	0.732860	Prob. Chi-Square(2)	0.6932



NEW FACE OF MANAGEMENT EDUCATION: ISSUES AND CHALLENGES**DR. S. K. BARAL****DIRECTOR****KUSHAGRA INSTITUTE OF INFORMATION & MANAGEMENT SCIENCE****CUTTACK****ABSTRACT**

Owing to the intense competition at the global level lot of changes are taking place in the industries. In turn there is a need to make the changes in the Business education system all over the world. India is no exception to it; but the pace is very slow. Now time has come to take a detailed review and to investigate the various challenges and issues which are being faced by these Business schools for enhancing the quality of management education in the country. Corporations, now a day face pressures from different stakeholders of the business environment and the changes in the environment have created threats to all of today's organizations. So, the managers have to look for finding the best possible ways of striking the implications brought by the changes. Mostly, it depends on better way of educating their people to convert previous knowledge and experience into today's competencies required for best possible strategies. Globalization has redefined the constituents and drivers of economic progress over last two decades. Globalization has resulted in significant changes in the knowledge economy and ushered new conditions for the provision of higher education to cater the skill requirement all across the globe. Higher educational services have emerged over the last few years as a major economic sector for trade worth several billion dollars. This research is an attempt to understand the changing need of management expertise to face the contemporary challenges in management education and the roles of business school. The business has to know the implications of the changes and accordingly has to prepare the quality people by their capabilities required to implement the strategies. This research is mostly done on existing literature of management education.

KEYWORDS

Management Education, Business School, Challenge, Globalization, Liberalization, Knowledge Economy.

INTRODUCTION

In India, higher education was traditionally looked after by the government, but in view of lack of resources to meet the increasing demand, private sector has been allowed to share the responsibility. The country has a well developed educational set up in terms of range of programs and their acceptability in local industry, but it lacks in terms of international quality standards. Higher education institutions managed by private sector emphasize more on commercial aspect than creation of knowledge which leads to deterioration of quality of education. The councils and government bodies responsible for quality assurance do not have internationally matchable quality norms on one hand and an effective system to monitor and control violation of the existing norms by the institutions on the other. Further, the political parties manipulate the issues of access and equity in higher education for their vested political interest rather than taking the right steps to enhance the quality of higher education. As a result those who can afford the high cost of higher education look forward for the opportunities abroad while the others have to compromise with sub-standard education. The key elements of globalization include the knowledge society, information and communication technologies, the market economy, trade liberalization and changes in governance structures. These elements of globalization have impacted significantly the education sector in general and higher education in particular. The present study critically analyses the growth of higher education sector in India and identifies the major concerns. It also evaluates the preparedness of the country for the opening up its border for foreign institutions. Today, the corporations want to give a clear message to the business school about their role to play in this regard, means to put all necessary efforts to come with proper set of management skills of the challenges to be faced by the corporations. The leading business schools of the USA and Asia Pacific have got proven records of maintaining standards in terms of vision, program design and offerings. It implies that the business school has to cope into the needs of changing situations to produce future managers with all the required skills. Management education (MBA / PGDBM etc.) denotes those activities traditionally conducted by colleges and universities that focus on developing a broad range of managerial knowledge and abilities. Today one fundamental question comes, whether the curriculum of a business school can produce future leader of the corporation with required management skill to meet contemporary challenges. This research attempts to evaluate today's management education standard to develop management skill in the paradigm shift of managing business in terms of quality. This paper evaluates the changing scenario of managing business organizations with the emerging needs of the business management in the context of changing situation.

The Government of India has recently decided to open 'world class universities' for the development of higher education. At present the country has 42 central universities, 285 state universities, 130 deemed universities and besides more than 112 private universities as of June 7, 2011. To bring revolution in modern education and changes in the working condition of the universities, the country must emphasize on scientific education and quality research. Basic changes in the education system for establishing a higher education commission which may govern universities and other educational institutions without bureaucratic hindrances are needed. Higher education system in India is not geared to attract talent. India has the third largest education system in the world, with only USA and China ahead of it. India takes pride in having more youth in our population, but this demographic advantage will become a liability if fail to address the fundamental issues of higher education. Barring a few premier institutions, the rest do not even have the capacity to meet the challenges of the new millennium.

The Indian education system does not lay emphasis on scientific research and sadly, the symbiosis between teaching and research has been lost in the country and universities are key elements in driving economic development and in facing the challenges of global economic competition. Restructuring and reform of our existing system must accompany the process of expansion. Barring a few, most of the universities do not have an integral link with research institutions. Our sole attention should not be only on opening new universities but to make the teaching profession more attractive by providing better opportunities to teachers. The recent recommendations of the 'Chaddah Committee' to look into the various problems of university teachers will definitely stop the exodus of teachers and improve their working efficiency and conditions, so that the young talent may be encouraged to join this profession. The selection criteria must be made more transparent and only interviews should not be the sole criterion. The recommendations have made it clear that knowledge economy is the next big thing and the Government must invest on teachers for long-term gains, so that the profession may get due respect in the society. The information has been collected from web sites of ten top ranking business schools of each of the two regions; the USA and Asia Pacific (Table 1). The thoughts on management education according to literature review have been used to analyze the information from MBA brochures of top ten business schools of two regions studied in the research.

TABLE 1: LIST OF TOP TEN BUSINESS SCHOOL IN THE USA AND IN ASIA PACIFIC

US Top Ten	Asia Pacific Top Ten
Harvard Business School	Melbourne Business School
Stanford Graduate School of Business	Indian Institute of Management, Ahmedabad
University of Pennsylvania (Wharton)	Asian Institute of Management (Philippines)
Massachusetts Institute of Technology	Asian Institute of Technology, Thailand (School of Management)
University of Chicago	NUS Business School (National University of Singapore)
Tuck School of Business at Dartmouth	Chinese University of Hong Kong
University of California-Berkeley (Haas)	Korea Advanced Institute of Science and Technology (Graduate School of Management)
Columbia University (NY) – Columbia Business	School International University of Japan (Graduate School of Management)
New York University (Stern)	China Europe International Business School (China)
University of Michigan – Ann Arbor (Ross)	Nanyang Business School (Nanyang Technological University, Singapore)

Source: <http://navneetjha.hubpages.com/hub/Top-10-colleges-for-MBA-in-world>

LITERATURE REVIEW

Reviewing the literature it is revealed that today's business management faces tremendous pressures from globalize economy. Against this backdrop of the study the driven forces of globalization can be analyzed to understand the nature of implications.

1. Universities should be the centres of research. According to Mashelkar (source: *Times of India*), 'Indian universities also need to excel in research and teaching without research is of little use'. India needs such world class universities which should excel in research, so that the country may contribute substantially to knowledge-based economy of the world. Besides creating excellent education facilities, the country requires more attractive strategies to produce excellent teachers, as there is a chronic shortage of good and quality teachers. Generally, the university teachers are burdened with loads of teaching in addition to establishing good laboratories and other duties. In some cases, teachers are not allowed to attend refresher courses because of their role in other developmental activities of the institution.
2. To use the words of Bettis and Hiltt(1995), new competitive landscapes are emerging, marked by increased levels of uncertainty and ambiguity, leading to what is now known as hyper competition (D'Aveni 1994). Management educators may be interested in accompanying these challenges to help managers in shaping organizations in such a way as make them willing and able to respond to complex organizational challenges. In brief, it may be advantageous to expose business students and managers to complication (Cunha et. al. 2004).
3. The other challenges of managing businesses are created from the need to speedy decision making in resources deployed, managing diversity, searching right direction of knowledge management for the people, timeliness of the process and innovative approaches, synchronization need of process and activities, industry life cycle effects on the firms operations, and finally social responsibility of present generation for future generations (Barkema et. al. 2002).
4. These changes have required a cadre of business leaders who possess a broader set of both leadership and management capacities (Hallinger and Snidvongs 2008). More recently, attention from both academics and practicing managers has focused on the formulation and implementation of strategic initiatives within the realm of human resource management (Beer et. al. 1984; Szilagyi and Schweiger 1984; Foulkes 1986).
5. The Rani Channamma University, Belgaum, the second largest varsity in Karnataka, had recently organised a seminar on the issue 'Management Education-Road Ahead' and with a view to revisit the road already traversed, assess the present situation and explore ways and means to restructure the system to make it meaningful, effective and productive. C.M. Thyagaraja, Professor and Chairman, Department of Post-Graduate Studies in Business Administration at RCU's Vidyasangama campus in Belgaum, shared his views with *The Hindu EducationPlus*.

LAND SCAPE OF MANAGEMENT EDUCATION

In today's rapidly changing business environment, capable managers are crucial to organizations' success in gaining and sustaining competitive advantage. This must be achieved against a background of intensified competition, incessant change, a power shift to the customer, collaborations across organizational and geographical boundaries, and a need to maintain high levels of talent. Business programs across the nation recognize the need to change in response to external pressure from key stakeholders. An important dimension of such change is the redesign of business curricula.

Achieving greater integration across curriculum is often a central focus of such efforts. Business organizations continue to transform themselves in response to the challenges posted by increased competition, the globalization of business and rapid change in information technology. Because of the accelerating rate of change, the workforce in terms of human and social capital should be seen as one of the critical factors in developing and maintaining competitive advantage, joining traditional factors such as technology and protected market. He also claims that an appropriate development of the workforce is closely related to appropriate management. In connection to this perspective and from a knowledge based view it is understood that "the whole system of knowledge management" bound up with a particular competitive advantage, intense and global competition, rapid technological change, new complex organizational forms, organizational alliances, and international capital markets are creating an increased demand for change leadership at a time when such leadership is increasingly difficult to find. It suggested that before expecting others to change, a leader must understand strategies such as those based on confrontation, facilitation, persuasive discourse, and the management of meaning to ensure that their actions are consistent with their vision of the future. These scholars and others are suggesting that individual employees, not just top management, must become leaders who can work with the technological revolution and globalization of business and can continually acquire new knowledge and remain flexible.

Therefore the business schools, responsible to educate future leaders of business organizations, need to understand the challenges faced by the organizations. This is how; they can try to bring necessary changes in their curriculum according to the needs of the changing situation of the environment. Which challenges are important to consider is more important to them? The following section of the paper describes the nature of the organizational challenges today. It can be termed as 'paradigm shift' of managing today's businesses. The management of business organizations has changed in significant ways since early 1990s. The sources of these changes include the followings.

- Growth and integration of a global, increasingly free market economy has raised standard of competition in all sectors providing goods and services.
- Greater openness of political systems among nation states allows greater access to global information and exchange of cross broader business.
- Developments in information technologies have fundamentally changed the way in which business is conducted, allowing for less expensive communication, easier sharing of information and greater efficiencies in production and management of goods and services.

Organizational survival, development and prosperity reflect the extent to which an organization is able to obtain, allocate and control its resources to take advantage of changes in its environment perceived as opportunities: and avoid or overcome the threat posed by changes perceived as constraints. Managerial competency is vital in such responsibility of the organizations. India being a signatory of WTO is bound to open up its market for trade in services including education but it does not have a clear policy for strengthening its education sector to compete with the giants in the world. Policy restrictions stop the competent institutions from making necessary changes in the processes of admission, recruitment and salaries of faculty/ staff and opening campuses abroad. In lack of proper policy provisions in time, higher education sector in the country is adversely affected. The more dynamic the environment, the more strategically important management development is to the organization. There is a growing awareness that survival and future success reflect to a considerable extent the ability of an organization to develop its management resource in appropriate and anticipated ways. In response, educational institutions have made significant adaptations in the curriculum designed for business leaders.

It has grown quantitatively, but not qualitatively and contributed too little to the labour-rich but skill-poor economy, feel by the experts. Is 'management education' in India in crisis? Will the mushrooming of management institutions help the stream tide over the crisis? And, how sensitive are these institutions and authorities concerned to the problems and challenges that have already started bothering it? The challenges before management education, or rather managing management education vis-a-vis the demands posed by the industry and other socio-economic and cultural factors, need to be properly analysed and understood from an altogether fresh approach, opine experts.

With the concept with which management education was introduced in the country more than 25 years old, experts have opined that it is time to respond to the changes that have not only brought developments and progress in various fields, but also changed old notions. Management education is passing through a critical phase. There is a crisis of identity, character and quality. This is the apt time to discuss and deliberate the matter by taking stock of the situation. Too many attractive, lucrative and competent jobs are chasing very few individuals, who are highly talented, skilled and dynamic. An average student finds it difficult to sail through the acid tests of the corporate sector. The element of professionalism, an important ingredient towards building managers, is not taught by institutions imparting management education. Communications skill for students from rural areas is like climbing the Himalayas, he opined.

The origin of management education dates back to ancient times. It is a unique art developed by mankind along its evolution journey. Greeks, Chinese and Indian thinkers contributed to this art of getting things done by others. Strategic decisions and art of administration were adopted during the times of Koutilya. Management education is an offshoot of the industrial revolution which created the factory system, thereby providing a ledge to the art of management. In the Indian subcontinent, management education has come over a period of past 50 years, whereas Europeans are teaching this education since the last 400 years. Due to the slow rate of economic growth after independence till 1990 the opportunities created by industry were too few. Globalisation gave a big boost to the economy while the service sector came to dominate other sectors. This has necessitated the demand for management education. The Indian landscape of management education is composed of the followings:

The IIMs (Indian Institutes of Management) top the list which pick the very best. Management institutes affiliated to universities, autonomous institutions approved by the All India Council for Technical Education, institutions without the approval of All India Council for Technical Education (AICTE), and foreign universities are also offering degree and postgraduate degrees in India. The Union Government, during its winter session of 1987, accorded permission to establish the AICTE, which is a body for professional education in this subcontinent. According to the AICTE data the number of institutions imparting management education mushroomed in just five years. The intriguing question confronting all the stakeholders is – "Why was permission given to so many institutions?" In the last five years, the AICTE, by granting permission to more institutions, also allowed increase in the intake of students by more than 300 per cent, which has also been indicated in the hand book. Thus, these figures reveal that the AICTE adopted a quantitative expansion strategy but paid inadequate attention to quality of management education. Secondly, institutions enter the management education scenario with the intention of making quick profits as against contributing their bit to the field with some genuine concern. Thirdly, institutions imparting management education negated quality and concentrated on quantity. Fourthly, lapses in curriculum up gradation and banking on some core subjects and niche electives added to the problems. The element of 'skill quotient' is not appropriately addressed to add value to the education. Faculty members with industrial experience are less in numbers to share their expertise. In the context of today's changing need of management education, and the way an MBA program has to be designed, as these issues discussed in the research, the leading business school's performance standard has been examined. The following section of the research gives a contrasting picture of leading business schools of the US and of Asia Pacific. The evolution in management education and the subsequent changes in MBA program suggest a framework to understand the performance standard of leading business in the USA and in Asia-Pacific region. The basic criteria used in such framework are;

- a) Vision to create talented leaders of the corporation.
- b) Curriculum fitting to understand the environmental dynamics, and
- c) Quality management of the program.

Against this backdrop of the study, the vision statements of leading business schools have been structured in the following table (Table 2).

TABLE 2: VISION STATEMENT OF TEN LEADING US BUSINESS SCHOOL

Business School	Vision Statement	Remark
Harvard	To prepare students for a lifetime of leadership.	Quality Committed
Stanford	To help the students to be best leader.	Confident for Quality
Wharton	To equip students how to make decisions, reason strategically, and understand all the dimensions of a business problem.	Holistic Approach
MIT	Empowers students as leaders who can create innovation strategies and execute them in the market.	Committed for Quality
Chicago	To examine ideas, evaluate problems and opportunities and handling uncertainty.	Committed for Skill
Tuck	To prepare students to think on their feet and act decisively in any business environment.	Coping to fit for Challenge
Haas	To educate students broadly on the topic of leadership, with a particular focus on teaching students how to lead the process of innovation within an organization.	Innovative Leadership Orientation
Columbia	To give students the edge for success in a world that demands smart, flexible and effective business leaders.	Quality in Leadership
Michigan	To prepare students to lead globally diverse teams, consider the role of business in society, and build organizational cultures that foster innovation.	Innovation in Leadership

Source: MBA Brochure shown on the website of the schools

The vision statements of leading business schools given in the Table 2 give clear message to the corporations that all of the nine leading business schools in the USA have got useful vision or purpose satisfying the needs of today's challenges of business management. It is found that such a vision statement can be perceived as proper role played by a business school to produce talented leaders with necessary skills to fulfil the needs of today's contemporary challenges in business management. At least the remark column of the table corresponding to the vision statement of each business school reveals that the schools are playing the role effectively in this concern. The vision statements of Asia Pacific business school can be examined to find the contrast.

TABLE 3: VISION STATEMENT OF TEN LEADING ASIA PACIFIC BUSINESS SCHOOL

Business School	Vision Statement	Remark
Melbourne	To equip professionals with fundamental business knowledge and analytical skills required for management roles	Build Professionalism
IIM, Ahmadabad	The program nurtures world-class managers by exposing them to real life unstructured situations along with analytical tools and business philosophies	Management Skill as Strength
AIM, Philippines	To provide rigorous training, conceptual foundations, up-to-date knowledge, analytical tools and people management and leadership skills.	Skill Variety Development
SOM, AIT, Thailand	To develop skills and attitudes of listening and understanding others, holistic thinking, collective decision making, leading by example, communicating, negotiating, being sensitive to societal concerns etc.	Build Management Skills
NUS Business School	Vision for the US MBA Program is for it to become a top provider of effective and responsible business leaders.	Produce Talented Leaders
Korean Graduate School of Management	KAIST is the best model that leads a globalize with the accumulated capability in education and research and the graduate school-oriented educational system	Focus on System Development
China Europe International Business School	To prepare talented young people with career aspiration, managerial potential and international orientation for a career of global business leaders in the future organizations.	Commitment for Future business Leadership
Nanyang Business School, Singapore	To provide opportunities to conduct analysis of companies under the auspices of The Nanyang MBA. To take advantage of this rare opportunity to build regional business networks.	Unique Features for Confidence

Source: MBA Brochure shown on the web site of the schools

From the above table it is revealed that the leading business in Asia Pacific have got right set of vision statements for MBA programs. The statements are committed to produce future corporate leaders with required set of skills necessary to face the challenges of today's management. The remarks of the statements give the nature of the visions of the schools. Basically in term of focus of MBA program of both the regions schools, they have good standing to play proper roles to produce talented leaders as it is reflected from the vision statement. The next question is related to curriculum designing and integration so that the vision can be implemented using deserving set of curriculum of offerings and the way the program can be imparted. So, the two other issues are; curriculum integration designing and the mode of offerings. From the brochures studied here the curriculum integration according to today's management need and the features of program management of the schools are summarized in the following table.

TABLE 4: SUMMARY OF CURRICULUM INTEGRATION & PROGRAM MANAGEMENT

Aspect	US Business School	Asia Pacific Business School
Curriculum Integration	Aim at developing student's necessary capacity Diverse range of electives are offered Core courses for foundation Participant has found flexibility Scope of getting competitive advantage Courses required to improve management skills	Combination of core and specialized requirements Lead to develop required skill level Covers all the areas required to address the changes in business management Skill level help to achieve professional development Scope of getting knowledge of interdependencies and interrelationships
Program Management	Interdisciplinary approach Community Experience Other initiatives to be professional Capstone Experience Seminar & Workshop Case study Method Exposed to realities through Experience International Exchange Program Action Based Learning	Exposed to diverse environment Summer Internship Exchange Program The Case Method Internship Program Business Project Elite Mentoring Program Industry Linkage Career Development

Source: MBA brochure downloaded from website of the schools

The above table shows that the curriculum integration of the top ranking business schools of the USA and of the Asia Pacific has got necessary emphasis to ensure the skills required to face the challenges. While it is found that in both the regions business schools have included required courses with diverse range of options. So, the business schools in the regions can play role of building management skill in the MBA program as the candidates have got scope of getting knowledge build up in a competitive way. This sort of combination in curriculum designing, as it is revealed in both regions schools, gives scope of professional skill fulfilments of the future leaders. In case of program offerings it is found from the table that the US business schools are more professional to use modern effective approaches, whereas the Asia Pacific business schools are not far behind while they use effective set of offering techniques.

The study perceived that, top ranking business school, considered as the best intuitions of providing deserving candidates for managerial positions, should play proper role in this concern. It is revealed from the study that these business schools of both the regions; USA and Asia Pacific, have been trying to play effective role in producing right set of management talent for the corporations. This is how they are considered as the best business schools in the regions to produce future business leaders. The study further reveals that the business school should have vision of producing leadership quality of prospective managers which has to be reflected in curriculum integration process and in program management. The curriculum integration process should address all the management skills required to face the contemporary challenges as it is found in case of leading business schools examined in the research. To provide quality education the amount of efforts needed on the part of the educational institutes is double that needed to be made by the educational system as a whole whereas the efforts needed on the part of the faculties is three times that of the educational system.

EMERGING CHALLENGES

After going through the various reports, above critical analysis and existing state of business education in India, it has observed that the Indian management education is still facing number of challenges for the following aspects:

1. Though, India produces a large number of graduates perhaps next to U.S. but still a scholarly debate on curriculum pedagogy and innovation is negligible.
2. Most institutes depend on curricula and materials developed elsewhere and have not developed on intrinsic capacity to respond and evolve to changing needs of various sectors of industry.
3. Many institutions still are unable to fulfill the mandatory changes imposed on them, such as upgrading of the curriculum by the universities or the board of management studies.
4. Management institutions in India are today estimated to be graduating approximately 1 Lac (+) students annually. However, what proportion of the total requirement will be for the increasing more expensive graduates in management and what proportion would be for the less expensive lower levels of managers is not yet clear. Again there is a need to raise the number from the current level of 1 lac (+) managers to about 3 lacs (+) managers a year over the next 10 – 15 years.

5. With the opening up of trade and cross border movement of goods and services, the country needs a paradigm shift in management education and management training for working professionals.
6. Presently, management education is treated as sub – department of engineering by AICTE – rather than recognizing that management itself. The working group recommends a fully autonomous governing council for management education.

Though the number of committees on management education have suggested for many improvements, still there have been no significant changes in management education except in the top ranking B-schools. Now the time has come to examine the major issues that need to be addressed if at all management education has to improve in India, So as the present managers can respond to the challenges of global competition. The following are some measure issues to be taken seriously.

1. Ensure Quality Faculty
2. Promote Research Culture
3. Faculty Development Programms
4. Develop reading materials relevant to Indian Context
5. Develop interaction with Industry
6. Evolve a proper system of Accreditation & Rating
7. Create an independent Institutional Mechanism
8. Corporate Governance of B-schools
9. Need to broaden the Specialization
10. Create a Global Mindset
11. Internationalize Management Education

CONCLUSION

The study reveals that business organizations have been giving pressures to universities to fit their professional mode. It becomes crucial for their successful survival in creating knowledgeable people to face the challenges of the environment. The management education has to be shaped into the needs of the industries today. But in today's situation survival of business school is questionable due to lack of professionalism in its management. As we are in third millennium, India's Management education is undergoing a major transition. Internationalization, cross cultures, strategic alliances, partnership & mergers are the new trends in management education. But Compared to US & Japan where do we stand? One of the important reasons of Japan's Climbing to the top ladder of Industrial world is that they believe in "developing people before developing products," Indian management education has to think in this direction. As a matter of fact the ranking status of the business school of the USA and Asia Pacific is given due to their roles played in producing management experts of the corporations. In the changing scenario of managing, each business has to depend on such a business school to fulfil the required management skill. The study reveals that top ranking business in the regions have responded rightly to build the skills of future managers. The business schools those who have poor standing in case of setting right vision statement, have got drawbacks curriculum integration process accordingly and finally, do not have exposure to effective approaches to offer the programs have been treated as inefficient institutions to the corporate leaders. As the area change is taking place in economic, political & technological environment the world over, new opportunities are opening which are prepared to fight mediocrity and quality in every aspect of life is becoming the essential for survival.

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MANAGEMENT OF RURAL FINANCING FOR RURAL UPLIFTMENT -AN ANALYSIS

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ABSTRACT

The present paper explains the pattern of rural finance and its role on rural development. With the view, secondary source information on various schemes programmes and studies are composed. It is observed that during the last six decades efforts were made to uplift the rural poor by various credit schemes along with welfare programmes. These are succeeded at some extent but failed in eradicate poverty in the rural areas. There is a clear case of discrimination by all the institutional credit agencies as regards the establishment of rural branches as well as credit delivery to the rural sector in the major states of India. In the reforms period, every bank is conformed to profits rather than financial support to the rural. Proper credit facilities for employment and income generation certainly improve economic power of rural and it reduces burden of government in future to provide free social amenities (education, health, housing, sanitation, safe drinking water etc). Thus, it is suggested that a decisive change in the banking policy is extremely essential to ensure increased geographical and functional reach of rural credit institutions and unbiased distribution of rural credit across the states.

KEYWORDS

Finance, development, credit, empowerment, Microfinance, Rural India.

INTRODUCTION

Rural empowerment in India is the way to nation's development because 72 percent of population living in rural and of which 29 percent is under BPL even after 63 years independence also. Rural households need credit for a variety of reasons. They need it to meet short-term requirements for working capital and for long-term investment in agriculture and other income-bearing activities like expenditure on food, housing, health and education expenses on a variety of social obligations and rituals. Access to finance has been seen as a critical factor in enabling people to transform their production and employment activities and to exit poverty.

Agriculture and allied activities are crucial sources of employment to rural mass. Since independence, the Government of India has placed increasing reliance on credit as an instrument for the creation of new rural assets and livelihoods for the poor by a number of credit schemes exist each tailored to finance a different range of investments. They all entail organizational and financial collaboration between banks and government departments, although the nature and extent of collaboration varies considerably.

OBJECTIVES AND METHODOLOGY

The main objective of the paper is to analyze the credit facilities in the rural India. Secondary source information is used in the analysis and descriptive method is followed regarding data explanation.

RESULTS AND DISCUSSION**PATTERN OF RURAL CREDIT SCHEMES**

The institutional structure of rural banking today consists of a set of multi agency institutions, namely, commercial banks, regional rural banks (RRBs), cooperatives and land development banks to dispense adequate credit at cheaper rates. Recently, Self-Help Groups (SHGs) have emerged to fill the gap in the formal credit system because the formal credit delivery mechanism has not only proven inadequate but has also not been fully integrated into the overall rural social and community development

CONCISE ON PERFORMANCE OF SOME RURAL CREDIT SCHEMES**A. AGRICULTURE RELATED CREDIT SCHEMES**

Since independence, for agricultural advancement a multi-agency approach consisting of cooperatives, commercial banks and regional rural banks have been providing credit to the farmers. There has been a rapid growth in agriculture credit, which has helped investments in the sector adding that the gross capital formation in agriculture and allied sector as a proportion to the GDP has improved from 2.6 percent in 2004-05 to 3.4 percent in 2009-10.

Table 1 gives the quantum of credit flow to agriculture during 2005-06 to 2009-10. Total ground level credit flow increased at 25 per cent annually during this period to peak at Rs 2, 29,400 crore in 2006-07. The credit flow from cooperative system grew at 13 per cent per annum, the lowest among the agencies. As a result, the share of cooperatives in the total credit flow declined from about 31 per cent to a bit below 22 per cent during the same period.

As against the target of Rs.3, 25,000 crore of credit flow to agriculture, the banking system disbursed Rs.3, 66,919 crore (provisional) surpassing the target by 12.9 per cent. Within the banking system, Commercial banks, Co-operative banks and Regional Rural Banks disbursed Rs.2,74,963 crore, Rs.57,500 crore and Rs.34,456 crore, respectively sharing 74.9 per cent, 15.7 per cent and 9.4 per cent of the total credit flow during 2009-10.

TABLE -1: CREDIT FLOW TO AGRICULTURE AND ALLIED SECTORS (Rs. in crore)

Sector/Sub-Sector	2005-06	2006-07	2007-08	2008-09	2009-10
I. Crop Loan (ST-Production Credit)	105350	138455	181393	210461	NA
II Term Loans (MT & LT Investment Credit)	75136	90945	73265	91447	NA
i. Minor Irrigation	8663	8566	2840	3180	-
ii. Land Development	1749	2285	2553	2887	-
iii. Farm Mechanization	9695	10113	8303	8334	-
iv. Plantation & Horticulture	4481	5266	5910	6045	-
v. Animal Husbandry	7341	8045	9034	10398	-
vi. Fisheries	1019	1424	1248	1281	-
vii. Hi-tech agriculture	9737	21498	33325	41694	-
viii. Others	32451	33748	10052	17628	-
Total (I + II)	180486	229400	254658	301908	366919

Source: NABARD, 2009-10.

B. KISAN CREDIT CARD SCHEME (KCCS)

Two innovations, viz., micro-finance and KCCS have emerged as the major policy developments in addressing the infirmities associated with the distributional aspects of credit in the recent years issued by various banks in terms of the timeliness, hassle-free operations as also adequacy of credit with minimum of transaction costs and documentation. Around 9.4 crore thousands KCCs and Rs 4, 27,748 cores were issued in 2010 for this purpose.

With regard to KCCS, there is a need to upscale its outreach to cover all the eligible farmers by creating greater awareness and giving greater publicity to the scheme. Upgradation of land records and sensitization of bank staff through training programmes will further add to the spread of the scheme. The exercise of preparing special agricultural credit plans with higher component of direct finance with a special thrust on small and marginal farmers should also receive high priority.

The success of KCC scheme depends on less stipulated norms. High value agriculture needs higher working capital and also entails higher risks. Facilitating credit through processors, input dealers, NGOs that are vertically integrated with the farmers, including through contract farming, for providing them critical inputs or processing their produce, could increase the credit flow to agriculture significantly.

C. SERICULTURE

A special package of credit announced as a separate wing to Sericulture which has about 400 years of history and the industry flourished as an agro-industry. Over the last six decades relentless efforts of thousands of dedicated persons in the fields of research and extension have helped in this context. Over six million families spread over in some 59,000 villages across the country. The export earnings stood at Rs. 3,338 crores during 2006-07. Involvement of women in different activities of sericulture is about 53 percent and their contribution in the on-farm activities.

Some other agricultural credit schemes like service area approach-new strategy for rural lending service, rural infrastructure development fund, national agricultural insurance scheme etc have been implemented. Major role in this regard had play by NABARD. Unfortunately these were benefited to the medium and large operational holdings only.

D. POULTRY DEVELOPMENT

Poultry development is one of the most resilient sectors in the rural economy, fast adapting itself to the changing bio-security, health, and food safety needs. The poultry meat production is estimated to be 1.85 million tonnes in 2008-09.

Fish production increased from 7.14 million tonnes in 2007-08 to 7.85 million tones in 2009-10. Fishing, aquaculture, and allied activities are reported to have provided livelihood to over 14 million persons in 2008-09.

E. IMPACT OF CREDIT ON CROP YIELDS

It is found from the study of NABARD conducted in Various Regions of India' on the impact of credit on fertilizer consumption and crop that one per cent increase in credit supply increased fertilizer consumption by 0.30 per cent and one per cent increase in fertilizer consumption increased crop yields in the range of 0.14 per cent to 1.13 per cent. Main crops considered for the analysis were paddy, wheat, maize, bajra, Masur, Bengal gram, rapeseed and mustard, jute, cotton, sunflower, onion and potato. *When market density, number of villages electrified, literacy rate and credit supply were regressed on crop yields, it was found that the role of credit in influencing crop yield was quite positive and significant.* The elasticity coefficients of credit were 0.28 for paddy and 0.55 for wheat.

However, the growth of direct finance to agriculture and allied activities witnessed a decline in the 1990s (12 per cent) as compared to the 1980s (14 per cent) and 1970s (around 16 per cent). Furthermore, a comparative analysis of direct credit to agriculture and allied activities during 1980s and since 1990s reveals the fact that the average share of long-term credit in the total direct finance has not only been much lower but has also decelerated (from over 38 per cent to around 36 per cent), which could have dampening effect on the agricultural investment for future growth process.

Further, an assessment of agriculture credit situation brings out the fact that the credit delivery to the agriculture sector continues to be inadequate than demand side. The present pattern schemes were failed to provide assistance. It is evidence that more than 17,500 farmers a year killed (suicide) themselves between 2002 and 2006 due to failure of indebtedness through use of Bt Cotton and crop failure over the nation.

SUCCESS STORY OF MICRO CREDIT SCHEME

Microfinance sector has traversed a long journey from micro savings to micro credit and then to micro enterprises and now entered the field of micro insurance, micro remittance and micro pension. This gradual and evolutionary growth process has given a great opportunity to the rural poor in India to attain reasonable economic, social and cultural empowerment, leading to better living standard and quality of life for participating households.

A massive expansion has been apprehended in micro credit in India. The cumulative progress indicate that 16 lakh SHGs, with an estimated membership of 197 million poor people, have saving accounts in the banks, with aggregate bank balance of Rs. 62 billion (\$1.35 billion). Over 4.85 million SHGs have loan accounts with total loan outstanding of Rs. 280 billion (\$6 billion). Loan disbursement was rose from Rs 8849.26 crore to Rs 14453.50 crores during 2007-08 and 2009-10. The similar growth has found in case found in case of bank linkage varied from Rs 1970.15 crore to 8026.74 crore (table-2).

Surprisingly, non Performing Assets in 2010 stood at 2.94 per cent as a lowest compared to the other schemes. NABARD continued its efforts in the formation and nurturing of quality SHGs. Now all the commercial banks are treating SHGs as their instant source of business and expanding credit at micro level for their consumption and productive purpose.

TABLE-2: STATUS OF MICRO CREDIT IN INDIA (Rs in crores)

particulars	2007-08		2008-09		2009-10	
	No. of SHGs	Amount	No. of SHGs	No. of SHGs	No. of SHGs	Amount
Bank loan disbursed to SHGs including of SGSY	1227770	8849.26	1609586	12253.51	1586822	14453.50
MFI-Bank linkage	518	1970.15	581	3732.33	691	8062.74
MFI's supported by SI DBI					88	2665.75
Bank Loans outstanding with SHG including of SGSY	3625941	16999.91	4224338	22679.84	4851356	28038.28
Bank Loans outstanding with MFIs	1109	2748.84	1915	5009.09	1513	10147.54

Source: page v, table 1 of Status of Micro Finance in India of NABARD report 2009-10.

As per the one study conducted by the author (Dr.T.V.Ramana, 2010), it is found that the credit scheme has been performing occupational mobility of women mainly from agricultural to non-agricultural activities taken place and the share of women contribution to the family income is increased by 53.17 percent after getting microfinance for IGAs. They have significant role in family decision-making and built self-confidence and made face-to-face discussions with the concerned officials

SGSY- MICRO CREDIT SCHEME

In April 1999, the Integrated Rural Development Programme (IRDP) was restructured and combined with Training of Rural Youth for Self-Employment (TRYSEM), Supply of Improved Tools for Rural Artisans (SITRA), Ganga Kalyan Yojana, Million Wells Scheme (MWS) and Development of Women and Children in Rural Areas (DWCRA), and a single self-employment programme known as *Swarnajayanti Gram Swarajgar Yojana* (SGSY) was put in place.

The scheme is succeeded at some extent in promote self employment among the poor families with aim to bring them above Poverty line through bank credit, government subsidy, proper training for several enterprises at grass root level belong to the IRDP accounts of the DRDAs. About 50 percent of the benefits are reserved for Schedule Caste/Schedule Tribe, 40 percent for women and 3 percent for disabled persons. Credit is providing through banks and 30 percent subsidy providing by the DRDAs.

This low level of investment might be the reason for the low income gains accrued to swarjgaris engaged in enterprise activities catering to local markets. Most of the assets (46 per cent) created under SGSY were livestock assets. About 67 per cent of the beneficiaries were women, and 47 per cent were from the social group of SC/ST and physically handicapped were 2.4 per cent and 46 per cent SHGs achieved improvement in their incomes through SGSY activities.

The performance of SGSY was unsatisfactory in the states with high incidence of poverty such as Assam, Madhya Pradesh, Orissa, Jharkhand, Chattisgarh, West Bengal and Bihar. Results of evaluation of the SGSY (Planning Commission, *Mid-Term Appraisal of 10th Five Year Plan*, Government of India, 2005, pp.238-242) show as an inadequate infrastructure and insufficient capacity building as main constraints. Most of the factors responsible for its poor performance relate to weaknesses in delivery systems. Cluster approach has also been a non-starter in many of the states. DRDAs and the line departments of most of the state governments have failed in providing non-credit inputs to the *swarajgaris*.

Despite significant progress of micro credit scheme, about 70 percent of poor families are yet to be covered. The SHG bank linkage is gaining momentum, but it has to grow still farther. Only four states (Andhra Pradesh (40 percent), Tamilnadu, Karnataka and UP (combined 30 percent)) covered 70 percent of SHGs and 80 percent of bank loans (annual report of SGSY, 2010).

CAPART

Council for Advancement of People's Action and Rural Technology (CAPART) is involved in catalyzing and co-coordinating the emerging partnership between Voluntary Organizations and the Government of India for sustainable development of Rural Areas by made useful contribution towards the implementation of the programmes/schemes of Jawahar Rozgar Yojana, DWCRA/SHGs, IRDP, Million Well Scheme, Accelerated Rural Water Supply Programme etc. Its role is remarkable in implementation of government schemes at prolific level.

RURAL ARTISANS - NABARD

The report of National Commission for Enterprises in the Unorganized Sector (NCEUS) states that 836 million Indians (77% of total population) live on an income less than Rs 20/day. The irony is that 50% of this huge number constitutes 92% of our workforce (457.5 million), which implies that 422.7 million people work and are supporting dependants with income less than Rs 20/day without any job security or social security (2007).

During the last three years, 4,172 Handloom Weavers' Groups (HWG) were formed by banks in 12 states, viz., Orissa (1,366), Andhra Pradesh (1,220), Jharkhand (500), Karnataka (498), Assam (272), Madhya Pradesh (103), West Bengal (88), Bihar (82) and other States (43). Of these, 1,781 HWG have been credit linked. 3.39 In order to provide meaningful link between development and credit planning to support agriculture and rural development, NABARD prepared Potential Linked Credit Plans (PLP) for 623 districts that served as a guide in credit planning exercise and infrastructure development for 2010-11. The sector-wise credit flow projections captured in the PLPs were utilized for arriving at the credit flow target for agriculture and priority sector

KHADI AND VILLAGE INDUSTRIES

Khadi and Village Industries have creating self-reliance amongst the poor and building up of a strong rural community spirit. KVIC launched Rural Employment Generation Programme (REGP) or Gramodyog Rojgar Yojana for creating two million jobs under the KVI sector in the rural areas of the country and generating new avenues of employment for rural unemployed people. Individuals, Institutions, Cooperative societies, Trusts & Self Help Groups (SHGs) and Public Limited companies owned by State/Central Government are benefited under the scheme. Under the *Workshed Scheme* (2008-09) for Khadi Artisans to carry out spinning and weaving works more effectively assistance to 11076 artisans have been provided. Keeping in mind the success of the scheme, targets of work sheds as well as of artisans have been increased for the year 2010-11.

PRIME MINISTER ROZGAR YOJANA -SUCCESS STORY

As a part of SGSY, the Prime Minister Rozgar Yojana (PMRY) has providing self-employed opportunities to one million educated unemployed youth in the country. The scheme brings happiness in the lives of many of unemployed youth through providing credit to group of individuals.

Success Story: Harinath of Gadwal in Mahabubnagar district aged 39 years passed I.T.I. in Electrical in the year 1995 in First Division. He immediately submitted an application to the concerned authorities under PMRY without wasting time in job searching. In 2006, he was sanctioned a loan assistance of Rs. 50,000 by the local State Bank of India with which he started a shop. With the business flourishing, he is now earning Rs. 30,000/- per month. Besides, he has provided livelihood to two more unemployed giving a monthly salary of Rs. 3000/- each. (Press information bureau government of India)

A comparative analysis of the nationwide performance under the scheme reveals that Gujarat tops the list of States in terms of average percentage of groundings in relation to targets. While Gujarat averaged 70 per cent, among the southern States, Kerala with 62.76 per cent and Karnataka with 60.61 per cent were the leaders. In regard to recovery, Andhra Pradesh has been producing good results, with the recovery rate touching 38.80 per cent, as against the all-India average of 28.80 per cent during the first half of the last fiscal.

Whatever, insufficient financing support, delays in sanction and disbursement of loan, diversion of funds to other unproductive purpose, political interference in selection of beneficiaries are some major drawback of this programme.

RYS & (CMEY) IN ANDHRA PRADESH

For hundreds of unemployed youth in the state of Andhra Pradesh, the **Chief Minister's Empowerment of Youth** (CMEY) programme has helped in realising their dreams - a dream of setting up their own business. Further, launched the 'Rajiv Yuva Shakthi' (RYS), a Rs. 321-crore self-employment scheme for one lakh youth the scheme would be scaled up to a Rs. 1000- crore programme covering three lakh youth next year. Rs. 321-crore outlay for the RYS, the banks sanction was Rs. 221 crores as loans.

The State Government's subsidy component was Rs. 70 crores and Rs. 30 crores was the beneficiary's contribution as margin money. In the budget for 2008-09 the state government provided Rs.175 crore as against Rs.140 crore of last year for the Rajiv Yuva shakti program. Majority of the youth trained in various trades were being absorbed in Dr.Reddy's Foundation, CAP foundation, CED, GMR foundation etc.

CREDIT-CUM-SUBSIDY FOR CONSTRUCTION / UP GRADATION OF RURAL HOUSES

Housing is one of the basic requirements for human survival. For a normal citizen owning a house provides significant economic and social security and status in society. Approximately 5 lakh families were housed in various centres mainly located in Northern India. As per the announcement made by the Government of India in June 1985, a part of the RLEGP fund was earmarked for the construction of houses for SCs/STs and freed bonded labourers. As a result, Indira Awaas Yojana (IAY) was launched during 1985-86 as a sub-scheme of RLEGP. IAY, thereafter, continued as a sub-scheme of Jawahar Rozgar Yojana (JRY) since its launching in April, 1989.

In rural areas, in the recent housing construction has taken place at higher level. From 1st April 2008, the ceiling on construction assistance under IAY was enhanced from Rs. 25,000 to Rs. 35,000 per unit in the plain areas and from Rs. 27,500 to Rs. 38,500 in hilly/difficult areas. The financial assistance for upgradation of kutcha house was also enhanced from Rs. 12,500 to Rs. 15,000 per unit. . In addition to the unit assistance availed under IAY, a beneficiary can also borrow a top-up loan up to Rs. 20,000/- from any nationalized Bank at 4% interest per annum under Differential Rate of Interest (DRI) Scheme.

In addition to the assistance provided under the IAY, an IAY beneficiary can avail himself of a loan of upto Rs.20,000/- per housing unit under differential rate of interest (DRI) scheme at an interest rate of 4% per annum. During 2010-11 out of a Central Allocation of Rs. 10053.70 crore, Rs. 4070.98 crore has been utilized and of the targeted 29.09 lakh houses 9.04 lakh houses have been constructed till September 2010 (Ministry of Rural development, 2010).

This scheme has been very much useful to the rural in build own house. But due to rise in inputs costs rural poor are unable in this regard. Hence, construction should be under control until complete the house.

CONCLUSIONS

During the last six decades efforts were made to uplift the rural poor by various credit schemes along with welfare programmes. These are succeeded at some extent but failed in eradicate poverty in the rural areas in the country. There is a clear case of discrimination by all the institutional credit agencies as regards the establishment of rural branches as well as credit delivery to the rural sector in the major states of India. In the reforms period, every bank is conformed to profits rather than financial support to the rural. On the other, there are some states, viz. West Bengal, Assam, Bihar and Uttar Pradesh which was neglected both in terms of rural banking infrastructure development as well as credit disbursement to the rural areas (K.J.S. Satyasai). The 'report of the advisory committee on flow of credit to agriculture and related activities from the banking system' (2004) has also mentioned that, "there are also significant regional disparities in the disbursement of agriculture credit. A decisive change in the banking policy is extremely essential to ensure increased geographical and functional reach of rural credit institutions and unbiased distribution of rural credit across the states.

Proper credit facilities for employment and income generation certainly improve economic power of rural and it reduces burden of government in future to provide free social amenities (education, health, housing, sanitation, safe drinking water etc). Development of entrepreneurs' skills, enhanced credit flow to women and other weaker sections, supporting tiny, cottage and village industries and coverage of wide variety of service sector activities would require larger and wider role of rural financial institutions. While increase purchasing power of the rural population throw enormous demand for goods and services will boost the national economy tremendously. Then, the day will see the reverse migration of people from the urban slums back to the villages. Subsequently, the statement of Darling (1925) that "the Indian peasant is born in debt, lives in debt and bequeaths debt" still remains true for the great majority of working households in the country side can disappear from the rural India.

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PROBLEMS OF WOMEN ENTREPRENEUR IN MAYILADUTHURAI, NAGAI DISTRICT**K. MANIKANDAN****HEAD****DEPARTMENT OF MANAGEMENT STUDIES****A.V.C. COLLEGE (AUTONOMOUS)****MANNAMPANDAL****DR. K. RAMAKRISHNAN.****PRINCIPAL****VIVEKANANDA COLLEGE OF ARTS & SCIENCE****SIRKALI****ABSTRACT**

The growth of industrialization, education and domestic system has brought about significant changes in the tradition bound Indian society. Now increasing proportion of women are seeking gainful employment in industrial field. It is a fact that man alone cannot break the evils of poverty, unemployment and inequality. Active and equal participation of women is indispensable in fighting against these social-evils. The global evidences prove that women have been performing exceedingly well in different spheres of activities. It is traced out as an extension of their kitchen activities to 3 Ps., Pickles, Powder (Masala) and pappad manufacturing with growing awareness and spread of education over the years women have started engrossing to modern activities like engineering, electronics and energy popularly known as 3Es.

KEYWORDS

women entrepreneur, MAYILADUTHURAI.

INTRODUCTION**WOMEN ENTREPRENEURSHIP**

The government of India has defined women entrepreneurs based on women participation in equity and employment of a business enterprise. Accordingly a women entrepreneur is defined as an enterprise owned and controlled by a women having a minimum financial interest of 51% of the capital and giving at least 51% of the employed generated in the enterprise to women.

Globalization and Liberalization of markets encouraged women to come forward to become entrepreneurs and start new industries. Culture mixes, challenges women face in their lives, have changed through out the world. In this regard both state and central governments have taken more initiatives in developing women entrepreneurs in has to be studies. Separately for two main reasons. The first reason is that women's entrepreneurship is an important uncapped source of economic growth. The second reason is that the women entrepreneurs create new jobs for themselves and others. They can provide different solutions to management. Organization and business problems. Empirical studies show that women contribute significantly to the running of family businesses mostly in the form of unpaid effort and skills.

Today business is built around human capital and women are one of the valuable factors in the task of setting industries. The 21st century has become virtually in every field including Information Technology, Service sectors. It is realized that there is an increased need for economic independence for women. Their participation in remunerative work in the formal and non-formal labour markets has increased significantly in the past decade. Women's becoming very necessary to households of all types in the wake of globalization and changing economic scenario. Many enterprises run by the women are able to create a successful business.

STATEMENT OF PROBLEM

- The study aims at understanding the incidence of problems of women entrepreneurs in Mayiladuthurai Town.
- Mayiladuthurai town has been chosen as the study area since it is one of the growing towns of the state with huge business volume.

OBJECTIVES

- To analyze the various problems faced by the women entrepreneurs in the study area.
- To give suitable suggestions based on the study.

METHODOLOGY

Primary data have been collected from the selected women entrepreneurs in the study area with the help of an interview schedule.

SAMPLING DESIGN

Simple random sampling techniques has been used through which 40 women entrepreneurs have been selected.

AREA OF THE STUDY

The study area is limited to Mayiladuthurai town, Nagapattinam District. Mayiladuthurai is identified as one of the rural based fast developing urban area in Nagapattinam District. It is poised for a spectacular growth in the near future. Mayiladuthurai being an Agriculture area, many retail outlets have established their business here.

OBSERVATIONS

The problems faced by women entrepreneurs in the country emanate from a multitude of sources and are manifold. Entrepreneurship is not a "bed of roses" to the women. Their task has become more tedious and full of challenges since they have to encounter public prejudices and criticism. Women face certain problems not as an entrepreneur but as a women. Therefore, when compared to the problems of women entrepreneurs are more in number.

They are classified as under

1. Socio – Personal Problems
2. Managerial Problems
3. Production Problems
4. Marketing Problems
5. Financial Problems
6. Problems of Government assistance

TABLE 1: SOCIO PERSONAL PROBLEMS

S.No.	PROBLEM	No of Entrepreneurs Agree	Percentage
1.	Male dominated society	40	28.57
2.	Lack of family & Community support	22	15.72
3.	Lack of education & Information	19	13.57
4.	Economic backwardness	28	20.00
5.	Low risk bearing capacity	31	22.14

The socio personal problem include male domination lack of family as well as social support, low risk bearing capacity of women etc., with regard to the incidence of these socio personal problem. It is pathetic to note that 28.57 % of the women entrepreneurs are suffering from the problem of male domination are their business and 20 % of the sample entrepreneurs felt that economic backwardness of their problem, 22.14% have accepted their inability in the risk bearing capacity, 15.72 % have women that their family is not supporting their business, and 13.57 % of the women entrepreneur have realized that the lack of education and information are the set back for their business track. From their it could be obvious to observe that even in the 21st century the male domination in the business is formed in the urban area.

FIG. 1

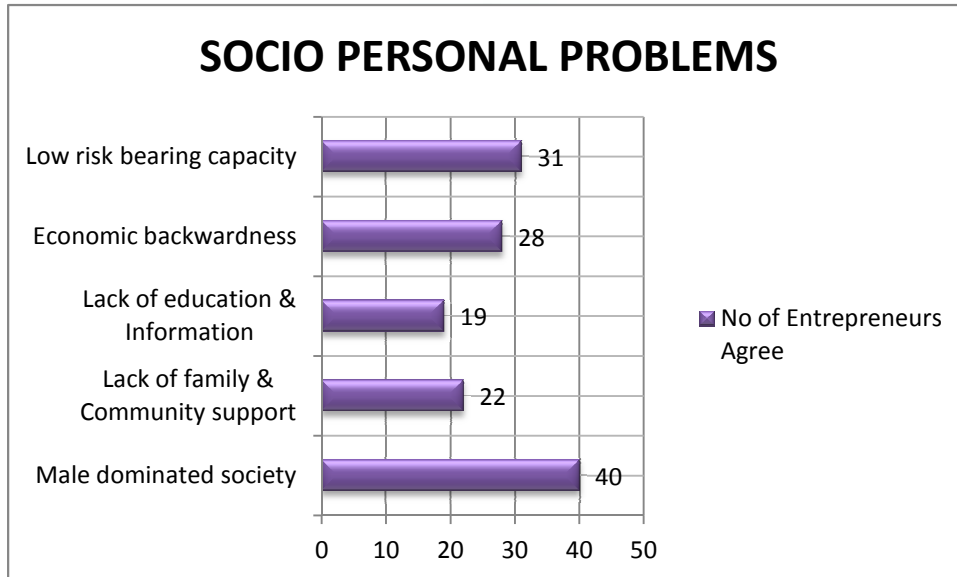


TABLE 2: MANAGERIAL PROBLEMS

S.No.	PROBLEM	No of Entrepreneurs Agree	Percentage
1.	Lack of knowledge of general management & experience	18	45.00
2.	Lack of skilled labours absenteeism & labour turnover	12	30.00
3.	Lack of clear cut objectives	30	75.00
4.	Transportation Problem as women	14	35.00

The managerial problems faced by the women entrepreneurs due to like lack of knowledge in management & experience, skilled labour absenteeism & turnover, no clear objective and problems in transportation. It is inferred that 75% of the women entrepreneurs having the lack of clear cut objectives, 45% of the respondents feel that lack of knowledge in management and experience, 35% have transportation problem. Only 30% of the women entrepreneurs are realized lack of skilled labour absenteeism and labour turnover.

FIG. 2

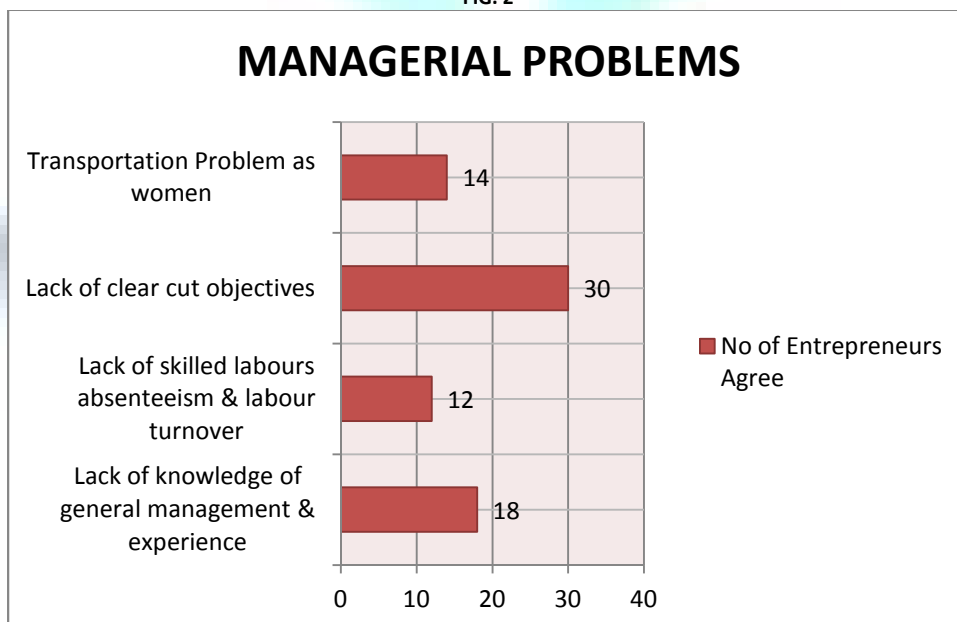


TABLE 3: PRODUCTION PROBLEM

S.No.	PROBLEM	No of Entrepreneurs Agree	Percentage
1.	Inadequate availability of land premises	11	27.50
2.	Getting required inputs	04	10.00
3.	Inadequate technical support	13	32.50
4.	Lack of up graduation of technology	16	40.00
5.	Poor inventory management	19	47.50

The table No 3 clearly explains with regarding to production problem include that Inadequate availability of land premises, getting required inputs, inadequate technical support, lack of up graduation of technology, and poor inventory management. 47.5% of the women entrepreneurs facing problem under production in poor inventory management due to proper utilization of stock. 40% have lack of up graduation of technology, 32.5% suffered inadequate technical support, and 27.5% of them have inadequate availability of land premises due to real estate business. Only 10% of the respondents accepted that proper supplying is not required for inputs.

FIG. 3

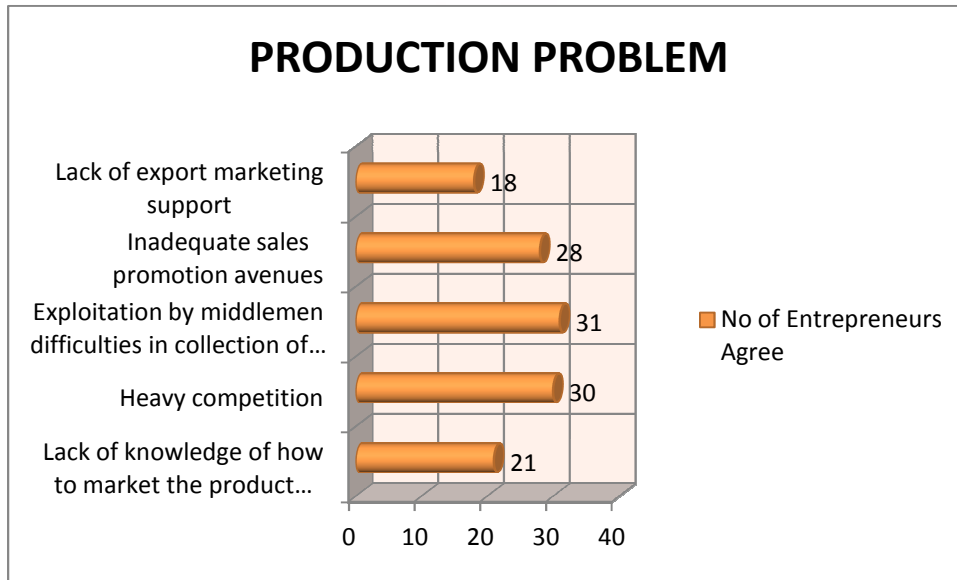
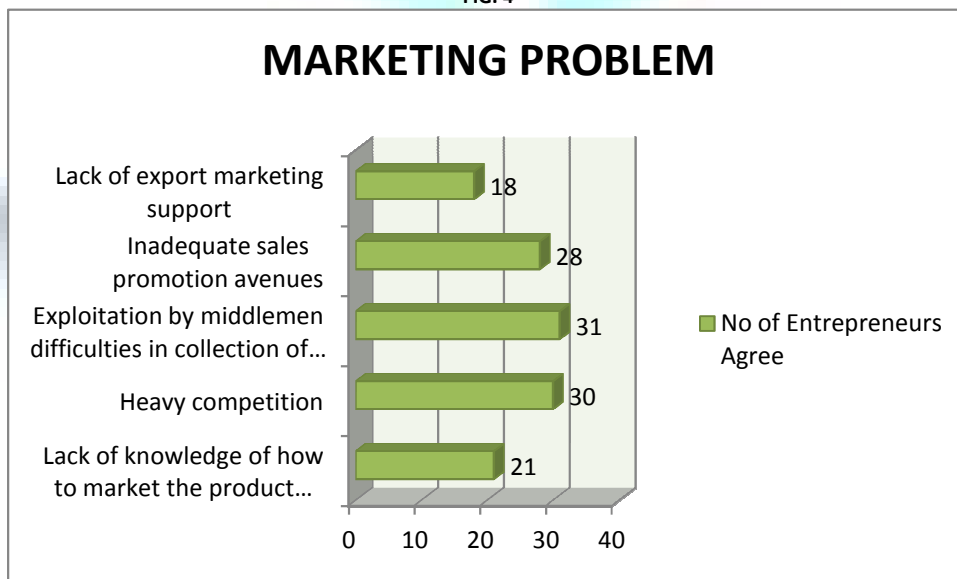


TABLE 4: MARKETING PROBLEM

S.No.	PROBLEM	No of Entrepreneurs Agree	Percentage
1.	Lack of knowledge of how to market the product and whom to conduct	21	52.50
2.	Heavy competition	30	75.00
3.	Exploitation by middlemen difficulties in collection of dues	31	77.50
4.	Inadequate sales promotion avenues	28	70.00
5.	Lack of export marketing support	18	45.00

It is observed that 77.5% of the women entrepreneurs facing problem under marketing in exploitation by middlemen difficulties in collection of dues, 75% having fight to competitors where in the field of marketing, 70% have inadequate sales promotion avenues, 52.5% of the respondents realized for lack of knowledge in how to market the product and whom to conduct due to awareness and 45% of the respondents give their opinion relating to marketing in lack of export marketing support.

FIG. 4



FINANCIAL PROBLEM

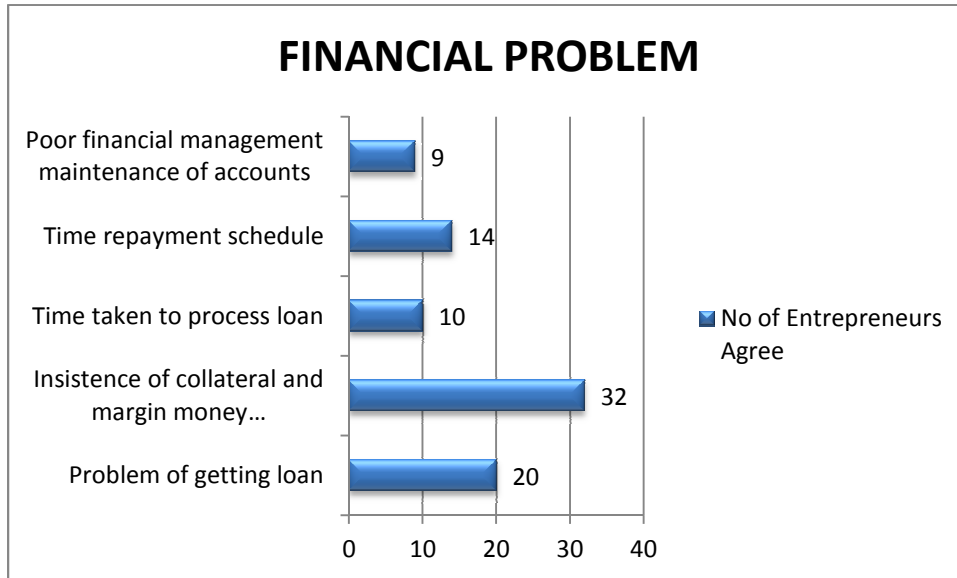
Financial problems are a major problem faced by all entrepreneurs. Finance is essential to start as well as to run business entrepreneurs. Most of the women entrepreneurs are facing financial problems at the time of starting as well as during operation of their business entrepreneurs.

TABLE 5: FINANCIAL PROBLEM

S.No.	PROBLEM	No of Entrepreneurs Agree	Percentage
1.	Problem of getting loan	20	50.00
2.	Insistence of collateral and margin money requirements	32	80.00
3.	Time taken to process loan	10	25.00
4.	Time repayment schedule	14	35.00
5.	Poor financial management maintenance of accounts	09	22.50

The above problem faced by the women entrepreneurs under the head of finance. It is revealed that 80% of the respondents faced problem under finance in insistence of collateral and margin money requirements, 50% of them problem of getting loan from financial institution, 35% have time repayment schedule, 25% are agreed in time taken to process loan, and 22.5% having poor financial management maintenance of accounts.

FIG. 5



PROBLEM OF GOVERNMENT ASSISTANCE

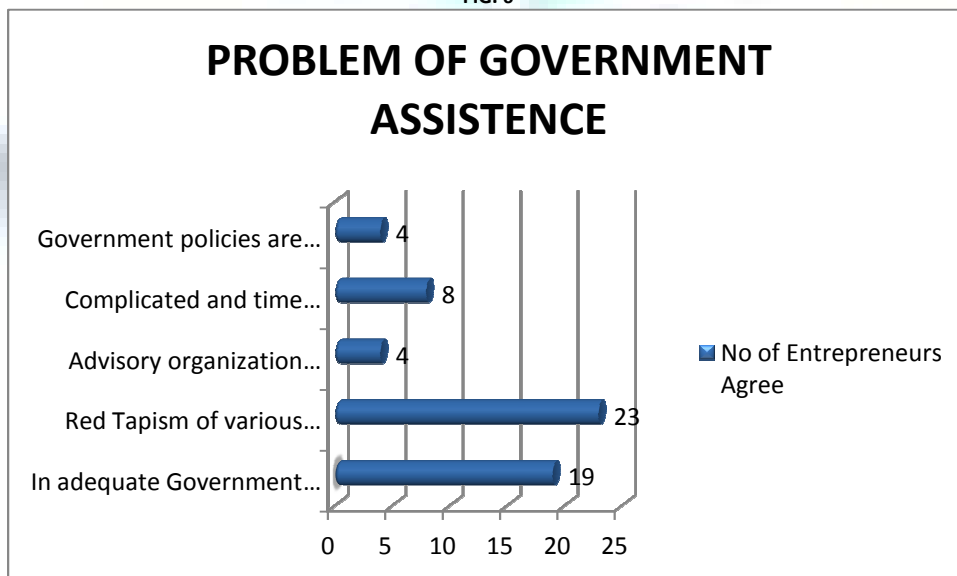
Both State & Central Government are implementing various assistance schemes for promotion of women entrepreneurship. But in practice women entrepreneurs are facing many difficulties in obtaining various government of assistance.

TABLE 6: PROBLEM OF GOVERNMENT ASSISTANCE

S.No.	PROBLEM	No of Entrepreneurs Agree	Percentage
1.	In adequate Government Assistance	19	47.50
2.	Red Tapism of various levels	23	57.50
3.	Advisory organization become exploitive and dishonest	04	10.00
4.	Complicated and time consuming procedures for getting assistance	08	20.00
5.	Government policies are not favorable.	04	10.00

From the above table is clearly understood that majority (57.5%) of the women entrepreneurs are satisfied with Government assistance. 47.5% of the respondents give their opinion under government assistance not adequate. 20% of the respondents felt that complicated and time consuming procedures for getting assistance. Only 10% of them give their problem in Government policies are not favorable and advisory organization become exploitive and dishonest.

FIG. 6



SUGGESTIONS

To widen and strengthen the base of women entrepreneurship the following remedial measures may prove meaningful.

1. Government financial institution should implement to solve financial problems, government implement special lending policies, quick processing of loan and liberal repayment.
2. The government should give subsidies and concessions to women entrepreneurs to face price competition from big enterprises. Government and women entrepreneurs association should make arrangement for conducting exhibitions and conferences of women entrepreneurs.
3. Attention of the Government should be drawn in rectifying the production problems by the allotment of factory shed and land in government industrial estates on priority basis, supply of raw materials and other inputs regularly at subsidized rates, giving assistance for up gradation of technology research and development and giving production training to women entrepreneurs.
4. Attention of the government as well as voluntary organizations needs to be drawn to rectify socio-personal problems. A special programme can be conducted against the social evils.
5. Adequate assistance should be given to the right person at the right time. A special advisory organization should be established.
6. Simplified procedures should be followed in getting the government assistance.
7. Motivation through subsidies.
8. Training and development facilities.
9. NGO and Service organizations role
10. Psychological empowerment of women.

CONCLUSION

The growth of industrialization, education and domestic system has brought about significant changes in the tradition bound Indian society. Now increasing proportion of women are seeking gainful employment in industrial field. It is a fact that man alone cannot break the evils of poverty, unemployment and inequality. Active and equal participation of women is indispensable in fighting against these social-evils.

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SWOT ANALYSIS OF WOMEN ENTREPRENEURSHIP IN TIRUPUR WITH SPECIAL REFERENCE TO DALITS

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ABSTRACT

A woman entrepreneur is an adult who owns and runs an enterprise, especially a commercial one, often at personal financial risk. In India women have made a comparatively late entry into business scenario mainly due to the orthodox and traditional socio-cultural environment. In India from the very beginning, women have solely dominated the area of household activities. Today non-traditional enterprises are easily managed by women and are done so excellently with them as the decision – makers. Today, woman entrepreneurs represent a group of women who have broken away from the beaten track and are exploring new avenues of economic participation. Among the reasons for women to run organized enterprises are their skill and knowledge, their talents and abilities in business and a compelling desire of wanting to do something positive. In this content a research study on “SWOT analysis of women entrepreneurship in Tirupur with special reference to Dalits” was formulated with the objectives of identifying the socio economic profile of Dalit women entrepreneurs, to highlight the main motivational factors for Dalit women entrepreneurs and to study the major constraints faced by the Dalit women entrepreneurs. The study was related to 50 dalit women entrepreneurs in Tirupur district of Tamil Nadu. The study identified the problems of dalit Women entrepreneurs as financial, marketing, social and psychological problems. The degree of problems varies among the male and female entrepreneurs. The female entrepreneurs highly perceive the problems than the male entrepreneurs. But at the same time, the female respondents are also viewing that there are much more opportunities. The level of perception on problems was significantly associated with the profile of entrepreneurs especially personally trait and the highly indebted entrepreneurs highly perceive the problems.

KEYWORDS

women entrepreneurship, Dalit womens.

INTRODUCTION**WOMEN ENTREPRENEURS IN INDIA**

A woman entrepreneur is an adult who owns and runs an enterprise, especially a commercial one, often at personal financial risk. A recent ILO-Indian study of woman entrepreneurs gave the definition of women’s enterprise as “a small unit where one or more women entrepreneurs have not less than 50 per cent financial holdings”. In India women have made a comparatively late entry into business scenario mainly due to the orthodox and traditional socio-cultural environment.

In India from the very beginning, women have solely dominated the area of household activities. Today non – traditional enterprises are easily managed by women and are done so excellently with them as the decision – makers. Today, women entrepreneurs represent a group of women who have broken away from the beaten track and are exploring new avenues of economic participation. Among the reasons for women to run organized enterprises are their skill and knowledge, their talents and abilities in business and a compelling desire of wanting to do something positive.

The principal factor in developing entrepreneurship among women is not in terms of infrastructure or financial assistance or identifying an enterprise but it is a question of clearing the ground for their movement into entrepreneurship. For ages together they have been confined to a secondary role and confined to the homes though there are several factors contributing to the emergence of women as entrepreneurs. The sustained and coordinated effort from all dimensions would pave the way for the women moving into entrepreneurial activity thus contributing to the social and economic development of the members of the family and thereby gaining equality and equal importance for themselves.

DEVELOPMENT OF DALIT WOMEN ENTREPRENEURS

The dalit women are mostly the ones who set up small enterprises to sustain themselves and their families. Although, becoming an entrepreneur did arouse a little dilemma in many dalit women they have the potentialities for becoming one. However, to earn quick money was the basic reason for dalit women to start entrepreneurship. They have a deep-seated need for a sense of independence along with a desire to do something meaningful with their time and to have their own identity instead of remaining closeted behind their husband’s nameplate. In this context, a research study on “SWOT analysis of Women Entrepreneurship in Tirupur with special reference to Dalits” was formulated with the following objectives:

1. To identify the strength of Dalit women entrepreneurs.
2. To highlight the main weakness of Dalit women entrepreneurs and
3. To study the opportunities and threats of Dalit women entrepreneurs.

METHODOLOGY

The study was related to Tirupur District of Tamil Nadu due to easy accessibility. Tirupur is a textile hub and a vast generator of employment for unskilled temporary workers. Tirupur is the “knitwear capital” of India. It has spurred up the textile industry in India for the past three decades. Its economic boom boosts the morale of Indian industrialists. It contributes to a huge amount of foreign exchange in India. Tirupur has the largest and fastest growing urban agglomerations in Tamil Nadu. Tirupur stands as the life for millions of people in Tamil Nadu. Tirupur consists of 13 blocks namely Uthukuli, Gudimangalam, Vellakovil, Madathukulam, Kundadam, Mulanur, Udumalpet, Avinashi, Palladam, Pongalur, Tirupur, Kangayam and Dharmapuri. The study was confined to Nallur Corporation of Tirupur block. From Nallur corporation 50 dalit entrepreneurs were selected for the study based on their co-operation and willingness to respond. The required information were collected by administering an interview schedule to the respondents and five point rating scale was used to find out the strength, weakness, opportunities and threats.

TOOLS USED

‘t’ test was used to find out whether there is a significant difference in strength, weakness, opportunities and threats of men and women entrepreneurs.

SWOT ANALYSIS

The SWOT analysis is one of the important management tools to identify the problems and prospects of the units. If the strengths are greater than the weakness of the units and the opportunities are greater than the threats to the units, there will be a better scope for the units. If the weaknesses are greater than its strengths and the threats are greater than its opportunities, it may lead to so many problems to the units. The SWOT analysis is generally used for the self-appraisal of any organization. In the present study, the SWOT analysis has been used to exhibit the level of strengths, weakness, opportunities and threats to the micro enterprises run by dalit women.

FINDINGS OF THE STUDY

A. STRENGTH OF MICRO ENTERPRISES

The strengths of the micro enterprises are important for its future prospects. Even though, the strengths of micro enterprises are too many, the present study confine to only 10 strengths.

MEAN SCORE OF STRENGTHS OF MEN AND WOMEN ENTREPRENEURS

The respondents are asked to rate the strengths at five point scale. The mean score of strength has been computed. Table I represents the mean score of strengths of men and women entrepreneurs.

TABLE I: MEAN SCORE OF STRENGTHS OF MEN AND WOMEN ENTREPRENEURS

Strengths	Mean score among		t-statistics
	Men	Women	
Minimum requirement of investment	3.4325	3.6527	1.6385
Easy to start and manage	3.2907	3.4578	1.1464
Flexibility in decision making	3.2195	3.6547	0.9143
Motivation to succeed due to ownership	3.3247	3.3443	-2.4512*
Speed in taking decisions	3.4423	3.8032	-2.1214*
Lack of bureaucracy	3.2669	3.5971	-1.5642
Family orientation	3.7134	3.6524	-2.5216*
Lack of formalities to start	3.2380	3.6598	-1.3256
Government support	3.2995	3.6891	-1.9932*

Source: Calculated figures based on field survey

*Statistically significant at 5% level.

The highly viewed strengths of the micro enterprises among the men respondents are flexibility in decision making and minimum requirement of investment since its mean score are 3.2195 and 3.4325 respectively. Among the women respondents, these two are motivation to succeed due to ownership and minimum requirement of investment since its mean scores are 3.3443 and 3.6527 respectively. Regarding the perception of strengths, the significant difference among the men and women respondents have been identified in four variables out of 9 variables since their respective 't' statistics are significant at five percent level as illustrated in Table I.

FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON THE SCORE ON STRENGTHS OF MICRO ENTERPRISES

The score of strength of the rural micro enterprises among the respondents have been computed. The distribution of respondents on the basis of their score on strengths of micro enterprises is given in Table II.

TABLE II: FREQUENCY DISTRIBUTION OF THE RESPONDENTS BASED ON THE SCORE ON STRENGTHS OF MICRO ENTERPRISES

Score on Strength of Micro Enterprises	Number of respondents		Total
	Men	Women	
Less than 2.00	10	4	14
2.00-3.00	6	7	13
3.00-4.00	10	6	16
Above 4.00	4	3	7
Total	30	20	50

Source: Field Survey.

Of the total respondents, 32 percent were in the score of 3.00-4.00 with regard to score on strength of micro entrepreneurs.

B. WEAKNESS OF MICRO ENTERPRISES

Weakness of micro enterprises are the major handles for its growth. If the weakness are properly identified and assessed by the entrepreneurs, they can rectify it with due course of time. The present study has made an attempt to measure the weakness of micro enterprises with the help of 10 variables. The mean score of the weakness of the respondents have been computed and given in Table III.

TABLE III: MEAN SCORE OF WEAKNESS OF MEN AND WOMEN ENTREPRENEURS

Weakness	Mean score among		t-statistics
	Men	Women	
Over dependence on intermediaries	3.4212	2.6598	2.0154*
Intense competition	3.5185	2.5864	-0.4587
High cost of production	2.6853	2.5411	0.6258
Low mobility	3.2058	2.6598	0.3659
More Family responsibility	3.1145	3.2587	-0.2547
Lack of education	3.3325	2.8926	-1.2548
Lack of skill acquisition	3.5246	3.0658	2.0214*
Lack of confidence	3.2584	2.9821	-2.1457*
Lack of technical and managerial skills	3.6532	3.4175	-2.5541*

Source: Calculated figures based on field survey

*Statistically significant at 5% level.

The highly viewed weaknesses of micro enterprises among the men respondents are intense competition and lack of skill acquisition since their mean scores are 3.5185 and 3.5246 respectively. Among the women respondents these are lack of education and confidence since their mean scores are 2.8926 and 2.9821 respectively. Regarding the perception on weakness of micro enterprises, the significant difference among the male and female respondents have been noticed in the case of 4 variables out of 9 variables since their 't' statistics are significant at five percent level.

TABLE IV: FREQUENCY DISTRIBUTION ON WEAKNESS OF MEN AND WOMEN ENTREPRENEURS

Frequency distribution	Number of respondents		Total
	Men	Women	
Less than 2.00	7	7	14
2.00-3.00	10	6	16
3.00-4.00	6	5	11
Above 4.00	4	5	9
Total	27	23	50

Source: Field survey

Of the total, 32 percent were in the score of 2.00-3.00 with regard to score on weakness of micro enterprises.

C. OPPORTUNITIES FOR MICRO ENTERPRISES

The opportunity for rural micro enterprises indicates the scope of growth of micro enterprises in future. The opportunities for micro enterprises have been measured with the help of nine variables. The respondents are asked to rate these nine variables at five point scale according to the order of scope from very high to very low.

MEAN SCORE ON OPPORTUNITIES FOR MEN AND WOMEN ENTREPRENEURS

The mean score of opportunities among the male and female respondents have been computed separately. The 't' test has been applied to test the significant difference among the men and women respondents regarding the opinion on opportunities. Table-V represents the Mean score on opportunities for men and women entrepreneurs.

TABLE V: MEAN SCORE ON OPPORTUNITIES FOR MEN AND WOMEN ENTREPRENEURS

Opportunities	Mean score among		t-statistics
	Men	Women	
Competitive advantage	3.2187	3.6754	-2.1434*
Enhance the profitability	3.6842	4.6617	-2.5376*
Sustainability within a market environment	3.0724	3.5287	-2.5309*
Understanding the local needs	3.6543	3.8790	-2.6529**
Less competition	3.4585	3.7425	-2.6547**
Government support	3.5435	3.5623	-1.7843
Easier to start and manage	3.5648	3.3778	0.7328
Flexibility	3.5514	3.5648	0.6645
Cheaper labor	3.5649	3.5564	-2.2264*

Source: Calculated figures based on field survey

*Statistically significant at 5% level.

** Statistically significant at 1% level.

Table V shows the mean score of opportunities among the men and women respondents and its respective 't' statistics. The highly viewed opportunities among the men respondents are flexibility and enhance profitability since their mean scores are 3.5514 and 3.6842 respectively. Among the women respondents, these two are enhancing the profitability and less competition since their mean scores are 4.6617 and 3.7425 respectively. Regarding the level of perception on opportunity, the significant difference between the male and female respondents have been identified in six variables out of nine variables since their respective 't' statistics are significant at five percent level.

TABLE VI: FREQUENCY DISTRIBUTION ON OPPORTUNITIES OF MEN AND WOMEN ENTREPRENEURS

Frequency distribution	Number of respondents		Total
	Men	Women	
Less than 2.00	3	7	10
2.00-3.00	6	8	14
3.00-4.00	9	7	16
Above 4.00	5	5	10
Total	23	27	50

Source: Field survey

Of the total, 32 percent were in the score of 3.00-4.00 with regard to score on weakness of micro enterprises.

D. THREATS TO MICRO ENTERPRISES:

The mushroom growth of shopping mall and departmental stores at rural and semi-urban areas are becoming as one of the important threats to micro enterprises. The threats to micro enterprises in the present study have been examined with the help of six variables. The respondents are asked to rate these variables at five point scale.

MEAN SCORE ON THREATS TO MEN AND WOMEN ENTREPRENEURS

The mean score of the variables in threats among the male and female respondents have been computed separately. The 't' test has been executed to analyse the significant difference among the male and female respondents regarding their view on threats. The results are given in Table VII.

TABLE VII: MEAN SCORE ON THREATS FOR MEN AND WOMEN ENTREPRENEURS

Threats	Mean score among		t-statistics
	Men	Women	
Urbanization	3.5564	3.9776	-1.3425
Change in consumer taste and preferences	3.0503	3.3342	0.2165
Stiff competition	3.7261	3.1141	-0.1773
Social constraints	3.1145	3.9943	-2.9836**
Higher dependence on private finance	3.8184	3.4812	0.9943
Low need for achievement	3.2354	3.6229	-1.9843*

Source: Calculated figures based on field survey

*Statistically significant at 5% level.

** Statistically significant at 1% level.

The highly viewed threats among the men respondents are change in consumers taste and preference and higher dependence on private finance since their mean scores are 3.0503 and 3.8184 respectively. Among the women respondents, the main threats are social constraints and urbanization since their mean scores are 3.9943 and 3.9776 respectively. Regarding the perception to micro enterprises, the significant difference among the male and female respondents have been seen in the case of two variables out of 6 variables since their respective 't' statistics are significant at five per cent level.

TABLE VIII: FREQUENCY DISTRIBUTION ON THREATS OF MEN AND WOMEN ENTREPRENEURS

Frequency distribution	Number of respondents		Total
	Men	Women	
Less than 2.00	3	5	8
2.00-3.00	6	8	14
3.00-4.00	10	7	17
Above 4.00	5	6	11
Total	24	26	50

Source: Field survey

Of the total, 34 percent were in the score of 3.00-4.00 with regard to score on weakness of micro enterprises.

RESPONDENTS VIEW ON SWOT

The respondents view on Strength (S), Weakness (W), Opportunities (O), and Threats (T) have been measured among the men and women respondents separately in order to exhibit the level of SWOT among them. The 't' test has been administered to find out the significant difference among the male and female respondents regarding their SWOT. The results are presented in Table VII.

TABLE IX: RESPONDENTS VIEW ON SWOT TO MICRO ENTERPRISES

SWOT	Mean score among		t-statistics
	Male	Female	
Strengths	3.6549	3.8342	-2.8328**
Weakness	3.1765	3.0445	0.7223
Opportunities	3.6287	3.8035	-2.0237*
Threats	3.6279	3.8823	-1.8835

Source: Calculated figures based on field survey

*Statistically significant at 5% level.

** Statistically significant at 1% level.

Regarding the strengths, opportunities and threats, the mean scores are identified as higher among the female respondents than the male respondents. Regarding the weakness, the mean score among the male respondents is higher than the female respondents. Regarding the level of perception on SWOT, the significant difference among the men and women respondents have been identified in the case of strength, opportunities and threats since their respective 't' statistics are significant at five percent level.

CONCLUSION

The important problems of entrepreneurship are financial, marketing, social and psychological. The degree of problems varied among the male and female entrepreneurs. The female entrepreneurs highly perceive the problems than the male entrepreneurs. But at the same time, the female respondents are also viewing that there are much more opportunities to micro enterprises. The level of perception on problems is significantly associating with the profile of entrepreneurs especially personally trait. The highly indebted entrepreneurs highly perceive the problems. The strengths of the rural micro enterprises are viewed as higher than its weakness. Similarly, the opportunities are viewed as higher than its threats. If the Government properly identifies the specific problems faced by a particular segment, they can implement appropriate programmes to reduce the problems.

SUGGESTIONS

- In order to check the failure of entrepreneurs they must be imparted necessary skill in the handling of the scheme, which in turn would generate confidence among them.
- Government policies should primarily be targeted towards removing regulatory barriers and minimizing state induced costs.
- There is a need for formulating policies aimed at providing common services for micro enterprises and encouraging clusters to reap the benefits of external economies and
- Measures should be formulated to promote efficiency of micro enterprises.

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QUALITY WORK LIFE OF MIGRANT CONSTRUCTION WORKERS IN CHENNAI

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ABSTRACT

Chennai, the capital City of Tamil Nadu is the fourth largest Metropolitan City in India. The Chennai Metropolitan Area (CMA) comprises the city of Chennai. The city has a large migrant population with labourers living in slums and pavements and there are number of studies of the conditions of migrant construction workers. This study focused on taking samples of migrant workers from areas of concentration of migrant construction workers especially in Old Mahabalipuram Road, Kodambakkam, T.Nagar and Mount Road where huge buildings and complexes are being built. The nature of work falls under the category of unorganized sector. The study focuses on migrant workers from Kolkata, Bihar and Andhra Pradesh. The migrant workers are mainly farm labourers and have only seasonal employment in their native places and are also jobless for 4 to 5 months in a year. The major objective of the paper is to examine the economic conditions, the employment status and the savings and remittances, income and expenditure pattern of the Inter State migrant construction workers in Chennai. A structured questionnaire was administered to 38 women and 62 men employed in construction work in Chennai. The data from male and female respondents from the same site was not collected. There has been a definite shift for both male and female workers from low income bracket to a higher income bracket after migration and employment in the construction work, there is a positive transition in their skill level after migration but the living conditions of these migrants is not satisfactory. The most important observation is that the migrants are very keen on savings for the purpose of remitting money to their native places and they are willing to sacrifice proper accommodation and expenditure on health for the same. Another important negative observation is that there is exploitation of migrant labour by the middlemen, contractors and subcontractors. The Quality Work life of these migrant workers are not satisfactory and more care should be taken towards health care of the workers.

KEYWORDS

Quality Work Life, Migrant workers, unorganized sector.

INTRODUCTION

The word unorganized means lack of work records, irregular employment and lack of direct employer- employee relations leading to invisibility and vulnerability. The unorganized workers include laborers in construction, Brick kilns, Street vending, Rice mills, Forests, Agriculture and sanitary workers. A lot of young workers both men and women are migrating from state to state for construction work.

Chennai, the capital City of Tamil Nadu is the fourth largest Metropolitan City in India. The Chennai Metropolitan Area (CMA) comprises the city of Chennai. The city has a large migrant population with labourers living in slums and pavements. There are number of studies of the conditions of migrant construction workers living in slums and pavements. This study is focused on the interstate migrant construction workers who according to Trade Union representatives, 'are swelling in numbers during this decade'

This study focused on taking samples of migrant workers from areas of concentration of migrant construction workers especially in Old Mahabalipuram Road, Kodambakkam, T.Nagar and Mount Road. Huge buildings and complexes are being built in these areas and most of the workers are interstate migrant labourers. The study focuses on migrant workers from Kolkata, Bihar and Andhra Pradesh.

REASONS FOR MIGRATION

The migrant workers are mainly farm labourers and have only seasonal employment in their native places and are also jobless for 4 to 5 months in a year. The poor economic conditions along with several other factors have been identified as the reasons for migration.

The **reasons for their vulnerability** are-

- Illiteracy
- Irregular work
- Low economic status
- Lack of assets
- Lack of skills

REVIEW OF LITERATURE

Permanent migration relates to movement by individuals and families on a permanent basis whereas temporary migration that occurs at regular or irregular intervals and encompasses seasonal migration as a special case, usually linked to agricultural seasons, but also to other seasonal activities such as construction work and tourism. Circular migration relates to movements for work or other reasons within a 30 day period that involves sleeping for a series of consecutive nights away from home and the movements repeated on a more or less regular basis in consecutive months without changing one's perceived place of usual residence. (Bilsborrow (1998)

Construction workers and domestic laborers are victims of debt bondage and face severe wage exploitation, and experience serious health and safety problems resulting from inhumane work and living conditions. The workers experience wage exploitation and excessively long hours of work (between 16-21 hours a day without rest breaks or days off and often exceeding 100 hours per week without rest); sleep and food deprivation and inadequate living conditions; and verbal, physical, psychological, and sexual abuse. (Sevil Sönmez)

Temporary work exists in a variety of forms. The most traditional form is casual labour, which remains common, especially for low-skilled work in sectors such as construction and agriculture. (Dr Eugenia Markova)

In Canada, there is no clear legal definition of temporary work, in particular, of agency employment. Especially problematic in this regard are agency jobs, where individuals may have continuous employment over an extended period with a single agency. Lowe and Schellenberg (2001) argue that even though these individuals may work at different 7 clients' job sites, perhaps experiencing some uncertainty about future assignments, their employment may be no more precarious than that of permanent employees.

In India, various empirical studies have shown that the wages of the women workers in the unorganised sector, particularly in the construction industry, have been significantly below the minimum wage (Anand, 1998; Cherian & Prasad, 1995; Khanna & Mathew, 1979; Sinha & Ranade, 1975).

Migration choices and decisions are not made by individuals alone and are often shaped by the larger environment and more specifically families (Waddington and Wheeler 2003).

NEED FOR THE STUDY

There are a number of studies on migrant construction workers, especially showing the discrimination and exploitation of women. This study shows that both male and female construction workers are discriminated compared to the local working population in terms of labour contracts, wages, leave, medical benefits and so on. This study thus focuses on both male and female construction workers, their living and working conditions.

OBJECTIVES OF THE STUDY

The major objective of the paper is to examine

- The economic conditions of the Inter State migrant construction workers in Chennai.
- The Employment Status
- The savings, income and consumption pattern of these construction workers.
- Determination of Quality Work Life of the migrant construction workers.

RESEARCH METHODOLOGY**COLLECTION OF DATA****PRIMARY DATA**

The questionnaire method was used to collect the information from construction workers, both male and female workers. A structured questionnaire was administered to 38 women and 62 men employed in construction work in Chennai. The data from male and female respondents from the same site was not collected. Each of them form an individual unit. Most of the questions had to be translated as language was a barrier. In addition there was personal interaction with the respondents to collect some important information.

SECONDARY DATA

- Books
- Past records from same topic
- Websites

DEMOGRAPHIC FACTORS**TABLE 1: AGE**

AGE	MALE	%	FEMALE	%	TOTAL %
<18	-		-		-
18-35	50	81	38	100	88
>35	12	19	-		12
TOTAL	62		38		100

Out of the total respondents of 62 male workers, 80% of the workers are in the age group of 18-35 years. They migrate at an early age and most of them are married. Out of the 38 women respondents most of them are married and fall in the age group of 18-35.

TABLE 2: SKILLS

	MALE	%	FEMALE	%	TOTAL %
SKILLED	2	3	-	-	3
UNSKILLED	60	97	38	100	97
TOTAL	62		38		

97% of the male construction workers and 100% of the women workers are unskilled and a meager 2% of the male respondents are skilled. The majority of them migrate with absolutely no training or skill abilities.

TABLE 3: LITERACY LEVEL %

	MALE	%	FEMALE	%	TOTAL %
SCHOOL DROP OUTS	4	6	8	21	12
ILLITERATE	58	84	30	79	88
TOTAL	62		38		100

6% of the male respondents have attended school compared to a 21% of the female respondents who are school drop outs. The majority of both the male and female construction are illiterate.

TABLE 4: FAMILY STATUS

	MALE	%	FEMALE	%	TOTAL %
WITH FAMILY	60	97	30	79	90
WITH PARENTS	2	3	8	21	10
SINGLE					
TOTAL	62		38		100

97% of the male workers are married and live with their wives and only 2% of them are with their parents. Out of 38 female respondents 79% are married and live with their husbands and 21% live with their parents.

TABLE 5: EMPLOYMENT DETAILS

JOB CATEGORY	MALE	%	FEMALE	%	TOTAL %
MASON	30	48	-	-	42
OTHERS	18	29	6	16	34
HELPERS	14	23	32	84	24
TOTAL	62		38		100

TABLE 6

TYPE OF EMPLOYMENT	MALE	%	FEMALE	%	TOTAL %
LONG TERM (WITH CONTRACT)	4	6	-	-	4
LONG TERM (WITHOUT CONTRACT)	56	90	-	-	56
CASUAL LABOUR	2	4	38	100	38
TOTAL	62		38		100

TABLE 7

DURATION OF EMPLOYMENT	MALE	%	FEMALE	%	TOTAL %
8Hrs	60	97	38	100	98
9Hrs	2	3	-	-	2
10Hrs	-	-	-	-	-
TOTAL	62		38		100

Table 5, 6 and 7 clearly brings out the employment category, type of employment and the durations of work for both male and female migrant workers. All the female workers are casual workers and their job category is helpers or fall in others category. All women workers work for 8 hours. 48, 29, 23 % of the male workers fall in the category of mason, others and helpers respectively. The type of employment clearly shows that only 6% of the workers are with a working contract and 90% long term jobs with no contract and the balance 2% are casual workers.

The interactions with the migrant workers revealed that they are provided employment through the middlemen and sometimes additional work force is also brought by the existing migrants from their native places. But the entry into the construction work is only through the middlemen.

Moreover, none of the procedures and formalities prescribed in the Interstate Migrant Labour Act is adopted in their recruitment. Most of the workers are not aware as their only aim is getting some employment and money.

TABLE 8 INCOME PER DAY

Rs.	MALE	%	FEMALE	%	TOTAL %
<100	18	29	16	42	34
100-250	14	23	22	58	36
>250	30	48	-	-	30
TOTAL	62		38		100

Majority of the male respondents (48%) earn more than 250 rupees per day, whereas majority of female workers earn less than 100 rupees (42%) and 100-250 (58%). This shows that the male workers are paid more than the female workers. The table shows that all the female workers fall in the category of helpers and some with a more experience earn between 100-250. Among the male migrant workers some of them are helpers, some ordinary masons and the other category is masons with many years of experience. Only such experienced workers are able to earn above 250 rupees. These migrant male and female workers prefer to work here as these workers get an average of 40-50 rupees only in their villages and most of them are farm labourers. Moreover their jobs are only seasonal and are jobless for 3 to 4 months a year.

The interactions with the migrant male and female workers revealed that the wages are generally paid on weekly basis, in some cases the workers prefer to collect it at the time of remittance to their families and some of them prefer to collect their wages from their employers when they leave to their native villages. They also said that sometimes advance is given, which is setoff when the wages are paid. The interaction with the respondents revealed that their wages are less compared to that of the local workers.

TABLE 9: MONTHLY EXPENDITURE

FOODEXPENDITURE	MALE	%	FEMALE	%	TOTAL %
UPTO 1000	4	7	2	5	6
1000-2500	28	45	22	58	50
>2500	30	48	14	37	44
TOTAL	62		38		100

A majority of 48% of the male workers spend above 2500 on food and a majority of 58% of the women spend between 1000-2500 on food. A small percentage of 7% and 5% of the male and female migrant workers respectively spend upto 1000 on food.

TABLE 10

EXPENDITURE ON HOUSING	MALE	%	FEMALE	%	TOTAL %
UPTO 200	6	10	2	5	8
200-500	8	13	2	5	10
>500	48	77	34	90	82
TOTAL	62		38		100

The interaction with the construction workers revealed that some of them stay in the site and many of them stay in small rooms and a small number on the pavements. The rent amount is hardly 10% of their incomes and this clearly shows the occupational conditions in which these workers live.

TABLE 11

EXPENDITURE ON MEDICAL	MALE	%	FEMALE	%	TOTAL %
UPTO 200	34	55	20	53	54
200-500	22	35	14	37	36
>500	6	10	4	10	10
TOTAL	62		38		100

The % of expenditure spent on medical is very insignificant in terms of their income. A majority of 55% of male workers and 53% of the female workers spend only upto 200 rupees per month on medical expenses. They said that they have become more resistant and immune to the occupational diseases considering the poor environmental conditions surrounding their place of stay. Another important point is their anxiety to save and remit more money to their native places prevents them from spending more on housing and medicines.

TABLE 12

SAVINGS & REMITTANCE	MALE	%	FEMALE	%	TOTAL %
UPTO 1000	31	62	40	80	71
1000-3000	19	38	10	20	29
>3000	-	-	-	-	-
TOTAL	50		50		100

The migrant workers are very keen on saving and remitting money to their native places. 62% of the male migrants and 80% of the female migrants are able to send upto 1000 per month. The savings of the female workers is about 15% to 30% of their salary. Some of the migrant workers send about 40% of their salaries.

TABLE 13: CONDITIONS AT WORK PLACE

Particulars	Yes %	No %
Health problems due to problems at work place	77	23
Causes of health problems, lack of hygiene, stress	100	-
Safety at work place	18	82
Security at work place	24	76
Exploited by middlemen	68	32

The above table clearly shows that majority of the workers face health problems due to unhygienic working conditions and stress. Moreover the safety and security at the work place is insufficient and a majority of the migrants are exploited by the middlemen.

FINDINGS

1. There has been a definite shift for both male and female workers from low income bracket to a higher income bracket after migration and employment in the construction work.
2. There is a positive transition in their skill level after migration.
3. The living conditions of these migrants is not satisfactory as most of them live together in small rented houses or in the construction site, with no provision of hygienic sanitation.
4. The migrants are very keen on savings for the purpose of remitting money to their native places and they are willing to sacrifice proper accommodation and expenditure on health for the same.
5. There is exploitation of migrant labour by the middlemen, contractors and subcontractors.
6. Moreover the wages of the migrant construction workers is less than that of the local workers.
7. The Quality Work Life of the male and female migrant construction workers is not satisfactory.

RECOMMENDATIONS

1. The exploitation of the migrant workers has to be stopped through effective implementation of labour laws and involvement of trade unions.
2. Special care is to be taken to remove the discrimination and protection of women and children. The discrimination between male and female workers in payment of wages should be eliminated. Special health care should be provided for women and children.
3. Considering the poor living conditions of the migrant construction workers, they should be provided with decent housing with the essential amenities.
4. The Inter State Migrant Workers as well as all the construction workers should be compulsorily registered by Tamilnadu Construction Workers Welfare Board.
5. Minimum Wages Act and Equal remuneration Act should be strictly implemented.

LIMITATIONS OF THE STUDY

1. The data has been collected during the months of February and March when construction is at its peak as there will be no rains
2. The sample consists of only 62 male and 38 female migrant construction workers.
3. Thus the findings cannot be generalized and there is further scope for research in this topic.

SCOPE FOR FURTHER RESEARCH

1. The Quality Work Life of the Inter State migrant labourers, both men and women and the work life balance in this occupation can be analyzed.
2. The Quality Work Life balance of Women alone can be determined.
3. The discrimination and exploitation of women migrants can be studied.
4. The betterment of the income, savings and remittances of migrant workers can be analyzed.

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AWARENESS LEVEL AMONG WOMEN ENTREPRENEURS TOWARDS STREE SHAKTI AND SGSY – A STUDY OF NORTH KARNATAKA DISTRICTS

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ABSTRACT

Recently in India, women entrepreneurship is an emerging trend in development of economy of self, family and nation. The government has been providing tremendous opportunities to initiate enterprises for women throughout India. No doubt, the government has introduced many schemes to promote entrepreneurship but it has failed to create awareness among women. Therefore, it is very essential to educate women by providing entrepreneurial education. The present study is based on the primary data collected from 1250 women entrepreneurs from the districts of north Karnataka. The collected data were analysed and interpreted by using statistical tools like classification, tabulation, percentage, scaling technique and chi-square. The study suggested to increase the awareness level among women entrepreneurs about benefits of Stree Shakti and SGSY schemes and encouraged to earn self income.

KEYWORDS

Women entrepreneurs, Stree Shakti, SGSY.

INTRODUCTION

It is well known fact that like two hands are essential to lead healthy life of human, both men and women should participate in nation building. In this direction, both the Governments of India at national level and the Governments of Karnataka at state level have been formulating and implementing various schemes to promote entrepreneurship since the first five years plan. Though, the Governments have introduced many schemes to promote entrepreneurship, some were restructured to introduce new one and many new schemes are in existence. The main schemes that are in existence are Swarna Jayanthi Gram Swarojgar Yojana (SGSY), Udyogini, Prime Ministers Employment Generation Programme (PMEGP), Rastriya Mahila Kosh, Stree Shakti, Assistance to Rural Women in Non-farm Development (ARWIND), Assistance for Marketing of Non-Farm Products of Rural Women (MAHIMA), Mahila Vikas Nidhi, Karnataka Mahila Abhivrudhi Yojane (KMAY), Training of Rural Youth for Self Employment (TRYSE), Trade Related Entrepreneurship Assistance and Development (TREAD). No doubt, the Governments have done wonderful by introducing schemes for promoting entrepreneurship in India and in Karnataka State, but the awareness towards these schemes among women entrepreneurs is less due to low level of education and less number of awareness programmes. The benefits of schemes are enjoyed only when there has awareness among beneficiaries.

REVIEW OF LITERATURE

Dirk Rossouw et. al. (1955)¹ observed that education and awareness are two key factors for potential development of women entrepreneurs in the society. **Harinarayana Rao (1991)²** has revealed rural women were not aware of the programmes such as DWACRA, IRDP, TRYSEM, etc. **Sunil Deshapande and Sunita Sethi (2010)³** highlighted women participation in entrepreneurship is gradually increasing due to change in attitude, mindset of society from conservative to modern one, daring and risk-taking abilities of women, support and cooperation by society members, changes and relaxations in government policies, granting various up-liftment schemes to women entrepreneurs. The researcher suggested for educating and spreading awareness amongst women to outshine in enterprises field. **Sangeeta Arora (2011)⁴** professes that many commercial banks are taking much interest in developing schemes exclusively for women. Various leading public and private sector banks have been providing finance under different schemes to women entrepreneurs with a relief in interest rate. **Chinna Ashappa and Hanamanthappa P. Sedamkar (2011)⁵** highlighted in their study that rural women entrepreneurs were unaware about policies and programmes of the Central and State Governments and also suggested to create awareness towards the programmes. **Faraha Nawaz (2012)⁶** observed lack of awareness among women is a major obstacle for development of rural women entrepreneurship in Bangladesh.

OBJECTIVES OF THE STUDY

1. To examine the association between demographical factors and Stree Shakti and SGSY Schemes.
2. To know the awareness level of women entrepreneurs towards Stree Shakti and SGSY Schemes.
3. To offer useful suggestions in the light of findings.

HYPOTHESES OF THE STUDY

The main hypotheses of the present study are;

- Ho; Demographical factors of women entrepreneurs have no relation with Government Scheme.
Ha; Demographical factors of women entrepreneurs have relation with Government Scheme.
- Ho; Women entrepreneurs have no awareness towards Government Scheme.
Ha; Women entrepreneurs have awareness towards Government Scheme.

METHODOLOGY

The present study is purely based on the primary data collected from 1250 women entrepreneurs from five districts of north Karnataka. The data were analyzed by using classification, tabulation, likert scale, and chi-square. The chi-square has used to analyse the association between demographical factors and level of awareness among women entrepreneurs towards Stree Shakti and SGSY Scheme.

ANALYSIS OF LEVEL OF AWARENESS TOWARDS SCHEMES OF THE GOVERNMENTS

STREE SHAKTHI

It was launched throughout Karnataka State on 18th October, 2000. The aim of the programme is to empower women economically and socially by organizing them in self help groups. There are 1.40 lac Rural Stree Shakthi Groups functioning in the state and 21 lakh women are members of these groups. The members have saved ₹1118.05 crores since inception. 120155 groups have availed bank loans of ₹1305.97 crores and have done internal lending of ₹3215.88 crores to take up various income generating activities. During 2011-12, ₹7.50 lakhs is paid as incentive to Anganawadi workers for monitoring Stree Shakthi Groups. Further, 5 per cent concession in margin money on loan amount exceeding ₹25000=0 and 0.50 per cent concession in interest rate over the applicable rate of interest is available to groups. In addition, there has 50 per cent concession in processing fees in credit to working capital and 0.25 per cent concession in upfront fees in term loans.

TABLE 1: AWARENESS TOWARDS STREE SHAKTI

Factors	Very High	High	Average	Low	Very Low	Total
All Data	896	120	114	87	33	1250
Age						
Less than 20	43	10	07	16	04	80
21 to 30	343	49	11	36	06	445
31 to 40	416	40	91	21	23	591
Above 40	94	21	05	14	00	134
Chi-square = 112.76 df = 12 Table Value = 21.026 Significant						
Education						
Illiterate	81	12	10	05	12	120
Primary	243	35	50	39	14	381
High School	253	32	39	28	07	359
College	319	41	15	15	00	390
Chi-square = 79.81 df = 12 Table Value = 21.026 Significant						
Caste						
SC	121	17	05	00	01	144
ST	96	01	01	00	03	101
OBC	385	77	79	43	13	597
General	294	25	29	44	16	408
Chi-square = 91.53 df = 12 Table Value = 21.026 Significant						
Marital Status						
Married	773	74	86	74	27	1034
Unmarried	51	19	01	00	00	71
Widow	30	09	12	09	04	64
Divorcee	42	18	15	04	02	81
Chi-square = 89.11 df = 12 Table Value = 21.026 Significant						
No of Earners						
One	52	21	09	08	06	96
Two	469	48	86	63	27	693
Three	301	45	14	13	00	373
Above Three	74	06	05	03	00	88
Chi-square = 12.62 df = 12 Table Value = 21.026 Insignificant						
Nature of Activities						
Business Related	310	21	60	62	21	474
Farm Related	143	13	09	13	08	186
Home Based	209	50	27	05	00	291
Industry Related	234	36	18	07	04	299
Chi-square = 12.21 df = 12 Table Value = 21.026 Insignificant						
No of Times Training Taken						
One	648	89	64	57	27	885
Two	152	13	19	00	00	184
Three	18	04	02	01	01	26
Above Three	11	01	00	00	00	12
Nil	67	13	29	29	05	143
Chi-square = 100.27 df = 16 Table Value = 26.296 Significant						

Source: Field Survey

It is clear from table 1 that the calculated value of chi-square is more than table value for age, level of education, caste and marital status of women entrepreneurs for 12 degree of freedom at 5 per cent significance level and the same is also true in case of number of times training taken for 16 degree of freedom. This signifies that there has an association between demographic factors of women entrepreneurs and level of awareness towards Stree Shakti Scheme. However, for number of earners and nature of activities, the calculated value of Chi-square is less than table value for 12 degree of freedom at 5 per cent significance level. This indicates that there is no association between number of earners and nature of activities undertaken by the women entrepreneurs and level of awareness towards Stree Shakti Scheme.

SWARNA JAYANTHI GRAM SWAROJGAR YOJANA (SGSY)

The Government of India has launched the scheme SGSY by restructuring Poverty Alleviation Programmes such as IRDP, DWACRA, SITRA, GKY, TRYSEM, MWS etc., w.e.f 1st April, 1999. The programme covers all aspects of self-employment of poorer sections through Self Help Groups. The scheme has been implemented through Zilla, Taluk and Gram Panchayats in rural area. The people below poverty line are eligible to avail benefits and unit cost is the ceiling limit for sanction of loan. The margin money requirement is 25 per cent. There has no fixed repayment schedule; however instalment is limited to 50 per cent of incremental net income. The subsidy for GM under the scheme is either 30 per cent of the project cost or ₹7500=00 whichever less and the same for SC/ST is either 50 per cent of the project cost or ₹10000=00 whichever less.

TABLE 2: AWARENESS TOWARDS SWARNA JAYANTHI GRAM SWAROJGAR YOJANA (SGSY)

Factors	Very High	High	Average	Low	Very Low	Total
All Data	181	138	223	489	219	1250
Age						
Less than 20	13	16	22	20	09	80
21 to 30	43	55	79	168	100	445
31 to 40	93	47	106	236	109	591
Above 40	32	20	16	65	01	134
Chi-square = 73.66 df = 12 Table Value = 21.026 Significant						
Education						
Illiterate	11	35	20	32	22	120
Primary	56	22	46	198	59	381
High School	60	49	77	114	59	359
College	54	32	80	145	79	390
Chi-square = 94.44 df = 12 Table Value = 21.026 Significant						
Caste						
SC	14	18	39	58	15	144
ST	08	22	23	40	08	101
OBC	92	55	117	220	113	597
General	67	43	44	171	83	408
Chi-square = 53.74 df = 12 Table Value = 21.026 Significant						
Marital Status						
Married	119	88	169	456	202	1034
Unmarried	17	16	11	15	12	71
Widow	15	24	14	10	01	64
Divorcee	30	10	29	08	04	81
Chi-square = 172.80 df = 12 Table Value = 21.026 Significant						
No of Earners						
One	19	28	17	28	04	96
Two	84	50	102	285	172	693
Three	51	44	90	148	40	373
Above Three	27	16	14	28	03	88
Chi-square = 129.97 df = 12 Table Value = 21.026 Significant						
Nature of Activities						
Business Related	79	46	102	219	28	474
Farm Related	22	15	39	55	55	186
Home Based	39	26	18	96	112	291
Industry Related	41	51	64	119	24	299
Chi-square = 196.95 df = 12 Table Value = 21.026 Significant						
No of Times Training Taken						
One	114	69	153	405	144	885
Two	36	33	47	55	13	184
Three	07	16	03	0	0	26
Above Three	03	07	02	0	0	12
Nil	21	13	18	29	62	143
Chi-square = 234.27 df = 16 Table Value = 26.296 Significant						

Source: Field Survey

It is clear from table 2 that the calculated value of chi-square is more than table value for age, level of education, caste, marital status, number of earners and nature of activities taken by women entrepreneurs for 12 degree of freedom at 5 per cent significance level and the same is also true in case of number of times training taken for 16 degree of freedom. This signifies that there has an association between demographic factors of women entrepreneurs and level of awareness towards SGSY.

FINDINGS

- There has an association between awareness level and demographical Age, level of education, caste and marital status of women entrepreneurs has association with awareness towards Stree Shakti Scheme.
- Number of earners and economic activities has no association with awareness towards Stree Shakti Scheme.
- It is found that age, level of education, caste, marital status, number of earners, number of time training taken and nature of activities of women entrepreneurs has an association with awareness towards SGSY Scheme.

SUGGESTIONS

- **Create Awareness;** there has lack of awareness among women entrepreneurs towards schemes. It is very essential to bring awareness among women entrepreneurs through awareness programmes, interaction with successful entrepreneurs, film slides, T.V interviews, panel discussion, seminars, workshops, jathas and symposiums to develop entrepreneurship among women.
- **Provide Adequate Training;** For the development of women entrepreneurs, it is very essential to provide adequate training on planning, organising, directing, controlling of production, marketing and finance.
- **Provide Entrepreneurial Education;** Entrepreneurial education should start at least from higher secondary level to build confidence among potential entrepreneurs at their early age. The syllabi must contain some part relating to activities and benefits of undertaking entrepreneurial activities.
- **Vocational Courses on Entrepreneurship;** Colleges and universities should start add-on courses on entrepreneurship to educate potential entrepreneurs by inviting professionals and successful entrepreneurs by making interface between colleges and universities with industries.
- **Provide Training to Programmers;** There has lot of advancement in technology in production and marketing in different parts of the world. However, the training to the entrepreneurs through institutions is traditional oriented due to the training programmers. Hence, adequate training should be given to the programmer on recent developments in production and marketing related technology.

- **Strengthening Quality of Infrastructures;** Basic infrastructure facilities such as water supply, electricity, technology, buildings, transportations, markets, and banks are need to be strengthened for development of entrepreneurship and smooth movement of entrepreneurial activities.
- **Encourage Unmarried Women to Undertake Activities;** Economic conditions of family is highly depends on earnings of family members. Therefore, it is very essential to create self reliance in unmarried women by providing knowledge of self employment. Hence, head of the family has to encourage daughters to undertake entrepreneurial activities by providing essential requirements like financial, marketing, labour and sentimental support. This type of encouragement brings personality changes in unmarried women and empowers socially and economically.

CONCLUSION

The government of India and Karnataka together implemented several schemes to encourage women to undertake entrepreneurial activities. Of the many schemes, Stree Shakti and SGSY are playing very important role in development of women entrepreneurs in north karnataka. However, large amount of potential women entrepreneurs remain untapped due to lack of awareness towards benefits of schemes. Therefore, the government and non government agencies have to bring awareness in potential women entrepreneurs by conducting awareness programmes, showing film slides, T.V interviews, panel discussion, seminars, workshops, jathas and symposiums.

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SACK TO SOPHISTICATION: JOURNEY OF JUTE INDUSTRY

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ABSTRACT

Adjectives like silky luster, high tensile strength, low extensibility, considerable heat and fire resistance and long staple lengths are used for Jute-natural fibre. There are 77 composite Jute mills in India, of which 60 Jute mills are located in West Bengal, 7 in Andhra Pradesh, 3 each in Bihar and U.P., and 1 each in Assam, Orissa, Tripura and Chhattisgarh. In terms of ownership-wise division, 6 mills are under Government of India, 1 mill (Tripura) is under State Government, 2 mills (Assam & New Central) are in the co-operative sector, and 68 are in private sector. In 1855 India got first jute mill and today it is one of the major industries in the eastern region, particularly in West Bengal. It chains nearly 40 lakh farm families, endow with direct employment to about 2.6 lakh industrial workers in addition livelihood to another 1.4 lakh persons in the tertiary sector and allied activities. The Jute cultivation was shoddily exaggerated by the partition of the Country in 1947, when most of the then jute agricultural land was located in Bangladesh which is now Pakistan region. A stiff competition from its cheaper substitutes and is plagued with many problems ranging from obsolete technology, labour unrest, etc is being faced by this golden fibre industry. Since 1999, the industry has grown marginally at CAGR of 0.1% in volume, but it has grown in value terms largely because the costs have increased over the years. The worldwide awareness on environment and health is likely to provide new opportunities for jute. The author took an inside voyage of the station called jute textile industry. To wrap up the agenda author keenly went to discover Jute industry with a microscope. The paper explores historical angle and makes an effort to be acquainted with the vital panoramas of the textile deal i.e. global scene and desi platter i.e. Indian status. Further it notices the drift, issues and challenges of Indian jute industry. At the end the author jotted a handful of solutions to embark upon the impediments in better way.

KEYWORDS

Historical perspective, SWOT Analysis, Global Scene, Indian Outlook, Challenges, Solutions

1. INTRODUCTION

Jute fibre i.e. the golden fibre is 100% bio-degradable and recyclable and thus environmentally friendly. It is the cheapest vegetable fibre acquired from the bast or skin of the plant's stem.

It is the second most imperative vegetable fibre after cotton, in terms of usage, global consumption, production, and availability. The Indian Jute Industry plays a key responsibility in the Indian economy by providing direct employment to about 0.26 million workers, and supporting the lives of around 4.0 million farm families. Tertiary sector supports jute industry which engages around 0.14 million people. At the moment, it add to exports about Rs. 1000 crore. Government of India has included the Jute Production for special concentration and attention in its National Common Minimum Programme. Das (2011) agrees India today has around 78 jute mills and the state of West Bengal alone has around 61 jute mills. Andhra Pradesh has 7 jute mills, 3 Uttar Pradesh has 3 jute mills and Bihar, Orissa, Assam, Tripura, and Madhya Pradesh has 1 Jute Mill each. Indian jute industry is an integral part of the Indian Textile Industry.

2. HISTORICAL PERSPECTIVE

Jute is cheap and important among all textile fibers next to cotton. The Indian Jute industry has been expanding really fast spanning from a wide range of life style consumer products, with courtesy to the versatility of Jute. Author collected pieces of past to make a collage of olden times of jute industry with the help of <http://www.jute-industry.com/history-of-jute.html>.

- **Earliest period**-Jute was the fabric of poor villagers during Mughal era in India. Earlier in West Bengal, white jute was used to make ropes and twines used for different domestic household applications. Chinese paper manufacturers used jute plants to abstract paper, apart from textile application.
- **Time span from 17th century**-British Empire sent through East India Company a team of delegation between 17th to 20th centuries for jute trading. Primarily the delegation started with trading raw jute. Margaret Donnelly in Dundee the first jute mill in India was set up in early 20th century. In 1793 by East India Company, the first shipment of jute product was signed. During the same period, the Scot-Landers were experimenting on whether jute fiber can be mechanically processed. Flax machines were used by Dundee spinners for spinning jute yarns in 1830. The use of flax machine ultimately led to increase in production and export of jute products in entire continent, since Dundee mill was the only supplier of jute.
- **Time lot from year 1855**-Kolkata side in Bengal was the major jute growing areas. In 1855 on river Hooghly near Calcutta Mr. George Auckland had brought jute spinning machinery from Dundee to India, the first power driven weaving factory was established at Rishra. Five mills were established with around 950 looms in 1869. The growth was so fast that, by the year 1910, 38 companies were operating around 30,685 looms, rendering more than a billion yards of cloth and over 450 million bags. Till the middle of year 1880, jute industry has acquired almost whole Dundee and Calcutta. Afterward in 19th century, manufacturing of jute has started in other countries also like in France, America, Italy, Austria, Russia, Belgium and Germany.
- **Time phase from 19th century till 1947**-A hefty and gigantic growths in jute industry was witnessed in 19th century, about 68,377 weaving looms were established in by the end of 1939 on the River Hooghly near Calcutta. At that period, sacking bags for packaging made by Hessian or burlap fabrics were the main jute weaved products manufactured .Calcutta manufacturers became the leading jute weaver in the world as they manufactured the finest burlap and jute packaging material.
- **Time epoch after the year 1947**-After Independence, Marwari people taken over the business as due to independence saga most of the jute industrialists left India. During the partition epic, the finest stock of jute and mills were left to East Pakistan. By then tensions between Pakistan and India already started and Pakistan realized the significance of jute industry which led to bunch establishment of jute mills in Narayanganj. Then, the liberation of Bangladesh took over Pakistan in 1971. The liberation not only took over Pakistan but the jute mills as well. Bangladesh government from the liberation took away the jute mills. Soon after, the Bangladesh government formed BJMC (Bangladesh Jute Mills Corporation) to monitor and run jute mills in the country.

The Indian jute mills conquered the world jute market with 70% of its products ruling place in the global village till 1947. Partition after 1947 cause a major decline in Indian jute market as almost all jute producing area went under East Pakistan which is now in Bangladesh. On the same platform major jute consuming

countries switched towards synthetic packing materials which made the situation worsen. Two problems faced by Indian jute industry were India's dependence for raw jute on East Pakistan (Now in Bangladesh) and swift decline of export market. In 1947, the entire jute production was 10 lakhs MT and the same stature was 16.2 lakhs in 2003 MT respectively. In five decades, Indian Jute industry expanded by 62%. In recent times plastic bags substituted jute bags and thus jute was in the threshold of extinction. In order to refurbish jute industry, in 1987 Government of India reserved the packing of traditional commodities like sugar, food grains with jute material by proclaiming the Mandatory Jute Packaging Act (PJMA) 1987. PJMA is restricted to 100% coverage for sugar & food grains, which is the main bread earner for the industry at present. Currently in the countenance of multidimensional coercions this industry is again brazen out with peril of died out.

2.1 INDUSTRY MILESTONES

- Largest producer of raw jute in the world.
- Biggest manufacturer of jute goods in the world.
- Capacity to manufacture the widest range of products which tailored to customers' requirements.
- Comprehensive and world class research and development facilities in the area of jute agriculture.
- Export history of raw jute and jute manufactures dates back to over 100 years.
- Highly developed infrastructure like ports, shipping facilities etc.
- Capacity to produce and meet the International demand for food grade Jute bags and cloth.
- Food grade Jute Bags and cloth manufactured in India - are a boon in the context of global environmental and ecological concern. Indian food grade jute bags have a twin edged advantage: preservation of food in the most natural way.

2.2 ENVIRONMENTAL REMUNERATIONS

Since jute is natural fibre and known for its varied feature, it got environmental benefits which are as follows:

- It is utterly biodegradable and does not produce harmful toxic gases when burnt.
- Jute wastes can be used as renewable energy in small sector industry.
- Jute sticks are used in large number of rural households as cooking fuel.
- It can be used as geo-textiles to thwart soil erosion, increase rural road consolidation and vegetative growth.
- Jute is an important source of raw material for pulp and paper and thus saving valuable forest resource.
- JAF plants are source of renewable biomass.
- One hectare of jute plants consumes about 15 MT of CO₂ from atmospheres; and releases about 11 MT of O₂.
- JAF is eco-friendly, annually renewable and cheaper
- Proven to be reliable substitute to non-renewable timber wood, synthetics, plastics etc.
- Green house gas emission by jute came out to be negative revealed by a recent study.

3. SWOT ANALYSIS

The author endeavoured to critically analyze the strengths, weaknesses, opportunity and threats (SWOT Analysis) of this industry.

STRENGTHS

- It is an eco-friendly and biodegradable product.
- Jute industry is labour intensive industry which engages 4.35 million people.
- It has lot of prospective of providing employment especially in East Indian region. The industry offers employment opportunity to 7,500 persons per year.

WEAKNESS

- Due to recurrent appraisal of PJMA guidelines the industry is in dilemma whether to invest further on the Jute technology development or wait for new policies etc.
- Wages represent 35% of total renovation cost of jute industry, which evades the profit margins in spite of its labour intensive nature.
- Multi unionism employs major concentration of routine management in resolving labour dispute.
- The machinery used in jute industry is old and obsolete with age of machinery ranging between 40 - 150 years.
- Deprived and poor Research & Development (R&D) commencement, invention/reverse engineering effort has been hideously neglected in this sector.
- Within the country, wage for workers varies from Rs 50 - Rs 250 per man day. Government must take instantaneous steps in this apprehension and devise need based wage configuration for jute sector.

OPPORTUNITIES

- In many quarters, Indian Jute industry is in front of other jute producing and manufacturing countries. It has learned not only how to upgrade a lower grade fibre in the batch mix but leads in diversified value added products.
- Government at the centre and at state has pro-jute outlook and have plans for taking jute industry to new horizons. This is apparent from National Jute Policy 2005 which aims to reach export Rs 5,000 crores in the 11th five year plan from present amount of Rs 1,000 crores.
- Brazil is one of the chief importers of Indian Jute, and it is estimated to have a market of 25,000 tonnes of food grains with few of Indian jute bag producers awarded zero duty which opens new flaps to other industry producers.
- Industry should realize and accomplish Total Quality Management as to fabricate eminent quality in the products.

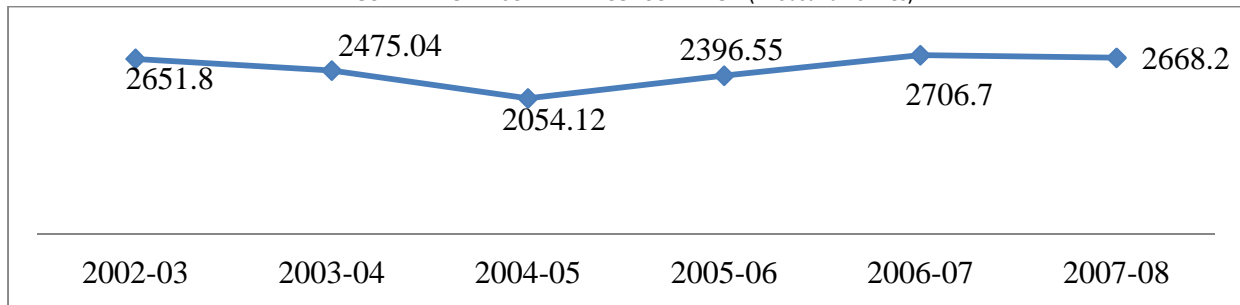
THREATS

- India got one of the major threats from Bangladesh Jute industry which is armed with 7% cash subsidy on all items of jute products without any string.
- Indian jute industry faced a major setback in shape of withdrawal of Export Subsidy Assistance (ESA) from 1 April, 2007.
- The Union Cabinet Committee for Economic Affairs (EA) has approved the continuation of Technical Up gradation Fund Scheme (TUFS) for next 5 year plan 2007 - 12 for Indian Textile industry including jute industry. The size of investment is projected at Rs 1,506 crores for this period but it is understood that jute sector may not get its due share from TUFS money, particularly for jute machinery modernization and for upgrading technology
- The Department of Food and Public Distribution (DFPD) has subjected orders for packaging paddy and coarse grains in used gunny bags which is a violation of Jute Packaging Material Act, 1987, which is measured as peril by jute industry.
- Since the synthetic lobby is gaining clout there is heaviness on government to dilute jute reluctant norms from existing 70% to 30% for grains and from 75% to 25% for sugar. Although the government has not made the revision yet, this pressure on government is a threat to jute industry.
- Latest government decision to withdraw 10% import duty on jute and jute products to zilch with effect from January 1, 2008, is also seen as a threat by the industry.

4. WORLD SCENARIO

4.1 WORLD JUTE FIBRE CONSUMPTION

FIGURE 1: WORLD JUTE FIBRE CONSUMPTION (Thousand Tonnes)

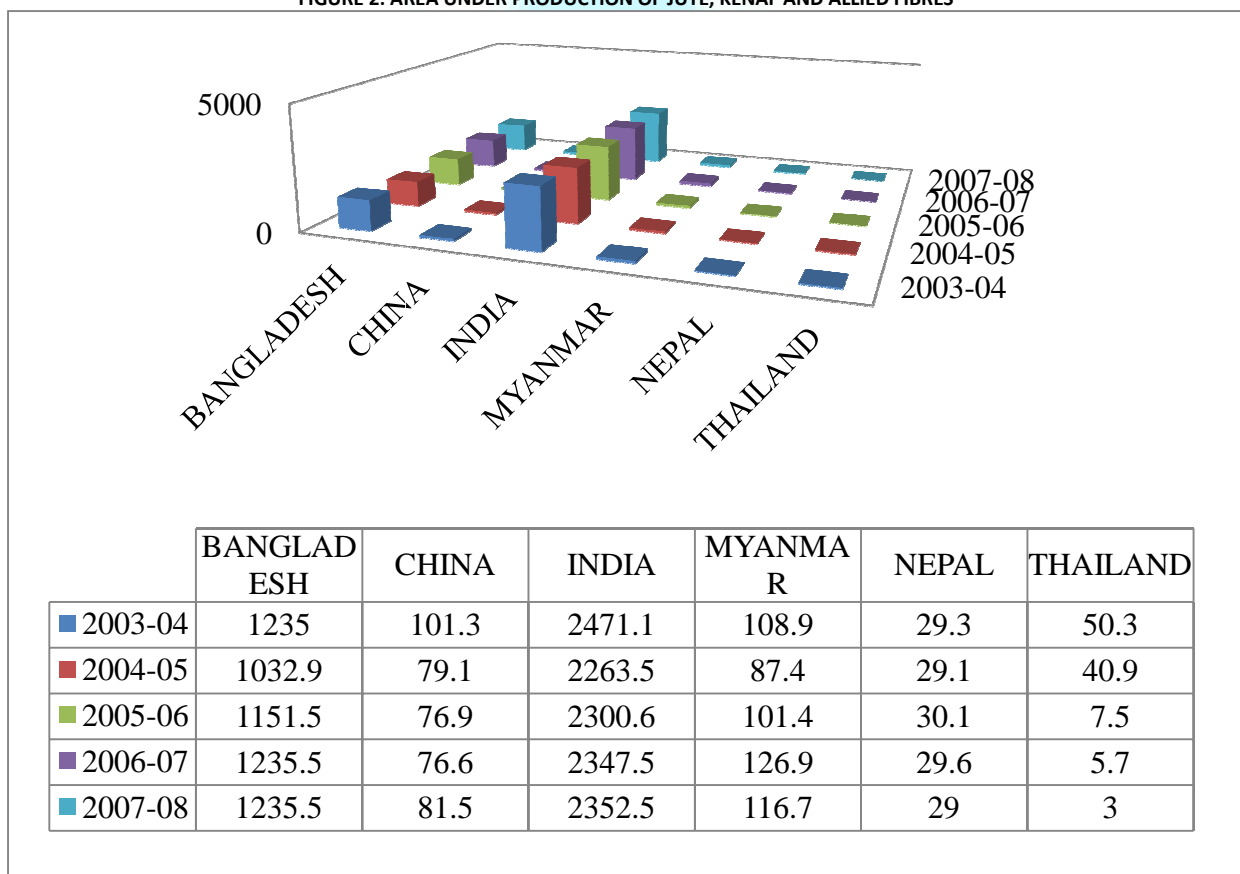


Data Source -FAO Statistics, June 2009

Figure 1 illustrates the jute fibre consumption for world capsule (Figure 1). In the year 2002-03 it was 2651.8, which came down very drastically in consecutive years to 2475.04(2003-04) and 2054.12 (2004-05). To move further, 2005-06 was relief year as the digits were in upward direction i.e. 2396.55. Shower of figures were seen in the next year viz. 2006-07 (2706.7).The virus of growth in the year was recession which did not spared jute industry too by directing the curve downwards, hence leaving 2668.2 in the cart of 2007-08 year.

4.2 AREA UNDER PRODUCTION OF JUTE, KENAF AND ALLIED FIBRES

FIGURE 2: AREA UNDER PRODUCTION OF JUTE, KENAF AND ALLIED FIBRES

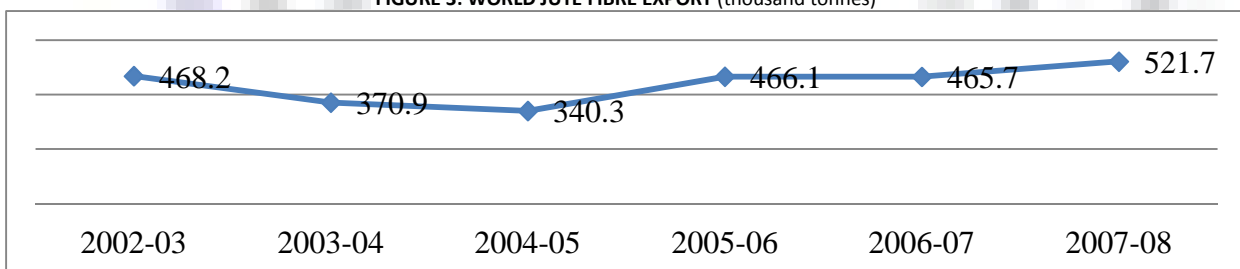


Data Source -FAO Statistics, June 2009

India has shown consistent figures throughout the 2003-2008.the highest digits were seen in 2003(2471.1) and the lowest was 2263.5 in the next year only i.e. 2004 (Figure 2). Bangladesh one of the major dangers for Indian jute industry, this declaration is very well perceptible by looking at figure 2.

4.3 WORLD JUTE FIBRE EXPORT

FIGURE 3: WORLD JUTE FIBRE EXPORT (thousand tonnes)



Data Source -FAO Statistics, June 2009

Figure 3 depicts world fibre export status in graphical manner. In the tear 2002-03 the export figure was 468.2 which went downhill to 370.9 in 2003-04 and 340.3 in 2004-05. This shocking down turn went up side with courageous steps in 2005-06 to 466.1 in digits. The refreshing and successful year for world export was 2007-08 which bagged 521.7 in its kitty (Figure 3).

4.4 WORLD EXPORTS OF PRODUCTS OF JUTE, KENAF AND ALLIED FIBRES

TABLE 1: WORLD EXPORTS OF PRODUCTS OF JUTE, KENAF AND ALLIED FIBRES (In '000 Tonnes)

	2003	2004	2005	2006	2007
World	729.5	748.1	800.3	774.1	832.7
Bangladesh	391.9	439.4	476.0	478.9	549.7
China	15.9	16.1	7.6	18.5	21.1
India	243.8	193.0	208.1	189.5	175.6
Nepal	10.0	13.0	13.0	13.0	13.0
Thailand	7.9	6.3	6.3	3.4	2.8
EU (27)	39.0	52.4	55.6	42.2	41.4
Others	21.0	27.9	33.7	28.6	29.1

Source: FAO Statistics on Jute, Kenaf and Allied Fibres, June

Table 1 shows world exports in categories of jute, kenaf and allied fibres. India bagged 243.8 in 2003 which kept on decreasing till the year 2007 on 175.6. Looking at Bangladesh portrayal the well known competition of India in jute industry ,it performed consistently well from 2003 (391.9) to 2007 (549.7). Coming to desi platform i.e. India which started very well at 243.8 in 2003 which consistently went on down turn tour (175.6) in 2007.

5. INDIAN SCENARIO

Indian Jute Textiles Industry dwells in a significant position in the Indian economy. It is one of the key industries in the eastern region, predominantly in West Bengal. The Jute Industry contributes to the export earnings to the tune of nearly Rs. 1200 crores annually. The production process in the Jute Industry goes through a mixture of actions, which embraces cultivation of raw Jute, processing of Jute fibers, spinning, weaving, bleaching, dyeing, finishing and marketing of both the raw Jute and its finished products. The Industry is labour intensive and as such, its labour-output ratio is sky-scraping in spite of various difficulties being faced by the industry.

5.1 EXPORT OF JUTE PRODUCTS BY TYPE FROM INDIA

TABLE 2: EXPORT OF JUTE PRODUCTS BY TYPE FROM INDIA (In '000 Tonnes)

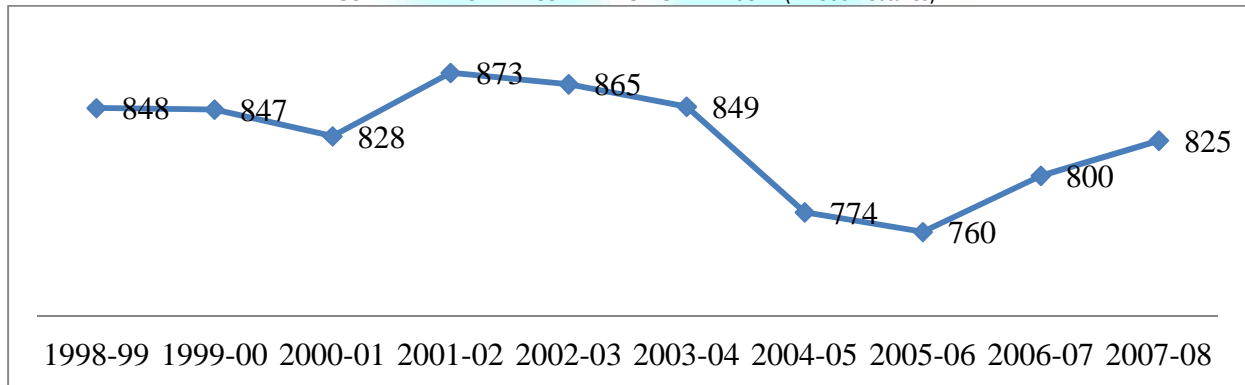
Year	Jute Products				Total
	Yarn	Hessian	Sacking	Carpet Backing & Others	
2003-04	86.1	52.5	34.7	21.4	194.7
2004-05	108.3	65.9	25.6	1.3	217.9
2005-06	66.6	76.7	35.2	11.0	189.5
2006-07	80.7	52.0	30.9	10.6	174.2
2007-08	91.1	81.4	30.9	14.6	218.0

Source: Jute Commissioner's Office, India

Looking at Table 2 it can be concluded that from various types of jute yarn has bagged the foremost position from 2003(86.1) to 2008 (91.1). Whereas carpet backing etc went to last position and come down side, 21.4 in 2003 to 14.6 in 2008 since its demand is less as compare to other types.

5.2 AREA UNDER CULTIVATION OF RAW JUTE

FIGURE 4: AREA UNDER CULTIVATION OF RAW JUTE (In '000 hectares)

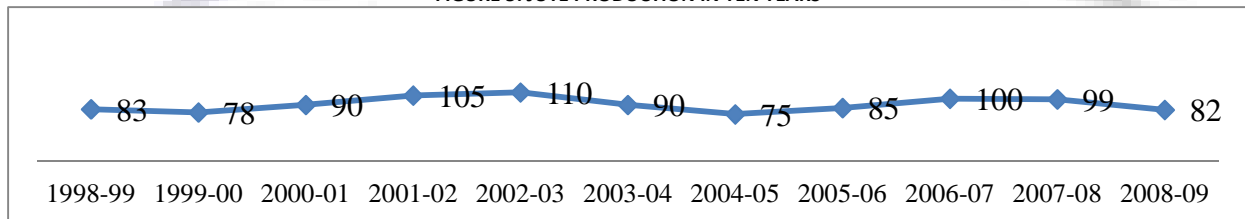


Source: Ministry of Textiles

The area under Jute cultivation remained in a narrow range with 848, 847, 828, and 873, 865, 849 during the period 1998-99 to 2003-04 following a cyclical trend. Further in this period, maximum area under cultivation (873,000 acres) was observed in year 2001-02. If we peep into 2005-06 to 2007-08 the minimum (760,000 acres) in the year 2005-06 (Figure 4).

5.3 JUTE PRODUCTION IN TEN YEARS

FIGURE 5: JUTE PRODUCTION IN TEN YEARS

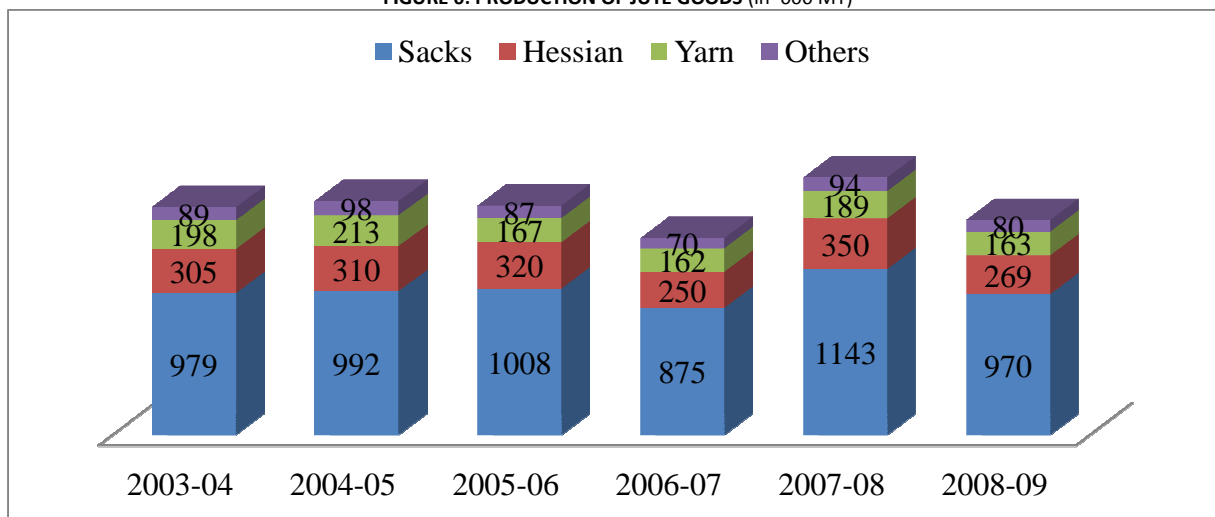


Source: Jute Advisory Board

Jute production has followed a cyclic trend during last 10 years distinguished by crests and troughs with highest annual production (110 lakh bales) attained in the year 2002-03 (Figure 5).

5.4 PRODUCTION OF JUTE GOODS

FIGURE 6: PRODUCTION OF JUTE GOODS (in '000 MT)

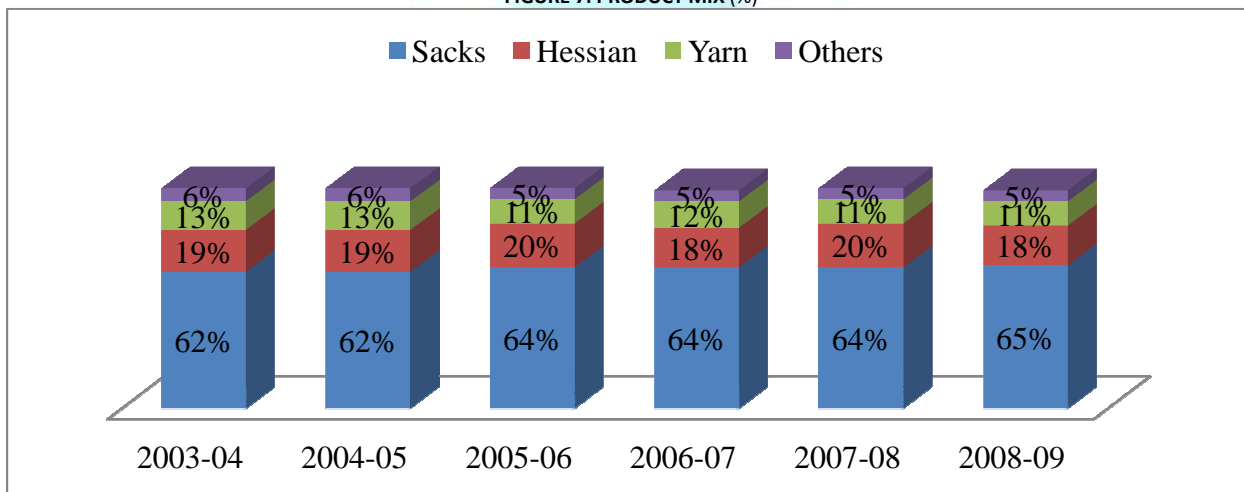


Source: JMDC Bulletin and IJMA, Period:Apr-Mar

Overall production of Jute goods has grown at an annual rate of approximately 3% from 2003-04 to 2007-08. Conversely, the latest available data for 2008-09 (11 months) indicates a reduction in production over last year (Figure 6).

5.5 PRODUCT MIX

FIGURE 7: PRODUCT MIX (%)

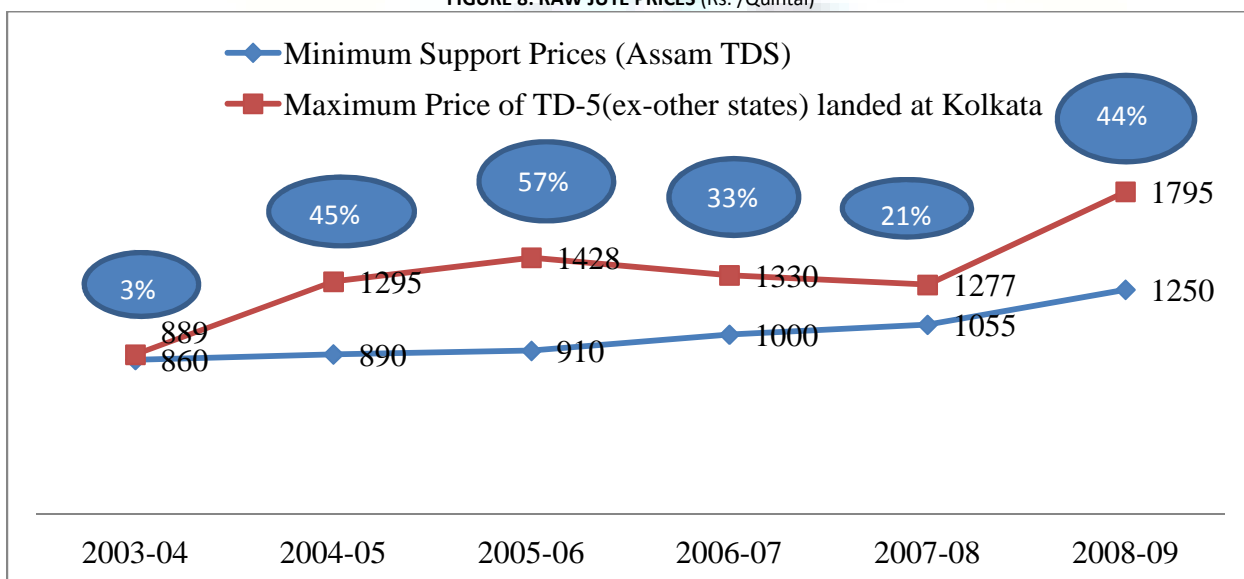


Source: Technopak Report

Figure 7 illustrates the total production of Jute goods in the year 2007-08 was 1776 thousand MT with Sacks occupying the largest share of production (~64%). the second most important category occupying almost 20% of production was Hessian . Yarn comprised around 11% of the whole production while other Jute products engaged 5% of the total production. Over the last six years, Sacks as a category has maintained its highest share in production accounting for more than 60% of production every year (Figure 7).

5.6 RAW JUTE PRICES

FIGURE 8: RAW JUTE PRICES (Rs. /Quintal)



Source: IJMA, Data up to April 2009

Figure 8 demonstrates raw jute prices, in last five years (2003-04 to 2008-09) the Minimum Support Price (MSP) of raw Jute grew by a CAGR of 8% while the market price grew by a CAGR of 15% (see figure 4). Market price has clearly been much higher than the Minimum Support Price (MSP) over the last five years except in the year 2003-04 where the difference between the two was very low. While MSP has increased consistently over the years, market prices fell during 2006-07 and 2007-08 before appreciating again by 40% in 2008-09.

5.7 PROJECTED MARKET SIZE OF INDIAN JUTE

TABLE 3: PROJECTED MARKET SIZE OF INDIAN JUTE

In 000 MT	2008-09	2018-2019	CAGR
Hessian	300	369	2%
Sacks	1053	1276	2%
Yarn	179	198	1%
Others	93	165	6%
Total	1630	2008	2%

Source: Jute Industry Analysis

Table 3 depicts the bright future of Indian jute industry in the coming future. Hessian jute will jump to 369 from 300 in the year 2018-2019 and 2008-2009 respectively. Total hop of the jute raw materials will be 2008 in 2018-19 from 1630(2008-2009) with 2% in CAGR (Table 3).

6. ISSUES AND CHALLENGES

There has been a gradual decline in the jute industry, because it has been facing the following challenges:

- **Deficient of Demand:** There is a decline in demand for jute products due to several reasons like Machinery as most of the units of jute industry are using old and outdated machinery and due to this cost production of jute articles is increasing day by day.
- **Worldwide contest:** There is an international competition, especially from Bangladesh in 'international market is putting a grand challenge before Jute industry.
- **Cheaper Synthetic:** Emergence of cheaper synthetic substitution from China in the Indian markets as well in other country's markets posing a great challenge before Indian jute industries.
- **Lack of High Yielding Seed Varieties:** In the history, no major breach in the area of high yielding seed varieties has happened. Some institutes are carrying out the research work in this track but commercialization of such work is not expected quickly.
- **Stumpy Seed Availability:** In some years, low seed availability has resulted in lesser production than prospective available.
- **Rain reliant Crop:** Jute production is greatly reliant on rain, moreover floods interrupts the crop at times.
- **Deprived Raw Jute Quality:** In India, the soil and climate conditions are not suited for production of best Jute varieties. In addition to that, retting process that affects the raw Jute quality substantially is done mostly in standing water while it has to be done in flowing water to achieve better quality.
- **Meager Working Conditions:** Throughout retting farmers have to stand in water containing rotten material as to carry out the complete process. Furthermore, they are out in open to harmful gases which are released due to tissue decomposition.
- **Low Price Realization:** Lower price realization of Jute in comparison to other crops like rice is another factor which causes farmer to switch to cultivation of other crops.
- **Torpid volumes:** Severe competition from cheaper alternatives which not only has been gradually eroding market of jute products but making the market volume stagnant as well. The production of the Jute Industry has largely remained stagnant during the last decade growing only at the rate of 0.1% CAGR during this period.
- **Dominance of single product:** under JPM Act and administered cost plus pricing system for goods and products the Industry has been reluctant to put in much effort in diversification and new product development. Therefore all along the product mix of the Industry is heavily asymmetrical in favour of the traditional products like sacking and hessian which constitutes more than 80% of the total production.
- **Dearth of institutionalized marketing effort at industry level:** one of the key challenges faced by jute industry is absence of efforts like push-based rather than pull-based marketing, absence of fabric standardization policy for a given end use requirement, inadequate sales infrastructure at mill level, insufficient technical selling capabilities for technical products like technical textiles and no long term pragmatic export promotion plan.
- **Low global market share:** Bangladesh is the key competitor of India in exports of jute products. Bangladesh contributes to almost 70% of the export volume. The reasons for higher share of exports of Bangladeshi jute as compared to India are: availability of good quality jute, lower cost structure i.e. low wage and power cost, export cash incentives 7.5% - 10% of FOB value in 2009, compared to zero at present in India etc.

7. SOLUTIONS

With every problem there is a solution, author jotted down few of solutions to tackle the hurdles which are as follows:

- Establishment of a Jute Development Fund for R&D efforts in developing new machines and Technology
- Upgrading and adoption of new Technology
- Skill Development and Up-gradation of the Workforce
- Export incentive schemes need to be revived and the Indian industry may be supported to remain competitive
- Assistance in commercialization of new and innovative jute products and their applications
- Labeling of Jute as eco-friendly product in developed countries
- Strengthening of informal sector for production of diversified Jute Products
- Improve working conditions at the shop floor, develop better work culture and adopt better maintenance practices
- Export Market Development
- Production /supply of adequate quality jute seed
- Increase production of higher quality fibre
- Reduce processing/conversion cost
- Improvement of jute mill machinery
- Promotion of diversified jute products
- Create/increase awareness about the positive attributes of jute products
- Increase market promotional activities.

8. CONCLUSION

Jute our golden fibre got potential of reaching the height where it used to be in the past, but it is only possible through constant efforts by government and a proper follow-up by the industry. The Indian jute industry is having lots of opportunity by its side since it is not only one of the oldest industries of India but also among the chief employer of the nation. Nevertheless, renovating your threats into your opportunities is the triumph mantra for the prosperous future of a nation.

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SOCIO ECONOMIC DETERMINANTS OF PARTICIPATION IN MGNREGA: A STUDY IN BANKURA DISTRICT OF RURAL WEST BENGAL

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ABSTRACT

The initial 200 districts chosen for implementation of the National Rural Employment Guarantee Act (NREGA) were the most backward districts of this country. Bankura district in West Bengal was selected at its first phase. Our study tries to review the current status of implementation of MG-NREGA in Bankura district, West Bengal and to identify the emerging strengths and weaknesses for wider dialogue for improvements. 200 households have been chosen from two backward and demographically diversified blocks on stratified random sampling basis at its different stages. The respondents have been asked through open ended questionnaire on several aspects of MG-NREGA. The current literature has identified low awareness of the beneficiaries as well as some institutional gaps. Our study also observes some irregularities in the implementation procedure and the lack of awareness about the rights. Still the beneficiaries believe that if effectively implemented, NREGA will be a more effective instrument for reducing poverty. We have also tried to find out the determinants of participation of the households in MGNREGA in the study area.

JEL CODE

O18

KEYWORDS

NREGA, Implementation, Awareness, Opinion, Rural, Employment.

1. INTRODUCTION

India has more than three decades of experience in implementing different Employment Generation Programmes. These programmes have their origin during the Great Depression days when western countries used these as counter cyclical policy instruments. Several countries of the developing world have also used Public Work Programmes to deal with droughts and famines. Over time these schemes have evolved into employment creation and poverty alleviation programmes. These programmes have been used and advocated for alleviating both chronic and transient poverty in the South Asian context for a long time (Hirway, Saluja and Yadav, 2008). In India, NREGA came into force in 200 districts on 2 February 2006 and was then extended to an additional 130 districts in the financial year 2007-08. Before NREGA, time to time, different wage employment programmes were introduced in the country. The NREGA ranks first among the most powerful initiatives ever undertaken for transformation of rural livelihoods in India (Ghosh, 2009). In many ways the NREGA is a replication of earlier schemes with a legal guarantee. The most critical difference now is that people's entitlement, by law, the employment is mandated through NREGA. While other programmes are allocation-based, NREGA is demand-driven (Dreze, 2008).

The Act has been universalized w.e.f. 1st April 2008 and now covers the entire country. The programme has been renamed as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) since October 2009 (Datta and Sharma 2010). It became operational in West Bengal from February 2006. In the first phase NREGA was implemented in 10 districts (South 24 Parganas, Bankura, Birbhum, Dakshin and Uttar Dinajpur, Jalpaiguri, Maldah, Murshidabad, Paschim Midnapur and Purulia) followed by another 7 districts in the second phase (North 24 Parganas, Burdwan, Coochbihar, Darjelling, Hooghly, Puaba Midnapur, and Nadia) from 1st April 2007 and one more district in third phase from 1st April 2008 (at Howrah).

2. REVIEW OF LITERATURE

Recent literatures observe the need as well as problems of implementation of NREGA through field investigation in different areas. Since its inception, NREGA has a good impact in many respects in rural India (Pankaj and Thanka 2010). Patnaik (2005) identifies the need for providing employment guarantee but Bhatia and Dreeze (2006) observes the low awareness of the beneficiaries about the demand driven job. They have also identified the institutional gap as a major stumbling block in the implementation of NREGA. Chathukulam -and Gireesan (2006) observe a range of problems and irregularities emerged in relation to wage payments. Shah (2007) has identified few other implementation problems in worksite facilities, productive assets, social audit etc. De and Dasgupta (2009) observes poor governance in the implementation of NREGA in rural West Bengal. The study reveals that despite the fact that all the 18 districts in the state have been covered under the NREGA, West Bengal clearly seems to lag behind other states in terms of actual job provision or the average number of days provided with job per family. According to Mukherjee and Ghosh (2009), while Madhya Pradesh (MP) has provided 9.96 per cent of the total job card holders with 100 days of employment and Rajasthan has provided 10.33 per cent, West Bengal has provided a meager 0.24 per cent with 100 days employment. De and Jana(2011) attempts to rank all the blocks of West Bengal on the basis of some performance indicators through Estimated Combined PCA (Principal Component Analysis) Index. The result shows the performance of Bankura district at Block level NREGA implementation is better compared to other districts. On this backdrop, we have chosen Bankura district as our survey area, a backward district of rural West Bengal (WBHDR, 2004), to observe different aspects of the implementation of NREGA in the light of field investigation.

3. RESEARCH OBJECTIVES AND METHODOLOGY OF THE STUDY

The present study on evaluation of the NREGA Scheme is intended to assess the impact of the scheme on the targeted beneficiaries. The basic objectives of the study are:

1. To review the current status of implementation of NREGA in Bankura district, West Bengal and
2. To identify the socio economic determinants of participation in NREGA with the emerging strengths and weaknesses for wider dialogue for improvements

The initial 200 districts chosen for implementation of the National Rural Employment Guarantee Act (NREGA) were the most backward districts of this country and Bankura district in West Bengal was selected for the implementation of such programme at its first phase. Widespread poverty is a major feature of this district. The socio economic indicators are generally below the state average. The West Bengal Human Development Report (2004) ranked Bankura district in the 11th position out of 18 districts. The report identified that the overall literacy rate of Bankura district was 63.80 which was lower than the state average of 68.20; the percentage of SC and ST population to the total population were 31.87 and 11.06 which were higher than the state average of 23.02 and 5.50; the percentage of BPL families was 42.48 revealed the high incidence of poverty. The infant mortality rate (IMR) was 64.90, much higher than the state average 53; the percentage of agricultural labourers in the total rural working population is 37.1, higher than the state average of 33 indicating the large-scale landlessness combined with lack of effective employment opportunities in the non-agricultural sector. The result is lower incomes for a large section of the rural population contributing towards the backwardness of these blocks apart from agro-climatic and physiographic conditions.

In administrative perspective, Bankura district consists of 22 blocks. We have chosen two backward blocks for our survey, Sonamukhi and Chatna due to their diversified demographic composition and the difference in implementation status. The participation is relatively better in Chhatna block compared to Sonamukhi block as revealed in table -1. For collection of data from the sample households, a well structured questionnaire was canvassed. 200 respondents were asked in total selected through stratified random sampling. The stratification was made to select twenty villages/ gram samsads from four GPs according to their demographic and economic profile and the 100 households were chosen randomly from each block. Using a detailed and structured questionnaire, the survey was carried out in second and third quarter of 2011-12 fiscal year. The schedule primarily comprised of closed questions though a few open ended questions also existed to record the opinions and suggestions of the people. The topics covered in the questionnaire are summarized as follows: general information about the socio economic characteristics of household (especially about the head of the household). The other topics are household income and expenditure profiles; annual employment days including NREGA days, own rural employment days, daily wage base days, other type of employment days etc. This data was collected from four gram panchayats (GPs) of two blocks; Chatna-1 and Shusunia GP from Chatna block, Hamirhati and Kochdih GP from Sonamukhi block. We have used regression analysis to find the determinants of participation of the households in NREGA schemes. The household characteristics will be discussed in the following section.

Table-1: NREGA Employment Status of Bankura District in Fiscal Year 2011-12

Sl no.	Block	Cum. No of HH provided employment	Average person days generated per HH	Proportion of women in total cumulative persondays generated	Proportion of SC in total cumulative persondays generated	Proportion of ST in total cumulative persondays generated	Proportion of HH completed 100 days work
1	Chhatna	13578	32.70	0.45	0.51	0.29	0.05
2	Sonamukhi	19512	22.47	0.36	0.63	0.08	0.01
Total		326220	30.48	0.40	0.51	0.15	0.04

Source: Authors' Calculation from the official website www.nrega.nic.in

4. HOUSEHOLD CHARACTERISTICS OF THE SURVEYED AREA

This section deals with household details such as their socio-economic background. A priori information on the socio-economic characteristics of the study area are analyzed from the data as it is found in the field survey for a better understanding of the nature of the population. It is necessary to have an idea about the caste wise, religion wise and marital status wise composition of the respondents; their level of indebtedness and assets; their occupational pattern, annual employment days and average expenditure patterns etc. The descriptive statistics of some selected parameters have been calculated for a better understanding of the household profile. General information of household, especially about the head of the household reveals that the ages of the heads of the surveyed households ranged from 25 to 80 years with a mean 45.42 and 10.18 standard deviation. The average education level (year of schooling) of the head of the surveyed households is 2.58 with 3.44 standard deviation. It ranged from illiteracy to higher secondary level (i.e. from 0 to 12). A comprehensive picture will be obtained from the following tables.

Caste, Religion and Marital Status Wise Composition of the Respondents

According to Census, 2001, the percentage of SC and ST population in Bankura district were 31.87% and 11.06%. Table-2 gives the breakup of our respondents from the surveyed area in different social groups such as SC, ST, OBC, Minority and General category beneficiaries. The data has been gathered from 200 households of which SC communities are of 94 (47 percent), the ST communities are 43 (21.5 percent). The share of OBC, Minority and General are 22 (11 percent), 17 (8.5 percent) and 24 (12 percent). The household survey also revealed that out of 200 respondents 160 (80 percent overall) belonged to the Hindu community, only 10 percent Muslim respondents were found and respondent from 'others' was also 10 percent as a whole. We also assessed the marital status of the heads of the respondent households and the available options included: single, married, divorced, separated, and widowed. Results indicate that most of the heads (90 percent) of the surveyed households were married; about 3.5 percent of them noted that they were single and 6.5 percent were found as widowed.

TABLE-2: CASTE, RELIGION AND MARITAL STATUS WISE DECOMPOSITION OF THE RESPONDENTS

		No of respondent Households	Percent of total respondent Households
Caste	SC	94	47
	ST	43	21.5
	OBC	22	11
	Minority	17	8.5
	General	24	12
	Total	200	100
Religion	Hindu	160	80
	Muslim	20	10
	Others	20	10
	Total	200	100
Marital Status	Married	180	90
	Unmarried	7	3.5
	Widow	13	6.5
	Total	200	100

Source: Field Survey

Ownership of Different Assets, Level of Indebtedness and Beneficiaries of the Government Schemes

We have gathered data on the surveyed households' ownership of several purchased items including TV, radio, bicycle, mobile phone and animals like cow, goat and others. The results show (in table-3) that out of 200 households surveyed-- 16 i.e 8% of the surveyed households owned TV; 8 i.e. 4% households owned radio; 144 i.e. 72% owned bicycle and 63 i.e 31.5% owned mobile phones. 69 (34.5 percent) and 55 (27.5 percent) have cow and goat. This result has shown a dearth of assets among the surveyed families in the study area.

We have also evaluated the level of indebtedness, type of dwelling of the households as well as whether the surveyed households enjoyed any government schemes like Indira Awas Yojana, Antyodaya Yojana, Free Electricity, Annapurna Yojana. The result indicates that 57.5 percent households of our study area

depend on money lender and 40 percent on others like neighbours, relatives and especially on local shop owners. Local banks can access only 1.5 percent of them. Most of surveyed households (72.5 percent) have kancha house made by mud hut and 27 percent have mixed house. Out of 200 households only 21.5 percent got benefit from IAY, 7.5 percent from Annapurna and 42.5 percent from Antyodaya Yojana whereas 13.5 percent have been availing the free electricity connection.

		No of respondent Households	%-age of total respondent Households
Livestock and Assets	Cow	69	34.5
	Goat	55	27.5
	Other	68	34
	TV	16	8
	Radio	8	4
	Mobile	63	31.5
	Cycle	144	72
Level of indebtedness	Money lender	115	57.5
	Bank	3	1.5
	Others	80	40
Nature of Houses	Kancha	145	72.5
	Paka	1	.5
	Mixed	54	27
Beneficiaries of Govt. Schemes	IAY	43	21.5
	Annapurna	15	7.5
	Free electricity	27	13.5
	Antyodaya	85	42.5

Source: Field Survey

Occupational Pattern of the Respondents, Annual Employment Days per Household and Average Expenditure of the Respondents

A common classification of the occupational pattern is to distinguish between earners as agricultural labourer, cultivator, household industry worker and other workers (Ghosh, Satpathy and Kapur, 2008). In our survey (shown in table-4) 73 percent households have been found as daily labour and 16 percent as cultivator. Out of 200 households surveyed, 157 (78.5 percent) households are observed to be in BPL category.

	Category	No of respondent Households/ days/Rs.	%-age of total respondent Households
Occupational Pattern of the Respondents	Daily labour	146	73
	Cultivation	32	16
	Other	22	11
	Total	200	100
	Econ status (BPL)	157	78.5
Annual Employment Days	NREGA	19.4	10.0
	Own agricultural employment(days)	6.4	3.3
	Wage labour employment	88.3	45.6
	Other type of employment	80	41.3
	Total	193.8	100.0
Monthly Average Expenditure (in Rs.)	Food	2139.5	82.1
	Education	111.4	4.3
	Health	225.5	8.6
	Saving	130.85	5.0
	Total Expenditure	2607.25	100.0

Source: Field Survey

The overall study also reveals that the NREGA employment days per household in our surveyed area varied from 0 to 100 days with the mean value 19.36 and 15 standard deviation. Now it is surprising that the range of NREGA employment days in Chatna block is also 0 to 100 days but in Sonamukhi block it varies from 0 to 40 days. It was revealed by the concerned panchayats that the problem of finance and generation of work are the most serious limitations in the implementation of NREGA in later block.

The own agricultural employment days ranged from 0 to 110 with 6.40 mean and 13.56 SD. Since the opportunity of working in own agricultural land is less they depend on wage labour employment on a daily basis. It ranged from 0 to 300 with 88.34 mean and 82.96 SD.

Household income is an important economic variable, but at household level it is rather difficult to assess the family income in the absence of accurate information. It has been observed during survey that there is huge discrepancy between income earned, saving and consumption of a particular household. For this only the expenditure level of households was retained for the sake of analysis. Three major expenditures- on food, on education and on health were included.

The descriptive statistics of the parameters revealed that the total expenditure per month ranged from Rs. 1200 to Rs. 6800 in our surveyed block. The mean and standard deviation were Rs. 2607.25 and 1000. The average expenditure on food per month was Rs. 2139, ranged from Rs. 1000 to Rs. 5000 with standard deviation 738.66. The mean expenditure on education per month is Rs. 111.40 with standard deviation 163.06; it ranged from zero expenditure to Rs. 800. The average expenditure on health per month is Rs. 225.50 with standard deviation Rs. 135.62 ranged from Rs. 50 to Rs. 1000. The average saving per month is Rs. 130.85 with 164.25 standard deviation ranged from Rs. 0 to Rs. 1500.

5. RESULTS & DISCUSSIONS

The individuals needing unskilled work for survival must be aware of the NREGA, the eligibility requirements for work, the procedure for registration, getting a job card, wage rates etc (ISS, 2008). In this section, we have presented opinion of all job card holders on issues such as job card, application of work, the length of the period for applying an obtaining the job and allowances or worksite facilities.

ISSUES RELATED TO JOB CARD AND WORK RELATED INFORMATION

Through this sub-section, opinion of all job card holders is collected on issues such as- money spent for the job card, procedure of getting the job card, whether they have faced any problem in receiving the job card like delay, transparency etc. Table-5 shows that in overall sense 92.5 percent of the surveyed beneficiaries revealed that the job cards were issued to them within 15 days of application. Majority of households expressed that they got their job cards without waiting for

much time and without money spent. Most beneficiaries got their job cards through GP. Majority of the rural households (91 percent) agreed that there is a transparent mechanism followed to issue the job cards. All of them, except 7, go to bank or P.O. to collect the payment.

Information	No of Households	%-age of Households
1. Money spent for the job card	13	6.5
2. Late to get the job card	52	26
3. Got the job card on time (within 15 days) after registration	185	92.5
4. Got the job card from GP	200	100
5. The Mechanism of getting is transparent	182	91
6. Payment is made through Bank or P.O.	193	96.5
7. Employed in response to an application for work	0	--
8. Find evidence of any Irregularity	2	--
9. Willing to get more jobs than actually did	168	84
10. Allotment of work on time	30	15
11. Information about job was known from G.P.	115	57.5
12. Information about job was known from Notice Board	40	20
13. Information about job was known from neighbour	98	49
14. No of complaint related to NREGA work	2	--
15. Job card entry done in front of the respondents	76	38
Source: Field Survey		

This section captured very important aspect of procedures and rules vis-à-vis guidelines of NREGA followed by the officials at GP level by way of views expressed by the beneficiaries. There are several guidelines to be followed by GP officials such as allotment of work in response to an application for work, allotment of work on time, time-lag between application for work and allotment of work redressal of grievances and complaints etc. Table-5 reveals the views of all the beneficiaries in the above aspects.

In the surveyed area, there is no such provision of application for work and all the beneficiaries are employed without any application, simply violating the guideline of NREGA. No such irregularities (only 2 as a whole) can be found in both the block but in both cases people actually demanded more jobs than what they actually did. It shows the need of job due to the unavailability of any alternative occupation.

According to the guidelines of the scheme, within a maximum period of 15 days of applying for job in writing, wage employment has to be provided (GOI, 2006). However, the response of the beneficiaries who got the wage employment speaks the other way. Respondents expressed that they did not get the work within the stipulated 15 days time of demand for work. Another crucial aspect is the time-lag between application and issue of job. The information about the job they got either from GP or from neighbour.

An attempt was also made to enquire with the beneficiaries whether there are any general nature of grievances or complaints regarding works allocation, registration procedures, and job card allocation etc. It is very interesting to observe that not a single complaint was lodged in Chatna block and only 2 in Sonamukhi block regarding the allocation of job. The reasons should be explored in a different way. The surveyed households were not felt easy to complaint against the panchayat. 38 percent of the respondents agreed that the job card entry was done in front of the respondents.

ISSUES RELATED TO ALLOWANCE AND OTHER FACILITIES

The Act under NREGA stipulates to provide basic facilities such as crèche, first aid, drinking water and shade for workers at the work site. There are several guidelines to be followed by GP officials such as facilities at worksite, delay in providing employment within stipulated time and unemployment allowance etc (Jha, Raghav and Shankar, 2008). An attempt was made as shown in Table –5 to enquire the extent of such facilities provided to the wagers at the work site. 66.5 percent did find those facilities at the work site for drinking water and shade but there are no such arrangements for crèche and first aid. All of them informed that they were not paid any unemployment allowance. They did not apply for the unemployment allowances and it is the responsibility of the GPs to let them know about the provision of the application for unemployment allowances. But the table reveals that they do not know about the existence of such provision. These are showing the inefficacy of GPs to run NREGA in a successful manner.

Even though there is growing public awareness of NREGA as a new initiative to provide rural employment, there was very little understanding of the basic features of the act in the survey area. Respondents should know the 'right' they got from the scheme like provision of employment to every registered person within 15 days of receipt of an application, applications to be for at least 14 days of continuous work, gram panchayat to accept valid applications and issue a dated receipt to the applicant, right to get the unemployment allowances (Menon, 2008). Table-6 reveals the lack of awareness of the respondents about the scheme. Only 55 percent were aware about the implementation of the programme, clearly shows the failure of GPs. Less than 50 percent were aware about the right to apply for work at any time. Only 21 percent (overall) of them know the application procedure and 87.5 percent is unaware about the right to get unemployment allowances. It is satisfactory to observe that 51 percent know the level of minimum wage and 75.5 percent know about the mandatory availability of muster rolls at the worksite.

	Nos.	%
1. Maintenance of the worksite facilities – drinking water, shade	133	66.5
2. Maintenance of the worksite facilities – crèche, first aid	0	--
3. Got any unemployment allowances	0	--
4. Applied for unemployment allowances	0	--
5. Provision of the application for unemployment allowances was not known	200	100
6. The MG-NREGA being implemented in the area	110	55
7. Right to apply for work at any time and to be employed within 15 days	94	47
8. The work application procedure	42	21
9. The level of minimum wages	102	51
10. Their right to get the unemployment allowances	25	12.5
11. Mandatory availability of muster rolls at the worksite	151	75.5
Source: Field Survey		

6. FINDINGS OF THE STUDY

MG-NREGA is the most significant scheme to uplift the overall quality of life of rural households from the extreme poverty. Thus people should aware about the scheme so that they can reap the full benefit of the programme (Ambasta, Shankar and Shah, 2008) and they should identify the problems and prospects of the scheme for their own interest so that they can participate in planning and monitoring of the scheme.

OPINION OF THE RESPONDENTS ABOUT THE PROBLEMS AND PROSPECTS

In this section we have attempted to present the opinion about the impact of the scheme on various important attributes which contribute to the enhancement of quality of life such as food security, fight against poverty and indebtedness, greater economic independence of women, to arrest out-migration etc. Table-7 depicts the opinions of respondents/beneficiaries in this regard. Only 31 percent of them agree (in favor of 'strongly agree' and 'agree' taken together) on the view that the programme enhances food security and 50 (in favor of 'strongly disagree' and 'disagree' taken together) percent believe that the programme can not provide some protection against extreme poverty. It is very encouraging that more than 50 percent are of the view that it can reduce distress migration, 32 percent think that rural indebtedness can be reduced by this programme. 51 percent are in favour of the programme because they think that the programme has offered greater economic independence to women. 52.5 percent respondent believes that the programme can generate better purchasing power but almost 68.5 percent believe the programme is responsible for the higher local wage rate and cost. It is also seen that 80 percent of the respondents are of the view that the scope of children to go to school has been improved by the programme. But all of them are aware about the corruption of NREGA work; they also believe that the quality of NREGA work is not satisfactory. In spite of that 61.5 percent and 50.5 percent respondent believe that there is an improvement in roads and communications i.e. rural connectivity and water level, because the programme has a greater stress on the conservation of water bodies.

TABLE-7: OPINION OF THE RESPONDENTS (%-AGE OF HOUSEHOLDS) REGARDING THE PROBLEMS AND PROSPECTS OF NREGA

Sl no:	Opinion	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree	Total
1	NREGA enhances food security	10	52	27	71	40	200
2	NREGA provided some protection against extreme poverty	15	58	28	69	30	200
3	After NREGA payment they can run their family	7	41	23	88	41	200
4	NREGA helped to reduce the distress migration	29	70	26	48	27	200
5	NREGA helped to reduce indebtedness	11	53	55	61	20	200
6	NREGA gave greater economic independence to women	22	80	45	34	19	200
7	NREGA generated better purchasing power in the local economy	22	83	40	46	9	200
8	NREGA has increased the local wage rate	70	67	21	25	17	200
9	NREGA has improved the scope of the children to go to school	86	75	18	14	7	200
10	The quality of NREGA work is satisfactory	6	43	35	76	40	200
11	Zero corruption exists in NREGA work	2	14	37	67	80	200
12	Improvement in roads and communication due to NREGA work	32	91	15	39	23	200
13	NREGA work has improved the water level	23	78	25	45	29	200

Source: Field Survey

DETERMINANTS OF PARTICIPATION IN MGNREGA

In order to get to know the determinants of participation of households in MGNREGA programme, a regression analysis was done using the following multiple linear regression model:

$$EMPD = b_0 + b_1 \text{ FAMSIZ} + b_2 \text{ EXPM} + b_3 \text{ WAITDAYS} + b_4 \text{ OTHEREMP} + b_5 \text{ DISTANCE} + b_6 \text{ LAND} + b_7 \text{ DMOBILE} + b_8 \text{ DCHATNA} + \text{error}$$

Where,

- EMPD = Annual Employment Days from NREGA
- FAMSIZ = Family size
- EXPM = Monthly Expenditure of the Household (Rs.)
- WAITDAYS = Maximum No. of days waited by the household for payment
- OTHEREMP = No. of Days of Employment in a year other than NREGA
- DISTANCE = Distance (in Kms from village to the main road)
- LAND = Land holding of the household (in bigha)
- DMOBILE: Whether the household owns mobile (=1 if owns, 0=otherwise)
- DCHATNA: Dummy for whether the household belongs to Chatna block (=1 if the respondent lives in Chatna, 0=otherwise)

Table-8 represents the descriptive statistics of the variables. The data reveals that the average annual employment days from NREGA with in the syrvey period was 19.36 with 15.07 standard deviation for 200 households. The mean and s.d. of the family size of surveyed people were 4.11 and 1.06. the mean value of monthly expenditure was Rs. 2607.25 with a very high s.d. of 999.39; the mean and s.d. of waiting days for pament were 47.66 and 22.23, the data also reveals that people waited for even four months after the completion of job. The mean value of other employment days than NREGA was 159.53 and the s.d. for that was 51.85. The average distance from village to the main road in km was 3.19 with 1.51 s.d.; the land holding of the household ranged from .00 to 10.00 bigha with mean 1.08 bigha (1 bigha = 33 Dec.) and 1.69 s.d.. No of owner of a mobile was introduced here as a dummy variable to capture the status of economic conditions of 200 households. The mean value was 0.31 with 0.46 s.d.

TABLE-8 : DESCRIPTIVE STATISTICS OF 200 HOUSEHOLDS

	Mean	Range	S.D.
EMPD	19.36	0-100	15.07
FAMSIZ	4.11	1.00-7.00	1.06
EXPM (in Rs.)	2607.25	1200.00-6800.00	999.39
WAITDAYS	47.66	7.00-120.00	22.83
OTHEREMP	159.53	52-280	51.85
DISTANCE (in Km.)	3.19	.00-5.00	1.51
LAND (in bigha)	1.08	.00-10.00	1.69
DMOBILE	0.31	.00-1.00	0.46

Source: Field Survey

The regression results are reported in table-9. The 'Adjusted R²' value of 0.32 implies that about 32% of variation in the EMPD is explained by the regression model. The significant 'F' value indicates that a significant relationship exists between weighted linear composite of the independent variables as specified by the model and the dependent variable.

TABLE-9 : ESTIMATED REGRESSION RESULTS			
	Unstandardized Coefficients	t value	Sig
(Constant)	36.237	5.985	.000
FAMSIZE	2.493	2.841	.005
EXPM	-.004	-3.537	.001
WAITDAYS	-.119	-2.846	.005
OTHEREMP	-.044	-3.091	.002
DISTANCE	-2.668	-4.412	.000
LAND	1.274	2.538	.012
DMOBILE	4.710	2.112	.036
DCHATNA	6.502	2.721	.007

Source: Estimated from Primary Survey Data

Adjusted R² = 0.32; F = 12.69 (Level of significance = .000)

The results show that significant positive factors affecting the participation in NREGA employment days (EMPD) are FAMSIZE, LAND, DMOBILE and DCHATNA and the significant negative factors are EXPM, WAITDAYS, OTHEREMP and DISTANCE.

- **FAMSIZE:** The results suggest that for a larger family size there will be a higher amount of working days through NREGA, hence better participation in the said programme. Since the scheme is demand driven, therefore the members of a household who are willing to work and applied for work have better participation in NREGA. The panchayat members and officials are influenced by a member to incorporate the name of the others to the programme. The GP members are even politically influenced because large family size means higher voting rights.
- **LAND:** Higher land holding by household also represents higher participation in NREGA. It happens due to the fact that higher land holding means greater influence on panchayat members and officials. It is observed during the survey that the no of NREGA employment days are more for such influential persons. Thus NREGA as a major source of employment for the vulnerable group was not established.
- **DMOBILE:** In our model, the first 'dummy variable' is DMOBILE, used to represent the economic status. Individual having mobile can access the information better than others from the panchayat members or officials./
- **DCHATNA:** The regional difference of NREGA activity in the same district can be explored by the second dummy variable DCHATNA. Chatna block performed in a better way than Sonamukhi block. One reason may be the difference in poverty level of two blocks. Since the implicit goal of NREGA is to enhance the livelihood security of the poor people, therefore the demand for NREGA employment days is expected to be higher in places with a higher share of poor people. The second reason is the infrastructural advancement of Chatna block in terms of planning and execution of works. The potential for designing a higher number of schemes and the timely receipt of funds can be regarded as the important factors determining the efficiency of GPs. In the period of survey, we observed Chatna block as a better block in terms of the implementation of the programme, maintenance of shelf, social audit etc. It is to be mentioned here that, in 2012, Chatna block bagged the 'Block of the Year' in overall NREGA performance. So DCHATNA as a positive significant factor is showing the creation of better employment days in Chatna block compared to the Sonamukhi block.

The significant negative factors are also important to state the causal relationship between NREGA employment days and its socio economic factors.

- **EXPM:** If the 'expenditure per month' of a household is high that definitely indicates that the household must be engaged in other alternatives. High income or high expenditure per month means the income is generated from secured 'other type of employments'; hence it will lead to a fall in NREGA participation.
- **WAITDAYS:** If the 'waiting days' to collect the payment of work is large then it will be less attractive to join the programme, hence lesser will be the participation. The time lag between commencement of work and payment of wages becomes crucial to take the decision of participation. Actually in our survey areas we have been reported against the procedure of final payment, the gap between final working day and payment day is too long—wages are not paid in a timely manner. The main reason for the delay is the absence of the timely receipt of NREGA fund and the second obvious reason is the mismanagement of GPs.
- **OTHEREMP:** if people have the opportunity to work at higher wage rate (than NREGA wage) or have more assured work at the same or even at a lower wage rate, they may not be interested in undertaking NREGA work especially when the timing of NREGA works clash with those of their alternative works. It means participation in NREGA will be less. The households are involved in other type of works than NREGA employment days throughout the year to maintain their families because the NREGA employment days are not enough in the lean season. The lean season is characterised by a scarcity of livelihood opportunities due to the drying up of agricultural activities. It will cause a temporary migration for the alternatives. So if 'other employment days' increase then it will automatically lead to a fall in NREGA participation.
- **DISTANCE:** higher distance means less information will reach from panchayat to village or households regarding the launch of the programme. Higher distance also means the remoteness of the poor household and distance from the GPs. the information depicted in the notice board of panchayat is remained unknown to the households, hence lower participation.

7. CONCLUDING OBSERVATIONS RECOMMENDATIONS

The picture emerging from this brief investigation is not very encouraging. The functioning of NREGA in the study area is not satisfactory. A majority of the households have reported that they are willing to get more jobs than what they are presently getting. Even after six years of implementation of NREGA in the state our study reveals that people know very little about the law and different opportunities. The study also reveals peoples dissatisfaction about the impact of NREGA on their livelihood and the quality of the work done under this scheme. Nevertheless, the programme can be a great agent for socio-economic upliftment by providing livelihood security to the poorest of the poor in rural West Bengal. Given the limited capacity of agriculture to absorb additional labour force, the development of rural non-farm sector should be developed.

The determinants of MG-NREGA employment days identify the crucial factors for the successful implementation of the programme. The 'long delays' in wage payment must be minimized because such delay is not consistent with the provision of the MGNREGA Act. Another issue is the provision of work when alternative employment opportunities are scarce; the MGNREGA has to fulfill the gap by providing extra employment days during the lean season. The predominant work under the programme is related to excavation and re-excavation of ponds. GP has to prepare the proper shelf of schemes and to explore different or innovative works with new ideas. The overall awareness of the programme and information regarding the job should be widespread for better participation.

8. LIMITATIONS OF THE STUDY AND SCOPE OF FURTHER RESEARCH

The results are based on the random sample drawn from a backward district in West Bengal which may not be true for other places. Also the analysis is based on the variables for which we had been able to collect data.

9. ACKNOWLEDGEMENT

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CUSTOMER PREFERENCE AND SATISFACTION TOWARDS CHAT OUT RESTAURANTS

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ABSTRACT

India is a diverse country with a huge variety of religions and cultures spread over a vast geographic area that experiences a wide range of climates. This, coupled with the long and interesting history of India, has had a major influence on the development of traditional foods and the variety of cuisines that exist in India today. India can be viewed as a melting pot of food and cuisines. The growth of the middle classes in India, particularly in the urban areas such as New Delhi, Bangalore, Mumbai and Chennai, have also fuelled the development of the service industries with restaurants being at the forefront of this development. This paper has given a clear picture about the chat out restaurant service and features in Chennai. This study is based on the 120 surveyed respondents' opinion. Results shows that 62% of the respondents highly satisfied towards features and service promptness of the all studied chat out restaurant. This industry will have more opportunity on growth and attract more customers in future.

KEYWORDS

Chatout, Chennai, Customer satisfaction, Customer preference, Restaurants.

INTRODUCTION

India is a diverse country with a huge variety of religions and cultures spread over a vast geographic area that experiences a wide range of climates. This, coupled with the long and interesting history of India, has had a major influence on the development of traditional foods and the variety of cuisines that exist in India today. India can be viewed as a melting pot of food and cuisines.

The growth of the middle classes in India, particularly in the urban areas such as New Delhi, Bangalore, Mumbai and Chennai, have also fuelled the development of the service industries with restaurants being at the forefront of this development. The growth of tourism and the trend to globalization has also meant that as trading barriers came down new international players could enter the restaurant business and this has been particularly evident in the fast-food business.

There are 10 million households in India with average household income of Rs 46,000 per month and 2 million households with a household income of Rs 115,000 per month. Eating out has emerged as a trend, which is prevalent within this elite group. Two out of every five Households in this group eat out at least once a month.

Chennai is a mixture of both modern and tradition, in the same way Chennai foods is a mixture of both tradition and modern foods, Chennai have a very diverse foods we can find here local south Indian menus to Chinese thai and other international food items

When We come to chat food department we can see the hands of north Indian chat items raised high, most of the Chennai youths prefer north Indian chats, we can see many new chat food shops being started in the corners of the street, my favorite chat item is pani poori , phavbaji, samosa channa, papdi chat etc. , Most of the fast foods serve hot Chinese items like fried rice, noodles, soups, etc...

Chat items (also spelt as chat) is a mainly Indian street food that was some time back. Now most Indian restaurants offer them on their menu as these chat items are very popular. chats can also be made at home and are favorite to be served at parties and celebrations, even wedding receptions along with other traditional foods.

Chats are a **mixture of all the tastes**, sweet, sour, hot, salty, just like life. And because of that they are very much in demand as snacks too. Kids love them and grownups like them too. Chat recipes mainly include crisp fried bread(small poories), puffed rice, onions, coriander leaves, tomatoes, boiled potatoes, sev, which is made from chickpea flour (bengal gram flour - Besan), spice mixes, sweet and sour chutneys such as date chutney, coriander and mint chutney.

Weekends are usually holidays and therefore people may just want a break from their Mondays-to-Fridays routines which mean spending more time at home as well as having home cooked meals or simpler meals. So once or twice a week they would give themselves a treat at restaurants or hotels as well as giving themselves some measure of freedom from their usual boring domestic chores.

CUSTOMER SATISFACTION SURVEYS CAN KEEP CUSTOMERS COMING BACK

Customer satisfaction survey gives you quantitative insight into the opinions and attitude of your customers. You'll obtain facts about what they want, what they expect, and if they plan to return to your restaurant again. If results show that your restaurant does not meet your customers' expectations, you'll know exactly what areas to target for improvement. Whether you own a fast-food restaurant, or a chain of restaurants, customer satisfaction surveys can provide you with valuable data you can use to make better business decisions. Restaurant customer satisfaction survey can tell you about the demographics of your customers as well as give you insight into what they really think about:

- Food quality
- Menu selection
- Menu pricing and value
- Waiting time

- Promptness of service
- Professionalism and friendliness of server(s)
- Server's knowledge of menu
- Decor
- Restaurant location
- Overall restaurant experience

By assessing the wants and needs of customers - and then acting upon them - restaurants have continually found that the satisfaction surveys encourage them

- Repeat business
- Positive feelings towards the restaurant because they showed that they cared about customer opinions
- Increased recommendations by current customers
- Increased spending within the restaurant

Here are numerous cafes and restaurants around. It is a place where foods and drinks are prepared and served to customers. A typical restaurant setting is one where the orders of customers sitting at tables are taken by a waiter, who in turn brings the ordered meals when it is ready then the customers pay the bill when they are finished eating and are ready to leave. Some restaurant may also offer take outs and delivery services. An establishment selling local cultural cuisines is simply called a Restaurant. While restaurants selling foreign cuisines are called according to what the establishment serves like Chinese restaurant, French Restaurant or Japanese restaurant.

There are also general types of restaurants that may fit the customers' taste, carvings and preference. One is a Fast Food Restaurant whose operation may range from a small-scale street vendor utilizing food carts to franchised and chartered mega-corporations like McDonald's and Burger King. Restaurants of this type focus their service on speed and low cost more than any other considerations. Most Fast Food Restaurants differ from a traditional cafeteria in which a way that there are less or no cutlery or crockery utensils available, customers eat directly from the disposable containers provided as the foods are served.

BEING PROACTIVE

Being proactive is an excellent customer service skill in a restaurant. Bringing drink refills before a customer asks, and ensuring that the customer has all necessary condiments and extra napkins are all ways to provide better service. A family with children may in need of extra crayons or a booster seat. A couple without children may not have interest to sit right next to a family with three children and a toddler. If it is a hot day, bring ice water immediately, so the customer doesn't have to wait. Above all, try to anticipate the customer's needs and bring them anything that might make their visit to the restaurant more comfortable.

BEING FRIENDLY

Being served by a nice waiter or waitress can greatly improve the experience of the customer. Greeting each new customer with a smile is an important customer service skill in a restaurant. Maintaining a cheerful attitude and responding to requests promptly is another great way to create happy customers. Your goal is to make the customer feel at home, which you can do by simply being friendly.

REMEMBERING SPECIAL ORDERS

Some customers have special dietary needs or unique tastes. Whatever the reason, if the customer makes a special request, it's important to make sure it gets fulfilled. If they requested a dish with no rice, and there is rice on the plate when you pick up the order, tell the kitchen to fix it. If a problem of that nature occurs, always explain to the customer and explain the extra wait.

REVIEW OF LITERATURE

Many studies have been conducted on the customer satisfaction. An attempt has been made to present in brief, a review of literature on customer satisfaction in general as well as on the customer satisfaction from restaurant.

"According to Syed Saad Andaleeb, the main Purpose of this study is to determine the factors that explain customer satisfaction in the full service restaurant industry. This paper reports the findings of the full service restaurants and focus on three elements – service quality (responsiveness), price, and food quality (reliability) – if customer satisfaction is to be treated as a strategic variable.

The study tests the transaction-specific model and enhances the literature on restaurant service management. The regression model suggested that customer satisfaction was influenced most by responsiveness of the frontline employees, followed by price and food quality (in that order). Physical design and appearance of the restaurant did not have a significant effect."

"Jing-hua Shi, service industry is viewed as a gauge for market modernization. Many researches on service industry focus on the measurement of service quality. For hotel industry, one of general services industry, systematically theoretical research about the hotel service quality management is meaningful. This paper proposes a method to evaluate the hotel service quality in China. With the survey data, a series of practical methods are utilized in the data analysis to measure the service quality based on customer satisfaction (CS).

Service quality of reception hall is most important for customer satisfaction compared with those of guestroom and restaurant. "Technique of attendants", "Service initiative of attendants" and "Environment and decoration of reception hall" are key variables for customer satisfaction of reception hall. For guestroom, "decoration of room", "safety of room" and "courtesy of attendants" own most powerful influences. For restaurant, key variables are "Taste and variety of food", "service flexibility of waiters/waitresses" and "environment of restaurant".

"Syed Saad Andaleeb has examines the restaurant, a commercial establishment where meals can be bought and eaten. In the 16th century English inns and taverns began to serve one meal a day at a fixed time and price, at a common table, and usually distinguished by a special dish. The meal was called the ordinary, and inn dining rooms and eating places generally began to be called ordinaries. The name restaurant was first used (c.1765) for a Paris establishment serving light ("restoring") dishes. By the late 18th cent., the Parisian restaurant had become a place offering single servings from a somewhat varied menu and seating at private tables. After the French Revolution, many former chefs of aristocratic houses opened restaurants. While the revolutionaries had favored the egalitarian table d'hôte, the bourgeoisie of the Restoration transformed the restaurant into a French institution that flourished in the 19th cent and thereafter."

OBJECTIVES

- To analyze the customer preference towards restaurants.
- To analyze the factors that influences a customer to choose a particular restaurant.
- To study the consumption pattern in restaurants.
- To study the opinion about the services in restaurants.

RESEARCH METHODOLOGY

The researcher used convenient sampling method. In this study the sample size have been fixed as 120 by the researcher. Data has been collected through the schedule questionnaire. Question in the questionnaire has been framed in such a way to meet the objectives of the study. There are 10 items tested with five-point Likert scale, ranging from "strongly agree", to "strongly disagree", was used for this study and all questions were phrased positively. The data analysis for this study conducted through the use of software called the Statistical Package for Social Science (SPSS) version 16. The reliability of the scale was tested .

The table1 value is about to explain the alpha value on various parameter of chat outs shops features and services it shows that each variable are positively correlated each other's except few variables in the service of chat outs. The reliability coefficients of 10 items show that 80% and standardized item alpha value is 80.5%

TABLE 1: RELIABILITY ANALYSIS - SCALE (ALPHA) Correlation Matrix

	VAR00006	VAR00007	VAR00008	VAR00009	VAR00010
VAR00006	1.0000				
VAR00007	.5559	1.0000			
VAR00008	.8163	.6974	1.0000		
VAR00009	.7085	.4002	.8078	1.0000	
VAR00010	.4417	.8276	.5547	.2571	1.0000
VAR00011	.4751	.4732	.4676	.2059	.3703
VAR00012	.0939	.1361	.2937	.3583	.1835
VAR00013	-.0257	-.1300	.1313	.1879	-.1621
VAR00014	.0869	-.0193	.2977	.3837	.0337
VAR00015	-.0493	-.1242	.0938	.2285	-.0938
	VAR00011	VAR00012	VAR00013	VAR00014	VAR00015
VAR00011	1.0000				
VAR00012	.0571	1.0000			
VAR00013	-.1427	.3851	1.0000		
VAR00014	-.0207	.8281	.5632	1.0000	
VAR00015	-.1231	.5504	.4337	.6544	1.0000

N of Cases = 120.0
 Item Means Mean Minimum Maximum Range Max/Min
 Variance
 2.1242 1.9083 2.3750 .4667 1.2445 .0290
 Reliability Coefficients 10 items
 Alpha = .8000 Standardized item alpha = .8050

ANALYSIS AND DISCUSSION

TABLE 2: DEMOGRAPHIC OF THE RESPONDENTS

S.No	Demographic	Frequency (N=120)	Percentage (100%)
I	Age		
1	Up to 25 years	51	42.5
2	26 years to 35 years	35	29.2
3	36 years to 45 years	21	17.5
4	46 years and above	13	10.8
II	Gender		
1	Male	54	45
2	Female	66	55
III	Occupation		
1	Government	34	28.3
2	Private	39	32.5
3	Business	27	22.5
4	Others	20	16.7
IV	Types of visitors		
1	Family members	36	30
2	Friends	26	21.7
3	Colleagues	28	23.3
4	Alone	30	25
V	Company		
1	Marry Brown	19	15.8
2	Hot Breads	17	14.2
3	KFC	24	20
4	Pizza Corner	18	15
5	Mc Donald's	27	22.5
6	Dominos	15	12.5

Table 2 describing the major point of demographical factors of the respondents it shows that the highest 42.5% of the respondents come under the age group up to 25 years. It is obvious that most of the youngster easily accepting the new food eating habits than elders. 55% of the respondents are female it indicates that most of the female visiting the chat outs than male. 32.5% of the respondents are private employees, it indicate that they have more income for consumption and disposal purpose. The highest 30 % of the people are arriving with family members to the chat out. 22.5 % of the questions are collected from McDonald's shops and 20 % of the questionnaires were collected from KFC's and so on. Virtually speaking chat outs has attracted more customers in Chennai.

TABLE 3: (ANOVA) DIFFERENCE BETWEEN THE RESPONDENTS' GENDER AND THEIR RESPONSES TOWARDS THE VARIOUS FEATURES OF THE CHAT OUT

		Sum of Squares	df	Mean Square	F	Sig.
Location	Between Groups	.027	1	.027	.015	.903
	Within Groups	215.273	118	1.824		
	Total	215.300	119			
Facility and Appearance	Between Groups	7.830	1	7.830	4.298	.040
	Within Groups	214.961	118	1.822		
	Total	222.792	119			
Freshness/ Hygiene	Between Groups	4.570	1	4.570	2.808	.096
	Within Groups	192.022	118	1.627		
	Total	196.592	119			
Taste	Between Groups	20.210	1	20.210	17.671	.000
	Within Groups	134.956	118	1.144		
	Total	155.167	119			
Garnish	Between Groups	8.620	1	8.620	6.225	.014
	Within Groups	163.380	118	1.385		
	Total	172.000	119			

Source: Primary data

Table 3 explaining the respondents' opinion towards the various features of the chat outs, Location and gender has the mean square of .027 and value between the groups is .015 and $p > 0.05$ therefore there is no significant relationship between tested values. Similarly other variables like facility and appearance showed that $p > 0.05$ which is also not significantly correlated each others. With respect to freshness and hygiene there were no significant relationship between the tested variables ($p < 0.05$), as far as taste concerns there were significant relationship between the gender of the respondents and their taste.

Table 4: RESPONDENTS OPINION ON THE VARIOUS SERVICES OF CHAT OUT

S.No	Variables	SA	A	NAND	DA	SD	High	Low
1	Promptness of service	62 (51.7%)	26 (21.7%)	2 (1.6%)	24 (20%)	6 (5%)	73 (61%)	26 (39%)
2	Service Quality	49 (40.8%)	22 (18.3%)	19 (15.8%)	23 (19.2%)	7 (5.7%)	59 (49%)	41 (51%)
3	Cleanliness	64 (53%)	30 (25%)	7 (6%)	11 (9%)	8 (7%)	78 (64%)	22 (36%)
4	Maintenance	60 (50%)	23 (19%)	18 (15%)	13 (10.8%)	6 (5%)	69 (58%)	31 (42%)
5	Value for Money	52 (43%)	21 (17%)	13 (10.8%)	18 (15%)	16 (13.2%)	61 (51%)	49 (49%)

Source: Primary data

Table 4 describing the service features of the chat out in Chennai shows that the highest 73% of the respondents are satisfied with the promptness of the service. With respect to service quality there were 49% of the respondents highly satisfied. Cleanliness concerns 64% of the respondents highly satisfied. 50% of the respondents strongly agree that maintenance of chat out is good. 51% of the respondents highly satisfied towards the service worthiness against value of money given.

TABLE 5: INTER CORRELATED MATRIX ON RESPONDENTS OPINION TOWARDS THE VARIOUS FEATURES OF THE CHAT OUT

Features of the services	Correlations	Location	Facility and Appearance	Freshness/Hygiene	Taste	Garnish
Location	Pearson Correlation	1	.556(**)	.816(**)	.709(**)	.442(**)
	Sig. (2-tailed)	.	.000	.000	.000	.000
	N	120	120	120	120	120
Facility and Appearance	Pearson Correlation	.556(**)	1	.697(**)	.400(**)	.828(**)
	Sig. (2-tailed)	.000	.	.000	.000	.000
	N	120	120	120	120	120
Freshness/ Hygiene	Pearson Correlation	.816(**)	.697(**)	1	.808(**)	.555(**)
	Sig. (2-tailed)	.000	.000	.	.000	.000
	N	120	120	120	120	120
Taste	Pearson Correlation	.709(**)	.400(**)	.808(**)	1	.257(**)
	Sig. (2-tailed)	.000	.000	.000	.	.005
	N	120	120	120	120	120
Garnish	Pearson Correlation	.442(**)	.828(**)	.555(**)	.257(**)	1
	Sig. (2-tailed)	.000	.000	.000	.005	.
	N	120	120	120	120	120

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

Table 5 representing inter correlated matrix on various features of chat out at Chennai. It represents the correlation between the variables at 0.01 level of significant under (2-tailed) Pearson correlation indicating positive relationship with each variable. And among these a variable which is having highest values should be treated as significantly correlated. Under this determinant facility and appearance has significantly correlated with garnish it values is .828 and its P value is less than 0.05 ($P < 0.05$) therefore, there is significant relationship between the two assumed variables.

TABLE 6: CROSS TABULATION REPRESENTING RESPONDENTS OPINION TOWARDS THE CHATOUT AND SERVICE PROMPTNESS

S.No	Chat outs	Service Promptness					Total
		SA	A	NAND	DA	SD	
1	Marry Brown	11 (57.9%)	3 (15.8%)	0	3 (15.8%)	2 (10.4%)	19 (100%)
2	Hot Breads	9 (52.9%)	3 (15.8%)	2 (11.8%)	3 (15.8%)	0	17 (100%)
3	KFC	12 (50%)	5 (20.8%)	0	5 (20.8%)	2 (8.4%)	24 (100%)
4	Pizza Corner	5 (27.8%)	8 (44.4%)	0	5 (27.8%)	0	18 (100%)
5	Mc Donald's	16 (59.3%)	4 (14.8%)	0	5 (27.8%)	2 (18.5%)	27 (100%)
6	Dominos	9 (60%)	3 (20%)	0	3 (20%)	0	15 (100%)
Total		62 (51.7%)	26 (21.7%)	2 (1.7%)	24 (20%)	6 (5%)	120 (100%)

Source: Primary data (% is based on within Chat outs)

Table 6 is describing that the service promptness of chat out its shows that, 57.9% of the respondents strongly agree that marry brown offers "prompt service". The highest 52.9% of the respondents strongly agree that hot breads is offering "prompt services" Out of the total, 57.7 % of the respondents strongly agree that chat out offer prompt service. Only 5% of the responders strongly disagree with statement. Since, service promptness is one of the criteria which all the customers expected from the chat outs in the Chennai city. It can be presume that these chat out will offer best service to the customer for meeting competition.

MAJOR FINDINGS FROM THE STUDY

1. The majority of the respondents belong to the category of 42.5%
2. 32.5% of the respondents' private employees spending more money on consumption
3. 73% of the respondents highly satisfied towards promptness of service
4. 78% of the respondents highly satisfied towards cleanliness
5. 69% of the respondents highly satisfied toward maintenance
6. Garnish and facility and appearance significantly correlated each others
7. Out of the total 51.7% of the respondents strongly agree that sample chat out offers prompt services

CONCLUSION

In recent days, the consumption of food habits has been changed in Chennai. This is due to the emergence of western food habits, high level of income, change in standard of living, change in eating behavior and interest to taste all types of food.

In Chennai the number of chat out restaurant has been increased nowadays in order to satisfy the consumer needs. Chat out restaurants serves varieties of delicious chat out items. The menu in the chat out restaurants which has attracts the customer and tempt to taste.

This study reveals that, customers expect varieties of recepies, Promptness of service, delicious food items, good facilities and appearance, and in total the value for money.

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IS LABOUR GETTING FAIR SHARE IN ORGANISED MANUFACTURING SECTOR?

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ABSTRACT

Indian economy faces an Herculean task of shifting labour force from agriculture sector to manufacturing, which is not possible without increasing the labour productivity and expanding the manufacturing itself. The slow growth of labour employment, its share and contribution in output, increasing capital intensity and low total factor productivity is cause of serious concern. The manufacturing sector can not attract skilled manpower unless it offers a fair share to its employees in the form of wages, salaries, old age benefits and social security. The present paper is an attempt to study the trend of share of labour in organised Indian manufacturing sector during period 1981-82 to 2010-11. We use ASI data at aggregate level to estimate a long run Cobb-Douglas production function and to compute Solow equation. The share of labour has been reduced to a quarter in 2010-11 from about a half in 1981-82 whereas the marginal productivity of labour has doubled in the same period. Although average wage rate has increased by 17 times at current prices but just doubled at constant prices during the selected period with hardly one percent growth rate of employment. The marginal productivity of labour increased from twice of average wage rate to four times. The contribution of labour to the manufacturing growth has been falling and more credit goes to the capital taking around 91 percent share. It is proposed that the extension of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) to industrial sector and policies to encourage Micro, Small, & Medium Enterprises (MSME)s to become large ones is the key to restructure the base of employment and national income.

JEL CLASSIFICATION CODES

I22, I23

KEYWORDS

Cobb-Douglas Production Function, Marginal Productivity of Labour, Growth Accounting.

1. INTRODUCTION

Indian economy faces an Herculean task of shifting labour force from agriculture sector to manufacturing, which is not possible without increasing the labour productivity and expanding the manufacturing itself. The slow growth of labour employment, its share and contribution in output, increasing capital intensity and low total factor productivity is cause of serious concern. The manufacturing sector can not attract skilled manpower unless it offers a fair share to its employees in the form of wages, salaries, old age benefits and social security. The present paper is an attempt to study the trend of share of labour in organised Indian manufacturing sector during period 1981-82 to 2010-11. A large number of studies are available on growth and labour productivity particularly on organised manufacturing in India. Some important studies are Aggarwal and Kumar (1991), Ahluwalia (1991), Balakrishnan and Pushpangadan (1994), Balakrishnan and Babu (2003), Banga (2005), Bidhe and Kalirajan (2004), Gangopadhyay and Wadhwa (1998), Goldar (1986 and 2000), and by Trivedi, Prakash, & Sinate (2000). However, most of other studies not quoted here focus on specific industries and not on manufacturing sector as a single entity. The rest of the paper is divided into three sections – research methodology, presentation of data and results & discussion.

2. RESEARCH METHODOLOGY

The present study uses secondary data from ASI at all India aggregated level on organised manufacturing sector from 1981-82 to 2010-11. The WPI has been computed using GDP at constant and current prices provided by RBI website in Handbook of Statistics on Indian Economy. The data has been taken on net value added as a measure of output (Q), number of employees as a measure of labour input (L), total invested capital (K), total emoluments as a measure of wage bill, interest paid and loans. To measure the contribution of labour, capital and technical progress in growth of output Solow equation in following form has been computed:

$$dQ/Q = dA/A + \alpha dL/L + \beta dK/K \quad \dots(i)$$

where Q, L and K are output, Labour & Capital respectively and A, α , and β are measures of technical progress, share of labour and share of capital respectively. The following form of Cobb-Douglas production function has been used:

$$Q = A L^\alpha K^\beta e^{\gamma T} \quad \dots(ii)$$

where A, α , β and γ are parameters showing total factor productivity, labour elasticity of output, capital elasticity of output and technical progress rate respectively. Following six regression equations have been estimated:

- 1) $\ln Q/L = \ln A + \beta \ln (K/L) + u$
- 2) $\ln Q/L = \ln A + \beta \ln (K/L) + \gamma T + u$
- 3) $\ln Q = \ln A + \alpha \ln L + \beta \ln K + u$
- 4) $\ln Q = \ln A + \alpha \ln L + \beta \ln K + \delta \ln Q_{t-1} + u$
- 5) $\ln Q = \ln A + \alpha \ln L + \beta \ln K + \gamma T + \delta \ln Q_{t-1} + u$

It is clear that Reg1 and Reg2 assume a constant returns to scale and this assumption has been relaxed in Reg3 and Reg4. However, at the time of analysis, it was noted that there exists serious autocorrelation in first four regressions which has been removed by entering the lagged variable Q_{t-1} in the production function. The marginal productivity of labour has been computed by differentiating the estimated production function.

3. PRESENTATION OF DATA AND RESULTS

It will be useful to have a glimpse of the major trends of organised manufacturing sector in India before starting analysis. We observe from Table I that it had an investment of Rs. 23.94 lakh crore employing 1.26 crore persons in 211660 factories in 2010-11. The number of factories have almost doubled growing at CAGR of 1.87 percent in the selected period of study i.e. 1981-82 to 2010-11. But number of employees have grown only 1.62 times at a CAGR of 1.11 percent whereas the total invested capital at current prices has gone up by more than 44 times at CAGR of 12.05 percent during the same period. This explains the reason for

increasing capital-labour ratio (K/L) in Table II. The industry needed just Rs 3.65 lakhs per labour in 1982 and now it needs Rs 12.93 lakhs investment for each worker at constant prices. The average number of employees per factory has been decreasing at a rate of 0.76 percent. Although the average wage rate also went up by 17 times at current prices but only doubled at constant prices during the period of study. The increasing capital-labour ratio (K/L) can be explained in terms of relatively increasing average wage rate and cost of capital ratio (w/r). (See Table II) It is also found that there is a medium, positive and significant correlation (0.581) between K/L and w/r ratios. It may be possible that the increasing prices of land, cost of doing business, higher fuel prices, shifting demand towards hi-tech products, stringent labour laws, liberalised economic policies with relatively cheaper financial capital has led to employment of capital intensive technologies, thereby causing slow growth of employment and falling share of labour. With these arguments, we do not suggest that the demand for labour should be increased by making it relatively cheaper, rather it implies that whole demand curve of labour should be shifted rightwards by broadening the industrial base, increasing its share in GDP and be made more inelastic by skill addition.

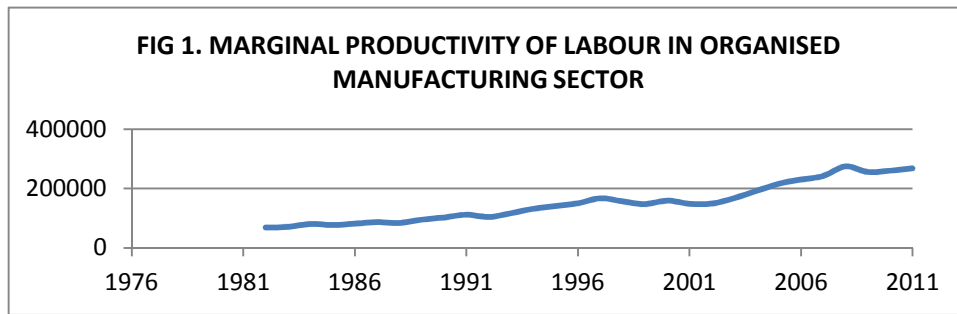
Further, to estimate the contribution of labour and capital to growth of net value added by the manufacturing sector, we present the results of Solow growth accounting equation in Table III. It can be seen that the contribution of labour to average 14.9 percent growth in net valued added is just 4.45 percent because its share (β) is 0.345 and average growth of employment is only 1.8 percent. However, the contribution of labour to growth depends on what it gets and not what it produces. For that, we need to find out the marginal product of labour assuming whole manufacturing sector as a single firm. Therefore, we have estimated the Cobb-Douglas production function using regression analysis as mentioned in research methodology and its results are given in Table IV.

Firstly, It is important to note that we get fairly high values of R^2 , Adjusted R^2 and F-ratios in all the six regressions implying that our list of selected independent variables is sufficient to explain most variation in the dependent variable. Since all the independent variables differ with each other in nature hence the problem of multicollinearity does not arise. In this time series data, since the dependent variable changes very slowly after taking a natural log hence, it is safe to assume the absence of heteroscedasticity. However, the problem of autocorrelation can not be ignored as we get very low D-W ratio in first four regressions and while interpreting, we keep in mind that the results of these regressions are biased. Even then, many useful deductions can be made. The Reg1 shows that in the given period the net value added has been increased by 1.202 percent with every one percent increase in capital with assumption of constant returns to scale (CRS). The coefficient of total factor productivity for Reg1 is 0.484 (Antilog of -0.725). In Reg2, along with CRS it is also assumed that we impute all growth of net value added to technical progress rate which is 3.95 per cent, which forces the initial estimate of Q (i.e. antilog of A) to almost zero and capital elasticity of output (β) to a low and insignificant level. In Reg3, the assumption of CRS is relaxed, and the labour, capital and technical progress have been allowed to absorb the variation in Q. It can be seen that labour elasticity of output (β) and technical progress rate are so large that they absorb maximum variation making β again low and insignificant. This regression has some important meaning because if we assume that the technology really lies in the skills of labour then maximum value generation activity has been done by the employees and technical progress and not by capital. It may noted that DW ratio has improved but still showing presence of some positive autocorrelation. In Reg4, when we try to explain the variation in Q with labour, capital and total factor productivity, we find that capital alone absorbs maximum variation leaving β insignificant and A small but significant. But low DW ratio suggests not to trust this model. Thus, in Reg5 and Reg6, the lagged value of net valued added i.e. Q_{t-1} has been introduced as explanatory variable to fix the problem of autocorrelation. Although, Reg6 has highest DW, but it gives almost zero value of A, which is away from reality. Considering all parameters, as it has high R^2 , Adj- R^2 , DW in reasonably acceptable limit, high F-ratio and significant values of β , α and A with theoretically expected signs and values, we can choose Reg5 to measure marginal productivity of labour.

TABLE I: TRENDS OF FACTORIES, EMPLOYEES AND CAPITAL AND WAGES IN ORGANISED MANUFACTURING SECTOR

Year	No. of Factories	No. of Employees	Invested Capital (Rs. Lakhs)	Average no. of Employees per factory	Average Wage Rate at Current prices in Rs	Average Wage Rate at Constant prices in Rs
1982	105037	7777868	5399127	74.05	8714	45873
1983	93166	8009792	6299198	85.97	10045	48721
1984	96706	7824121	7249434	80.91	11782	52690
1985	100328	7871712	8050202	78.46	13542	56065
1986	101016	7471515	8811181	73.96	14831	57236
1987	97957	7441879	9769297	75.97	16527	59671
1988	102596	7785580	11393383	75.89	18086	59639
1989	104077	7743344	13297905	74.40	20312	61826
1990	107992	8142550	15914036	75.40	22608	63398
1991	110179	8162504	19491285	74.08	25221	63922
1992	112286	8193590	22123441	72.97	25594	57033
1993	119494	8704947	27772858	72.85	31660	64808
1994	121594	8707909	32054715	71.61	32889	61212
1995	123010	9100240	38753459	73.98	38836	65840
1996	134571	10044697	48996925	74.64	44915	69777
1997	132814	9448643	52215413	71.14	49111	70786
1998	136012	9997573	57682603	73.51	52384	70818
1999	131706	8588581	53706813	65.21	51960	65009
2000	131558	8253125	56663440	62.73	57970	70491
2001	131268	7917810	57179940	60.32	64057	75337
2002	128549	7686654	60591285	59.80	66426	75751
2003	127957	7870529	63747308	61.51	70082	77050
2004	129074	7803395	67959786	60.46	74758	79194
2005	136353	8383278	75941770	61.48	76827	76827
2006	140160	9038523	90157861	64.49	81881	78562
2007	144710	10252148	107150382	70.85	86568	78052
2008	146385	10378495	128012553	70.90	101597	86399
2009	155321	11252793	153517773	72.45	115030	90199
2010	158877	11722631	193305395	73.78	125404	92798
2011	211660	12639273	239471106	59.71	145132	99073
CAGR	1.87%	1.11%	12.05%	-0.76%	9.02%	2.02%

Source: Based on ASI data



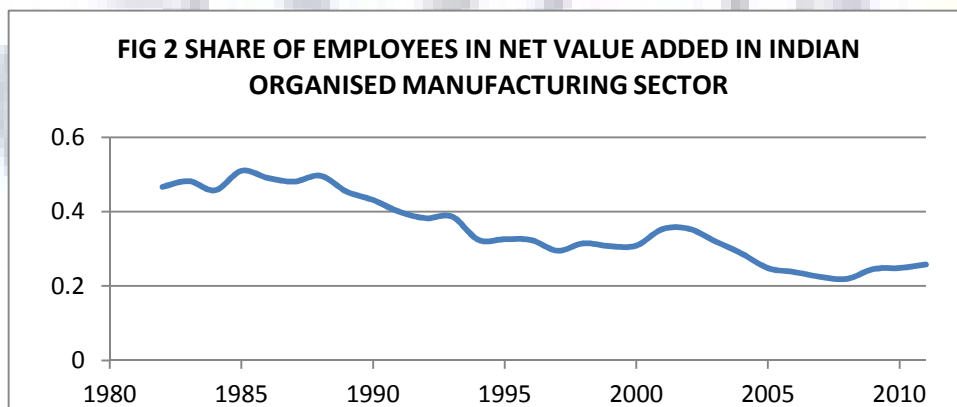
Source: Prepared by Researchers based on Table II

The marginal productivity of labour has been shown in Table II along with other variables. Now, it becomes evident that marginal productivity of labour has been grown at CAGR of 4.84 per cent which is double than the growth rate of average wages. Thus marginal product of labour which was twice the wages in 1982 has become four times in 2011. It is clear that the employees in manufacturing sector are not getting a fair share.

TABLE II : TRENDS IN COST OF CAPITAL, K/L & w/r RATIOS AND MARGINAL PRODUCT OF LABOUR (MP_L)

Year	% Cost of Capital (r)	(w/r) Ratio at Constant Prices	K/L at Constant Prices (Rs. Lakhs)	MP _L Constant Prices (Rs.)
1982	9.76	4701	3.65	98227
1983	10.58	4604	3.81	100962
1984	9.77	5396	4.14	115101
1985	10.17	5512	4.23	109851
1986	9.90	5779	4.55	116568
1987	10.11	5901	4.74	123970
1988	10.86	5492	4.82	120004
1989	14.81	4175	5.22	136145
1990	14.40	4404	5.48	146926
1991	14.24	4489	6.05	159957
1992	17.07	3341	6.01	149111
1993	14.03	4620	6.53	167541
1994	14.41	425	6.85	189010
1995	12.98	5073	7.22	202162
1996	14.53	4801	7.57	215592
1997	15.39	4601	7.96	240043
1998	14.05	5040	7.80	225067
1999	17.39	3738	7.82	211900
2000	17.29	4077	8.34	228336
2001	16.28	4628	8.49	213334
2002	15.68	4831	8.98	214084
2003	14.56	5292	8.90	240741
2004	11.72	6755	9.22	275517
2005	9.70	7922	9.05	310030
2006	9.50	8268	9.57	331053
2007	9.64	8098	9.42	348020
2008	11.34	7618	10.48	394614
2009	12.80	7045	10.69	367763
2010	11.11	8354	12.20	373771
2011	10.66	9292	12.93	384894
CAGR	-0.05 %	2.07%	3.93%	4.84%

Source: Based on ASI data



Source: Prepared by Researchers based on Table III

TABLE III: CONTRIBUTION OF LABOUR AND CAPITAL TO GROWTH OF NET VALUE ADDED IN MANUFACTURING SECTOR (1983-2011)

Year	dQ/Q	dL/L	dK/K	α	β	dA/A
1983	0.149	0.030	0.167	0.467	0.533	0.046
1984	0.208	-0.023	0.151	0.483	0.517	0.141
1985	0.037	0.006	0.110	0.458	0.542	-0.025
1986	0.080	-0.051	0.095	0.510	0.490	0.060
1987	0.132	-0.004	0.109	0.491	0.509	0.079
1988	0.109	0.046	0.166	0.481	0.519	0.000
1989	0.222	-0.005	0.167	0.497	0.503	0.141
1990	0.232	0.052	0.197	0.454	0.546	0.101
1991	0.207	0.002	0.225	0.431	0.569	0.079
1992	0.064	0.004	0.135	0.400	0.600	-0.018
1993	0.300	0.062	0.255	0.382	0.618	0.118
1994	0.241	0.000	0.154	0.387	0.613	0.147
1995	0.227	0.045	0.209	0.324	0.676	0.071
1996	0.285	0.104	0.264	0.326	0.674	0.073
1997	0.129	-0.059	0.066	0.324	0.676	0.104
1998	0.058	0.058	0.105	0.295	0.705	-0.033
1999	-0.126	-0.141	-0.069	0.315	0.685	-0.034
2000	0.065	-0.039	0.055	0.307	0.693	0.039
2001	-0.073	-0.041	0.009	0.309	0.691	-0.067
2002	0.005	-0.029	0.060	0.353	0.647	-0.024
2003	0.194	0.024	0.052	0.354	0.646	0.152
2004	0.178	-0.009	0.066	0.320	0.680	0.135
2005	0.281	0.074	0.117	0.287	0.713	0.176
2006	0.200	0.078	0.187	0.248	0.752	0.040
2007	0.269	0.134	0.188	0.237	0.763	0.093
2008	0.217	0.012	0.195	0.224	0.776	0.063
2009	0.096	0.084	0.199	0.219	0.781	-0.078
2010	0.122	0.042	0.259	0.245	0.755	-0.084
2011	0.204	0.078	0.239	0.248	0.752	0.005
Average	14.9%	1.8%	14.3%	0.358	0.642	5.2%

Source: Computed by Researchers based on All India ASI Data 1981-82 to 2010-11

TABLE IV: RESULTS OF REGRESSION ANALYSIS

	REG1	REG2	REG3	REG4	REG5	REG6
Dependent Variable	LN Q/L	LN Q/L	LN Q	LN Q	LN Q	LN Q
R ²	0.95	0.968	0.985	0.973	0.988	0.990
Adj-R ²	0.948	0.965	0.984	0.971	0.986	0.989
DW	0.441	0.720	1.114	0.519	1.427	1.767
F-RATIO	526* (1,28)	406* (2,27)	583* (3,26)	493* (2,27)	1134* (3,25)	612* (4,24)
Log A	-0.725* (-5.169)	-82.136* (-3.958)	-90.742* (-4.978)	-7.202* (-2.505)	-6.742* (-3.211)	-52.434* (-2.807)
Time (γ)		0.0395* (3.923)	0.0403* (4.615)			0.0217* (2.459)
Ln K/L (β)	1.202* (22.953)	0.228 (0.904)				
Ln L (α)			1.315* (4.710)	0.295 (1.305)	0.371* (2.363)	0.932* (3.460)
Ln K(β)			0.0909 (0.407)	1.092* (15.831)	0.541* (4.895)	0.180 (1.012)
Ln Q _{t-1}					0.468* (5.420)	0.316* (3.152)

Source: Computed by Researchers based on All India ASI Data 1981-82 to 2010-11

1. Figures in parentheses are t-ratios for coefficients of variables and d.f. for F-ratios.

2. *shows significant at 5% level

4. DISCUSSION

The present paper does not divide the period of analysis into pre-reform or post-reform eras as has been done in a number of studies on manufacturing sector. Because, we do not intend to seek the reasons of low share of employees in value added in the economic reforms. However, now many of us agree that the reform process did not focus on accelerating the employment in organised sector rather converse is true. It has also been a consensus that it was not the foreign investment but domestic animal spirits of the entrepreneurs which contributed to the India growth story. The share of workers i.e. their wages and number in employment can be increased only by facilitating the employers. We also observe that huge sums have been allocated for the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). The implementers – Deputy Commissioners, Block Development Officers and Village heads are not creative enough to use the funds available for the scheme efficiently. If the scope of the MGNREGS is shifted from construction works in the rural areas to manufacturing sector, it will provide a big impetus to the industry and will help shifting the rural labour from primary activities to more value adding activities. The state can easily collect relevant records within a small time from the manufacturing sector (organised and unorganised) about employees. Then, it can offer that a part of wages to newly employed workers shall be financed by the state for certain period through funds of MGNREGS. It shall make micro, small and medium enterprises (MSMES) more competitive enabling them to become large. It is also noted that the size of the firm is most important factor leading to skill development and an average higher wage rate. Conclusively, we propose that the extension of MGNREGS to industrial sector and policies to encourage MSMES to become large ones is the key to restructure the base of employment and national income.

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SOCIO-ECONOMIC STATUS OF TSUNAMI SURVIVORS IN KOTTUCHERRYMEDU, KARAİKAL DISTRICT - A CASE STUDY

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ABSTRACT

Kottucherrymedu is one of the fisher folk in karaikal district. Fishing is the main occupation of the people. But after the tsunami (Dec 26th 2004) fisher folk in this district was worstly affected in terms of lives, assets, vessels etc. This paper highlights whether the socio economic profile of tsunami survivors are developed or not after the tsunami.

KEYWORDS

Fisher folk, Demographic factors, Socio- economic status.

INTRODUCTION

Socioeconomic status (SES) is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others, based on income, education, and occupation. When analyzing a family's SES, the household income, earners' education, and occupation are examined, as well as combined income, versus with an individual, when their own attributes are assessed. No one theory has a monopoly on the meaning of SES or class. Socio-economic status refers to the position of individuals, families, households, or other aggregates on one or more dimensions of stratification. These dimensions include income, education, prestige, wealth, or other aspects of standing that members of society deem salient. There are different ideas about what class is, but it is defined relationally, referring to groups of people who share a similar position such as the relationship to the means of production. All too often SES and class are ambiguous terms that serve as shorthand expressions to refer to social and economic characteristics that are believed to be important, but the rationale or meaning of which is not always made clear. There are nearly as many concepts of socioeconomic status and class as there are authors writing on them. However, distancing ourselves from the particulars of each work, it is possible to discern two broad approaches. The first sees class or SES as essentially a unitary concept. From this perspective, a fundamental dimension underlies class (or SES), and it is this dimension that is the primary driving force of some class analyses. The second viewpoint focuses on the components of SES or class and treats them as having distinct effects. This conceptualization disputes the unidimensionality of class or SES. It highlights the separate dimensions of stratification and predicts that different dimensions can have different consequences.

RESEARCH METHODOLOGY

Karaikal is on the east coast about 140 kms south of Pondicherry and 300 kms south of Chennai. The total geographical rural area of the district is 14305.56 hectares. Karaikal has a population of 170640 and it is a good fishing centre with the following 10 marine fishing villages namely, Mandabathur, Kallikuppam, Akkampettai, Kottucherrymedu, Kasakudymedu, Kilinjalmedu, Karaikalmedu, T.R. Pattinam, Karukalachurri and Vanjore. Kottucherrymedu has a population of 956 and it constitutes about 0.55% of the total population the main occupation of this fisher folk is fishing. It is to be noted that a demographic factors of fishermen in general displays a picture of education, occupation, income and various chances for economic, political, social development studies indicated that social & economic condition of the family has the deep impact on their children education. The education level of people was found that it was moderately good.

A village namely kottucherrymedu was selected purposively for the study. The study area is familiar with researcher with respect to its area, people, officials etc. The sample size for the present study comprises of 100 fishermen drawn by random sampling from a selected village of kottucherrymedu of karaikal district. Head of the family (either man or women) was selected as a respondent. A pretested interview was developed for collection of data and analyzed after calculating percentage and Chi- Square test. Socio economic status of respondents was calculated on the basis of age, educational level, caste, family type, size, assets holding, housing pattern, occupation, annual income & social participation.

HYPOTHESIS FOR TESTING SOCIO ECONOMIC STATUS

1. H_0 - There is no significant relationship between Income and Socio – Economic Status of respondents.
2. H_0 - There is no significant relationship between Social Participation and Socio – Economic Status of respondents.

DATA ANALYSIS & INTERPRETATION

Data was collected through personal interview method about the demographic factors like occupation, education, caste, income etc. then socio economic status was classified as low, medium and high after quantifying the factors as well as calculating percentage.

AGE COMPOSITION

Age refers to chronological age of the respondent in the years at the time of interview

TABLE NO. 1: DISTRIBUTION OF RESPONDENTS ACCORDING TO AGE COMPOSITION

Sl. No	Age of Respondents	No of respondents (%)
1	Up to 25 (Young)	22
2	26-50 (Middle)	73
3	51 & above (Old)	05
	Total	100

Source: Primary data

Minimum-20 years, maximum-65 years

It is evident from table no. 1 that the majority of respondents (73%) were observed in the middle age group [(i.e) 26 years to 50 years] where as 22% were observed in young age group ranges up to 25 years and old age (51 & above) were 05% only

EDUCATIONAL LEVEL

Education refers to the level of formal education obtained by the respondents.

TABLE NO. 2: DISTRIBUTION OF RESPONDENTS ACCORDING TO EDUCATIONAL LEVEL

Sl. No	Educational level	No of respondents (%)
1	Illiterate	12
2	Primary	54
3	Secondary	18
4	UG	08
5	PG	04
6	Others	04
	Total	100

Source: Primary data

It is evident from the table no. 2, 54% of respondents are having primary level education, 18% of them are having secondary level, only 08% of the respondents are having UG level education and 04% of the respondents are having PG level and other type of education.

FAMILY TYPE

The members of house who live together under one roof and one man guidance constitute family. There are two types of family (a) single or nuclear family (b) Joint family.

TABLE NO. 3: DISTRIBUTION OF RESPONDENTS ACCORDING TO FAMILY TYPE

Sl. No	Type of family	No of respondents (%)
1	Single family	64
2	Joint family	36
	Total	100

Source: Primary data

The above table no. 3 depicts that 64% respondents are belonging to single family, while 36% respondents belongs to joint family.

OCCUPATION

The main occupation of the families to which the respondents belonged was their family occupation and few of them are doing others also.

TABLE NO. 4: DISTRIBUTION OF RESPONDENTS ACCORDING TO OCCUPATION

Sl. No	Type of occupation	No of respondents (%)
1	Fishing	60
2	Govt .employment	09
3	Private employment	11
6	Others	20
	Total	100

Source: Primary data

The above table no. 4 depicts the occupation the main and subsidiary. It was found that 60% families have fishing as main occupation and 11% of them are private employees 09% of them are govt. employee and remaining 20% are doing type of work such as auto driving TATA ACE, commission based fish marketing etc.

HOUSING PATTERN

It refers to the habitation, the villagers get constructed house by the government, after tsunami, few of them are living in their own houses also.

TABLE NO. 5: DISTRIBUTION OF RESPONDENTS ACCORDING TO HOUSING PATTERN

Sl. No	Housing Pattern	No of respondents (%)
1	Hut	10
2	Pacca (Tsunami house)	75
3	Mixed	05
4	Tiled house	10
	Total	100

Source: Primary data

It is clear from the above Table no:5 relevant to the type of house possession that 75% respondents were found that they are living in Tsunami (pacca) house which was constructed by the government after Tsunami, 10% of the respondents are living in hut and 10% are living in tiled house and only 05% are living in mixed house (combination of tiled and roof)

ANNUAL INCOME

It refers to total income in rupees as earned by respondents from all sources in a particular year.

TABLE NO. 6: DISTRIBUTION OF RESPONDENTS ACCORDING TO INCOME

Sl. No	Income categories	No of respondents (%)
1	Up to Rs.25000 (Low)	20
2	Rs.25001 to Rs.50000 (Middle)	49
3	Rs.50001 & Above (high)	31
	Total	100

Source: Primary data

It is obvious that table No.6 49% of the respondent's annual income was found in the category of Middle level income (i.e. Rs 25001 to Rs 50000), 31% are in the high level Income and 20% of them are in low income level.

Calculated value of Chi-Square is 5.84 is less than the table value at 5% level is 9.488. Hence we accept the null hypothesis.

SOCIAL PARTICIPATION

It refers to the degree of participation of individuals in the social organization as a member or office holder.

TABLE NO. 7: DISTRIBUTION OF RESPONDENTS ACCORDING TO SOCIAL PARTICIPATION

Sl. No	Participation	No of respondents (%)
1	No Participation	Nil
2	Participation in one organization	70
3	Participation in two organization	25
4	Participation in more than two organization	05
	Total	100

Source: Primary data

It is observed that majority of the respondents (i.e) 70% of them are member in one social organization 25% of them are member in two organization and only 5% of them are member in more than 2 organizations.

HOUSEHOLD MATERIALS, COMMUNICATION MEDIA

It refers to materials used in house, audio visual and print materials for getting information.

TABLE NO. 8: DISTRIBUTION OF RESPONDENTS ACCORDING TO HOUSEHOLD MATERIALS, COMMUNICATION MEDIA

Sl. No	Household materials & communication media	No of respondents (%)
1	Two wheeler	85
2	Four wheeler	15
3	Mobile	100
4	LCD television	15
5	Sewing Machine	10
6	Washing machine	25
7	Air condition	20
8	Laptop	18
9	vessels	70

Source: primary data

More than one item were reported by the fisherman. Hence, the total percentage would be more than 100.

The above Table No: 8 reveal that majority of respondent's possessed Two wheelers (85%) Mobile (100%) Vessels (70%) Washing machine (20%) Air conditioner (20%) Laptop (18%) Sewing machine (10%) respectively.

SOCIO-ECONOMIC STATUS OF TSUNAMI SURVIVORS (FISHERMEN)

It is the Profile of Socio-Economic components that refer to the status of individual, group, Society of organization. This paper or study refers to the Socio-economic status, the respondent possess.

TABLE NO. 9: DISTRIBUTION OF RESPONDENTS ACCORDING TO SOCIO-ECONOMIC STATUS OF TSUNAMI SURVIVORS (FISHERMEN)

Sl. No	Socio-Economic status	No of respondents (%)
1	Low	16
2	Medium	65
3	High	19
	Total	100

Source: Primary data

It reveals that majority of the respondents belonged to medium category of Socio Economic status followed by low (16%) & high (19%) categories of Socio Economic status.

Calculated value of Chi-Square is 12.953 is more than the table value at 5% level of 12.592. Hence we reject the null hypothesis, we accept the alternate hypothesis (i.e) there is significant association between social participation and socio-economic status of the respondents.

RESULTS

- 73% of the respondents are middle age group (26years- 50 years)
- 54% of the respondents are having Primary level education
- 64% of the responds are having single family
- 60% of the respondents are doing fishing as main occupation.
- 75% of the respondents are living in Tsunami house which was provided by Government after Tsunami.
- 49% of the respondents are having middle income (Rs.25,000- Rs. 50,000)
- 70% of the respondents are having the membership in social organizations.
- Majority of the respondents are having Two-wheelers, Mobiles, Vessels.
- 65% of the respondents are having middle socio-economic status.

CONCLUSION

From the above study we can conclude that the peoples living in Kottucherry medu belongs to Hindu religion, Most-Backward class, their main occupation is fishing, having middle income and their socio-economic status is also middle.

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COINTEGRATION AND CAUSAL RELATIONSHIP AMONG CONTRIBUTION OF AGRICULTURE, INDUSTRY AND SERVICE SECTOR TO GROSS DOMESTIC PRODUCT IN BANGLADESH

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ABSTRACT

The present study has been conducted to make econometric analysis of the relationship between contribution of agriculture, service and industry to Gross Domestic Product (GDP) in Bangladesh. Time series data ranging from fiscal year 1983-1984 to 2011-2012 on the above variables have been collected from Bangladesh Bureau Statistics (BBS). Augmented Dickey Fuller (ADF) test has been used for checking the stationarity of the variables. Different information criterion has been used to select appropriate lag length for the multivariate model. Furthermore, the Johansen Cointegration test has been used to detect the long-term relationship among the three variables. Again, vector error correction model has been used to determine the nature of long run and short run equilibrium relationship among them. This empirical study also investigates the multivariate granger causality among the variables. We also forecast contribution of agriculture, service and industry to GDP for upcoming 10 years through the estimated model.

KEYWORDS

Agriculture, Service, Industry, Gross Domestic Product, Granger Causality, Forecast.

INTRODUCTION

To study the role of agriculture, Industry and Service in the process of economic growth is of crucial important. Bangladesh is developing country so it does not have such a rich GDP condition, its total amount of GDP of 2012 is 118.7 billion of US dollars, and purchasing power parity is 305.5 billion US dollars. Economic growth of Bangladesh is compiled of three main sectors. As a developing country, Bangladesh has several production sectors which have greater contribution on GDP. They are playing important role over our GDP. The major sectors in this issue are shown in chart:

Agriculture includes farming crops, animals, fishery and foresting contributions. Farming crops includes paddy, wheat, jute, vegetables, sugarcane, pulses etc; animal farming includes dairy, poultry, fishery, sericulture etc. Agriculture's contribution to GDP is 19.29% (current prices) for the fiscal year 2011-2012 (Bangladesh Bureau of Statistics 2011-2012). Industry is the second largest sector in the percentage contribution to GDP which includes garments & knitting sectors, factories, leather industry, food and beverage etc. The contribution of Industry sector to GDP is 31.26% (current prices) for the fiscal year 2011-2012 (Bangladesh Bureau of Statistics, 2011-2012).

Service is the largest sector in the percentage contribution to GDP. It includes all services activities. It consists of trade service, construction, transport, storage and communication, housing, public administration and defense, education, health, financial intermediates such as bank, insurance and other social and personal activities. Service organization's contribution of GDP of Bangladesh is 49.45% (current prices) for the fiscal year 2011-2012 (Bangladesh Bureau of Statistics, 2011-2012)

Rahman et al (2011) examine the causal relationship among GDP, agricultural, industrial and service sector output for Bangladesh using time series data from 1972 to 2008. In this study, we used the granger causality/block exogeneity Wald tests statistics to examine the causal relationship among these variables. From empirical study we found the existence of long run equilibrium relationship among these variables and bidirectional causality is observed between GDP and agricultural sector, industrial sector and GDP, and also industrial sector and service sector. Katircioglu (2004) established the causal relationship among GDP, agricultural, industry and service in case of North Cyprus. Subramaniam and Reed (2009) estimated an econometric model that incorporates the linkages among agriculture, manufacturing, service and trade sectors using a vector error correction model for Poland and Romania. From this study, we found that agricultural, industry and service are three main source of Bangladesh's economy. So it is always interesting for researchers to find out the causal relationship among these variable for any country.

METHODOLOGY

DATA AND VARIABLES

The variables used in this study are Contribution of Agriculture, Service and Industries to GDP of Bangladesh. The sample period covers annual data from fiscal year 1983-1984 to 2011-2012. All the data is obtained from Bangladesh Bureau of Statistics (BBS).

UNIT ROOT TEST

Since macroeconomic time-series data are usually non-stationary (Nelson and Plosser, 1982) and thus conducive to spurious regression, we test for stationarity of a time series at the outset of cointegration analysis. For this purpose, we conduct an augmented Dickey-Fuller (ADF) test, which is based on the t-ratio of the parameter in the following regression.

$$\Delta x_t = \kappa + \theta_1 X_{t-1} + \sum_{i=1}^n \varphi_i \Delta X_{t-i} + \varepsilon_t \quad (1)$$

Where, X is the variable under consideration, Δ is the first difference

It is essential at the onset of co-integration analysis, that we should solve the problem of optimal lag length because multivariate cointegration analysis which we are going to conduct in the study is very sensitive to lag length selection. The most commonly used lag length selection criteria are the Final prediction error (FPE), Akaike's information criterion (AIC), Schwarz's Bayesian information criterion (SC), Hannan-Quinn Criterion (HQ) (Reference)

COINTEGRATION TEST

The econometric framework used for analysis in the study is the Johansen (1998) and Johansen and Juselius (1990) Maximum-Likelihood co-integration technique, which tests both the existence and the number of cointegration vectors. This multivariate cointegration test can be expressed as:

$$Z_t = K_0 + K_1 \Delta Z_{t-1} + K_2 \Delta Z_{t-2} + \dots + K_p \Delta Z_{t-p} + \Pi Z_{t-p} + \mu_t \quad (2)$$

Where

$$Z_t = (CA, CS, CI)$$

Z_t = a 3×1 vector of variables that are integrated of order one [i.e. $I(1)$]
 CA, CS, CI are contribution of Agriculture, Service and Industries to GDP respectively.
 K = a 3×3 matrix of coefficients
 Π = 3×3 matrix of parameters and
 μ_t = a vector of normally and independently distributed error term.

The presence of r cointegrating vectors between the elements of Z implies that Π is of the rank r ($0 < r < 2$) (less than equal). To determine the number of cointegrating vectors, Johansen developed two likelihood ratio tests: Trace test (λ_{trace}) and maximum eigenvalue test (λ_{max}). If there is any divergence of results between these two tests, it is advisable to rely on the evidence based on the λ_{max} test because it is more reliable in small samples (see Dutta and Ahmed, 1997 and Odhiambo, 2005).

GRANGER CAUSALITY

If we exploit the idea that there may exist co-movements among contribution of Agriculture, Service and Industries to GDP and possibilities that they will trend together in finding a long run stable equilibrium, by the Granger representation theorem (Engle and Granger 1987), we may posit the following testing relationships, which constitute our vector error-correction model:

$$\Delta CA_t = \alpha_1 + \sum_{i=1}^1 \beta_{1i} \Delta CA_{t-1} + \sum_{i=1}^m \gamma_{1i} \Delta CS_{t-1} + \sum_{i=1}^n \delta_{1i} \Delta CI_{t-1} + \sum_{i=1}^r \theta_{1i} ECT_{r,t-1} + \xi_{1t} \tag{3}$$

$$\Delta CS_t = \alpha_2 + \sum_{i=1}^1 \beta_{2i} \Delta CA_{t-1} + \sum_{i=1}^m \gamma_{2i} \Delta CS_{t-1} + \sum_{i=1}^n \delta_{2i} \Delta CI_{t-1} + \sum_{i=1}^r \theta_{2i} ECT_{r,t-1} + \xi_{2t} \tag{4}$$

$$\Delta CI_t = \alpha_3 + \sum_{i=1}^1 \beta_{3i} \Delta CA_{t-1} + \sum_{i=1}^m \gamma_{3i} \Delta CS_{t-1} + \sum_{i=1}^n \delta_{3i} \Delta CI_{t-1} + \sum_{i=1}^r \theta_{3i} ECT_{r,t-1} + \xi_{3t} \tag{5}$$

Where CA, CS, CI have been explained in previous section, Δ is a difference operator, ECT refers to the error-correction term(s) derived from long run co-integrating relationship via the Johansen maximum likelihood procedure, and ξ_t 's (for $i = 1, 2, 3$) are serially uncorrelated random error terms with mean zero.

VECTOR ERROR CORRECTION MODEL

In a VAR model I have to include the variables which have bilateral causality with each other. A VAR model consists of a set of variables $Y_t = (Y_1, Y_2, \dots, Y_{kt})$ which can be represented as:

$$Y_t = \alpha + A_1 Y_{t-1} + A_2 Y_{t-2} + \dots + A_p Y_{t-p} + u_t \tag{6}$$

With A_i are $(K \times K)$ coefficient matrix for $i=1, 2, \dots, p$ and u_t is a K dimensional process with $E(u_t) = 0$ and covariance matrix $E(u_t u_t^T) = \Sigma$. If Γ 's are co-integrated the VAR model can be rewritten as VECM:

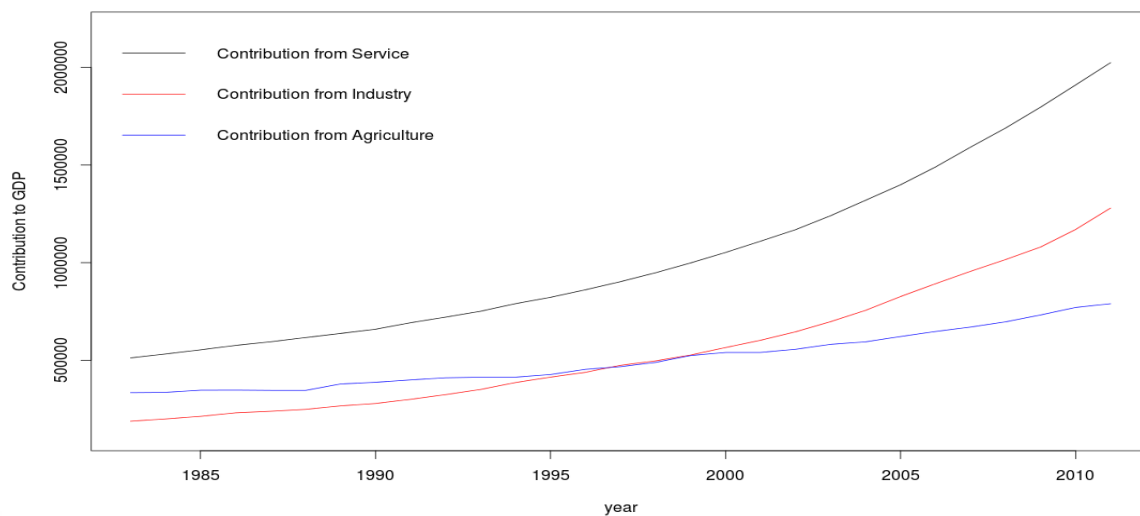
$$\Delta Y_t = \Pi Y_{t-p} + \sum \Gamma_i \Delta Y_{t-i} + u_t \tag{7}$$

Where, $\Pi = -(I - A_1 - A_2 - \dots - A_p)$ and $\Gamma_i = -(I - A_1 - A_2 - \dots - A_i)$. If the coefficient matrix Π has reduced rank $r < k$, then there exist $k \times r$ matrices α and β each with rank r such that $\Pi = \alpha \beta'$ and $\beta' Y_t$ is stationary. r is the number of cointegrating relations and each column of β is the co-integrating vector.

RESULT AND DISCUSSIONS

ADF Unit Root Tests: Plots of the three time series data are shown in Figure 1. From Figure 1 it is clear that contribution to Agriculture, Industry and Service shows an upward trend and they have a tendency to move together, implying that they are causally linked to each other.

FIGURE 1: TIME SERIES PLOT FOR ACTUAL DATA FORM 1982-83 TO 2011-2012



The ADF test of unit root for the three variables of our concern, at suggested lag length three is presented below-

TABLE 1: AUGMENTED DICKEY FULLER (ADF) UNIT ROOT TEST

Null Hypothesis	Variable	Absolute Value of Test Statistic	1 percent critical value	5 percent critical value	10 percent critical value
The variable is non stationary	Contribution from industry	2.91	-3.58	-2.93	-2.60
	Contribution from service	1.05	-3.58	-2.93	-2.60
	Contribution from agriculture	2.50	-3.58	-2.93	-2.60

From the above table we can see that the absolute value of the Augmented Dickey Fuller test statistic is less than the 1 percent critical value for the variables contribution to GDP from service and contribution to GDP from agriculture and for the variable contribution to GDP from industry it is less than 5 percent critical value. So, we can declare the variables as non stationary. As the original variable are found to be non stationary, we difference them at order one and do ADF test again, the results are shown below in table 2.

TABLE 2: ADF TESTS AFTER FIRST DIFFERENCE

Null Hypothesis	Variable	Absolute Value of Test Statistic	1 percent critical value	5 percent critical value	10 percent critical value
The variable is non stationary	Contribution from industry	1.23	-3.58	-2.93	-2.60
	Contribution from service	2.04	-3.58	-2.93	-2.60
	Contribution from agriculture	2.61	-3.58	-2.93	-2.60

As all the three variables appears to be non stationary, we difference them at order one and perform the Augmented Dicky Fuller test again. The results are presented in the above table from which it can be seen that the absolute value of the Augmented Dicky Fuller test statistic is less than even the 10 percent critical value for contribution from industry and contribution from service and less than 5 percent critical value for contribution from agriculture. So, we can declare, even after differencing all the three variables remain non stationary.

TABLE 3: ADF TESTS AFTER SECOND DIFFERENCE

Null Hypothesis	Variable	Absolute Value of Test Statistic	1 percent critical value	5 percent critical value	10 percent critical value
The variable is non stationary	Contribution from industry	3.20	-3.58	-2.93	-2.60
	Contribution from service	4.42	-3.58	-2.93	-2.60
	Contribution from agriculture	6.41	-3.58	-2.93	-2.60

To make the variables stationary, we difference them again. The results of Augmented Dicky Fuller test for the second differenced data are presented in the above table 3 and from the table we can see that all the three variables are now stationary and we can say it even with 99% level of confidence for contribution from service and for contribution from agriculture and can say the same thing for contribution from industry 95% confidence.

VAR Lag Order Selection: Before fitting the model, we have to select the appropriate lag length of the vector error correction model. The value of different information criteria of the model at different lag length are given below in table 4.

To fit a VAR model at first we have to determine the appropriate lag length and for this purpose we take the help of the information criterion. Here are the values of some information criteria based on different lag length.

TABLE 4: LAG LENGTH CRITERIA

Criterion	Lag				
	1	2	3	4	5
AIC	53.41	53.33	53.19	52.76	52.04
HQ	53.57	53.61	53.58	53.26	52.66
SC	54.00	54.37	54.66	54.67	54.39
FPE	1.586549e+23	1.535603e+23	1.482419e+23	1.203987e+23	9.115755e+22

The above table clearly indicates that we should fit our vector autoregressive model with lag length five as all the criterion except SC give smallest value at this lag.

Johansen Co-integration Test

TABLE 5: JOHANSEN COINTEGRATION TEST BASED ON TRACE STATISTICS

Null Hypothesis	Test Statistic	10 Percent Critical Value	5 Percent Critical Value	1 Percent Critical Value
$r \leq 2$	4.71	7.52	9.24	12.97
$r \leq 1$	15.36	17.85	19.96	24.60
$r = 0$	53.95	32.00	34.91	41.07

TABLE 6: JOHANSEN COINTEGRATION TEST BASED ON MAXIMUM EIGEN VALUE STATISTICS

Null Hypothesis	Test Statistic	10 Percent Critical Value	5 Percent Critical Value	1 Percent Critical Value
$r \leq 2$	4.71	7.52	9.24	12.97
$r \leq 1$	10.65	13.75	15.67	20.20
$r = 0$	38.59	19.77	22.00	26.81

Granger Causality Test: The result of multivariate Granger causality test of the three variables of our concern is given below in Table 7.

TABLE 7: RESULTS OF GANGER CAUSALITY TEST

Null Hypothesis	F-Statistic	P-value
Agricultural contribution does not Granger-cause industrial contribution and service contribution	1.06	0.427
Industrial contribution does not Granger-cause agricultural contribution and service contribution	1.93	0.091
Service contribution does not Granger-cause agricultural contribution and service contribution	2.28	0.048

From the above table, it can be seen that there is unidirectional causality from service contribution to the other two variables, but the same thing cannot be said for the other two variables.

Johansen co-integration test is conducted to check the existence of cointegration which is shown below in Table 5 and Table 6. The next step is to determine the order of co-integration in this system. The results of both Johansen trace statistic based and maximum eigen value based tests are presented below.

From both tests the null hypothesis of no cointegration and less than or equal to one co-integration can be rejected even for one percent critical value, but the for the null hypothesis of less than or equal to two co-integration is failed to reject even for 10 percent critical value, the same can be said for the hypothesis of less than or equal to two co-integrating vector. So, we may simply conclude that there is one cointegrating relationship in this system.

The estimated value of the co-integration vector beta is given in the following table.

TABLE 8: ESTIMATING LONG RUN RELATIONSHIP

Variable	Cointegration Coefficient
Agricultural factor	1.00
Industrial factor	-1.27
Service factor	0.06
Constant	-244709.30

From the above result we can establish an equation among the three variables as-

$$\text{Agricultural factor} = -1.27 \text{ industrial factor} + 0.06 \text{ service factor} - 244709.30$$

This equation gives us a clear idea that one unit increase in contribution of industrial factor to GDP causes 1.27 unit decreases in contribution of agriculture to GDP and for the same unit increase in the service factor causes 0.06 unit increase in the agricultural factor on an average.

The value of the error correction terms of the vector error correction model is presented in the following table 9.

TABLE 9: SUMMARY RESULT FORM VECM

Error correction term	Estimated value	Standard error	t statistic	P value
For the equation of agricultural contribution	-0.93	0.22	-4.14	0.002
For the equation of industrial contribution	-0.35	0.15	-2.43	0.033
For the equation of service contribution	-0.06	0.12	-0.48	0.640

The negative sign of all the error correction terms of this model indicate that the concerned variables respond to any shock or deviation in the system at a balancing manner. The value of this term for the equation of contribution of agriculture to GDP is 0.93 with a negative sign that means this variable converges towards the long run equilibrium state of the system at a significant rapid rate of 93% per year. The value of this term for the equation of industrial contribution is also significant with the value of -0.35 indicating the speed of converge of this variable towards equilibrium is 35% per year after any shock or disturbance in the system. The value of the same term for the equation of service is also negative though very much insignificant, that means the variable will converge or adjust towards the desired state though the speed for this adjustment will be very slow.

Diagnostic Checks

Portmanteau test: To check the adequacy of the model, the multivariate Portmanteau tests are conducted. Here the null hypothesis is the residuals of the model are white noise. The value of the test statistic at lag 16 (about one third of the length of the data set) and the corresponding P value are given below in Table 10- To check the adequacy of the model, the multivariate Portmanteau tests are conducted. Here the null hypothesis is the residuals of the model are white noise. The value of the test statistic at lag 13 and the corresponding P value are given below. Again to check whether heteroscedasticity is present in the error of the model we conduct Breusch-Godfrey LM test, the result of this test is also presented in the following table.

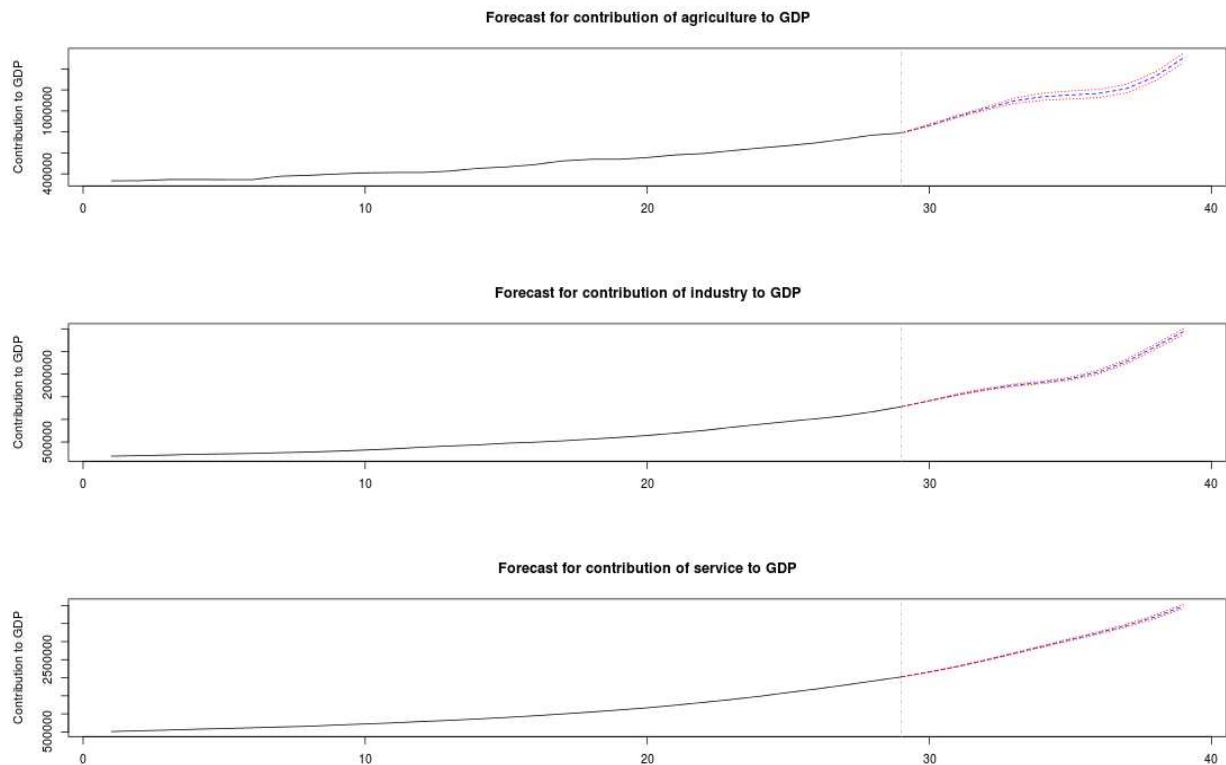
TABLE 10: RESULTS OF DIAGNOSTIC CHECKING

Type of the test	Lag used	Value of the test statistic	DF	P value
Portmanteau	13	87.72	75	0.15
Breusch-Godfrey LM	11	72.00	99	0.98

From the above conducted tests we can say that the error terms of the model are white noise and heteroscedasticity free and we can declare these with more than 99% level of confidence.



FIGURE 2: FORECASTED VALUE ALONG WITH THE ORIGINAL VALUE OF CONTRIBUTION OF AGRICULTURE, INDUSTRY, & SERVICE TO GDP FOR UPCOMING 10 FISCAL YEAR



CONCLUSION

This study examined the causal relationship among contribution of agriculture, industry and service to gross domestic product of Bangladesh from fiscal year 1982-1983 to 2011-2012 in Bangladesh. In this study, Augmented Dicky Fuller test after second differenced variables performs stationary. In lag selection criterion, vector autoregressive model with lag length five is our selected model. From Johansen cointegration tests based on both trace statistics and maximum eigen value statistic, we can conclude that there is one cointegrating relationship in this system. We also illustrates that increase in contribution of industrial factor to GDP causes decreases in contribution of agriculture to GDP and for the same unit increase in the service factor causes increase in the agricultural factor. Again, the model identifies the system to be quite stable though contribution of service to GDP has an insignificant rate of adjustment. To check the adequacy of the model, the multivariate portmanteau test is conducted and for checking heteroscedasticity in our error model we conduct Breusch-Godfrey LM test. In this study we forecast agriculture, industry and service to gross domestic product of Bangladesh for 10 years and result shows there are increasing trend in every sector.

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ASSET LIABILITY MANAGEMENT IN PUNJAB NATIONAL BANK -WITH SPECIAL REFERENCE TO THEIR INTEREST RATE SENSITIVITY

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ABSTRACT

Financial sectors reforms, especially reforms relating to interest rate deregulation has given an awakening call to the modern sector banks. The prime motive of all the banks is to maximize the profitability at the same time they will have to maintain sufficient liquidity for attracting the depositors. To maintain and fulfill these objectives it has become imperative for all these banks to monitor and manage their assets and liabilities in a proper way. This paper titled 'Asset Liability Management In Punjab National Bank -With Special Reference To Their Interest Rate Sensitivity' is aimed at measuring the interest rate risk in PNB by using Gap Analysis technique. The researcher has taken the concept of interest rate sensitivity because it is a brand new concept which is posing a lot of problems to the modern banks and no much study has been done on that aspect of banking..

KEYWORDS

Interest rate sensitivity, Net Interest Income, Portfolio mix.

1. INTRODUCTION

1.1 ASSET LIABILITY MANAGEMENT

Asset Liability Management (ALM) defines management of all assets and liabilities (both off and on balance sheet items) of a bank. It requires assessment of various types of risks and altering the asset liability portfolio to manage risk. Till the early 1990s, the RBI did the real banking business and commercial banks were mere executors of what RBI decided. But now, Bureau of Indian Standards (BIS) is standardizing the practices of banks across the globe and India is part of this process.

The concept of asset liability management is of recent origin in India. It has been introduced in Indian Banking industry with effect from 1st April, 1999. Asset liability management is concerned with risk management and provides a comprehensive and dynamic framework for measuring, monitoring and managing liquidity, interest rate, foreign exchange and equity and commodity price risks of a bank that needs to be closely integrated with the banks' business strategy.

1.2 BENEFITS OF ASSET LIABILITY MANAGEMENT

It is a tool that enables bank managements to take business decisions in a more informed framework with an eye on the risks that bank is exposed to. It is an integrated approach to financial management, requiring simultaneous decisions about the types of amounts of financial assets and liabilities - both mix and volume - with the complexities of the financial markets in which the institution operates.

1.3 INTEREST RATE RISK MANAGEMENT IN PUNJAB NATIONAL BANK

Interest rate risk is measured through the use of re-pricing gap analysis and duration analysis. Liquidity risk is measured through gap analysis. Since the bank's balance sheet consists predominantly of rupee assets and liabilities, movements in domestic interest rates constitute the main source of interest rate risk. Exposure to fluctuations in interest rates is measured primarily by way of gap analysis, providing a static view of the maturity and re-pricing characteristics of balance sheet positions.

An interest rate gap report is prepared by classifying all assets and liabilities into various time period categories according to contracted maturities or anticipated re-pricing date. The difference in the amount of assets and liabilities maturing or being re-priced in any time period category, would then give an indication of the extent of exposure to the risk of potential changes in the margins on new or re-priced assets and liabilities. Punjab National Bank prepares interest rate risk reports on a fortnightly basis. These reports are submitted to the Reserve Bank of India on a monthly basis. Interest rate risk is further monitored through interest rate risk limits approved by the Asset Liability Management Committee.

Asset Liability Management of the Bank is being done proactively to manage any eventuality. The Asset Liability Management in respect of all assets and liabilities is being done on a daily basis with the migration of entire branch network to the Core Banking Solution (CBS). The Bank has also adopted a scientific basis for fixation of BPLR and interest rates in respect of assets and liabilities products. The bank is preparing to move from BPLR to Base Rate System for pricing of loans.

Asset Liability Management Committee (ALCO) is primarily responsible for establishing the market risk management and asset liability management of the bank, procedures thereof, implementing risk management guidelines issued by regulator, best risk management practices followed globally and ensuring that internal parameters, procedures, practices/policies and risk management prudential limits are adhered to. ALCO is also entrusted with the job of pricing of retail advances and deposit products and suggesting revision of BPLR. The policies for hedging and/or mitigating risk and strategies and processes for monitoring the continuing effectiveness of hedges/mitigants are discussed in ALCO and based on views taken by / mandates of ALCO, hedge deals are undertaken.

Liquidity risk of the bank is assessed through gap analysis for maturity mismatch based on residual maturity in different time buckets as well as various liquidity ratios and management of the same is done within the prudential limits fixed thereon. The bank is proactively using duration gap and interest rate forecasting to minimize the impact of interest rate changes. Advance techniques such as Stress testing, simulation, sensitivity analysis etc. are used on regular intervals to draw the contingency funding plan under different liquidity scenarios.

2. OBJECTIVES OF THE STUDY

2.1 PRIMARY OBJECTIVE

To study the management of assets and liabilities with reference to the interest rate sensitivity in Punjab national bank.

2.2 SECONDARY OBJECTIVES

- To arrive at net interest income, net interest margin and net income.
- To arrive at the portfolio mix
- To gauge the performance of the bank with reference to asset liability management using gap analysis

3. RESEARCH METHODOLOGY

This is an analytical research study. The bank under study is Punjab National Bank. The PNB was selected as this was a bank which has undergone a lot of policy changes after a lot of strategic moves. The researchers wanted to know how this bank is maintaining and managing their assets and liabilities portfolios especially in the wake of various financial reforms, particularly relating to interest rate deregulation. Primary data has been collected after personal discussions with the bank staff and the secondary data were collected from the annual reports of PNB, circulars and reading material on ALM. In this study, GAP Analysis Technique has been used to measure the interest rate risk. Period of the study is two years -2008-2009, 2009-2010 respectively.

3.1. GAP ANALYSIS

Gap analysis is a technique of asset-liability management that can be used to assess interest rate risk or liquidity risk. It measures at a given date the gaps between rate sensitive liabilities (RSL) and rate sensitive assets (RSA) (including off-balance sheet positions) by grouping them into time buckets according to residual maturity or next repricing period, whichever is earlier. An asset or liability is treated as rate sensitive if

- i) Within the time bucket under consideration, there is a cash flow;
- ii) The interest rate resets/ re-prices contractually during the time buckets;
- iii) Administered rates are changed and
- iv) It is contractually pre-payable or withdrawal allowed before contracted maturities.

This gap is used as a measure of interest rate sensitivity. A bank benefits from a positive gap i.e., (RSA>RSL), if interest rate rises. Similarly, a negative gap (RSA<RSL) is advantageous during the period of falling interest rate. The interest rate risk is minimized if the gap is near zero.

3.2. COMPUTATION OF RATE SENSITIVE ASSETS AND RATE SENSITIVE LIABILITIES

Rate sensitive assets and liabilities are arrived by grouping only those assets and liabilities which come within the time bucket 2-7 days to 6 months-1 year. There should be constant resets and re prices of interest rates during the time buckets. There should be contractual prepayment and withdrawal. The total of assets and liabilities which satisfy the above conditions are taken as rate sensitive assets and rate sensitive liabilities.

Thus the gap is given by,

$$\text{Gap} = \text{Rate Sensitive Assets} - \text{Rate Sensitive Liabilities}$$

$$\text{Gap Ratio} = \frac{\text{Rate Sensitive Asset}}{\text{Rate Sensitive Liabilities}}$$

3.3. PROCEDURE ADOPTED FOR BREAKING UP OF ASSETS AND LIABILITIES

After the computation of rate sensitive assets and rate sensitive liabilities, uniform rate of interest has been assigned for rate sensitive assets and fixed rate assets. This has been followed for rate sensitive liabilities and fixed rate liabilities.

The interest rate for assets are arrived by using the formula,

$$\text{Interest rate for assets} = \frac{\text{Interest Earned}}{\frac{\text{Total Advances} + \text{Total Investments} + \text{Total Foreign Currency Assets} - \text{Non Earning Assets}}$$

The interest rate for assets has been arrived at by taking into account total advances, total investments, total foreign currency assets and non earning assets.

The interest rate for liabilities are arrived by using the formula,

$$\text{Interest rate for liabilities} = \frac{\text{Interest Expended}}{\frac{\text{Total Deposits} + \text{Total Borrowings} + \text{Total Foreign Currency Liabilities}}$$

The interest rate for liabilities has been arrived at by taking into account the interest expended, total deposits, total borrowings and total foreign currency liabilities.

3.4 COMPUTATION OF MIX

The portfolio mix for assets and liabilities have been computed. The mix for rate sensitive assets, fixed rate assets, non earning assets, rate sensitive liabilities, fixed rate liabilities and non interest bearing liabilities have been calculated to suggest the appropriate mix for assets and liabilities.

$$\text{Mix of rate sensitive assets} = \frac{\text{Volume of rate sensitive assets}}{\text{Total / Average of assets}} \times 100$$

$$\text{Mix of fixed rate assets} = \frac{\text{Volume of fixed rate assets}}{\text{Total / Average of assets}} \times 100$$

$$\text{Mix of non earning assets} = \frac{\text{Volume of non earning assets}}{\text{Total / Average of assets}} \times 100$$

$$\text{Mix of rate sensitive liabilities} = \frac{\text{Volume of rate sensitive liabilities}}{\text{Total / Average of liabilities}} \times 100$$

$$\text{Mix of fixed rate liabilities} = \frac{\text{Volume of fixed rate liabilities}}{\text{Total / Average of liabilities}} \times 100$$

$$\text{Mix of non interest bearing liabilities} = \frac{\text{Volume of non interest bearing liabilities}}{\text{Total / Average of liabilities}} \times 100$$

3.5 COMPUTATION OF PERFORMANCE MEASURES

The Net Interest Income (NII), Net Interest Margin (NIM), Net Income (NI) and gap are the measures used to gauge the performance of Punjab National Bank (Chandranagar branch) with relation to the asset liability management.

Net interest income = (Interest rate of RSA × Volume of RSA) + (Interest rate of FRA × Volume of FRA) – (Interest rate of RSL × Volume of RSL) – (Interest rate of FRL × Volume of FRL)

$$\text{Net interest margin} = \frac{\text{Net interest income}}{\text{Total Performing Assets}}$$

$$\text{Net Income} = \text{Net Interest Income} - \text{Provisions and contingencies}$$

4. RESULTS AND DISCUSSIONS

TABLE 4.0: RESIDUAL MATURITY PATTERN OF ASSETS AND LIABILITIES FOR THE YEAR 2008-09 (In Crores)

Maturity Pattern	Deposits	Advances	Investments	Borrowings	Foreign currency assets	Foreign currency liabilities
Next day	28.206	80.403	.300	4.583	1.297	4.633
2-7 days	55.540	38.856	10.482	.372	6.837	.918
8-14 days	15.445	75.611	.195	.173	1.486	2.263
15-28 days	40.981	53.569	8.886	1.457	7.648	5.721
29 days-3 months	100.758	91.893	20.371	7.295	14.273	29.976
3 months-6 months	209.472	91.001	22.525	13.929	24.593	17.721
6 months-1 year	266.932	198.264	24.501	.541	10.649	12.115
1 year-3 years	870.681	545.859	91.193	9.768	8.849	3.719
3 years-5 years	24.376	187.547	142.739	11.466	7.271	.306
Over 5 years	385.211	66.645	366.411	75.007	2.457	2.857

Source: Annual reports of Punjab National Bank, 2008-09.

TABLE 4.1: BREAK- UP OF ASSETS AND LIABILITIES FOR THE YEAR 2008 – 2009 (In crores)

Items	Volume	Interest Rate	Mix
RSA	783.648	9.3	34
FRA	1418.975	9.3	62
NEA	102.506	0	4.4
Total / Average	2305.130	6.2	100
RSL	821.040	5.7	35
FRL	1383.394	5.7	60
NIBL	102.696	0	5
Total / Average	2305.130	3.8	100

Results computed.

INTERPRETATION

The above table 4.1 shows the break – up of assets and liabilities in the year 2008-09. The table suggests that the RSA and RSL which is Rate Sensitive Assets and Rate Sensitive Liabilities of balance sheet positions have been classified according to the residual maturity. Here, the entire volume of Rate Sensitive Assets, Rate Sensitive Liabilities, Fixed Rate Assets, Fixed Rate Liabilities, Non Earning Assets and Non Interest Bearing Liabilities has been calculated and the total average comes around to 2305.13055.

The interest rates for RSA, FRA, RSL and FRL shows that the total average of interest rate for assets comes around 6.2 and the total average of interest rate for liabilities comes around 3.8.

The mix for RSA, FRA, NEA, RSL, FRL and NIBL has been computed. The mix for assets i.e., RSA comes around 34, for FRA it is 62, for NEA it is 4.4. The mix for liabilities i.e., RSL comes around 35, for FRL it is 60 and for NIBL it is 5. It has been confirmed from the table that the mix of RSA, FRA and RSL, FRL should be 35:65, which shows that there is a negative gap i.e., RSA<RSL. This trend is advantageous during the period of falling interest rates. The interest rate risk is minimized if the gap is nearing to zero

CHART 4.1: COMPOSITION OF ASSETS AND LIABILITIES FOR THE YEAR 2008-09

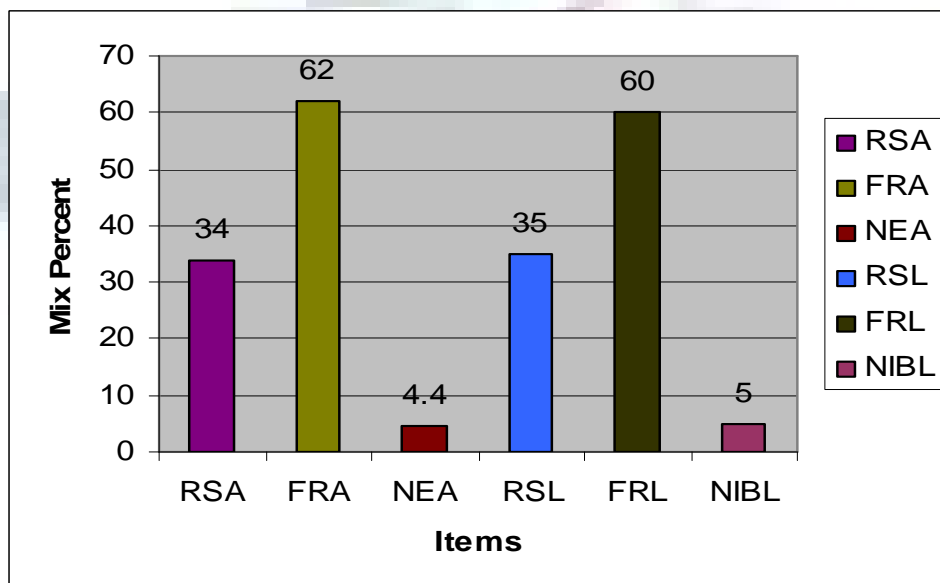


TABLE 4.2: SUMMARY OF PERFORMANCE MEASURES (In crore)

Performance Variables	Measures
Gap	-37.392
Net Interest Income (NII)	7930.61
Net Interest Margin (NIM)	2.7 %
Net Income (NI)	7581.467

Results computed.

INTERPRETATION

As stated in the objective, the performance measures can be arrived at by the calculation of Net Interest Income (NII), Net Interest Margin (NIM) and Net Income (NI). From the above table it can be inferred that in the year 2008-09, the gap is negative and it comes around -37.39215. The Net Interest Income is 7930.61. The Net Interest Margin is 2.7 and the Net Income comes around 7581.467.

It can be suggested that if a negative interest rate shock of 200 basis points i.e., 2% is applied the Net Interest Income, Net Interest Margin and Net Income will be reduced. The negative shock would bring down the Net Income.

TABLE 4.3: RESIDUAL MATURITY OF ASSETS AND LIABILITIES FOR THE YEAR 2008-09 (In Crores)

Items	Next day	2-7 days	8-14 days	15-28 days	29 days – 3 months	3months –6months	6 months – 1 year
Advances	80.403	28.856	75.611	53.569	91.893	91.001	198.264
Investments	.300	10.482	.195	8.886	2.836	22.525	24.501
Foreign currency assets	1.297	6.837	1.486	7.648	14.273	24.593	10.649
Deposits	28.206	55.540	15.445	40.981	102.758	209.472	266.932
Borrowings	4.583	.372	.173	1.457	7.295	13.929	.541
Foreign currency liabilities	4.633	.918	2.263	5.721	29.976	17.721	12.115
Gap	44.578	-.655	59.411	21.943	-31.832	-103.002	-46.174

Source: Annual reports of Punjab National Bank, 2008-09.

INTERPRETATION

The above table shows the residual maturity of the rate sensitive assets and rate sensitive liabilities from 2-7 days to 6 months-1 year for the year 2007-08. It is revealed that the time buckets of 2-7 days, 29 days-3 months, 3 months-6 months and 6 months- 1 year are vulnerable paving way to negative gaps of high volume.

2009-2010 CALCULATIONS

TABLE 4.4: RESIDUAL MATURITY PATTERN OF ASSETS AND LIABILITIES FOR THE YEAR 2009-2010 (In Crores)

Maturity Pattern	Deposits	Advances	Investments	Borrowings	Foreign Currency Assets	Foreign Currency Liabilities
Next day	35.058	37.737	0	2.956	3.416	2.165
2-7 days	64.398	37.676	4.606	32.314	1.447	5.209
8-14 days	52.225	29.831	2.420	1.323	2.938	8.670
15-28 days	58.159	132.052	13.546	3.827	3.283	6.351
29 days– 3 months	101.040	76.098	19.209	19.737	37.653	39.419
3 months–6 months	137.238	108.779	35.171	10.246	50.760	19.094
6 months – 1 year	308.911	248.364	24.968	.483	26.618	18.606
1 year – 3 years	1232.258	844.403	91.487	112.045	11.896	10.877
3 years – 5 years	58.939	222.383	107.083	108.430	4.623	4.934
Over 5 years	98.006	218.684	350.994	109.690	8.411	3.003

Source: Annual reports of Punjab National Bank, 2009-10.

TABLE 4.5: BREAK- UP OF ASSETS AND LIABILITIES FOR THE YEAR 2009– 2010 (In Crores)

Items	Volume	Interest Rate	Mix
RSA	897.671	8.3	31
FRA	1859.967	8.3	64
NEA	100.000	0	3.5
Total / Average	2857.639	5.5	100
RSL	927.439	4.8	32
FRL	1825.396	4.8	64
NIBL	104.802	0	3.7
Total / Average	2857.639	3.2	100

2009-10. Results computed.

INTERPRETATION

The above table shows the break – up of assets and liabilities in the year 2009-10. The table suggests that the RSA and RSL which is Rate Sensitive Assets and Rate Sensitive Liabilities of balance sheet positions have been classified according to the residual maturity. Here, the entire volume of Rate Sensitive Assets, Rate Sensitive Liabilities, Fixed Rate Assets, Fixed Rate Liabilities, Non Earning Assets and Non Interest Bearing Liabilities has been calculated and the total average comes around to 2857.63950

The interest rates for RSA, FRA, RSL and FRL have also been computed. The total average of interest rate for assets comes around 5.5 and the total average of interest rate for liabilities comes around 3.2.

The **portfolio mix** computation suggest that the asset mix i.e., RSA comes around 31, for FRA it is 64, for NEA it is 3.5. Similarly, the liability mix i.e., RSL comes around 32, for FRL it is 64 and for NIBL it is 3.7. The mix of RSA, FRA and RSL, FRL for the year 2009-10 falls between 35:65, which shows that there is a negative gap i.e., RSA<RSL. This trend is advantageous during the period of falling interest rates. The interest rate risk is minimized if the gap is nearing to zero.

CHART 4.5: COMPOSITION OF ASSETS AND LIABILITIES FOR THE YEAR 2009-10

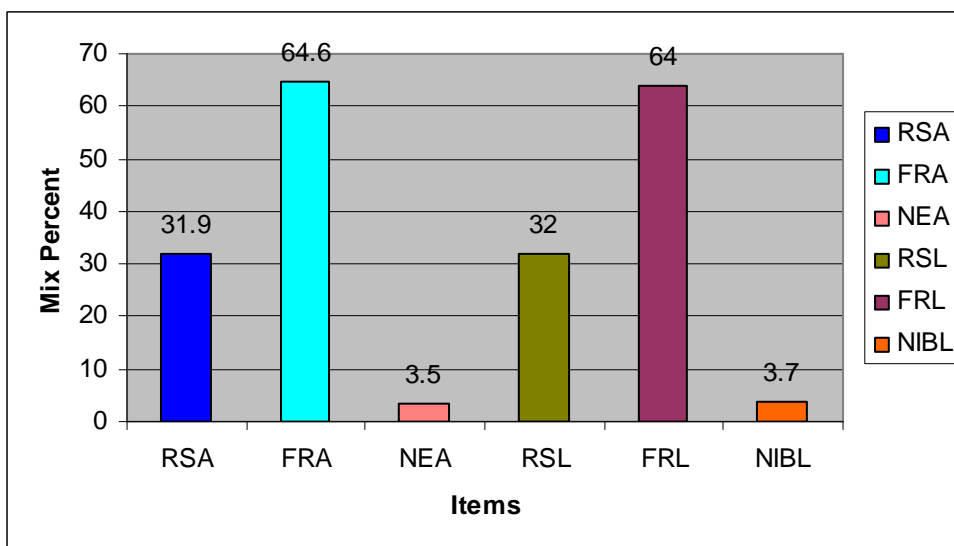


TABLE 4.6: SUMMARY OF PERFORMANCE MEASURES (In Crores)

Performance Variables	Measures
Gap	-29.768
Net Interest Income (NII)	9674.792
Net Interest Margin (NIM)	3.38 %
Net Income (NI)	9325.649

Results computed.

INTERPRETATION

The performance measures such as Net Interest Income (NII), Net Interest Margin (NIM) and Net Income (NI) has been calculated. From the above table it can be inferred that in the year 2009-10, the gap i.e., RSA-RSL is negative and it comes around -29.76807. The Net Interest Income is 9674.792. The Net Interest Margin is 3.38 and the Net Income comes around 9325.649.

It can be suggested that if a negative interest rate shock of 200 basis points i.e., 2% is applied the Net Interest Income, Net Interest Margin and Net Income will be reduced. The negative shock would bring down the Net Income.

TABLE 4.7: RESIDUAL MATURITY OF ASSETS AND LIABILITIES FOR THE YEAR 2009-10 (In Crores)

Items	Next day	2-7 days	8-14 days	15-28 days	29days-3mnths	3months-6months	6 months-1 year
Advances	37.737	29.831	132.052	76.098	108.779	248.364	844.403
Investments	0	4.696	2.420	13.546	108.779	35.171	24.968
Foreign currency assets	3.416	1.447	2.938	3.283	37.653	50.760	26.618
Deposits	35.058	64.398	52.225	58.159	101.040	137.238	308.911
Borrowings	2.956	32.314	1.323	3.827	19.737	10.246	.483
Foreign currency liabilities	2.165	5.209	8.670	6.351	39.419	19.094	18.606
Gap	.973	-65.946	75.191	708.790	-5.445	167.716	567.987

Source: Annual reports of Punjab National Bank, 2009-10.

INTERPRETATION

The above table shows the residual maturity of the rate sensitive assets and rate sensitive liabilities from 2-7 days to 6 months-1 year for the year 2007-08. It is revealed that the time buckets of 2-7 days and 29 days-3 months are vulnerable, paving way to negative gaps of high volume. These negative gaps are due to the mismatch in the maturity pattern of assets and liabilities.

5. FINDINGS AND SUGGESTIONS

5.1 FINDINGS OF THE STUDY

1. The asset liability management concept though in vogue since 1997, its inherent complexities in obtaining accurate timely information from the grass root level makes the bank in not getting the full advantage of it.
2. The Punjab national bank's interest rate sensitivity is measured through the use of gap analysis technique.
3. During the year 2009-10, the net income of the bank has increased in spite of the negative gap.
4. The difference in the net interest income, net interest margin and net income during 2008-09 and 2009-10 is due to the difference in the mismatch of maturity pattern of the assets and liabilities during those years.
5. The analysis of net interest margin, net interest income and net income shows an increasing trend due to better asset liability management carried out by the bank.
6. The analysis of residual maturity pattern of assets and liabilities from 2-7 days to 6 months-1 year reveals one or more substantial negative gaps.
7. The negative gaps can be advantageous for the bank during the period of falling interest rates.

5.2 SUGGESTIONS

1. The bank can adopt asset driven strategies by lengthening the maturity of the asset portfolio to overcome the asset liability mismatch.
2. To overcome the mismatch in the maturity pattern of assets and liabilities, the bank can also adopt liability driven strategies by shortening the maturity of liability portfolio.
3. An adjustment in the asset and liability portfolio could yield better net income for the bank.
4. The bank can actively participate in the derivative market by using interest rate derivatives to manage asset and liability positions.

6. CONCLUSION

The study aimed to analyze the management of assets and liabilities with reference to the interest rate sensitivity in Punjab National Bank. The analysis of residual maturity pattern of assets and liabilities show a negative gap. This has revealed that the bank is exposed to asset liability mismatch.

Though there is a negative gap, the bank's net interest income, net interest margin and net income shows an increasing trend. The net income of the bank during 2009-10 is higher than that in 2008-09. This shows betterment in the asset liability management of the bank during the year 2009-10. The banks should use information about these risks as key input in their strategic business planning process. The sensitivity analysis can be tool for risk management. The performance of the bank has been promising thereby opening new horizons of hope and development for the country.

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STRUCTURAL CHANGE IN SOUTHERN STATES OF INDIA

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ABSTRACT

Economic development is a set of interrelated changes in the structure of an economy that are required for its continued growth. Structural change is a worldwide phenomenon and is found in all economies; national or regional. The present paper attempts to study structural change in addition to certain socio-economic indicators in the southern states of India. Time period of the study is from 1980-81 to 2010-11. A distinctive feature of structural change in these regional economies has been a decline in the share of primary sector in the NSDP and an increase in the share of secondary and tertiary sectors in the NSDP. The process of urbanisation was found in all regional economies with Tamil Nadu showing the highest figures and Kerala showing the maximum rate of increase. Next was Karnataka followed by Andhra Pradesh which showed the lowest figure. Some degree of inequality was also found in the southern states with urban inequality being greater than rural during all points of time. The states of South India witnessed greater inequality as compared to the All India level at various points of time. The socio-economic indicator of population below poverty line has witnessed Kerala and Tamil Nadu performing well than rest of the southern states. In case of demographic indicators of sex ratio and literacy, Kerala has shown the highest figures followed by Tamil Nadu in both the indicators. While Karnataka performed the poorest in sex ratio it was Andhra Pradesh to trail behind in literacy.

JEL CODES

OO, O1

KEYWORDS

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

1. INTRODUCTION

India has witnessed a gradual structural change over the past years like many developed and developing nations across the globe. A similar phenomenon has occurred at the state level also. The present study is of structural change and certain socio-economic indicators of the southern states of India. An attempt is made to study the manner in which these bordering states located in the south are transforming with time. The time period of the study is from 1980-81 to 2010-11. Major sources of data have been CSO, RBI publications, Planning Commission and Socio-economic Review of States.

The southern states have shown a relatively better growth performance in the last few years with few variations among them. Kerala's growth performance was spread fairly over the three sub-sectors i.e. primary, secondary and tertiary. Performance of Tamil Nadu was dependent on its secondary and tertiary sectors while Andhra Pradesh and Karnataka attribute their growth to the primary sector with a strong services sector base.

To analyse the structure of an economy two approaches are possible – the micro and the macro. The first is concerned with the functioning of economies, their markets, institutions, mechanisms for allocating resources, income generation and its distribution etc. In the second approach, economic development is viewed as an interconnected set of processes of structural change in the long-period that are the outcome of growth. The fundamental features of this approach are urbanization, industrialization, sectoral transformation, demographic transition, income distribution etc. Such interrelated processes of structural change that accompany economic development are jointly referred to as structural transformation.

Economists accept the organic interdependence of structural change and economic growth, and emphasize the necessity of structural change for economic growth. "Some structural changes not only in economic but also in social institutions and beliefs are required, without which modern economic growth would be impossible" (Kuznets 1971). Chenery views economic development "as a set of interrelated changes in the structure of an economy that are required for its continued growth" (Chenery 1979). One historical approach that emphasizes structural transformation is the 'stages approach' by Rostow (1960). He postulated that the economy passes through various stages of development: starting from the traditional stage, to the preconditions stage, then to the take-off stage, to the drive to maturity and finally, to the age of high mass consumption.

The modern analysis of sectoral transformation of the economy originated with Fisher (1935, 1939) and Clark (1940), popularly known as the **Fisher-Clark Hypothesis**, which dealt with sectoral shifts in the composition of the labour force and were probably the first to deal with the process of reallocation of labour force during the epoch of modern economic growth. A more detailed work on the patterns of development followed by most countries has been done by Kuznets (1966, 1971) and Chenery and Syrquin (1975). These authors reached to the same conclusion that: as an economy grows, the production shifts from primary [agriculture, fishing, forestry, mining] to the secondary [manufacturing and construction], and finally to the tertiary sector [services].

2. REVIEW OF LITERATURE

Research has been conducted the world over to study the process of structural change in various economies. **Chowdhury and Chowdhury (1995)** in their study investigate the sectoral linkages in 13 countries using the methodology suggested by Granger. The sample of countries chosen for the study are: South Korea, China, Japan, Indonesia, Malaysia, Thailand, Philippines, India, Pakistan, Bangladesh, Nepal and Australia; **Choliz and Duarte (2004)** analysed the structural and technological changes in the Spanish economy between 1980 and 1994; **Bah (2008)** in his study has compared the structural transformation processes in developed and developing countries. All have found the prevalence of structural transformation of some extent in these economies. Moving closer, the occurrence of structural transformation has also been observed in the Indian economy. Studies conducted by **Rao (1979)** attempts at identifying the important structural changes in the Indian economy since the advent of planned economic development; **Mohanty and Raghavan (1990)** have analysed the growth and structural characteristics of the Indian economy since the First Plan period; **Sastry, Singh, Bhattacharya and Unnikrishnan (2003)** examined the growth of linkage among the agriculture, industry and services sectors in the economy. Similarly, research highlights the existence of structural transformation at the state level in India. Studies conducted by **Saluja and Sarma (1991)** have examined the structural changes between a least developed state of India (Assam) and a most developed one (Punjab); **Shetty (2003)** in his study compared the economic performance across states over the period 1980-81 to 2000-01 and **Sethi (2003)** has examined the nature of structural changes in output and employment along with inter-sectoral linkages in the income of the Haryana state. These studies lay emphasis upon the existence of structural change in the economies; national or regional thereby presenting a strong foundation to the present study of structural change and certain socio-economic indicators of South India and comparing them with the national level.

3. STATEMENT OF THE PROBLEM

The present paper attempts to study structural change in addition to certain socio-economic indicators in the southern states of India. It assesses the relative performance of the southern states viz-a- via each other in various areas that are indicators of structural change in the last few decades.

4. OBJECTIVES

1. To find whether the regional economies of South India are undergoing any structural change.
2. To assess the relative performance of the regional economies of South India on various socio-economic indicators.

5. DATA ANALYSIS, RESULTS AND DISCUSSION

5.1 COMPOSITION OF NSDP OF SOUTHERN STATES

The estimates of the shares of primary, secondary and tertiary sectors in NSDP since 1980-81 are presented in **Table 1**. It is observed that structural change has occurred in all the four states of South India with notable interstate variations. During 1980-81, Andhra Pradesh and Karnataka held the leading position in the primary sector each having a share of 45.58% and 45.40% in the NSDP. They were followed by Kerala whose primary sector had a share of 39.11% in the NSDP followed by Tamil Nadu with a share of 25.43% which was found to be the least among all four. Over the time period of the study all four states witness a decline in the share of primary sector in NSDP, the least share being of Tamil Nadu (13.72%) and Kerala (13.87%) respectively.

The decline in the share of primary sector in the Southern States has been accounted for by an increase in the secondary and tertiary sectors. Although all four states witnessed an increase in the share of secondary sector, it was Tamil Nadu to have the distinction of having the largest share in it in as early as 1980-81 (33.97%) while Andhra Pradesh had the least 17.63% as it was dominated by the primary sector. The share of secondary sector for Kerala was 24.48% and that for Karnataka was 21.41% for the same year. The secondary sector saw an increase in its share in each state in 1990-91 and thereafter tends to decline too in 2000-01 in all the states. It is in 2010-11 that the share of secondary sector gains momentum again being the highest for Tamil Nadu (26.99%) followed by Karnataka (25.53%) and Andhra Pradesh (24.63%), where as Kerala's share was almost stagnant at 21.39%.

A distinguishing characteristic of these regional economies has been the growing importance of the tertiary sector. The economies that used to be dominated by the primary sector in the initial period of the study have turned around to be predominantly service sector oriented. The regional economies of Andhra Pradesh and Karnataka have shown a gradual increase in their share in the tertiary sector, it was Kerala to have taken a giant leap. Kerala's services sector had a share of 32.83% (which was on the fourth place) in 1980-81, rose to 40.74% in 1990-91, taking a huge jump to 60.07% in 2000-01 and thereafter reaching to 64.73% (taking the first place) in 2010-11. It was followed by Tamil Nadu which had a share of 34.75% in 1980-81 and rose to 59.28% in 2010-11 occupying the second place.

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

		1980-81	1990-91	2000-01	2010-11
ANDHRA PRADESH	Primary Sector	45.58	35.40	31.79	23.63
	Secondary Sector	17.63	23.04	19.71	24.63
	Tertiary Sector	36.77	41.55	48.49	51.73
KARNATAKA	Primary Sector	45.40	36.40	32.18	17.56
	Secondary Sector	21.41	23.73	19.87	25.53
	Tertiary Sector	33.17	39.85	47.94	56.87
KERALA	Primary Sector	39.11	32.64	18.25	13.87
	Secondary Sector	24.48	26.61	21.66	21.39
	Tertiary Sector	32.83	40.74	60.07	64.73
TAMIL NADU	Primary Sector	25.43	19.79	17.33	13.72
	Secondary Sector	33.97	35.63	27.67	26.99
	Tertiary Sector	34.75	44.57	54.98	59.28

Source: CSO

5.2 URBANISATION

The process of urbanisation has witnessed a rise in the Southern states of India during the period under study. As seen in **Table 2** Tamil Nadu has been leading throughout viz-a-via the rest of Southern States. It has shown an urbanization rate of 32.95% in 1981, 34.15% in 1991, 44.04% in 2001 and 48.45% in 2011. Tamil Nadu not only has exceeded the other southern states but also the All India level in this indicator for the said time period. Although Tamil Nadu has exceeded the other three states, its rise was gradually spread over the entire period of the study. It was Kerala to take a massive leap, from 18.74% in 1981 it rose to 47.72% in 2011 showing a staggering increase in the rate of urbanization by 29%.

Andhra Pradesh and Karnataka have shown a gradual increase in urbanization with Karnataka showing 28.89% in 1981 to 38.57% in 2011 followed by Andhra Pradesh who has trailed behind with 23.32% in 1981 and 33.49% in 2011.

TABLE 2: URBANISATION (In Percent)

States	1981	1991	2001	2011
ANDHRA PRADESH	23.32	26.89	27.30	33.49
KARNATAKA	28.89	30.92	33.99	38.57
KERALA	18.74	26.39	25.96	47.72
TAMIL NADU	32.95	34.15	44.04	48.45
ALL INDIA	23.34	25.71	27.81	31.16

Source: Socio Economic Review of Gujarat

5.3 GINI CO-EFFICIENT

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

As depicted in **Table 3**, the Ginni Co-efficient for the South India showed a greater level of inequality in the urban areas as compared to the rural. Comparing with the other southern states Andhra Pradesh showed the least value of Ginni Co-efficient in the rural sector in 1983-84 and 1993-94 of 0.29 for each year, declined to 0.24 in 1999-00 showing rise in equality but rose to 0.29 again in 2004-05 depicting a fall in equality. In the urban sector it rose from 0.31 in 1983-84 to 0.37 in 2004-05 thus witnessing a rise in urban inequality. In this indicator of inequality it was seen that Andhra Pradesh showed the least levels for the period 1983-84, 1993-94, 1999-00 while Karnataka showed a least figure out of all four in 2004-05 both in the rural (0.26) and urban (0.36) sectors.

Following a similar pattern the level of equality rose as depicted by the declining values of Ginni Co-efficient for all the southern states till 1999-00 in both the rural and urban sectors with the exception of Tamil Nadu where it showed a rise in the values in the urban sector thereby depicting a rise in inequality. Thereafter a rise in value of Ginni Co-efficient in 2004-05 showed a fall in the level of equality except for Tamil Nadu where it fell from 0.38 to 0.36 showing a rise in equality in the urban sector.

The Ginni Co-efficient of the Southern States was more than the All India level at certain points of time thereby representing a greater level of inequality in South India than seen at the national level.

TABLE 3: GINI COEFFICIENT

	Rural	Urban
1983-84		
ANDHRA PRADESH	0.29	0.31
KARNATAKA	0.30	0.33
KERALA	0.33	0.37
TAMIL NADU	0.32	0.35
ALL INDIA	0.30	0.33
1993-94		
ANDHRA PRADESH	0.29	0.32
KARNATAKA	0.27	0.32
KERALA	0.29	0.34
TAMIL NADU	0.31	0.34
ALL INDIA	0.28	0.34
1999-2000		
ANDHRA PRADESH	0.24	0.31
KARNATAKA	0.24	0.32
KERALA	0.27	0.32
TAMIL NADU	0.28	0.38
ALL INDIA	0.26	0.34
2004-05		
ANDHRA PRADESH	0.29	0.37
KARNATAKA	0.26	0.36
KERALA	0.34	0.40
TAMIL NADU	0.32	0.36
ALL INDIA	0.30	0.37

Source: Planning Commission

5.4 POPULATION BELOW POVERTY LINE

Table 4 depicts the various levels of poverty in the Southern states of India and it shows that Tamil Nadu had the highest level of poverty in 1983-84 (51.66%). It fell around 16% and came down to 35.03% in 1993-94. It further slid 14% and became 21.12% taking an overall plunge of 29% since 1983-84 which is the highest fall among all the four states. However it showed a slight increase in 2004-05 and became 22.5%.

Kerala witnessed a poverty level of 40.42% in 1983-84, fell to 25.43% in 1993-94 with a fall of 15%, and declined further to 12.72% in 1999-00. Thereafter it showed a slight rise to 15% in 2004-05 which was the lowest among all the four states.

Karnataka which had the least value of 38.24% among all the states in 1983-84 showed a minor decline to 33.16% in 1993-94 and a major fall of 13% to reach 20.04% in 1999-00. Like Tamil Nadu and Kerala, Karnataka also showed a rise in the poverty level in 2004-05 to 25.00%. Andhra Pradesh witnessed a gradual fall in its poverty figures from 40.88% in 1983-84 to 39.35% in 1993-94 to 33.47% in 99-00 to finally 17.60%. It was only Andhra Pradesh which showed a decline in its poverty levels in the last decade of the study while the rest three states witnessed a marginal rise in their poverty levels. It was only in 2004-05 that all four states had values less than the All India level.

TABLE 4: POPULATION BELOW POVERTY LINE (In Percent)

States	1983-84	1993-94	1999-2000	2004-05
ANDHRA PRADESH	40.88	39.35	33.47	17.60
KARNATAKA	38.24	33.16	20.04	25.00
KERALA	40.42	25.43	12.72	15.00
TAMIL NADU	51.66	35.03	21.12	22.50
ALL INDIA	44.48	35.97	26.10	27.50

Source: Planning Commission

5.5 SEX RATIOS

The demographic indicator of sex ratio, Table 5, was seen to be highest in Kerala for the entire time period so much so that it was even higher than the national level at all points of time. It was 1032 in 1981 and has shown a consistent increase throughout to 1036 in 1991, 1058 in 2001 and 1084 in 2011 as against the national figures of 934, 927, 933 and 940 in the same time period.

It was followed by Andhra Pradesh and Tamil Nadu where it slipped from 975 in 1981 to 972 in 1991 for A.P. but thereafter rose to 978 in 2001 and later to 992 in 2011. Similarly for Tamil Nadu, it slid from 977 in 1981 to 974 in 1991 but regained itself to 986 in 2001 followed by 995 in 2011 being second after Kerala. Karnataka, although lagged behind all Southern states yet it was ahead the All India figures throughout the said time period.

TABLE 5: SEX RATIOS

States	1981	1991	2001	2011
ANDHRA PRADESH	975	972	978	992
KARNATAKA	963	960	964	968
KERALA	1032	1036	1058	1084
TAMIL NADU	977	974	986	995
ALL INDIA	934	927	933	940

Source: Planning Commission

5.6 LITERACY RATES

Kerala has performed well on this indicator too showing the highest rate in 1981 of 78.85%. It outperformed the rest of the southern states throughout by having literacy rates of 89.81% in 1991, 90.86% in 2001 and 93.91% in 2011. Kerala was followed by Tamil Nadu showing literacy rates of 54.39% in 1981, 62.66% in 1991, 73.45% in 2001 and 80.33% in 2011. Next has been Karnataka having 46.21% in 1981 which increased to 75.60% in 2011. With the exception of Andhra Pradesh, the rest of the Southern States have shown literacy rates greater than the National level. Andhra Pradesh although showed a rise in literacy rates in the last four decades but still has a long way to go to match up to its other counterparts.

TABLE 6: LITERACY RATES (Percent)

States	1981	1991	2001	2011
ANDHRA PRADESH	35.66	44.08	60.47	67.66
KARNATAKA	46.21	56.04	66.64	75.60
KERALA	78.85	89.81	90.86	93.91
TAMIL NADU	54.39	62.66	73.45	80.33
ALL INDIA	43.57	52.21	64.84	74.04

Source: Planning Commission

6. CONCLUSION

The present study highlights certain interrelated factors which determine the ongoing process of structural change in the states of South India. A distinctive characteristic of structural change in these states has been seen in the declining share of primary sector in the NSDP and the increasing share of secondary and tertiary sectors in NSDP during the time period of the study. Kerala followed by Tamil Nadu have shown the largest increase in the services sector. Andhra Pradesh, although being an agriculturally dominated state has also witnessed a rise in the services sector.

Urbanisation, an important indicator of structural change was found in all regional economies with Tamil Nadu showing the highest figures throughout. Kerala has shown a remarkable rise in the latter part of the study by occupying the second position in 2011 where it was on the fourth place in 1981. Next was Karnataka followed by Andhra Pradesh which showed the lowest rate.

Level of inequality was also witnessed in the southern states with urban inequality being greater than rural during all points of time. Andhra Pradesh showed the least levels in comparison to the other three states for nearly three decades whereas towards the end the lowest level was depicted by Karnataka. Maximum level of inequality was found in Kerala in the last phase. Also, the states of South India witnessed greater inequality as compared to the All India level at various points of time.

The socio-economic indicator of population below poverty line has witnessed Kerala outperforming the other southern states. It showed the least rate in population below poverty line for nearly three decades. Tamil Nadu on the other hand, witnessed the maximum decline over the entire period of study. It was only Andhra Pradesh which showed a decline in its poverty levels over the entire time period of the study while the rest three states witnessed a marginal rise in their poverty levels during the last decade.

In case of demographic indicators of sex ratio and literacy, Kerala has shown the highest figures followed by Tamil Nadu in both the indicators. While Karnataka fared the poorest in the sex ratio it was Andhra Pradesh to lag behind in literacy.

Thus, structural change is taking place which is an indicator of development with Kerala and Tamil Nadu topping the charts on various indicators. Suitable measures need to be administered so that these states may progress to achieve balanced growth and be at par with each other in the process of development.

7. LIMITATIONS

As the data was mainly collected from secondary sources, certain variations in the time periods were found in few indicators due to the non-availability of data for specific years from the same source.

8. SCOPE FOR FURTHER RESEARCH

The study was conducted taking into consideration only the southern states of India. It can be extended to study structural change by including various other states of India, India as a whole and a comparison of various economies of the world may also be made.

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ANALYSIS OF INDIAN DIRECT TAX SYSTEM

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ABSTRACT

The direct tax policy has been used to attempt to encourage savings and investment, reduce inequalities of income and wealth, and promote investment in under developed regions and in specific priority sectors. These objectives have been tempered by the need to enhance the ability of the tax system to raise revenues with minimum distortion in the economic decisions of taxpayers. In 1974, the personal income tax had as many as 11 tax brackets, with rates rising from 10 to 97.5 per cent, including surcharges. If the rates had climbed any higher, they would have gone into orbit! In the case of corporate, a distinction was made between widely and closely held companies and the tax rate varied from 45 to 65 per cent. Direct tax are primary tax system in India.

KEYWORDS

Index Number (IN), Annual Growth Rate (AGR), Income Tax (IT), Property Tax (PT), Estate Tax (ET), Gift Tax (GT) and Corporation Tax (CT).

INTRODUCTION

A Direct tax is a kind of charge, which is imposed directly on the taxpayer and paid directly to the government by the persons (juristic or natural) on whom it is imposed. A direct tax is one that cannot be shifted by the taxpayer to someone else.

OBJECTIVES OF THE STUDY

- To analysis of major direct taxes
- To analysis of index number in direct taxes
- To analysis of annual growth rate in direct major taxes

METHODOLOGY

The present study is mainly based on the secondary data.

SECONDARY DATA

This study data are collecting from secondary data. This secondary data are collecting from books, journals, reports, newspapers and internet.

TOOLS USED

The method of index number used to different direct taxes. The index number formula is:

$$\text{Index Number} = \text{Current Year} / \text{Base Year} * 100$$

The method of Annual Growth Rate used to growth rate in different direct or indirect taxes. The Annual Growth Rate formula is:

$$\text{Annual Growth Rate} = \text{Current Year} - \text{Previous Year} / \text{Previous Year} * 100$$

DIRECT TAXES

The some important direct taxes imposed in India are as under:

INCOME TAX

Income Tax Act, 1961 imposes tax on the income of the individuals or Hindu undivided families or firms or co-operative societies (other than companies) and trusts (identified as bodies of individuals associations of persons) or every artificial juridical person. The inclusion of a particular income in the total incomes of a person for income tax in India is based on his residential status.

There are three residential status, viz.,

1. Resident and Ordinarily Residents
2. Resident but not Ordinarily Residents and
3. Non Residents.

There are several steps involved in determining the residential status of a person. All residents are taxable for all their income, including income outside India. Non residents are taxable only for the income received in India or Income accrued in India. Not ordinarily residents are taxable in relation to income received in India or income accrued in India and income from business or profession controlled from India.

TABLE – 1: ANALYSIS OF ANNUAL GROWTH RATE IN TAXES ON INCOME

YEAR	TAXES ON INCOME (RS. In Crore)	INDEX NUMBER	ANNUAL GROWTH RATE
2002-2003	36865.96	100	-
2003-2004	41386.51	112.2621	12.2621
2004-2005	49268.12	133.6412	19.0439
2005-2006	60756.9	164.8049	23.3189
2006-2007	80408.97	218.1117	32.3454
2007-2008	111820.63	303.3167	39.0649
2008-2009	106074.9	287.7313	-5.1383
2009-2010	122417.24	332.0604	15.4064
2010-2011	141569	384.0101	15.6447
2011-2012	164529.11	446.2900	16.2183
AVERAGE	91509.73		38.4767

Source: Indian Public Finance Statistics 2010-11 and 2011-12

Table – 1 shows that the data on components of Direct Taxes in India during the period from 2002-03 to 2011-12. The Taxes on Income has been increased from 36865.96 (Rs. In Crore) 2002-03 to 164529.11 (Rs. In Crore) in 2011-12, and it has reached the highest value of 164529.11 (Rs. In Crore) in the year 2009-10. The Index Number has increased from 100% in the year 2002-03 to 446.2900% in the year 2011-12. The highest Index Number is registered 446.2900% in 2011-12. In this decade the highest Annual Growth Rate was 39.0649% present in 2007-08 and the lowest Annual Growth Rate was -5.1383% present in 2008-09. In this decade the average value of Taxes on Income and Annual Growth Rate works out to 91509.73 (Rs. In Crore) and 38.4767% per year respectively.

PROPERTY TAX

Property tax or 'house tax' is a local tax on buildings, along with appurtenant land, and imposed on owners. The tax power is vested in the states and it is delegated by law to the local bodies, specifying the valuation method, rate band, and collection procedures. The tax base is the annual rateable value or area based rating. Owner occupied and other properties not producing rent are assessed on cost and then converted into annual rateable value by applying a percentage of cost, usually 6 percent. Vacant land is generally exempted from the assessment. The properties lying under control of central are exempted from the taxation. Instead a 'service charge' is permissible under executive order. Properties of foreign missions also enjoy tax exemption without an insistence for reciprocity.

INHERITANCE (ESTATE) TAX

An inheritance tax (also known as an estate tax or death duty) is a tax which arises on the death of an individual. It is a tax on the estate, or total value of the money and property, of a person who has died, India enforced estate duty from 1953 to 1985. Estate Duty Act, 1953 came into existence i.e. 15th October, 1953. Estate Duty on agricultural land was discontinued under the Estate Duty (Amendment) Act, 1984. The levy of Estate Duty in respect of property (other than agricultural land) passing on death occurring on or after 16th March, 1985, has also been abolished under the Estate Duty (Amendment) Act, 1985.

TABLE – 2: ANALYSIS OF ANNUAL GROWTH RATE IN ESTATE DUTY

YEAR	ESTATE TAX (RS. In Crore)	INDEX NUMBER	ANNUAL GROWTH RATE
2002-2003	0.27	100	-
2003-2004	-0.38	-140.7407	-240.7407
2004-2005	0.2	74.0741	-152.6316
2005-2006	-0.72	-266.6667	-460.0000
2006-2007	1.66	614.8148	-330.5556
2007-2008	0.3	111.1111	-81.9277
2008-2009	0.58	214.8148	93.3333
2009-2010	0.22	81.4815	-62.0690
2010-2011	-	-	-
2011-2012	-	-	-
AVERAGE	0.27		-129.6296

Source: Indian Public Finance Statistics 2010-11 and 2011-12

Table – 2 shows that the data on components of Direct Taxes in India during the period from 2002-03 to 2011-12. The Corporation Tax has been increased from 0.27 (Rs. In Crore) 2002-03 to 0.22 (Rs. In Crore) in 2011-12, and it has reached the highest value of 1.66 (Rs. In Crore) in the year 2006-07. The Index Number has increased from 100% in the year 2002-03 to 81.4815% in the year 2009-10. The highest Index Number is registered 614.8148% in 2006-07. In this decade the highest Annual Growth Rate was 93.3333% present in 2008-09 and the lowest Annual Growth Rate was -330.5556% present in 2008-09. In this decade the average value of Estate Duty and Annual Growth Rate works out to 0.27 (Rs. In Crore) and -129.6296% per year respectively.

GIFT TAX

Gift tax in India is regulated by the Gift Tax Act which was constituted on 1st April, 1958. It came into effect in all parts of the country except Jammu and Kashmir. As per the Gift Act 1958, all gifts in excess of Rs. 25,000, in the form of cash, draft, check or others, received from one who doesn't have blood relations with the recipient, were taxable. However, with effect from 1st October, 1998, gift tax got demolished and all the gifts made on or after the date were free from tax but in 2004, the act was again revived partially. A new provision was introduced in the Income Tax Act 1961 under section 56 (2). According to it, the gifts received by any individual or Hindu Undivided Family in excess of Rs. 50,000 in a year would be taxable.

TABLE – 3: ANALYSIS OF ANNUAL GROWTH RATE IN GIFT TAX

YEAR	GIFT TAX (RS. In Crore)	INDEX NUMBER	ANNUAL GROWTH RATE
2002-2003	-1.79	100	-
2003-2004	0.72	-40.2235	-140.2235
2004-2005	1.89	-105.5866	162.5000
2005-2006	1.96	-109.4972	3.7037
2006-2007	4.35	-243.0168	121.9388
2007-2008	1.57	-87.7095	-63.9080
2008-2009	1.21	-67.5978	-22.9299
2009-2010	0.97	-54.1899	-19.8347
2010-2011	-	-	-
2011-2012	-	-	-
AVERAGE	1.36		6.5442

Source: Indian Public Finance Statistics 2010-11 and 2011-12

Table - 3 shows that the data on components of Direct Taxes in India during the period from 2002-03 to 2011-12. The Gift Tax has been increased from -1.79 (Rs. In Crore) 2002-03 to 0.97 (Rs. In Crore) in 2009-10, and it has reached the highest value of 4.35 (Rs. In Crore) in the year 2006-07. The Index Number has increased from 100% in the year 2002-03 to -54.1899% in the year 2009-10. The highest Index Number is registered 100% in 2002-03. In this decade the highest Annual Growth Rate was 162.5000% present in 2005-05 and the lowest Annual Growth Rate was -140.2235% present in 2003-04. In this decade the average value of Gift Tax and Annual Growth Rate works out to 1.36 (Rs. In Crore) and 6.5442% per year respectively.

CORPORATION TAX

The companies and business organizations in India are taxed on the income from their worldwide transactions under the provision of Income Tax Act, 1961. A corporation is deemed to be resident in India if it is incorporated in India or if its control and management is situated entirely in India. In case of non-resident corporations, tax is levied on the income which is earned from their business transactions in India or any other Indian sources depending on bilateral agreement of that country.

TABLE – 4: ANALYSIS OF ANNUAL GROWTH RATE IN CORPORATION TAX

YEAR	CORPORATION TAX (RS. In Crore)	INDEX NUMBER	ANNUAL GROWTH RATE
2002-2003	46172.35	100	-
2003-2004	63562.03	137.6625	37.6625
2004-2005	82679.58	179.0673	30.0770
2005-2006	101277.15	219.3459	22.4935
2006-2007	144318.29	312.5643	42.4984
2007-2008	192910.83	417.8060	33.6704
2008-2009	213395.44	462.1715	10.6187
2009-2010	244725.07	530.0252	14.6815
2010-2011	296377	641.8928	21.1061
2011-2012	359990	779.6658	21.4635
AVERAGE	174540.77		75.5184

Source: Indian Public Finance Statistics 2010-11 and 2011-12

Table - 4 shows that the data on components of Direct Taxes in India during the period from 2002-03 to 2011-12. The Corporation Tax has been increased from 46172.35 (Rs. In Crore) 2002-03 to 359990 (Rs. In Crore) in 2011-12, and it has reached the highest value of 244725.07 (Rs. In Crore) in the year 2009-10. The Index Number has increased from 100% in the year 2002-03 to 779.6658% in the year 2011-12. The highest Index Number is registered 779.6658% in 2011-12. In this decade the highest Annual Growth Rate was 42.4984% present in 2006-07 and the lowest Annual Growth Rate was 10.6187% present in 2008-09. In this decade the average value of Corporation Tax and Annual Growth Rate works out to 174540.77 (Rs. In Crore) and 75.5184% per year respectively.

CONCLUSION

This study presents major direct Indian tax system Indirect taxes income tax, property tax, estate tax, gift tax and corporation tax collected by Central Board of Direct Taxes. Direct Tax Collection Rate used in this chapter is defined as the ratio of revenue collection to value for exemptions, expressed in percentage. This study computation of Author own Annual Growth Rate (AGR) calculation in the period of 2002 to 2011, in the period Annual Growth Rate is increasing or decreasing every year. So, every states and federal government direct taxes revenue collection are very helpful to growth in society, poverty development, develop to every department infrastructure facilities in India.

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FRAMEWORK FOR DEVELOPMENT OF STRATEGIC ELEMENTS TO SELF HELP GROUPS IN JAMMU AND KASHMIR STATE

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ABSTRACT

Self Help Groups are the most important means of developing and modifying the socio economic conditions of women. It mostly consists of a financial intermediary composed of a group of 10 to 20 local women who start their own small business venture. Members of the self help group make small regular savings and contributions over a few months until there is enough capital. Starting from Bangladesh, now a day's self help groups have emerged as the fastest segment in the world specially in developing economies. India is also one among the leading country who has millions of self help groups in almost all the states and regions. Present study seeks to identify various problems faced by women in sustaining their self help groups. The study also identifies various dimensions which could be properly regulated by self help groups to achieve strategic advantage. The study further analyzes various measures and approaches which could be implemented in various sub dimensions to bring strategic advantage in self help group processes in Jammu and Kashmir State.

KEYWORDS

Self Help Groups, Strategic Advantage, Synergistic Effect, Organizational Capabilities, Core Ideology, Competencies.

INTRODUCTION

elf help groups are getting a much greater pace because of their positive benefits for poor women who were always in search of work but were unable to get it properly. NABARD India has estimated that more than 3 million self help groups have been established in India till date having approximately 34 million members and more are going to be started in near future. Self help groups have been stated with the goals of providing self employment to poor women. These groups acts as instruments for a variety of goals including empowering women, developing leadership abilities among them, increasing education level of women, improving nutrition and health etc. Besides all these gains there are also other advantages such as low transaction costs for both lenders and borrowers and it is easy to access the finances for any type of work. Besides of the multiple benefits of self help groups to poor women yet it has not been possible to adopt a uniform policy for these groups. It is because of the multiple challenges faced by self help group members. These challenges include high level of corruption, partiality in sanctioning loans to beneficiaries, lack of staff and administration, no proper control, lack of awareness to women, no uniform subsidy policy implemented, lack of skills. Besides all these challenges there is no identified market where self help groups could sell their products and also it is very difficult for them to adopt a communication medium at cheaper rate through which they could promote their product characteristics to ultimate consumers. Along with all these problems self help groups are yet increasing day by day at a regular pace in India as well as in Jammu and Kashmir State.

OBJECTIVES

1. To identify various problems faced by self help groups in sustaining their business in Jammu and Kashmir State.
2. To develop a frame work which could help self help groups to modify and upgrade their activities.
3. To suggest a model which could help self help groups to sustain in complex business environment?
4. To identify dimensions which could be integrated to achieve competencies in self help groups in Jammu and Kashmir State.
5. To recommend various strategic measures and approaches that must be adopted by self help groups for long term growth in Jammu and Kashmir State.

MATERIAL AND METHOD

Present study has been worked out with the help of primary as well as secondary data. The primary data has been collected with the help of a pretested questionnaire from the women who are a part of self help groups in Jammu and Kashmir State. The secondary data has been collected from various reports on self help groups as well as from different offices of block development officers and offices of Assistant Commissioner Development from various districts in Jammu and Kashmir State. The data and information so collected from primary as well as secondary resources has been analyzed statistically and certain cartographic has been applied to develop a framework which could help self help groups to sustain their business in long run.

RESULT AND DISCUSSION

Now a day's its very difficult for self help groups to survive with their traditional practices and approaches. With the changing world and business practices, self help groups also need a drastic change in their work culture and other procedures. The various strategic elements and different measures that could be adopted to properly management these strategic measures for proper management of self help groups have been given as follows:

1. ORGANIZATIONAL RESOURCES

These are the most important thing for survival of self help groups. Proper management techniques need to be implemented to keep level of resources smooth. Sources identification for easy access to raw material, human resources training and development programmes, seeking sources for cheaper funding from govt. as well as other agencies and implementation of procedures for proper storage of raw material and finished goods are the major approaches that must be used by self help groups to keep resources at par.

2. ORGANIZATIONAL BEHAVIOR

It studies the impact of whole organization, groups and structure of self help group on the functioning of self help groups. The certain approaches and measures that must be adopted to rectify the functioning of self help group identified from the study are proper carrier counseling and development, team as well as synergetic procedure implementation, stress and conflict management measures and enhancing quality of work environment and organizational climate.

3. STRENGTHS AND WEAKNESSES

It includes the determination of segments where self help groups hold advantage and other areas where self help groups are lacking. Proper assessment of strengths and weaknesses is the most important parameter for future and long term growth. Identification of strength areas and sectors, identification and assessment of low productive areas, rectification of low productive areas by implementing productive measures and implementing quality measures to maintain organizational strengths are the major approaches which could help self help groups to determine their strengths and weaknesses.

4. SYNERGISTIC EFFECT

This effect has been witnessed the most important tools in bringing high productivity in firms and similarly its proper implementation could also bring flexibility in self help group operations and enhance productivity. The various measures and approaches and measures that must be adopted by self help groups to boost synergy in its operations must be assessment of duplication of activities, integrating activities for reducing overall cycle time and coordination among various functional areas.

5. COMPETENCIES

These represent the dimensions where the self help groups and compete effectively and go for higher group and development. Identification of areas where self help groups can compete, devising procedures which could sustain existing competencies and Identification of core ideology is the major approaches that could be used by self help groups in Jammu and Kashmir State.

6. ORGANIZATIONAL CAPABILITIES

These represent the functional areas where self help groups can bring productivity up to a maximum level by applying certain procedures. Accessing capabilities in all functional and operational areas, incorporating capability learning approaches across whole organizational system and focusing on insights, intuition and hunch gained through previous experiences are the major measures that must be used in Jammu and Kashmir State by self help groups.

7. STRATEGIC ADVANTAGE

This factor suggests that a firm has achieved in implementing a strategy which is better than its competitors. Self help groups could also devise and implement a strategy that can give it a strategic advantage. The approaches and measures that must be adopted by self help groups to achieve strategic advantage in Jammu and Kashmir are analysis of profit and revenue trends, identifying shareholder value, upgradation of sub segments and assessment of present market profile.

TABLE 1: DEVELOPMENT OF STRATEGIC ELEMENTS TO SELF HELP GROUPS

S. NO.	Strategic Elements	Measures and Approaches for self help groups
1.	Organizational Resources	a) Sources identification for easy access to raw material.
		b) Human resources training and development programmes
		c) Seeking sources for cheaper funding from govt. as well as other agencies.
		d) Implementation of procedures for proper storage of raw material and finished goods.
2.	Organizational Behavior	a) Proper carrier counseling and development
		b) Team as well as synergetic procedure implementation
		c) Stress and Conflict management measures
		d) Enhancing quality of work environment and organizational climate
3.	Strengths and Weaknesses	a) Identification of strength areas and sectors.
		b) Identification and assessment of low productive areas
		c) Rectification of low productive areas by implementing productive measures
		d) Implementing quality measures to maintain organizational strengths
4.	Synergistic Effect	a) Assessment of duplication of activities.
		b) Integrating activities for reducing over all cycle time.
		c) Coordination among various functional areas.
5.	Competencies	a) Identification of areas where self help groups can compete
		b) Devising procedures which could sustain existing competencies
		c) Identification of core ideology
6.	Organizational Capabilities	a) Accessing capabilities in all functional and operational areas.
		b) Incorporating capability learning approaches across whole organizational system.
		c) Focusing on insights, intuition and hunch gained through previous experiences.
7.	Strategic Advantage	a) Analysis of profit and revenue trends.
		b) Identifying shareholder value.
		c) Upgradation of sub segments.
		d) Present market profile.

CONCLUSION

Strategic elements are the most important tools which can bring high level of productivity in the operations of self help groups in Jammu and Kashmir. In this paper various areas and dimensions have been identified which are most necessary to be taken under consideration for survival of self help groups. These include Organizational resources, Organizational behavior, Strengths and weaknesses, synergies, competencies, capabilities and strategic advantage. Various measures related to all above dimensions have also been determined and suggested to be used which make individual dimension strong and capable of scanning the modern business environment. All these approaches will also set a future road map for self help groups in Jammu and Kashmir.

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WEAK AREAS IN ACCOUNTING SYSTEM CONTROL FACILITATING WHITE COLLAR CRIME

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ABSTRACT

The present study aims to examine the weak area in Accounting Practices facilitating White Collar Financial Crime. The fertility of man's invention in devising new scheme of fraud is never ending the new business methods and the speed, which are making business dynamic are also making them vulnerable to financial fraud. At the same time technology dependency through Enterprise Resource Planning generates unrealistic expectation, where as there is thick fog behind the screen, leaving much to desired, thus creating ideal environments for the wrongdoers to exploit the weakness for their personnel gains. Therefore frauds and white collar financial crimes in the corporate sector have been increasing at an alarming pace, based on inherent risk prevalent in the system. Therefore there is an urgent need to understand the seriousness of the issue and appreciation the concern for the well being of the corporate. This study is an effort to explain that sniffing out frauds is an art and needs a mind-set. There are large number of frauds, which never hit the radar screen and have stealth in built. This primarily happens because the radar lacks the capability of picking up the crime, therefore the technology and the humans expertise needs to be improved, so that fraudster don't go scot-free. At the same time fraud travels to grow geometrically over the period, if not detected on time. Therefore the prevention through right-controls and early detection by professionals with right mind-set could save fortunes, and this study would answer all such questions and more.

KEYWORDS

ERP Application, Fraud, Motivation Factor, White Collar crime.

INTRODUCTION

A statement of fact which one party makes in the course of negotiation with view to inducing the other party to enter into a contract is known as **representation**. It must relate to some fact which is material to the contract. It may be expressed by words spoken or written or implied from the acts and conduct of the parties.

A representation, when wrongly made either innocently or intentionally, is a misrepresentation. It may be-

1. an innocent or unintentional misrepresentation or
2. an intentional deliberate or willful misrepresentation with an intent to deceive or defraud the other party

The former is called misrepresentation and the later is *fraud*.

The fraud exist when it show

- (i) a false representation has been made
 - (a) knowingly or (b) without belief is it truth
 - (b) recklessly, not caring whether it is true or false, and the maker intended the other party to act upon it or
- (ii) there is a concealment of a material fact or that there is partial statement of fact in such a manner that the with holding of what is not stated makes that which is stated false.

Fraud is a generic term; No definite, explicit or formal statement can be laid in defining fraud. Fraud, theft and embezzlement are the term that are often used interchangeably. Although they have some common elements, they are not identical in the criminal law sense. Theft is referred to as larceny the taking and carrying away of the property of another with the intention of permanently depriving the owner of its possession. In larceny the perpetrator comes into initial possession of the stolen item illegally. In embezzlement, the perpetrator comes into initial possession lawfully, but converts it to his or her own use. Embezzlers have a fiduciary duty to care for and to protect the property. In converting it to their own use, they breach that fiduciary duty.

Fraud in a nutshell, is intentional deception, commonly describe as lying, cheating and stealing. Fraud can be perpetrated, against the company and for the company. Business frauds are more common than most of us realize. There is no need to the types of frauds that is why, The Indian Penal Code,1860 has not strictly define a fraudulent act, even the courts have not explicitly elaborated and have kept it to themselves to interpret, as the fertility of man's invention in devising new scheme of fraud is unlimited.

WHAT IS WHITE COLLAR CRIME?

When a person employed by the corporate or by government, in a position of trust, breaches the trust imposed on him is termed as **WHITE COLLAR CRIME**. In other words it's a species of "Breach of Good Faith". As per section 52 of IPC 'Nothing is said to be done or believe in "Good faith" which is done or believe without due care and attention'.

In essence White-Collar crime involves a criminal breach of trust when the authority has not been exercised prudently, when the authority is exceeded or corrupted the violator of trust may be held liable civil or criminal.

TYPES OF FRAUDS

In nutshell, fraud in books of account comes in two major categories, transaction and statement frauds. Statement frauds involve intentional misstatement of certain financial values to enhance the appearance of profitability and deceive shareholder and creditors. Transactions frauds are intended to facilitate the theft or conversion organizational assets to one's personal use. Senior management in general commit statement frauds, hoping to gain some personal benefit (promotion, raise bonus) from their fraud. The other fraudster generally commit transactions fraud to cover up or facilitate a theft of embezzlement. So the fraud perpetrators can come from any level of management or society.

Corporate small or big which compromise on perfect controls are the most fertile fields for the fraudsters. In the 1950 and early 1960, "Atlantic Acceptance built into one of the Canada's largest and most reputed finance firm with 105 small loan offices and 35 sales offices. The Company collapse in June 1965 with \$150 MILLION in receivables outstanding. Levels of fraud in India can be construed from a report published in Times of India dated 15th March 2002 on page 4 stating the Indians have \$ 2500 Billion slashed away in Swiss Bank.

WHY DOES FRAUD HAPPEN?

Fraud and white collar crime are the product of motivation and opportunity.

The motivation may be:

- Economic need or greed
- Self Centered
- Ideological
- Psychosis

FACTOR WHICH INFLUENCE THE MOTIVATION ARE

Human being is a great situational adaptor; he fits into the environment fairly easily, though the degree to get influence may vary. Therefore motivation is not something, which is absolutely born quality of constant, it changes and is influenced by various factor which create and culminate into environment influencing motivation; factors such as:

- The organization's internal control is so lax that one is tempted to steal.
- The employee believes he or she can get away with it.
- No one has ever been prosecuted from stealing from the organization.
- Most fraudster are caught by accident rather than by audit or design.
- Employees never go to jail or being harsh prison sentences for such fraud.
- The employee feels frustrated or dissatisfied about some aspects of the job.
- His or her personal life is not job related
- The employee feels abused by the employer and wants to get even more
- Lack of trust and respect for each other.
- The employee fails to consider the consequences of being caught.
- The employee thinks "Everybody else steals so why not me"?
- The employee thinks, "They are so big, stealing a little bit won't hurt them

FACTORS WHICH PROMOTE OPPORTUNITIES ARE

Accounting rules are designed to provide standardized frame work in which the financial position of a corporate or a government can be assessed. However **BAD ACCOUNTING PROCEDURE** have serious long term consequences, over and above the bad accounting procedure the factors which promote opportunities are:

- **NO CONTROL** Fraud however big is not technically sophisticated- Lack of controls has helped it to go through. No control can function unless there is system of accountability.
- **NO TRUST** Transparency builds trusts. Trusts breeds loyalty & honesty, distrust breeds disloyalty and perhaps dishonesty.
- **NO ETHICAL CODES** Code of ethics must prohibit employees taking gifts & gratitude which often are not enforced.
- **NO PROFIT** Bad time aggravated and advertises are enchased.
- **NO FUTURE** No one wants to sit in sinking ship.

The opportunities to commit fraud are rampant in the presence of loose or lax management or administrative and internal accounting controls. These control become venerable by half hearted and inadequate compliance of computerization. Most of the white collar crimes are prompted by opportunities and committed for economic reasons. Loose or lax controls and works environment which does not value honesty, provides the opportunity. **Motivator and opportunity are interactive; the grater the economic need, the less weakness in internal controls is needed to accomplish the fraud. The greater the weakness in control, the less motivation need. So when one has the motivation and opportunity it is the right recipe for the fraud because:**

- It pays to do it
- It is easy to do it
- It is unlikely that you will get caught

THE REASONS FOR GROWTH OF WHITE COLLAR CRIMES

- Inadequate in Computerization: ERP applications needs much better execution and often generates unrealistic expectation. Changes are not documented and often systems are put to scrutiny to only those who accord specifications or those who created them, thus leaving lacunas.
- Compromising controls: We all think our system are the best, inadvertently important aspects are ignored safety valves are often not installed, at the same time controls are not regularly updated and evaluated and the complete control operation often has various holes.
- Relentless drive to do more with less: To remain fit, all fats are being thrown away and in the bargain you even shed from those comers where it is essentially required thus compromising with controls.
- Increasing turnover of manpower: Loyalty and concern by the employees for the employer is diminishing fast. Gone are the days when we joined the company by all probabilities that we would retire from the same company.
- Increased volumes: Turnover have multiplied but we still have same attitudes. We all want to have paperless office, without developing the culture for such environment.
- Organization structures: The organization structure has undergone major changes, wherein the geography has no boundaries, the middle level supervision has vanished and loyalty towards organization has attained new low
- Fundamental Changes: Business has got into state of merry go round, if we loosen the grip we are bound to fall, the undercurrent is too strong, the management is bogged down with these changes and plays no attention to such issues. Even if we have suspicion we have no time to go in depth and the corporate wants to close the chapter at the earliest, without getting the insight.
- Lack of punishment: Most of the White Collar Crimes do not surface and those which do the perpetrator often go Scot-free and this does not motivate the fraudster.

METHOD

Sample

Coming to White Collar crimes the present sample comprised from each of the selected sub-groups taken from industry- Manufacturing Industry, Banking Industry, Insurance Industry, Construction Industry, Distribution & Service Industry. As there are large number of fraud associated with the industry but our study was restricted to the following kinds of fraud that are commonly found and can be categories as:

1. Bank related fraud
2. Pay Roll Fraud
3. Investment Fraud
4. Invoices (a) Purchases (b) Sales
5. Revenue Account
6. Expenditure Account
7. Computer as an aid to fraud
8. Insurance

Tools Used:

The following tools were used in the present study:

(i) Information Schedule

It was designed in order to derive information regarding the subjects from the Accounting professionals CA, Audit Manager, CWA and the people working in the similar fields.

(ii) Computer as a tool

Computer tool is to add to deception they by no means help prevention. What the computer does is to concentrate all the factors and risks that assist fraud to occur, either the computer is subject itself or is a means. The method that are often used are:

- ❖ False data is fed into computer
- ❖ False output is generated through computer
- ❖ Data is altered while in a computer
- ❖ Programme are modified so that valid data is massaged to give the desired effect
- ❖ System has fudge facility which allows errors to be corrected and there in lies the opportunity.

PROCEDURE

Data were collected from the Industries/Corporate and were distributed in 8 categories of fraud.

RESULT & DISCUSSION

The important results emerged from the study are as follows:

1. Bank related fraud

Bank Management is the single largest vulnerable area which is attacked directly or indirectly: The common frauds that are been observed are:

- Opening a fictitious bank account: Opening a bank account is not a big deal and if we have succeeded in opening a fictitious bank account, the pipe line to play with the system is laid
- Cheque Forgery: On accounts payee cheque, bank donot pay much attention about the signature on a/c payee cheque, easy accessibility of unaccounted cheque in large number, No strict control on cheque books, Issue of Cheque not recorded, A/C payee not bone on receipt of cheque books, cancelled cheque on manual system or computerized cheque not accounted, some cheque intentionally left blank for back dated used and often misused, on manual binding of cheque books for modification not done under control- large number of weak areas.
- Accounts payee cheque in the name of the company fraudulently encashed by opening the account in the same name at different branch the one the we caught was encashed at different place
- Fraudulently issue of draft to the interested party
- Misuse of advance cheque deposited not on actual a/c but for adjustments such as advanced cleared (advance receipts for interest, security desposit, accrual never reconciled)
- Cash shown deposit, in lieu cheque deposited
- By bank employee-misuse of dormant account by transferring the fund

2. Pay Roll Fraud

This type of fraud is applicable to all kind of industries big or small and often happens in one form or other

- Change of master file of those people on deputation with those who left the job but their bank account were in operation by design
- Adding non-existing employee, at different stages, adding of casual manpower is the most common
- Continuation of payment after termination/retirement (Large MNC-Payment Outsourced)
- Altering time records (Workshops records shown present-gate entry shows absence, bank payment last page total changed)

3. Investment Fraud

Investment frauds are among the most costly of all the frauds to the corporate and can easily go through

- Investment with ulterior motives-huge commission on bad investment
- Investment shown but not invested. (Bogus Investment receipts). It is only what Harshad Mehta or Khetan Parikh did to banks, it could be easily gone through with any company.
- On maturity receipts not accounted, written off and in other case shown reinvested.
- Misuse of miscellaneous income and interest. Annual statement received from all Mutual Fund not paid any importance and not reconciled with transaction statement to ensure all receipt.

4. Invoices (a) Purchases (b) Sales

(a) Purchases

In industries over 60-70% of revenue goes in purchases therefore purchases need closer security

- Contract finalization : The terms itself are not very clear, and often encashed by the other party
- Weak area in bidding process: Cartels often exist; the gap between each bid must be monitored and fixed, else can be easily played with
- Evaluate the variances from consistency and see them in isolation e.g. Compare input to output with respect to any consistency.
- Adjustment in consumption, packing materials etc is very easy and hence vulnerable before we clear, accounts receipt must make all such observations (Compare L/Y Vs C/Y)
- See issue and demand procedure, authorization of requisition slip, preservation of requisite slip in continuous number, issue store be linked with production records.
- See purchase price variations; if there are more than two units see the compatibility of purchases price.
- Small value bills often purchased from the same party may be consolidated to rationalized the number of bills for better accounting and monitoring

(b) Sales

Procedure for raising invoices needs closer scrutiny: Invoice price is to be computer generated and any price change in master file only at senior level, if it is not, the system is vulnerable. Price change in master often not monitored.

- Signing of invoices
- Code numbers for all the parties, and invoice generation by code number only
- Inter unit transfer-Reconciliation not only monthly basis but also on one to one as under pricing, wrong totaling cannot be over-ruled
- Inter area transfer to authorized agency
- Regular reconciliation of receivables

5. Revenue Account

- Sales made by branch office shown by branch as made through agent, in order to encash commission paid to agents
- Accrued income not reconciled and verified for each investment, hence misused
- Miscellaneous income and licensing receipts on franchising or on leasing not reconciled
- No reconciliation of security deposit from contractors
- Finance companies- repayment of loan by advance cheque (Summary of payment & receipt reported deleted and not accounted records updated)
- Received approval to write-off, the parties changed while writing-off
- International wrong accounting, payment of advances shown as miscellaneous payment, payment of PF as miscellaneous payment

6. Expenditure Account

- Personnel expenses could be repaid either as an addition to monthly salary or as a separate cheque. The clerk authorized some expenses twice, both as an addition to salary and as a separate cheque. Separate cheque are often misused.
- Fictitious Bills(transporter bill and invoices in same hand)
- Purchase of lower grade capacitor against the sanction and payment of high grade capacitor. Supply of capacitor and installation by the same contractor
- Personnel payment not shown in personnel account, PF payment booked as Miscellaneous
- Over billing through multiplication and totaling mistake
- Advance not adjusted against payment subsequently misused on refund

- Adjustment in ledger account expenses against security deposit shown as expenditure to avail tax, security deposit on return not accounted
- Franchising frauds annuity received and not accounted.
- 7. Computer as an aid to fraud
 - Different prices, one for cash sale and other for accounting.
 - Payment transaction amended
 - Bogus report- Bank reconciliation
- 8. Insurance
 - Bogus cover note and insurance policy not issued and the system abused by the agent. Never rely on the cover note and insist for Insurance Policy
 - No insurance register of control chart maintained by the companies
 - List of items insured not attached with the policy, temporary-shed cannot be construed as part of building but often mixed up and such other shortcoming are often observed
 - Over charged rates by the agents
 - Amount of insurance cover not compatible with asset book, consider revaluation if required.
 - Insurance policy for reinstate, read clauses
 - Insurance claims- Please remember incase of delay 75% can be claimed as on account payment.
 - If we claim insurance donot forget to renew the policy.
 - Security precaution- Fire and all records burnt, duplicate records were called at the same time for updating
 - One time payment-Death insurance policy. Policy paid twice due to faulty reconciliation.

SUGGESTIONS

- Distribution of work area should be scientifically allotted and monitored. Electronic data entry as exclusive responsibility may not be possible in present scenario, it was fine in main frame regime and therefore the allocation of duties need better understanding and closer control on input and output.
- Security and password at all level be strictly followed.
- Change in master files need tight control and should only be at senior level and all such must be monitored.
- Audit trial be closely monitored and regularly cleared – to be supervised at senior level.
- Be careful on the source code for its recording and monitoring of regular update.
- Automatic numbering of each transaction and input entry. Statement serial number for each statement is must
- Official stationery can be used in forgery, serial number even if destroyed to be properly lodged and recorded.
- The facility to reset the clock is removed at data entry level
- Whenever new package is used, people may take advantage of the confusion. Till the new system is establish do not disturb the existing system, greater care is required when the package is customized.
- Good security on warehouse and other locations is essentials element in fraud prevention computer system is simply a step in the process of deceiving.
- Must avoid submitting statutory return at last moment
- Preserved the cancelled cheque by computer print out
- Transfer of balance be automatic- not off line
- Code number for each vendor & invoices for vendor to be generated with code number only.
- Must understand the flow chart, codification any amendment be recorded and closely monitored.
- Page total for financial statement be introduced, this could be a deterrent.
- Originator must sign each statement.

In nutshell the fraud cannot be erode away but can be minimized.

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HUMAN RESOURCE ACCOUNTING: AN EFFECTIVE ANALYSIS AND FUTURE ASPECT**SUJAN KANTI BISWAS****CHAIRMAN****DEPARTMENT OF MANAGEMENT STUDIES****FACULTY OF BUSINESS STUDIES****PREMIER UNIVERSITY****CHITTAGONG****SUMAN KANTI DEB****LECTURER****DEPARTMENT OF ACCOUNTING****FACULTY OF BUSINESS STUDIES****PREMIER UNIVERSITY****CHITTAGONG****ABSTRACT**

Human being is a valuable organization resources measurement the value of their own to form a human resource value accounting. We have witnessed a significant transformation in the world economy and the organisations that comprise it. The economy of old was manufacturing based and relied heavily on tangible assets as determinants of value. In contrast, the present day economy is based on knowledge and information, intangible assets that are embodied in people. This shift has triggered the development of tools with which to measure these intangible assets. One accounting tool that is directly relevant to the measurement and, in turn, the management of human capital is human resource accounting. The purpose of this article is to discuss some current issues, recent advancements and possible future directions for further development.

KEYWORDS

Human resources, Human Resources Accounting (HRA), tangible, intangible assets.

INTRODUCTION

A business concern holds two types of resources or assets – a group of human resources and a group of physical resources such as plant and machinery, and land and building, furniture etc. How to account for the “most important asset” as claimed by most companies has become a big challenge for both accountants and human resource professionals since the term human resource was introduced in the field of accounting. Many organizations, big and small, acknowledge that “our biggest asset is our staff.” However, no organization knows how to account for its employees on their financial statements. Among Accountants, opinion is divided with regard to the evaluation, costing, and reporting the value of employees of an organization, and there have been various suggestions on these issues.

Acceptance of the term human resource and its meaning has given rise to human resource managers’ involvement in organizational decision making beyond hiring the right person. To meet the challenges brought about by the rapid change in the corporate world, managers have come to realize the importance of effective human management. Corporate success no longer rests on the mass production, but rather on the ability and knowledge of people (employees) who can easily adapt to technological changes and drive the organization to attain its goals and objectives. With this in mind, acquisition, development, and management of human capital by companies of all sizes have become critical (Vakhaira, 1995).

The function of human resource accounting (HRA) is to provide information with which management can analyze its decisions in relation to human services. It also affords investors the opportunity to truly evaluate and understand the complete picture of an organization. It is beyond the scope of this paper to narrate how HCA would work. For one thing, HRA involves sophisticated calculations requiring all sorts of estimations, assumptions and variables that need to be factored in. HRA mainly focuses on the accounting of costs of acquiring personnel along with the programs adopted to enhance personnel efficiency. In doing so, efforts are made to stress the costs and benefits of personnel programs and contributions to the success of the organization (Rogow, & Edmonds, 1988).

CONCEPT

The term “human capital” has been defined in various ways with one commonality, and that is, the value that different activities exercised within an organization along with the environments in which it operates provide to that organization. Embodied in the activities include behavior, knowledge, experience, attitude, morale, corporate culture, to mention but a few, that when put together becomes of economic value to the organization. According to Schultz (1961), human capital can be defined as the abilities and skills of a certain group of people or an individual person that have economic value.

Human Resource is defined as the knowledge that individuals acquire during their life and use to produce goods and services or ideas in market or non-market circumstances. According to the OECD, this definition of human capital is non-committal about the source, nature or validation of embodied competences; and helps to focus on two issues: (1) the productive capacity arising from knowledge; and (2) the utility of improving the methods for assessing the productive capacity of human capital.

The American Accounting Association’s Committee on Human Resource Accounting (1973) has defined **Human Resource Accounting** as “the process of identifying and measuring data about human resources and communicating this information to interested parties”. HRA, thus, not only involves measurement of all the costs/ investments associated with the recruitment, placement, training and development of employees, but also the quantification of the economic value of the people in an organisation. Flamholtz (1971) too has offered a similar definition for HRA. They define HRA as “the measurement and reporting of the cost and value of people in organizational resources”.

As far as the statutory requirements go, the Companies Act, 1956 does not demand furnishing of HRA related information in the financial statements of the companies. The Institute of Chartered Accountants of India too, has not been able to bring any definitive standard or measurement in the reporting of human resources costs. While qualitative pronouncements regarding the importance of Human Resources is often made by the chairmen, in the AGM, quantitative information about their contribution is rarely recorded or communicated. There are a few organizations, however, that do recognize the value of their human resources, and furnish the related information in their annual reports. In India, some of these companies are : Infosys, Bharat Heavy Electricals Ltd (BHEL); the Steel Authority of India Ltd. (SAIL), the Minerals and Metals Trading Corporation of India Ltd. (MMTC), the Southern Petrochemicals Industries Corporation of India (SPIC), the Associated Cement Companies Ltd, Madras Refineries Ltd. , the Hindustan Zinc Ltd. , Engineers India Ltd, the Oil and Natural Gas Commission, Oil India Ltd., the Cement Corporation of India Ltd. etc.

HISTORICAL DEVELOPMENT OF HRA

The traces of a rudimentary HRA can be found in the Medieval European practice of calculating the cost of keeping a prisoner versus the expected future earnings from him. The prisoners in those days were seen to be the general property of the capturing side. Consequently, after the victory a quick decision regarding whether to capture a prisoner or to kill him had to be taken based on the costs involved in keeping him and the benefits accruing from killing him. However, these represented very rough measurements with limited use. The development of HRA as a systematic and detailed academic activity, according to Eric G Falmholtz (1999) began in sixties. He divides the development into five stages. These are :

First stage (1960-66): This marks the beginning of academic interest in the area of HRA. However, the focus was primarily on deriving HRA concepts from other studies like the economic theory of capital, psychological theories of leadership- effectiveness, the emerging concepts of human resource as different from personnel or human relations; as well as the measurement of corporate goodwill.

Second stage (1966-71): The focus here was more on developing and validating different models for HRA. These models covered both costs and the monetary and non-monetary value of HR. The aim was to develop some tools that would help the organisations in assessing and managing their human resource/asset in a more realistic manner. One of the earliest studies here was that of Roger Hermanson, who as part of his Ph.D. studied the problem of measuring the value of human assets as an element of goodwill. Inspired by his work, a number of research projects were undertaken by the researchers to develop the concepts and methods of accounting for human resource.

Third Stage (1971-76) This period was marked by a widespread interest in the field of HRA leading to a rapid growth of research in the area. The focus in most cases was on the issues of application of HRA in business organisations. R.G. Barry experiments contributed substantially during this stage. (R.G. Barry Corporation: 1971)

Fourth Stage (1976-1980): This was a period of decline in the area of HRA primarily because the complex issues that needed to be explored required much deeper empirical research than was needed for the earlier simple models. The organisations, however, were not prepared to sponsor such research. They found the idea of HRA interesting but did not find much use in pumping in large sums or investing lot of time and energy in supporting the research.

Stage Five (1980 onwards) : There was a sudden renewal of interest in the field of HRA partly because most of the developed economies had shifted from manufacturing to service economies and realized the criticality of human asset for their organisations. Since the survival, growth and profits of the organisations were perceived to be dependent more on the intellectual assets of the companies than on the physical assets, the need was felt to have more accurate measures for HR costs, investments and value. An important outcome of this renewed interest was that unlike the previous decades, when the interests were mainly academic with some practical applications, from mid 90s the focus has been on greater application of HRA to business management. Different types of models to suit the specific requirements of the organisations have been developed incorporating both the tangible and the intangible aspects. Also, larger number of organisations actually began to use HRA as part of their managerial and financial accounting practice. Today, human and intellectual capital are perceived to be the strategic resources and therefore, clear estimation of their value has gained significant importance. The increased pressures for corporate governance and the corporate code of conduct demanding transparency in accounting have further supported the need for developing methods of measuring human value. In India, human resource valuation has not yet been institutionalized though, as mentioned above, many public as well as private have adopted HRA.

NEED OF HRA

Human Resource Accounting is receiving so much attention in recent years because of the following two reasons:

- (i) Developments in modern organisation theory have made it apparent that there is a genuine need for reliable and complete information which can be used in improving and evaluating the management of human resources.
- (ii) The traditional framework of accounting is the process of being expanded to include a much broader set of measurement than was thought possible or desirable in the past.

OBJECTIVES OF THIS STUDY

HRA is basically adopted to treat human resources as assets, to generate human data about human resources, to assign value to human resources and to present human assets in the balance sheet. The following are the main objectives of an HRA system.

1. To furnish cost value information for making management decisions about acquiring, allocating, developing and maintaining human resources in order to attain cost effective organisation objectives.
2. To allow management personnel to monitor effectively the use of human resources.
3. To provide a determination of asset control i.e., whether human assets are conserved, depleted or appreciated.
4. To aid in the development of management principles by classifying the financial consequences of various practices.
5. To recognize the nature of all resources used or cultivated by a firm and improvement of the management of human resources so that the quality and quantity of goods and services are increased.
6. To facilitate the effective and efficient management of human resources.
7. To evaluate the return on investment in human resources.

From the above, it is clear that there are three important aspects of HRA as given below:

1. Valuation of human resources.
2. Recording the value of human resources in the books of accounts.
3. Disclosure of the information in the financial statements of the business.

IMPORTANCE OF HUMAN RESOURCE ACCOUNTING

The concept of human resources accounting cover the people who constitute a valuable resource of an enterprise and information on the investment and value of such resources is useful for internal and external decision making. It provides the most scientific and realistic basis for short and long term, manpower planning and utilization which includes acquisition, development, retention, utilization and evaluation of human resources and also a structure of rewards and compensation on such evaluation. The decision makers of a business concern will be in a better position to understand and predict the related matters to the management of human assets, if system of HRA is designed suitably and implemented carefully.

The efficiency of production of the concern can be increased by winning the employees' devotion, loyalty and initiative. This initiative and loyalty cannot be bought by consideration in monetary terms; and 'Human Resource Accounting' paves the way to win employees' loyalty and initiative, and thereby increase the productivity of business enterprises. William Pyle described the use of HRA as 'an improved managerial artanship in the sense that the system would unfold many hidden facts concerning the development or otherwise of human capabilities and their utilisation'.

Human Resource Accounting also helps individual employees in improving their performance and bargaining power. It makes each of them conscious about their contributions towards the betterment of the firm, vis a vis the expenditure incurred by the firm on each of them. So, it can help in relating the 'key to prosperity of any society or nation'.

Such accounting is of permanent importance to the nation and also to individual organisations. The following are the main benefits of Human Resources Accounting :

- Helpful in proper interpretation of Return on Capital Employed: The human resource accounting will disclose the value of human resources. This will help in proper interpretation of return on capital employed. Such information will give long-term perspective of the business performance which could be more reliable than the return on capital employed based on net profit only.

- HRA helps management in measuring the value of human resources of the organization. It is one of the indicators of health and profit making potential of the business concern.
- Improves managerial decision making. The maintenance of detailed records relating to internal human resources (i.e. employees), will improve managerial decision making specially in situations like direct recruitment versus promotions, transfer versus retention, retrenchment or relieving versus retention, retrenchment or relieving versus retention, utility of cost reduction programme in view of its possible impact on human relations and impact of budgetary control on human relations and organisational behaviour and decision on relocating plants, closing down existing units, developing overseas subsidiaries etc. Thus, the use of HRA will definitely improve the quality of management.
- Serves social purpose. It will serve social purpose by identification of human resource as a valuable asset which will help in prevention of misuse and under use due to thoughtless or rather reckless transfers, demotions, lay offs and day to day maltreatment by supervisors and other superiors in the administrative hierarchy; efficient allocation of resources in the economy effecting economy and efficiency in the use of human resources and proper understanding of the evil effects of avoidable labour unrest/disputes on the quality of the internal human resources.
- Increase productivity. It will have the way for increasing productivity the human resources because, the fact that a monetary value is attached to human resources, and that human talent, devotion and skill are considered as valuable assets and allotted a place in the financial statements of the organisation, would boost the morale, loyalty and initiative of the employees, creating in their mind a sense of belonging towards the organisation and would act as a great incentive, giving rise to increased productivity.
- Provide a sound and effective basis for asset control i.e. whether assets are conserved, depleted or appropriated.
- Invaluable contribution to humanity. HRA will be an invaluable contribution for accounting to humanity and it will lead to improve human efficiency while preserving human dignity and honour. For this, a basic change in individual behaviour, attitude and thinking is required HRA will help in realising the value of human resources and thus, will influence the individual behaviour, attitude and thinking in the desired direction.
- It improves the 'morale' of the employees.
- A good system of human resource accounting creates a 'sense of belonging' among the employees of the firm.
- Essential where the human element is the prime factor. HRA is absolutely essential in such organisation where human element is the prime factor. e.g. a professional accounting firm a drama company, a solicitor and attorney firm, an educational institution etc.
- Helps in investment decision. The value of a firm's human resources is helpful in potential investors and other users in making long term investment decisions.
- By a proper system of HRA, the human resources are disclosed in the financial statements, satisfying the 'Principle of Full Disclosure' of the state of affairs of the undertakings in the financial statements.
- Aid the development of management principles by classifying the financial consequences of various practices.
- Completes MIS. Human resource data would create a more complete management information system as it can provide information of vital importance for both short term and long term decision making as well as performance measurement. It will provide adequate basis for decision on allocation of resource e.g. budgeting, capital expenditure decisions and better measurement of resources of an organisation. Performance measurement helps in assessing the strengths and shortcoming of an organisation and help in making better promotion policies.
- For successful operation of an organisation. The success of an organisation very much depends on the build up of quality work force at all levels. The success stories of BHEL, ITC, Hindustan Lever, Larson & Toubro and several other enterprises are largely due to the emphasis on human resource development. If this vital asset is not shown in the balance sheet, to that extent the public and investors are handicapped.
- Finally, by adoption of a good system of human resource accounting, the value of human resources in the organization is disclosed properly and it will facilitate proper interpretation on 'return on investment' (ROI).

COST OR VALUE DETERMINATION OF HUMAN RESOURCE

There are various models or methods of cost of value determination of human resources. In this paper, the following are discussed:

HISTORICAL COST APPROACH

This approach was first developed by William C Pyle (and assisted by R. Lee Brummet and Eric G. Flamholtz) and R.G. Bary Corporation, a leisure footwear manufacturer based in Columbia, Ohio (USA) in 1967. In this approach, actual cost incurred on recruiting, hiring, training and developing the human resources of the organisation are capitalised and amortised over the expected useful life of the human resources. Thus, a proper recording of the expenditure made on hiring, selecting, training and developing the employees is maintained and a proportion of it is written off to the income of the next few years during which human resources will provide service. If the human assets are liquidated prematurely, the whole of the amount not written off is charged to the income of the year in which such liquidation takes place. If the useful life is recognised to be longer than originally expected, revisions are effected in the amortisation schedule. The historical cost of human resources is very much similar to the book value of the other physical assets. When an employee is recruited by a firm, he is employed with the obvious expectation that the returns from him will far exceed the cost involved in selecting, developing and training in the same manner as the value of fixed assets is increased by making additions in them. Such additional costs incurred in training and developing are also capitalised and are amortised over the remaining life. The unexpired value developing are also capitalised and are amortised over the remaining life. The unexpired value is investment in human assets.

This method is simple to understand and easy to work out. It meets the traditional accounting concept of matching cost with revenue. It can provide a basis of evaluating a company's return on its investments in human resources. But it suffers from the following limitations:

- i. It takes into account a part of the employees acquisition costs and thus ignores the aggregate value of their potential services.
- ii. It is difficult to estimate the number of years over which the capitalised expenditure is to be amortised.
- iii. It is difficult to determine the rate of amortisation, Should it be increasing, constant or a decreasing one?
- iv. The economic value of human resources increases over time as the people gain experience. But in this approach, the capital cost decreases through amortisation. How to reconcile the above difference?

REPLACEMENT COST APPROACH

This approach first suggested by Rensis Likert, was developed by Eric G. Flamholtz on the basis of concept of replacement cost. Human resources of an organisation are to be valued on the assumption that new similar organisation has to be created from scratch and what would be the cost to the firm of the existing resources are required to be replaced with other persons of equivalent talents and experience. It takes into consideration all costs involved in recruiting, hiring, training and developing the replacement to the present level of proficiency and familiarity with the organisation.

This approach is more realistic as it incorporates the current value of company's human resources in its financial statements prepared at the end of the year. It is more representative and logical. But it suffers from the following limitations:

- i) This method is at variance with the conventional accounting practice of valuing assets.
- ii) There may be no similar replacement for a similar certain existing asset. It is really difficult to find identical replacement of the existing human resource in actual practice.
- iii) The determination of a replacement value is affected by the subjective consideration to a marked extent and, therefore, the value is likely to differ from man to man.

OPPORTUNITY COST

This method was first advocated by He Kiman and Jones for a company with several division heads bidding for the services of various people they need among themselves and then include the bid price in the investment cost. Opportunity cost is the value of an asset when there is an alternative use of it. There is no

opportunity cost for those employees that are not scarce and also those at the top will not be available for auction. As such only scarce people should comprise the value of human resources.

This method can work for some of the people at shop floor and middle order management. Moreover, the authors of this approach believe that a bidding process such as this is promising approach towards more optional allocation of personnel and a quantitative base for planning, evaluating and developing human assets of the firm. But this approach suffers from the following limitations:

- i. It has specifically excluded from its purview the employees who are not scarce or are not being bid by the other departments. This is likely to result in lowering the morale and productivity of the employees who are not covered by the competitive process.
- ii. The total valuation of human resources on the competitive bid price may be misleading and inaccurate. It may be due to the reason that a person may be an expert for one department and not so for the other department. He may be valuable person for the department in which he is working and thus, commands a high value but may have a lower price in the bid by the other department.
- iii. Under this method, valuation on the basis of the opportunity cost is restricted to alternative use within the organization. In real such alternative use may not be identifiable on account of the constraints in an organisational environment.

STANDARD COST APPROACH

This approach envisages establishment of a standard cost per grade of employee updated every year. Replacement costs can be used to develop standard costs of recruitment, training and developing individuals. Such standards can be used to compare results with those planned. Variances produced should be analysed and would form a useful basis for control. But under this approach determination of the standard cost for each grade of employee is a ticklish process.

CAPITALISATION OF SALARY METHOD

This method, suggested by B. Lev and A. Schwartz, is used by many companies in our country. It categorises the firms personnel into homogenous groups. Under this method, the present value of future earnings of the employees to the age of their retirement is determined by discounting those at the rate of cost of capital. The following steps are involved in this method: (i) all the employees of the firm are to be analysed on the basis of their age and skill; (ii) the annual 'Average Earnings' of each employee in each group are determined for various range of age; (iii) the total earnings of each group of employees upto the date of retirement are to be calculated; (iv) the total earnings are to be discounted at the rate of cost of capital. The discounted value thus arrived is to be considered as the value of Human Assets.

PRESENT VALUE APPROACH

Under this approach, the value of human resources of an organisation is determined according to their present value to the organization. A number of valuation models have been developed to determine the present value.

I. Present Value of Future Earnings Model: This model has been developed by Brauch Lev and Aba Schwartz in 1971. They are of the opinion that determination of the total value of a firm's labour force is a straight forward extension of the measurement procedure of an individual value to the organisation. They have divided the whole labour force into certain homogeneous group such as unskilled, semi-skilled, technical staff, managerial staff etc. and in accordance with different classes and age groups. Average earnings stream for different classes and age groups are prepared for each group separately and the present value for the human capital is calculated. The aggregate present value of different groups represents the capitalised future earnings of the firms as a whole. They have advocated the use of cost of capital rate for the purpose of capitalising the present value of the future earning of the employees. According to them, the value of human capital represented by a person of age r is the present value of his remaining future earnings from his employment. They have given the following formula for calculating the value of individual:

$$V_r = \sum \frac{I(t)}{(I + R)^{t-r}}$$

where V_r = the value of an individual r years old
 $I(t)$ = the individual's annual earnings upto the retirement
 t = retirement age
 R = a discount rate

However, the model suffers from the following limitations :

- i) A person's value to an organisation is not determined entirely by the person's inherent qualities, traits and skills but also by the organisational role in which the individual is placed. Moreover, the individual's skill and knowledge are not valuable to an organisation in an abstract form. They are valuable only when such qualities serve as a means to achieve the organisational goals.
- ii) The model ignores the possibility and probability of an individual leaving the organisation for reasons other than death or retirement. People may leave the organisations for a variety of reasons.
- iii) The assumption of the model that people will not make role changes during their career with the organisation, also seems to be unrealistic. Employees are quite often transferred to other departments within the organisation. Their role also changes when they are transferred on promotion.
- iv) It fails to correctly evaluate the team work involved. Team work is something more than the sum of the values of individuals. The valuation does not reflect the contribution of the team as a whole.

II. Rewards Valuation Model: This model has been suggested by Flamholtz. It identifies the major variables that determine an individual's value to an organisation, i.e. his expected realisable value of an individual is the present worth of future services expected to be provided during the period is expected to remain in the organisation. The model is based on the presumption that a person's value to an organisation depends upon the positions to be occupied by him in the organisation. The movement of people from one organisational role to another is a stochastic process with rewards. As people move and occupy different organisational roles, they render services (i.e. rewards) to the organisation. However the roles they will occupy in future will have to be determined probabilistically for each individual. The model suggests a five steps approach for assessing the value of an individual to the organisation:

1. Forecasting the period a person will remain in the organisation i.e. his expected service life.
2. Identifying the services states, i.e. the roles that he might occupy including of course the time at which he will leave organisation.
3. Estimating the value derived by the organisation when a person occupies a particular position for a specified time period.
4. Estimation of the probability of occupying each possible mutually exclusive state at specified future times.
5. Discounting the value at a predetermined rate to get the present value of human resources.

This model is certainly an improvement over the Lev and Schwartz model. But this model when examined on operational capacity falls short of a practical value in as much as that probabilities will have to be determined for each individual occupying various service states, and these probabilities will have to be determined for all employees for periods on an individual basis. Further, it will be tremendously expensive way to predict career movements or exit probabilities on an individual basis. Moreover, data developed on this basis will involve large variance which will reduce usefulness of the model.

III. Net Benefit Model: Morse (1972) suggested this approach. Under it the value of human resources is equivalent to the present value of the net benefits derived by the enterprise from the service of its employees. The following steps are involved under this approach:

- a) The gross value of the services to be rendered in future by the employees in their individual and collective capacity.
- b) The value of direct and indirect future payments to the employees is determined.
- c) The excess of the value of future human resources (as per (a) above) over the value of future payments (as per (b) above) is ascertained. This represents the net benefit to the enterprise because of human resources.
- d) By applying a predetermined discount rate (usually the cost of capital) to the net benefit, the present value is determined. This amount represents the value of human resources to the enterprise.

IV. Certainty Equivalent Net Benefit Model: This approach has been suggested by Pekin Ogan (1976) is, in fact, an extension of net benefit approach of Morse. Under it, the value of human resources is determined by taking into consideration the certainty with which the net benefits in future will accrue to the enterprise. The method involves the following steps :

- a. Net benefit from each employee (as determined under the previous approach).
- b. Certainty factor at which the benefits will be available in future.
- c. The certainty equivalent benefits will be calculated by multiplying the certainty factor with the net benefits from all employees. This will be the value of human resources of the enterprise.

V. Aggregate Payment Approach: This approach has been suggested by Prof. S.K. Chakraborty (1976) the first Indian to suggest a model on human resources of an enterprise. In his model, he has valued the human resources in aggregate and not on an individual basis. However, managerial and non-managerial manpower can be evaluated separately. The value of HR on a group basis can be found out by multiplying the average salary of the group with the average tenure of employment in that group. The average annual salary payments for next few years could be found out by salary structure and promotion schemes of the organisation.

He has further suggested that the recruitment, hiring, selection, development and training cost of each employee can be recorded separately. These could be treated as deferred revenue expenditure to be written off over the expected average stay of the employee in the organisation. The deferred portion should be shown in the position statement of the organisation. If there is a permanent exist on account of death retrenchment etc. then the balance on deferred revenue expenditure for that year attributable to that person should be written off against the income in the year of exist itself.

The discount rate for the purpose of ascertaining the present value of estimated payments in the future should be taken as the expected average after tax return on capital employed over the average tenure period. He suggest the adoption of such a long term rate to avoid fluctuations in human asset valuation from year to simply due to changing rates return. For in a year of low rate of return the valuation will have an upward bias, and conversely in a year of high return.

Regarding disclosure of accounting information relating to human resource he suggested that it was most appropriate to include human assets under the head investments in the position statement of an organisation prepared at the year end. He has not favoured its inclusion under the head 'Fixed Assets' as it would cause problems of depreciation capital gains or losses upon exit etc. He also in favour of including them in 'Current Assets' on the ground that this will not be in conformity with the general meaning of the term.

VI. Total Cost Concept, Prof N. Dagupta (1978) suggested this approach. The various approaches (discussed in the previous pages) take into account only those persons who are employed and ignore those who are unemployed. According to him both employed and unemployed persons should be brought in its purview for determination of the value of human resources of the nation. Thus for the preparation of the balance sheet of the nation the system should be such so that fits and shows the human resources not only a firm but also of the whole nation.

According to him, the total cost incurred by an individual the state and the organisation to bring that individual upto the present position should be taken as the value of a person on the day when he starts serving the organisation or becomes fit for appropriate employment. It will include not only all expenses incurred by the individual for his education and training but also by the organisation on recruitment, training, familiarising and development human beings employed in the organisation. The valuation can be done groupwise, if the number of employees is large. The value thus, determined should be further adjusted at the end of each year by organisation on the basis of his age, seniority, status performance, experience, leadership, managerial capabilities etc. The psychologists and other concerned experts will be helpful for such measurement. The revised value would be the value of the employee at the end of the year.

Theoretically this model may be sound but its practical application may be difficult as it will involve a number of factors which may not be capable of being expressed precisely and objectively in monetary terms.

Human resources valued according to this model should be shown both on the assets and liabilities sides of the balance sheet. On the assets side it should be shown after the fixed assets as Human Assets classified into two parts : (i) value of individual (ii) value of firm's investment. On the liabilities side, it should be shown after the capital as Human Assets by the amount at which it has been shown on the assets side against the value of individuals.

VII. Input / Output Control Mechanism: This approach was suggested by Dr. Rao in 1983. Under this approach, a system of human resource accounting was developed and illustrated its application in a transport equipment manufacturing concern. He has designed the system based on Input/Output Control Mechanism. The output variables of the system are described to be the indicators of human resource development and utilisation. The human resource investments are measured through human resource investments, a distinction is made between human resource current costs and human resource investments. All the human resource costs, whose benefits are expected to affect in future periods are treated as investments. Then the annual human resource investments are adjusted to the tune of changes due to intake or separation or natural deterioration. The intake of people results in the addition of human resource investments while separation necessitates writing off, of human resource investments. The human resource deterioration is measured and adjusted with the help of amortization rat as in each year.

Human Asset Multiplier Method (HAMM): This is another method for calculating the value of human resources. This method is suggested to avoid the complicated calculation of present value method and to overcome the drawbacks of either methods. In this method, 'present salary' of each employee is directly multiplied by a factor called 'Human Asset Multiplier' and the total amount so calculated is considered as the value of human resources for the balance sheet.

HRA PRACTICE AND DISCLOSURE

The various models dealing with the mode of valuation of human resources as an asset have been explained in the previous pages. In India Human Resource Accounting has not been included so far as a system. Indian Companies Act, 1956 does not provide any scope for furnishing any significant information about human resources in financial statement. Beyond it, there is no rigid instruction on behalf of the Companies Act, 1956 to attach information about the value of human resources and the results of their performance during the accounting year in notes and schedules. In India a growing trend towards the measurement and reporting of human assets, particularly in the public sector, is noticeable during the past few years. There are about twelve companies in India which have adopted the concept of human resource accounting so far. The data of only four companies is compatible for comparison. The companies are:

- a) Bharat Heavy Electrical Limited (BHEL), which is the first Indian company to publish human resource accounts from 1974-75 onwards and is one of the FORTUNE 500 companies listed outside U.S.A.
- b) Steel Authority of India Ltd, (SAIL) which is a holding company consisting of five integrated steel plants and two alloy steel units in the public sector.
- c) Minerals and Metals Trading Corporation (MMTC) which is the biggest trading organisation in India.
- d) Southern Petrochemical Industries Corporation Ltd (SPIC) which is one of the biggest diversified organisation in the Joint Sector, producing fertilizers chemical electronic etc.

Most of the India enterprises observed Lev ad Schwartz model in the sense that they have computed the present value of future direct and indirect payment to their employees as the basic frame work of human resource valuation MMTC has considered twelve per cent SPIC has considered the rate of return which is used for evaluating the company's capital expenditure proposals while SAIL has applied fourteen per cent to arrive at the present value of human capital BHEL also reported human resource value with similar model using twelve per cent discount factor on the future earnings of its employees. The human accounting information is mostly given in the form of supplementary information attached to the financial statements in annual reports, which are primarily meant for external reporting.

Upon The current Accounting Principles and Practices, costs associated with human resources, i.e cost of hiring, recruitment, selection, , training and development of employees are treated as the expenses of the period in which they are incurred. General balance sheet of any business does not disclose human assets directly. The fact that the benefits accruing from such expenses relate to several accounting periods. The expense of human resources cost violates the 'accrual principle'. The violation of 'accrual principle' is justified by the accountants on the grounds of the adherence to the 'Principle of Conservatism'. The argument is that, one is never sure about the realization of future benefits from such expenses due to uncertainty of the tenure of a employee. So, it is proper to

treat such expenses as revenue expense. Due to the current accounting practices, the income statement reflects less profit or excess loss in the period in which successful training programmes takes place; and, on the other hand, the future improvement in earnings resulting from such programmes are reflected in the future income statement as 'cost free'. The balance sheet also does not reflect any portion of the above costs as unexpired, i.e. as assets possessing service potential. Clearly, expensing of the human resource costs which have future service potential, results in understatement or concealment of assets and mismatching of costs and revenues.

The combined effect would be a 'balant negation' of the Cardinal Principle of 'True and Fair Disclosure' in the published account. Accountants do fully record and disclose physical assets but they largely ignore human assets in their internal as well as external reports. This leads to faulty evaluations and decisions. Moreover, the immediate expensing of human resource costs also hides the cost of employee turnover to the organization since there is no 'balance' that could be written off as a 'turnover loss' when a costly employee leaves the organization.

PROBLEMS AND LIMITATIONS OF HRA

- No. doubt HRA can provide valuable information both for management and outsiders, yet its development and application in different industries and organisations has not been very encouraging. This accounting concept is not popular like social accounting because it may not result in providing immediate and tangible benefits and on account of the fact of lack of consensus among accountants and other concerned about the basis of measurement of the value of human resources. The reluctance on the part of the organisation to introduce the HRA system can be attributed to the following:
- There are no specific and clear cut guidelines for finding cost and value of human resources of an organisation. The existing valuation system suffers from many drawbacks.
- The life of human resources is uncertain and therefore valuing them under uncertainty seems unrealistic.
- There is a possibility that HRA may lead to dehumanizing and manipulations in employees. For example a person having a low value may feel discouraged and thus in itself, may affect his competency in work.
- The much needed empirical evidence is yet to be found to support the hypothesis that HRA as a managerial tool, facilitates better and effective management of human resources.
- Human resources, unlike physical assets, are not capable of being owned, retained and utilised at the pleasure of the organisation. Hence, treating them as 'asset' in the strict sense of the term, could not be appropriate.
- There is a constant fear of opposition from the trade unions. Placing the value on employees would prompt them to seek rewards and compensation based on such valuation.
- In what form and manner, should their value be included in the financial statements? In another question on which there is no consensus in the accounting profession.
- If a valuation has to be placed on human resources how should it be amortised?
- Tax laws do not recognise human beings as assets. So human resource accounting has been reduced to a merely theoretical concept.

Further, some objections are generally raised against the valuation of such resources. These are:

monetary valuation of human resources should not be made as human beings cannot be owned like physical assets;

- valuation of their qualifications, experience, skill and expertise in exact form is not possible;
- lack of possibility for exact replacement is also another difficulty in the valuation of human resources.
- the cost determination of every individual employee would be a very difficult and most uneconomical task because of wide range of categories and skill of such resources;
- element of risk, which is higher in case of human resources, because of their turnover habits, is another obstacle in this regard.
- Mare Levine (1980) has expressed that human resource accounting may head to alienation as the 'people' might feel that they have been reduced to an industrial input commodity. Rhode et al (1976) are of the opinion that publicizing of human resource data could have disastrous effect on the attitude of employees whose values are declining over time as people evaluate them selves based on how they perform in comparison to others. It is possible that a low rating in value front could be seen by someone as a negative feedback and have an unfavorable impact on their 'self-esteem' and 'desire' to remain in the organization.

A committee of Accounting for Human Resource of the American Accounting Association has found that most important obstacle to acceptance of Human Resource Accounting are:

- Human Resource Accounting has to some managers seemed a hastily constructed discipline made up of 'recycled parts' from other disciplines. The result is not always pleasant and often the parts have not functioned satisfactorily in their original habit;
- The field of human resource accounting unfortunately has an exploitative connotation to some people. A resource is usually something that is used up; and accounting imply using a tool that will make the exploitation process as efficient as possible;
- It is difficult to change managements' view of people from being an expense rather than a resource.

Lastly, it can be stated that major difficulty in the implementation of this system is the 'constant fear' from trade unions regarding their reaction of the valuation of human resources.

CONCLUSION

Human resource is an important resource in today's world. Manpower development or human resource development is strongly emphasized by the World Bank and other United Nation bodies. Quality or expertise of human resources accelerate the success and prosperity of any organization. Unluckily, simple and insignificant assets are recorded, accounted, and reported, but an important asset like human resource is not recorded and reported. There is no unanimous principle or proposition for recording and reporting of human resources. It is a matter of hope that development in this respect is not inadequate. Now, if the scholars, the thinkers and the concerned authorities take initiative in this respect to formulate a general principle about 'Human Resource Accounting' and make attempts to materialize the recommendations, then the proper accounting of such an important asset and a portrayal of 'true and fair view' of position of assets and liabilities would be possible. This will contribute to the betterment of economic development and welfare of mankind.

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EFFECT OF HEALTH INFORMATION LITERACY ON THE ATTITUDE OF WOMEN TOWARDS FAMILY PLANNING

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ABSTRACT

Low literacy may impair functioning in the health care environment, affect patient-physician communication dynamics, and inadvertently lead to substandard medical care. It is associated with poor understanding of written or spoken medical advice, adverse health outcomes and negative effects on the health of the population. High level of literacy would increase the likelihood of saving lives and improving the overall health of women in developing countries by increasing socio-economic status, improvement and reproduction health.

KEYWORDS

Health information literacy, Attitude, practices, family planning.

INTRODUCTION

It is well recognized that mother's education has a positive impact on health care utilization. It is argued that better educated women are more aware of health problems, know more about availability of health care service, and use this information more effectively to maintain or achieve good health status. Educated women may have more understanding of the physiology of reproduction and be less disposed to accept the complication and risk of not attending antenatal clinics, than illiterate or an educated woman. Education has been described as "medications against fatalism". In addition to that, educated women may also be less likely to accept dangerous practices aimed at alleviating complications in pregnancy. Nowadays people are no longer willing to simply take recommendations from physicians at face value. Rather, they want to participate in all aspects of their health care including the decision making process. Patients are insisting that they need to team up with health care professionals to determine their treatment plans and goals. This assumption come with a large responsibility; to become literate in an area that is complex, rapidly evolving and usually far removed from most people's daily experience. People need to obtain and analyse often complex data and information to partner in their healthcare decisions. This requires that they be able to read analyse data understand risk/benefit analysis and evaluate the quality of the recommendations they receive. The ability to obtain, understands and use this type of information is called healthcare information literacy.

OBJECTIVE OF THE STUDY

To examine the relationship between literacy levels and the attitude of women towards family planning.

LITERACY AND HEALTH LITERACY

An important step in examining the relationship between literacy and health outcomes is to clarify what literacy means and how it has been measured. In the English language, literacy has taken on several different meanings. In its most common usage, literacy refers to an individual's ability to read and write (OED, 2003). It is also sometimes used to describe a person's facility with or knowledge about a particular topic. For example, we often see phrases such as "science literacy", "computer literacy," and "sports literacy". These terms generally refer to a person's ability to function in a particular context that requires some background knowledge.

In this same way, "health literacy" has been defined as a constellation of skills that constitute the ability to perform basic reading and numerical tasks that are required to function in the health care environment (AMA, 1999). Patients with adequate health literacy can read, understand, and act on health care information (AMA, 1999). Some authors have used an expanded definition of health literacy that includes a working knowledge of disease processes, self-efficacy, and motivation for political action regarding health issues (Nutbeam, D. 2000).

The issues of "health literacy" – is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (IMR, 2004)– begins to cast a long patient safety shadow.

There is more to health literacy than reading and understanding health information (JCR, 2006). Health literacy also encompasses the educational, social and cultural factors that influence the expectations and preferences of the individual, and the extent to which those providing health care services can meet those expectations and preferences. Health care practitioners literally have to understand where their patients "are coming from" – the beliefs, values, and cultural mores and traditions that influence how health care information is shared and received.

HEALTH INFORMATION LITERACY

According to a 2004 report by the Institute of Medicine (IOM), nearly half of all American adults, about 90 million people, have difficulty reading and using health care information. A 2003 National Assessment of Adult Literacy found that 45% of the US population have basic or below basic skills. Below basic skills consists of being able to sign a form, add amounts on a bank slip, and search simple text for pre test instructions (Health Literacy: a prescription to end confusion, 2004). Health literacy is broader than general literacy in that it includes not only the ability to read, but the complex health information must be understood and acted upon. Some specific tasks that are influenced by the level of health care literacy are: the ability to analyze risks and benefits of proposed treatments, ability to interpret test results, ability to calculate and measure dosages of medication, and the ability to locate the needed health information to assist in these tasks

(Glassman, 2008). Glassman (2008) also states that there are multiple types of literacy needed within the healthcare decision arena: visual literacy or being able to understand graphs and over visually presented information, computer literacy, numerical literacy, and information literacy or being able to obtain relevant information.

According to the most accepted definition, health information literacy requires a skill set that allows one to: recognize a need for health information, identify sources for the information and be able to retrieve the relevant information, assess the quality and applicability to the specific situation, and analyze, understand and use the information to make good health decisions (Health information literacy task force final report, 2005).

Multiple studies show that limited health care literacy results in poor health and outcomes. The AMA (Glassman, 2008) states that poor health literacy is a stronger predictor of a person's health than their age, income, education level and employment. People with limited health literacy are more likely to skip preventive health care and wait until they are quite ill before seeking care. This same source also reports that limited health care literacy is associated with increased complications resulting from chronic illnesses such as diabetes, heart disease/heart failure, asthma hypertension, and HIV (Quick Guide to Health Literacy). Studies show there is a higher rate of hospitalization and use of emergency rooms by people with limited literacy skills (Quick Guide to Health Literacy). This adds a huge economic burden to our society and health care system resources. Low health care literacy results in shame for the people involved and as a result people often try to hide their literacy deficits. This lack of understanding regarding instructions for care and medications contributes to a lack of compliance. This leads to continued poor health and morbidity and even untimely death due to failure to treat and manage potentially treatable conditions. This is a critical issue that significantly impacts our whole country and economic system.

FAMILY PLANNING

Family planning is the planning of when to have children and the use of birth control and other techniques to implement such plans. Other techniques commonly used include sexuality education, prevention and management of sexually transmitted infections, pre-conception counseling and management, and infertility management (WHO, 2007).

Family planning is sometimes used as synonym for the use of birth control, however, it often includes a wide variety of methods, and practices that are not birth control. It is most usually applied to a female-male couple who wish to limit the number of children they have and/or to control the timing of pregnancy (also known as spacing children). Family planning may encompass sterilization, as well as abortion (Mischel, D R 2007).

Family planning services are defined as "educational, comprehensive medical or social activities which enable individuals, including minors, to determine freely the number and spacing of their children and to select the means by which this may be achieved.

Family planning enhances the quality of life by reducing infant mortality, improving maternal health, and alleviating pressures on governments to meet social and economic needs.

An expert Committee (1971) of WHO defined family planning as "a way of living that is adopted voluntarily upon the basis of knowledge, attitude and responsible decisions by individuals, and couples, in order to promote the health, and welfare of the family, group, and this contributes effectively to the social development of the country".

"The conscious efforts of couples to regulate the number and spacing births through artificial and natural methods of contraception. Family planning connotes conception control to avoid pregnancy and abortion, but it also include efforts of couple to induce pregnancy".

"Controlling reproduction, planning the timing of birth, and having as many babies as are wanted and can be supported".

"A system of limiting family size and the frequency of child bearing by the appropriate use of contraceptive techniques."

Family planning is a way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitude and responsible decisions by individuals and couples in order to promote the health and welfare of the family group, and this contributes effectively to the social development of a country. (Isaiah, 2007).

EDUCATION

Royston (1998) argued that educated women may have more understanding of the physiology of reproduction and be less disposed to accept the complications and risk of not attending antenatal clinics, than illiterate or uneducated woman. Education has been described as a "medication against fatalism". In addition to that, educated women may also be less likely to accept dangerous practices aimed at alleviating complications in pregnancy. Amongst the Hausa people of Northern Nigeria, for example *girishi* cuts are a traditional surgical operation to treat obstructed labour by cutting the virginal with an un-sterilized blade. Whilst it is commonly performed on uneducated women, educated women rarely accept the practice (Royston, 1989). Uneducated women are less likely to seek the help of professional health services because they are probably less aware of what is available, and probably find the culture of modern health care facility more alienating and frightening.

Knowledge and practice of family planning is strongly related to higher level of education (Ramesh et al., 1996). In most of the studies it was found that education is the prime influencing factor and education affects the attitudinal and behavioural patterns of the individuals (Sajid and Malik, 2010; Mao, 1999). A number of Knowledge, Attitude and Practice survey has been carried out covering different population groups (Dabral S, Malik, 2004; Gautam and Seth, 2001; Takkar et al, 2005; Rao, 2005). Based on a majority of researches, in most countries of the world, female adolescents do not receive formal reproductive health education on time, since their puberty happens earlier than boys. Llyod (2009:85) contends that all 13-15 year olds should be acquiring "reading and writing fluency for lifelong learning, critical thinking skills, health and reproductive health knowledge and skills for social and civic participation. Nevertheless, it offers a standard to make informed and voluntary decisions in their lives, including their sexual, marital and reproductive lives. Studies have shown that 63.4% of puberty disorders and complications among females were because of their ignorance (Mohammadi et al., 2006).

Health education is an effective way of increasing the Knowledge and Attitude regarding family planning among the women.

INADEQUATE HEALTH LITERACY

Communication is essential for the effective delivery of health care, and is one of the most powerful tools in a clinician's arsenal. Unfortunately, there is often a mismatch between clinician's level of communication and a patient's level of comprehension. In fact, evidence shows that patients often misinterpret or do not understand much of the information given to them by clinicians. This lack of understanding can lead to medication errors, missed appointments, adverse medical outcomes, and even malpractice lawsuits.

Health literacy, as defined in a report by the Institute of Medicine, is the ability to obtain, process, and understand basic health information and services needed to make appropriate health decisions and follow instructions for treatment. Many factors can contribute to an individual's health literacy, the most obvious being the person's general literacy – the ability to read, write, and understand written text and numbers. Other factors include the individual's amount of experience in the health care system, the complexity of the information being presented, cultural factors that may influence decision-making, and how the material is communicated.

IMPLICATIONS OF LIMITED HEALTH LITERACY

The limited ability to read and understand health related information often translates into poor health outcomes. Most clinicians are surprised to learn that literacy is one of the strongest predictors of health status. In fact, all of the studies that investigated the issue report that literacy is a stronger predictor of an individual's health status than income, employment status, education level, and racial or ethnic group. Though, we need to take cognizance of the fact that education level is a poor surrogate for general literacy skills and for health literacy. Education level only measures the number of years an individual attended school-not how much the individual learned in school. Thus, asking patients how many years of school they completed does not adequately predict their literacy skills.

LITERACY AND HEALTH KNOWLEDGE

Patients with limited health literacy have less awareness of preventive health measures and less knowledge of their medical conditions and self-care instructions than their more literate counterparts. This knowledge deficit has been documented for a variety of health conditions, ranging from childhood fever to asthma to hypertension. Persons with limited health literacy skills also exhibit less healthy behaviors (Arnold, CL, David, TC, Berkel, HJ, Jackson, RH, Nandi, I, London, S. 2001).

LITERACY AND HEALTH OUTCOMES

Persons with limited health literacy skills have poorer health status than the rest of the population (Sidore, RL, Yaffe, K., Sattenfield, S Harris, TB, et al, 2006). Indeed, several studies in diverse settings have shown that, even after controlling for a variety of sociodemographic variables, limited understanding of health concepts (i.e., poor health literacy) is associated with worse health outcomes. This may be due to the aforementioned deficits in health knowledge, as well as medication errors, poor understanding of medical instructions, and lack of self-empowerment. The combination of medication errors, excess hospitalizations, longer hospital stays, more use of emergency departments, and a generally higher level of illness-all attributable to limited health literacy.

LITERACY AND HEALTH CARE COSTS

The adverse health outcomes of low health literacy translate into increases costs for the health care system.

FEMALE LITERACY AND EDUCATION

The value of female literacy and education is well recognized for its effects on fertility. It has been observed that, there is slower response to the population policies in societies with higher rates of illiteracy. Because, it is basically education which changes the attitude and behaviour of the people towards modernization and quality of life in general, education helps to overcome poverty, increase income, improves health and nutrition, and reduce family size. Therefore, it is relationship with population growth cannot be denied.

Studies have also shown that lower literacy is associated with lower cognitive ability. (Baker, D.W., Crazmararian, J.A., Sudano, J. et al., 2000).

In fact, a strong and positive relationship between family planning and education, especially of women, emerges as one of the most consistent findings from empirical analyses of reproductive knowledge, attitudes and behaviour in developing countries (see, for example, Ainsworth 1994, Ezeh et al 1996. Mboup and Saha 1998, Robey et al. 1992, Rutenberg et al. 1991). Education may be seen as a catalyst in diffusion-innovation theories. It is also typically employed as an indicator of socio-economic development or, among women, as a proxy for gender status.

It is well recognized that mother's education has a positive impact on health care utilization. In a study in Peru using DHS data, Elo (Elo, 1992) found quantitatively important and statistically significant effect of mother's education on the use of prenatal care and delivery assistance. In another study, Becker and colleagues (Becker et al., 1993) found mother's education to be the most consistent and important determinant of the use of child and maternal health services. Several other studies also found a strong positive impact of mother's education on the utilization of health care services (Fosu, 1994; Costello et al., 1996). It is argued that better educated women are more aware of health problems, know more about the availability of health care services, and use this information more effectively to maintain or achieve good health status. Mother's education may also act as a proxy variable of a number of background variables representing women's higher socioeconomic status, thus enabling her to seek proper medical care whenever she perceives it necessary.

BARRIERS TO FAMILY PLANNING SERVICE USE

The influence of physical access on the utilization of family planning services is well-founded, with many studies demonstrating the greater use of services among women who live in relative proximity to a service (Tsui and Ochoa, 1992). Research into the barriers faced in accessing reproductive health services, however, now recognizes that problem of access extend behind physical access to services, and include issues of economic, administrative, cognitive and psychosocial access (Bertrand *et al* 1995; Foreit *et al* 1978). Furthermore, the barriers to family planning service use are seen as extending beyond factors operating at the individual and household levels, to include characteristics of the social and cultural environment and the health service infrastructure. This view of access recognizes the importance of attributes of the health system in shaping an individual's ability to seek health care, highlighting the importance of the supply environment on health care utilization. This conceptualization of access incorporates factors operating at the individual, household and community level to influence an individual's ability to utilize a health service, thus framing an individual's access to services in terms of the socioeconomic, cultural and service supply context in which they live.

Previous studies of the use of reproductive health services have largely focused on factors operating at the individual and household levels, broadly categorized as demographic, socioeconomic, cultural and health experience factors. Demographic factors that have been shown to increase the likelihood of using reproductive health services are; low parity (Magadi, Madise, and Rodrigues 2000; Kavitha and Audinarayana 1997) and younger maternal age (Bhatia and Cleland 1995a). In terms of socioeconomic factors, the most consistently found determinant of reproductive health service utilization is a woman's level of educational attainment (Addai 1998; Bhatia and Cleland 1995a; Magadi, Madise, and Rodrigues 2000; Nuwaha and Amooti-Kaguna 1999; Obermeyer 1993). It is thought that increased educational attainment operates through a multitude of mechanisms in order to influence service use, including increasing female decision-making power, increasing awareness of health services, changing marriage patterns and creating shifts in household dynamics (Obermeyer 1993). Cost has often been shown to be a barrier to service utilization (Griffiths and Stephenson 2001: Bloom, Lippeveld and Wypij 1999) and also influences the choice of service provider. Socioeconomic indicators such as urban residence (Addai 1998), household living conditions (Magadi, Madise, and Rodrigues 2000; Bloom, Lippeveld and Wypij 1999), household income (Kavitha and Audinarayana 1997) women's employment in skilled work outside the home (Addai 1998), high levels of husband's education (Nuwaha and Amooti-Kaguna 1999) and occupational status (Nuwaha and Amooti-Kaguna 1999) have also proven to be strong predictors of a woman's likelihood of utilizing reproductive health services.

BENEFITS OF FAMILY PLANNING

Family planning saves lives and can improve the health of women, children and society as a whole. According to Berstein et al. (2006) gaining control of one's reproductive choices and fertility has health benefits for both mother and child. In 2000, about 90% of global abortion related and 20% of obstetric related mortality and morbidity could have been averted by the use of effective contraception by women wanting to either postpone or stop having children. In some cases, a mother's death is considered to be the death of the household (Daulaire et al., 2002). Daulaire et al. (2002), reports that children of deceased mothers are likely to be farmed out to relatives, forced on the street, and have a greater risk of dying themselves. In addition, using family planning to increase the interval at which women bear children not only has benefits to the mother, but also to the child (Daulaire et al., 2002). Children born within eighteen months of each other (live births) are at a greater risk of fetal death, low birth weight, prematurity, malnutrition and being small size for gestational age in both rich and poor communities (Bernstein et al., 2006).

Maternal mortality is not the only problem that stems from unintended pregnancies. According to the World Health Organization, (WHO) "for every maternal death an estimated 30 additional women suffer pregnancy-related health problems that are frequently permanently debilitating" (WHO 1997, pg. 3 as cited in Daulaire et al. 2002). Overall, an estimated 17 million women suffer from pregnancy-related health problems which include uterine rupture, prolapse, hemorrhage, vaginal tearing, urinary incontinence, pelvic inflammatory disease and obstetric fistula (a muscle tear that allows urine or feces to seep into the vagina). These conditions are more likely to occur among women who are on the cusp of childbearing age, very young or very old, suffering poor health, malnutrition or have had multiple live births (Daulaire et al. 2002). The cost associated with such debilitation problems can lead to social and economic isolation as well as increasing the risk of maternal mortality during future pregnancies.

NIGERIA SITUATION

Nigeria which has a population of 140 million and an annual growth rate 3.2% (NPC, 2007) is the most populous country in Africa. Nigeria, according to khurfeld (2006), is already facing a population explosion with the resultant effect that food production cannot match the growing population. In Nigeria today, the birth rates are higher than the world average. (Nwachukwu & Obasi, 2008) Contraceptive Prevalence Rate (CPR) is still embarrassingly low in Nigeria, according to the report released by the international women's health coalition; the CPR among married women aged 15-49 years was 8% for modern methods and 12% for all methods. Also, other studies have reported a similarly low adoption rate of Modern Birth Control Methods (MBCM). (Haub & Yangishila, 1992; Makinwa Adebusi, 2001; Population Reference Bureau, 2002; UNFPA, 2007).

Like many other developing nations, majority of Nigeria's population (about 70%) live in the rural communities. (Ekong, 2003). These rural communities have very high fertility rate and the CPR is also considerably lower in rural areas with CPR of 8% as compared with 18% in the urban areas in Nigeria (Ekong, 2003). Many rural women are reportedly reluctant to accept any artificial method of contraception. (Gaur, Goel M.K., Goel M., 2008) Several studies also revealed that rural women who were unwilling to accept family planning methods were concerned about child survival and viewed children as a source of support in old age. (Kartikayan & Chaturvedi, 1995).

Studies carried out in Nigeria have shown that lack of adequate information and ignorance are key factors militating against family planning practice in Nigeria. (Adinma & Nwosu, 1995; Moronkola, Ojediran & Amosun, 2006) The socio-economic characteristics of women, notably educational levels have been argued to explain differences in reproductive behaviour and contraceptive choices (Anju, Vanneman & Kishor, 1995; Caldwell, 1982; Dyson & Moore, 1983; Kazi & Sathar, 2001). The perceptions and the behaviour related to reproduction have also been said to be strongly determined by prevailing cultural and religious values. (Srikanthan & Reid, 2008).

The 2008 Nigeria Demographic survey results show fertility in Nigeria has remained at a high level over the last 17 years from 5.9 births per woman 1991 to 5.7 births in 2008. On average, rural women are having two children more than urban women (6.3 and 4.7 children, respectively). Fertility differentials by education and wealth are noticeable. Women who have no formal education and women in the lowest wealth quintile on average are having 7 children, while women with higher than a secondary education are having 3 children and women in the highest wealth quintile are having 4 children.

Unplanned pregnancies are common in Nigeria. Overall, 4 percent of births are unwanted, while 7 percent are mistimed (wanted later). If all unwanted birth were prevented, women would have an average of 5.3 children, compared with the actual average of 5.7 children.

CONCLUSION AND RECOMMENDATION

Vulnerable population is an essential challenge. This population includes the elderly, minorities, immigrant populations, low income and people with chronic mental or medical health conditions. These people are more likely to have health literacy deficits due to lack of educational opportunity, learning disability, cognitive decline, and cultural differences (Glassman, 2008). Glassman (2008) reports that groups with the highest prevalence of illness and chronic debilitating disease often have the least ability to read and comprehend information needed to manage these conditions. The indirect effects of poor health literacy extend to insurance issues, accessibility to care, and poor health behaviour choices/lack of preventive care (Glassman, 2008).

Some specific ways to enact these recommendations are for consumer health provider's to develop partnerships with public and private schools, health care associations, community based organizations, senior citizen facilities, and literacy groups to promote and expand health care literacy opportunities. These partnerships are based on shared values and goals to promote skills in information location, analysis of quality, and computer literacy. The health care provider may consider providing space for meetings, providing health care literacy materials, sponsoring seminars and classes to teach the necessary skills of visual, numerical, computer, and information literacy (Glassman, 2008).

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VARIATIONS IN EXTERNAL CAPITAL FLOWS AND GROWTH IN THE CEMAC ZONE**GEORGES DIEUDONNÉ MBONDO****SR. LECTURER****RESEARCH GROUP ON THEORETICAL AND APPLIED ECONOMICS (GRETA)****DEPARTMENT OF PUBLIC ECONOMICS****UNIVERSITY OF DOUALA****DOUALA****ABSTRACT**

This article explores the various channels of transmission of the effects of changes in external capital flows on growth of countries in the CEMAC zone in sub-Saharan Africa. To do so, it highlights the economic and financial relationship that countries in the region have with the global financial economy from the different ways of financing development from 1970 to 2010. Panel data cointegration analysis on the six countries is mobilized and completed with an error correction model (VCM) to test not only the long-term relationship, but also the short-term effects of these variables in the long period. The density of the transmission channels is measured by effects of the absolute value of the change in the logarithm of GDP per head to the variation of a particular flow of funding. The results show that not only the effects identified and vary from one channel to another. It appears that the density of impacts is not the same for every country because of country fixed effects. On the whole the study revisits the issue of financing development through public or private international capital flows.


JEL CODES

C23, C33, F34, G01.

KEYWORDS

foreign capital flows, transmission channels, financial crisis, growth, development financing.

1. INTRODUCTION

 One of the concerns raised by the recent international financial crises has been the likelihood they include to have a negative impact on growth prospects in Sub-Saharan Africa. Assuming plausible that they would lead to an unfavorable reallocation of financial flows towards the region, many studies have highlighted the fact that different external capital flows constitute various channels through which the negative impact of crises transits (Rodrik, Subramanian, 2009). But the supposed concern, although prompted by these recent crises, extends all the consequences that the different variations of external capital flows may have on the growth of these countries in the context of greater openness and financial markets development. This dynamic raises, implicitly, the problem of financing development through foreign capital flows and the effects of their variations.

Theoretically, the analysis of the effects of the movements of external financing flows is seated on the relationship between foreign capital and growth. Indeed, over the past four decades, many theoretical works have highlighted the positive relationship between the growth of real Gross Domestic Product (GDP) and foreign capital flows. In particular, it is noted that these flows do not only come in support of domestic capital, but also have the ability to create an environment conducive to effective activity. Thus, depending on the type of capital, which can be official development assistance, external debt, bank loans or foreign direct investment, external capital flows to recipient economies provide technology transfer, gains in reduced costs of required capital or organizational efficiency of the productive system. These virtues of foreign capital in developing economies are expected to intensify with the advent of financial markets in some countries in the mid 90s. In support of these theoretical analyzes, many empirical investigations have confirmed or denied the alleged theoretical positive relationship, putting ahead the effects of the nature of the flow as well as the actual capacity of the recipient economies.

More specifically, these empirical studies generally used cointegration analysis on time series to put ahead the long-term relationship between capital flows and the real product per capita data from the countries concerned. In countries with emerging financial markets, the investigations involved "classic" flows such as bank loans, foreign direct investment, external debt flows, as well as "modern" flows introduced by the advent of the financial markets, namely equity portfolio investment and international bonds. However, not only the quality and quantity of data needed to sufficiently establish a long series remains a real headache in sub-Saharan Africa in general and the CEMAC zone in particular, but analysis through time series does not take into account the common features that may exist among the countries of this area. The panel data analyses, often well received in such circumstances, has unfortunately remained the issue of isolated works.

In fact, it is clear that the addition of the individual dimension to the usual temporal dimension not only overcomes the low power of cointegration tests in small sample time series, but it also allows to integrate the properties of long term sets whose probability is high as they are common to several countries. By increasing the number of data including information on different countries, a multi-country analysis is carried out within the same methodological framework. Thus, beyond the simple addition of the individual dimension to the temporal dimension, the option of panel provides important technical properties required for precision. So, the panel is more than just a collection of independent individuals, but a structure subjected, for example, to the influence of both observable and unobservable common factors. Panel option is no longer a choice in the place of time series analysis, but a necessity dictated by the desire to model factors common to several countries.

The purpose of this article is therefore to examine the economic and financial relationship that CEMAC countries have with the global economy through the different ways of financing development from 1970 to 2010. Cointegration analysis by recent models on panel data from the six countries of the CEMAC zone and a vector error correction model (VECM) are mobilized to test not only the long-term relationship, but also the short-term effects of these variables. The rest of the paper is structured as follows: Section II, the evolution of external financial flows and growth in the countries of CEMAC (II), Section III methodology highlighting the long and short-run relationships between such flows and growth in panel data (III), section IV, the results of estimations on panel data from the CEMAC zone (IV) and section V expose the density of different channels (constituted by the capital flows involved) of transmission of the effects of the financial crisis of 2008 to growth as an illustration.

2. EVOLUTION OF EXTERNAL FINANCIAL FLOWS AND GROWTH IN THE COUNTRIES OF THE CEMAC ZONE

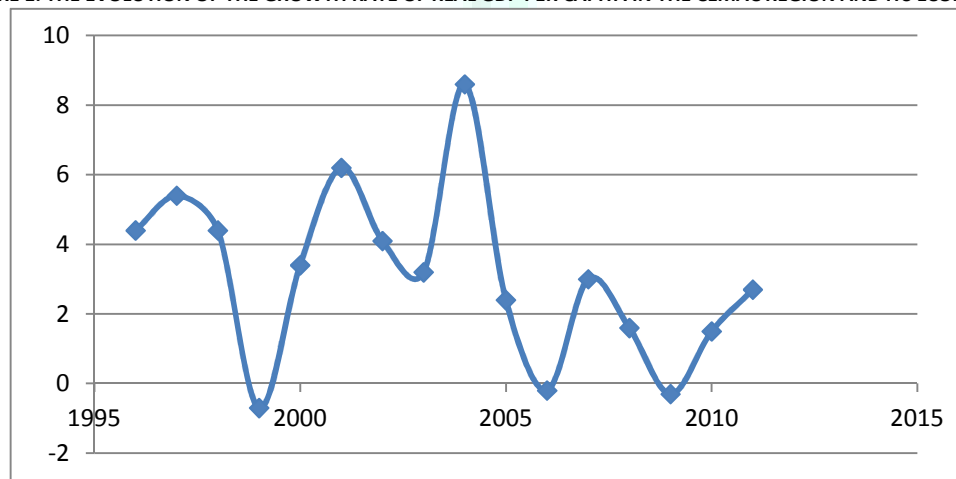
External financing flows towards sub-Saharan Africa in general and in particular the CEMAC zone have undergone profound changes since the 70s. These changes have increased since the mid-90s with the birth of pioneer capital markets in this economic area which is still lagging behind. With a little foresight, they go hand in hand with the issue of financing growth in developing countries by foreign capital (Rodrik, Subramanian, 2009). Should these funds be public or private? Should we let the financial markets or do they still benefit from proactive states and international financial institutions? What is the density of the flows of each type? These few questions, beyond the concerns raised by the international financial crisis, by nature transient, bring reflection on the issue of quality and defects of external financing and their ranking in terms of density in the transmission of the effects of the international economy.

We note in the CEMAC zone that next to the sub-regional stock exchange in Libreville, there exists the Douala Stock Exchange, which is more national, and that they have not yet reached the level of capitalization or number of quotes sufficient to enhance the locomotive economy of the sub region. As such, "classical" financing means such as external debt, private bank loans, official development assistance, and private foreign investment continue to serve as major sources of

external financing. Not only have these "traditional" means not evolved homogeneous since 1970, we can also observe that they have by no means remained safe for international economic and financial movements.

Indeed, the crises of the 70s characterized by unprecedented shocks of commodity prices have contributed to the growth of the external debt; the fall in prices of commodities in the 80s was accompanied by the slowdown in the overall capital flows to Africa in general. Conditions of the 90s nourished in terms of liberalization has promoted various structural reconstruction of the evolution of external funding streams while crises of the first decade of the millennium 2000 have raised new concerns about the various capital flows that are related with the resumption of growth. These concerns are in proportion to hopes based on the growth contribution to the fight against poverty. With a poverty incidence of 35%, this region is among the poorest in the world, and a mortgage on growth is necessarily a source of anxiety and even panic. Trends show that the rate of growth of real national product per head for the whole CEMAC region has an average of 3.1% in the 70s, 4.5% for 80s, 4.1% for 90s and finally 4.3% for the decade 00. Troughs of these trends in growth rates were observed in 1989, 1999 and 2009 respectively, reaching 1% -0.7% -0.3% and finally for different countries, these were hollow 3.9% for Cameroon, 2.72% for the Central African Republic, -11.2% for Gabon, -2.7% for the Congo, -0.6% for Chad and finally 23.2% for Equatorial Guinea. The fact that there appears as a synchrony in these movements, suggests the existence of common factors in the development of these economies. Yet there also exist strong heterogeneities as can be seen from the diversity of the activities that characterize them. Figure 1 shows this evolution in growth.

FIGURE 1: THE EVOLUTION OF THE GROWTH RATE OF REAL GDP PER CAPITA IN THE CEMAC REGION AND ITS ECONOMIES



Accompanying the evolution of real GDP per capita, changes in external capital flows and their structural composition also suggest the existence of common and specific factors in the economy. First, the economies of the region benefit from the flow of external debt since 1970, yet their debt ratio still seems negligible. And second, they also enjoy private bank loans and foreign direct investment over the period of analysis. However, these flows do not have the same volume or the same consistency. Although the proportion of foreign direct investment flows in the direction of the area is negligible in comparison with other countries in sub-Saharan areas, we note that Cameroon and Gabon totaled the largest amounts, same for bank loan.

Despite some differences in the evolution of chronic growth rates of GDP per capita and that of external capital flows in the direction of the CEMAC countries, a more robust explanation of the relationship between these variables is urgent. Such an explanation is all the more urgent that the economies of the CEMAC zone must identify the density effects transmitted through different channels by these external flows for purposes of funding policy. These results are interesting in that they provide a basis for a comparative analysis with those achieved in other areas in sub-Saharan Africa. Finally, the theory of external financing and economic growth, through this, there is another opportunity to lend refutability.

3. METHODOLOGY HIGHLIGHTING THE LONG & SHORT-RUN RELATIONSHIPS BETWEEN FLOWS AND GROWTH IN PANEL DATA

To highlight the effects of changes in external capital flows on growth of economies in the CEMAC zone, we assume that they are open to the outside and bear significant public expenditures. Variables retained for the analysis are; bank loans (BANK), foreign direct investment (FDI) flows and external debt (FDEXT). To these financial variables, it is necessary to add public spending (GOV noted) because they represent the burden on GDP of the economies, but also the importance of the issue of public deficits in recent debates on financial crises. Finally we had to also take into consideration the degree of openness of economies (denoted TRADE), in order to capture it through the indirect effects of crises via channels that are not necessarily financial.

The approach is to first establish the existence of a long-term relationship between the variables representing the flow of foreign capital and the logarithm of real GDP per capita of different economies. Then the effects of the movements of external financing flows can be identified, the causal link between them and the variations of the logarithm of real GDP per capita has been specified in the meantime. Finally, the significant coefficients of the estimated short and long-run relationships are used to measure the density of different channels of transmission of the crises. The option taken for analysis and specification of the panel selected model will first be justified as well as the data used and their sources. The procedure for analyzing cointegration in panel will then be exposed.

3.1- PANEL DATA, THEIR SOURCES AND THE RATIONALE FOR THE PANEL OPTION FOR COINTEGRATION

Panel data are, by construction, a stack data incorporating both individual and temporal dimensions. This double dimensions account simultaneously to the dynamic behavior through the intra-individual dimension and their possible heterogeneity across the inter-individual dimension. The influence of unobservable characteristics of individuals on their behavior by controlling the heterogeneity observed (actual measurements of variables) and that of unobserved heterogeneity (specific effects) is usually the charm of this option of analysis.

Since the pioneering work of Levin and Lin (1992), the literature on the econometrics of non-stationary panel data - and, in particular, cointegration tests - has continued to grow. Many empirical studies on using panel data unit root tests in the context of univariate and / or cointegration tests in a multivariate context came to support subsequent theoretical developments. Double panel dimension not only provides enrichment to cointegration analysis, but also a change in the statistical consequences of the situation of no cointegration between non-stationary variables, that is to say, the situation of spurious regression (Phillips and Moon. 1999). The tests performed in this study are those proposed by Pedroni (1995, 1997), Kao (1999) and Bai and Ng. (2001). This is analogous to the residual tests proposed by Engel and Granger (1987) in the context of time series.

The data used in this analysis are mostly derived from the Global Development Finance World Bank 2011 edition. We selected the five countries of the CEMAC zone, real GDP per capita in constant dollars of 2005. Equatorial Guinea suffers from a lack of data over very long periods for most variables. Other variables, namely net banking flows, foreign direct investment flows of external debt which we added government spending and openness. The data are from 1970 to 2010. Most of the data were compared and supplemented with those found in the publications of the African Development Bank. This is what justifies that we seek first the homogeneity or heterogeneity of the data, and confirm that test the validity of the stack panel. This is a confirmation of the validity of the panel built that justifies the option taken for testing cointegration in panel which should explain the first opportunity and the procedure.

3.2- TEST PROCEDURE FOR PANEL DATA COINTEGRATION AND VECTOR ERROR CORRECTION

Pedroni (1995, 1997) proposed seven tests to understand the null hypothesis of no intraindividual cointegration for both homogeneous and heterogeneous panels. Critical values given in this work are related to the presence of a single regressor in cointegration relationships. Pedroni (1999, 2004) proposes an

extension to the case where cointegration relationships include more than two variables. As the unit root tests of Im, Pesaran and Shin (2003), Pedroni's test takes into account heterogeneity through parameters that can differ between individuals. Thus, under the alternative hypothesis, there is a cointegration relationship for each individual, and the parameters of this relationship are not necessarily the same for each individual panel. Taking into account such heterogeneity is an undeniable advantage since in practice. It is rare that the cointegrating vectors are identical from one individual to another in the panel. Under these conditions, an incorrectly imposed homogeneity of the cointegrating vectors would result to a non-rejection of the null hypothesis of no cointegration even when the variables are cointegrated (see Pedroni, 1998).

The seven tests proposed to highlight the existence of a cointegrating panel are divided into two categories. The first four tests are associated with the dimension within, while the last three are associated with the dimension between. The within tests are performed with statistical coefficients of the autoregressive models of the unit root process of the different countries. The Between test can be considered as the average of tests carried out on the individual countries. The first are called "panel cointegration tests", and the second cointegration tests are called "panel group cointegration test." Formally and to put it simply, in light of all available data, the cointegration test of Pedroni after estimating the long-term relationship:

$$Y_{it} = \beta_i + \delta_i t + \alpha_{1i} x_{1,it} + \alpha_{2i} x_{2,it} + \dots + \alpha_{Mi} x_{M,it} + \varepsilon_{it} \tag{1}$$

Where $i = 1, \dots, N$ is the individual, $t = 1, \dots, T$, is the time of observation of the variable, $m = 1, \dots, M$, the m th variable x of the analysis. Variables β_i and $\delta_i t$ respectively characterize the individual specific effects (fixed effects) and time-specific effects, an appropriate test to validate the specification adopted. The equation underlying the different tests can be written:

$$\varepsilon_{it} = \rho_i \varepsilon_{it-1} + u_{it} \tag{2}$$

ρ_i is the autoregressive coefficient. The two categories of Pedroni's test based on the null hypothesis of no cointegration: $\rho_i = 1, \forall i$. The distinction between the two categories is based on the formulation of the alternative hypothesis:

For the four tests in the first category based on the within dimension. The alternative hypothesis is: $\rho_i = \rho < 1, \forall i$

For the three tests of the second category based on the Between dimension, the alternative hypothesis is: $\rho_i < 1, \forall i$. This shows that the test based on the between dimension is broader in the sense that it allows the presence of "heterogeneity among individuals under the alternative hypothesis.

In these seven tests, statistics are constructed based on the residuals of cointegrating relations and a number of estimators of nuisance parameters. The number of lags used in the ADF type regressions (Augmented Dickey-Fuller) may vary between individuals. The five steps of the execution of Pedroni's tests are:

- Step 1. We estimate the long-term relationship and recover the estimated residuals $\hat{\varepsilon}_{it}$.
- Step 2. For each individual, we differentiate the series y_{it} and calculate the residuals from the following regression:

$$\Delta y_{it} = b_{1i} \Delta x_{1it} + \dots + b_{Mi} \Delta x_{Mit} + \eta_{it}$$

- Step 3. We estimate the variance of long-term: $\hat{\sigma}_{\eta}^2$ de $\hat{\eta}_{it}$.

- Step 4. Using the estimated residuals $\hat{\varepsilon}_{it}$, we choose the appropriate regression:

i) For non-parametric tests, except for tests of type t Augmented Dickey-Fuller, we estimate the relation $\hat{\varepsilon}_{it} = \hat{\rho}_i \hat{\varepsilon}_{it-1} + \hat{u}_{it}$ and the long run variance

\hat{u}_{it}^2 is calculated and noted $\hat{\sigma}_i^2$. We then deduce $\hat{\lambda}_i = \frac{1}{2}(\hat{\sigma}_i^2 - \hat{s}_i^2)$ where \hat{s}_i^2 denotes the variance of \hat{u}_{it} .

ii) For parametric tests, we estimate the relationship:

$$\hat{\varepsilon}_{it} = \hat{\rho}_i \hat{\varepsilon}_{it-1} + \sum_{k=1}^{K_i} \hat{\rho}_{ik} \Delta \hat{\varepsilon}_{it-k} + \hat{u}_{it}^* \tag{3}$$

then calculates the variance \hat{u}_{it}^* , noted \hat{s}_i^2

- Step 5. Using the calculations made in the previous steps, it is possible to build one of the seven statistics presented.

Pedroni (1995, 1997) showed that, under appropriate normalizations based on functions of Brownian motions, each of the seven statistics follows a standard

$$\frac{\kappa N, T - \mu \sqrt{N}}{\sqrt{v}} \xrightarrow[N, T \rightarrow \infty]{} N(0,1)$$

normal distribution for T and N large enough: :

Returning to the case of the CEMAC zone, and following the approach initiated in Pedroni (1997, 1999, 2001) for panel data into a single equation, equation (1) becomes:

$$y_{it} = \mu_i + \alpha_1 BANK_{it} + \alpha_2 IDE_{it} + \alpha_3 FDEXT_{it} + \alpha_4 GOUV_{it} + \alpha_5 TRADE_{it} + \varepsilon_{it} \tag{1'}$$

where $i = 1, \dots, 5$ indicates an individual or country, and $t = 1970, \dots, 2010$, the year of the observation variable. It is obvious that this specification captures the heterogeneity of countries since the model is individual fixed effects.

Estimate equation (1') assuming that the variables are cointegrated is making the assumption that these variables are themselves individually integrated of order 1, that is to say stationary in first differences. More precisely, if there is cointegration between the logarithm of real gross domestic product per capita variables and determinants of external capital flows of this relationship, the analysis of movements between these variables and the logarithm of real GDP per capita can be conducted through a model of balance vector error correction model (VECM) of the type:

$$\Delta y_{it} = c + \alpha_i y_{it-1} + \beta_1 \Delta BANK_{it} + \beta_2 \Delta IDE_{it} + \beta_3 \Delta FDEXT_{it} + \beta_4 \Delta GOUV_{it} + \beta_5 \Delta TRADE_{it} + \theta \varepsilon_{it} + u_{it} \tag{3}$$

Where the variables Δx_{it} are the first differences of variables in the model lagged one period, for each country, ε_{it} is the correcting mechanism at the equilibrium and u_{it} is the error term. Under these conditions, θ is the coefficient characterizing the response speed of correction or restoring force balance. Under the assumption of cointegration, the coefficient ϑ is negative and statistically different from zero. And fluctuations of different modes of financing growth have a long term impact on the latter. The coefficients β , meanwhile simply express the short-term impact. In other words, if all the coefficients are significantly different from zero, they express both the long-term relationship than short term.

It is important in this case to test the direction of causality between the independent variables and the dependent variable according to the method of Granger through the following system:

$$\Delta y_{it} = c + \alpha_i y_{it-1} + \sum_{m=1}^5 \beta_m \Delta x_{m,it-1} + \theta \epsilon_{it} + u_{it} \quad m = 1, \dots, 5 \quad (4)$$

$$\Delta x_{m,it} = c + \alpha_i y_{it-1} + \sum_{m=1}^5 \beta_m \Delta x_{m,it-1} + \theta \epsilon_{it} + u_{it} \quad m = 1, \dots, 5 \quad (5)$$

However, if there is no cointegration, the analysis of the effects of independent variables on changes in real domestic product per capita can be conducted from the following specification:

$$\Delta y_{it} = c + \alpha_i y_{it-1} + \beta_1 \Delta BANK_{it} + \beta_2 \Delta IDE_{it} + \beta_3 \Delta FDEXT_{it} + \beta_4 \Delta GOUV_{it} + \beta_5 \Delta TRADE_{it} + u_{it} \quad (6)$$

The latter specification expresses only a short-term relationship. Since cointegration analysis is between sets themselves integrated of any order, the logical procedure is to start with a unit root test on the variables implicated in the study.

4. ECONOMETRIC RESULTS OF TESTS ON PANEL DATA OBSERVATIONS ON THE COUNTRIES OF THE CEMAC ZONE

Of the five countries with the displacement data from 1970 to 2010, the first job was to test the appropriateness of establishing a panel. The test of such an opportunity is achieved through the within and between estimators which give respectively the intra variability attributable to the series individually and interannual variability due to the crossing of individuals made by different countries in this context. This test also serves as a test of homogeneity and / or heterogeneity in individual behavior of the panel. The implications of this are important to test the model specification to be used for the estimates. If individuals are homogeneous, the panel becomes useless. An initial diagnosis revealed that 31% (= 0.1465 within) variability is attributable to intra individual behavior then 69% of variability attributable to the heterogeneity of individuals (between = 0.3285). In other words, not only is the appropriate panel, all panel analysis is warranted.

4.1- UNIT ROOT TESTS ON PANEL DATA

The data available for each country included in the analysis permit an analysis of cointegration for everyone. The option for a panel analysis is justified in order to highlight possible interactions between country data as well as the specific effects of each. These features are in addition to other benefits given by the panel dimension in the analysis of the dynamic behavior of individuals in relation to certain phenomena. Table 1 gives the results of this testing stationarity in the panel dimension. It is clear that the series of different countries are stationary in first difference. This result corresponds to what is generally accepted as regards economic and financial series.

TABLE 1: RESULTS OF UNIT ROOT TESTS WITH PANEL DATA

Tests	LPIB		BANK		IDE		FDEXT		GOUV		TRADE	
	Stat	p-value	Stat	p-value	Stat	p-value	Stat	p-value	Stat	p-value	Stat	p-value
Levin-Lin-Chu	-1,26	0,10	-6,78	0,00	1,42	0,92	-3,50	0,00	2,86	0,997	-0,74	0,22
Breitung	-1,17	0,11	-2,67	0,00	-4,19	0,00	-3,04	0,00	-2,45	0,00	0,07	0,53
Hadri	2,51	0,00	2,76	0,00	4,98	0,00	3,70	0,00	6,30	0,00	8,38	0,00
Im-Pesaran-Sh	-1,10	0,13	-7,11	0,00	2,28	0,98	-4,13	0,00	2,37	0,99	0,56	0,71
ADF – Fisher	15,19	0,12	67,43	0,00	21,29	0,01	38,22	0,00	5,29	0,87	8,67	0,56
ADF - Choi	10,74	0,37	62,10	0,00	31,84	0,00	48,82	0,00	4,94	0,89	7,91	0,63
	Δ LPIB		Δ BANK		Δ IDE		Δ FDEXT		Δ GOUV		Δ TRADE	
Levin-Lin-Chu	-7,42	0,00	-12,18	0,00	-16,08	0,00	-10,95	0,00	-12,50	0,00	-14,30	0,00
Breitung	-8,18	0,00	-9,98	0,00	-9,51	0,00	-11,53	0,00	-9,39	0,00	-11,79	0,00
Hadri	-0,33	0,63	-0,89	0,81	3,04	0,00	-0,12	0,54	0,02	0,49	-1,50	0,00
Im-Pesaran-Sh	-8,01	0,00	13,86	0,00	-12,53	0,00	-13,88	0,00	-11,66	0,00	-13,72	0,00
ADF – Fisher	76,14	0,00	140,8	0,00	129,0	0,00	143,26	0,00	117,55	0,00	140,21	0,00
ADF - Choi	74,83	0,00	148,18	0,00	119,77	0,00	159,91	0,00	111,24	0,00	132,14	0,00

The calculations presented in this table were performed with the software Eviews 7.1. the assumption of individual fixed effects was used with an automatic selection of lags based on maximum information criterion Aitke with a band selection Newey-West using Bartlett kernel statistics.

All variables are integrated of order 1, that is to say, $I(1)$, we can proceed to the cointegration tests of Pedroni.

4.2- PANEL DATA COINTEGRATION TEST

The results of panel cointegration test are presented in table 2. The results were obtained by assuming the existence of a deterministic constant. The choice of the number of lags was made automatically based on the information criterion Aitke modified with a maximum lag of 2, the selection is applied Newey-West with Bartlett kernel statistics. Results in bold indicate situations in which the null hypothesis of no cointegration was rejected.

TABLE 2: COINTEGRATION RESULTS

	statistique	p-value	Weighted stat	p-value
Dimension within				
Panel v-statistic	23,4	0,000	2,36	0,025
Panel rho statistic	1,08	0,223	2,36	0,023
Panel PP-statistic	-4,89	0,000	-3,81	0,000
Panel ADF statistic	-6,77	0,000	-7,91	0,000
Dimension between				
Panel rho statistic	3,26	0,000		
Panel PP-statistic	-5,45	0,000		
Panel ADF statistic	-7,18	0,000		

The calculations presented in this table were performed with the software Eviews 7.1. the assumption of individual fixed effects was used with an automatic selection of lags based on maximum information criterion Aitke with a band selection Newey-West using Bartlett kernel statistics.

A reading of the results presented in Table 2, it appears that five out of seven tests reject the hypothesis of no cointegration between the real gross national product per capita variables representing net banking flows, net foreign direct investment, external debt flow, public expenditure flows, and the degree of external openness. It must be remembered in this connection that the null hypothesis is rejected if the statistics are significantly negative, with the exception of the statistics v (v-statistic), which, if it is significantly positive, the null hypothesis is rejected. Moreover, when the sample of individuals (countries) is reduced as in this case (5 countries), the ADF tests is the most powerful Pedroni tests. We can therefore conclude that the existence of a cointegration relationship between real gross national product per capita variables representing net banking flows, net flows of foreign direct investment, flows of foreign debt, flow of public

expenditure and the degree of external openness and use it to estimate the long-term relationship and estimate the density of the transmission channels of the effects of foreign capital movements.

5. THE DENSITY OF DIFFERENT CHANNELS OF TRANSMISSION OF THE EFFECTS OF THE FINANCIAL CRISIS OF 2008

The density of the transmission channels of the effects of crisis is apprehended through the estimation of relationships between long and short term national product per capita and various external capital flows included in the analysis. In this section, these estimates are presented and the assumed densities are deducted. Table 3 shows the different results.

TABLE 3: THE RESULTS OF THE ESTIMATION OF THE LONG-TERM RELATIONSHIP

Variables	coefficients	t-statistique	p-value
Constante	6,4117	229,684	0,0000
BANK	0,00325	1,99817	0,0471
IDE	0,00160	0,04655	0,0962
FDEXT	0,01850	2,68238	0,0079
GOUV	0,00142	3,15121	0,0019
TRADE	0,02850	2,65212	0,0087
Country fixed effects			
Cameroun	-0,1955		
Centrafrique	-0,8388		
Tchad	-1,2797		
Congo	0,4076		
Gabon	1,9006		
R-squared	0,3606	Akaike info criterion	-1,0000
Adjusted R-squared	0,3311	Durbin-Watson	0,67079
F-statistic	12,223		
Prob(F-statistic)	0,0000		

The calculations are made from the econometric software Eviews 7. The estimation was performed by the method of ordinary least squares incorporating country fixed effects.

Estimated parameters show the different external capital flows have a positive effect on the logarithm of per capita national product. However, the effects of foreign debt flows and trade openness are not significant; this result corroborates that of cointegration test showing already a long-term balance between the different variables and the real domestic product per capita, although the multiple cointegration test, it is positive. The redundancy test fixed effects is negative and confirms the relevance of the specification adopted. Therefore, the long-term relationship can be written:

$$\text{Log (PIB)} = 6,411787 + 3,25\text{BANK} + 1,60\text{IDE} + 1,85\text{FDEXT} + 1,42\text{GOUV} + 2,85\text{TRADE} + U_i + \epsilon_{it}$$

For each country, should be added to replace the term representing the fixed effect value u_i .

Cointegration between the logarithm of real GDP per capita and the different flows means that the residuals ϵ_{it} are stationary and, so by estimating autoregressive with a number of lags equal to 1, it represents the correction mechanism adjusting the national product per capita trajectory equilibrium. Table 4 gives the results of the unit root test of the residuals. They show that these residues are indeed stationary and we can therefore estimate the same model relationships long and short terms.

TABLE 4: TEST UNIT ROOT RESIDUES OF THE ESTIMATE OF THE LONG-TERM RELATIONSHIP

Tests	Statistique	P-value
Levin – Lin – Chu	-1,26	0,01
Breitung	-1,17	0,00
Hadri	2,51	0,00
Im – Pesaran – Shin	-1,10	0,00
ADF – Fisher	15,19	0,12
ADF - Choi	10,74	0,37

The calculations are made from the econometric software Eviews 7. The estimation was performed by the method of ordinary least squares incorporating country fixed effects.

The choice of the number of lags was done automatically based on Akaike information criteria modified with a maximum lag of 2 for testing without individual fixed effects and 3 for tests with individual fixed effects. These results confirm, of course, the existence of a long-term relationship between the logarithms of real gross national product per capita and variables representing different external capital flows. But it is obvious that cointegration does not mean causation, even though it appears as a necessary condition of causation. It can not be causal without cointegration. Thereby highlighting the density of transmission channels effects behaviors of foreign capital is particularly interesting because it identifies from the direction of causality flows from listed to the behavior of the national product per capita. Given equations (5), the direction of the relationship long term and short term will be tested through the following models:

$$\Delta y_{it} = \mu_1 + \phi_1 \Delta y_{it-1} + \sum_{m=1}^5 \beta_{m1} \Delta x_{m,it-1} + \theta_1 VCM + u_{1it}$$

$$\Delta x_{m,it} = \mu_j + \phi_j \Delta y_{it-1} + \sum_{m=1}^5 \beta_{mj} \Delta x_{m,it-1} + \theta_j VCM + u_{j,it} \quad j = 1, \dots, 5; \quad (5')$$

With $x_{m,it-1} = \text{bank}_{it-1}, \text{IDE}_{it-1}, \text{Fdext}_{it-1}, \text{Gouv}_{it-1}, \text{Trade}_{it-1}$

The estimation results are presented in Table 6. They are all significant at a margin of error of 1%. The lagged logarithm of GDP has a short-term impact of more than 100% of its current value, then the impact is negative, significant and equal to 0.2% for a positive change in the flow of debt by 1%. This result is logical, since an increase in debt leads to a rise in the debt service for future periods.

TABLE 5: RESULTS OF ANALYSIS OF ENDOGENEITY, LONG-TERM RELATIONSHIP AND SHORT-TERM

Variables indépendantes	Variable dépendante $\Delta Lpib_{it}$		
	coefficients	t-statistique	p-value
Constante μ_1	0,0052	9,931	0,000
$\Delta Lpib_{it-1}$ (φ_1)	0,49204	2,36	0,000
$\Delta bank_{it-1}$ (β_{11})	-0,02441	-0,093	0,000
ΔIDE_{it-1} (β_{21})	0,0471	0,011	0,000
$\Delta Fdext_{it-1}$ (β_{31})	-0,00207	-0,094	0,000
$\Delta Gouv_{it-1}$ (β_{41})	-0,0764	-0,5252	0,000
$\Delta Trade_{it-1}$ (β_{51})	0,00887	0,0750	0,000
VCM_{it-1} (θ_1)	-0,8748	-0,614	0,000

The calculations are made from the econometric software Eviews 7. The estimation was performed by the method of ordinary least squares incorporating country fixed effects.

The results show that the movements of external financing flows all have an impact on the logarithm of real per capita gross product. In particular, the variables in first differences lagged one period have an impact on the logarithm of per capita GDP with different intensities. The coefficient of the correction mechanism at the equilibrium is significantly negative and therefore shows that the restoring force balance plays its full role. We can estimate, based on the coefficient calculated that the adjustment time is 1.149 years (1/0, 874)

Table 6 shows the estimation results of the last three equations of system (5'). It appears that the coefficient of the correction mechanism to balance is not significant for any of the three. This allows considering the total exogeneity of the independent variables.

Thus on the basis of the relationship of short and long term, the density of the transmission channels of the impact of movements in external financing to GDP countries of the CEMAC zone can be highlighted. Indeed, considering equation (7), the density estimates of the transmission channels of the impact of movements in external financial flows are given in order of importance in Table 7 below.

TABLE 6: CLASSIFICATION OF THE TRANSMISSION CHANNELS OF THE EFFECTS ACCORDING TO THEIR DENSITY TRANSMISSION CHANNELS

Channel of Transmission	IDE	BANK	TRADE	FDEXT
Channel density	0,0471	0,0244	0,00887	0,00207
Short run impact	0,0471	-0,0244	0,00887	-0,00207

And FDI is the channel most densely transmission impacts of movements in international financial conditions CEMAC zone. They are followed by bank loans whose short-term impact is negative. In the light of this result, external private capital exposes more savings in this area to international financial turbulence. Then the degree of openness of economies appears to constitute significant channel flow while external debt with their negative impact, however, arrive last.

6. CONCLUSION

Investigations on the effects of changes in external financial flows and growth in the CEMAC zone helped to highlight the nature of the relationships established between the logarithm of real GDP per capita and the "traditional" means of external financing that are bank loans, foreign direct investment flows and external debt. To achieve this, an analysis of cointegration panel data has been mobilized to detect the nature of the long-term relationship between the variables involved. To highlight the supposed effects of external capital flows on growth, an empirical model of open economy integrated public expenditure has been considered.

All unit root tests in panel showed that all variables are integrated of order 1 and therefore their stationary first differences. This result has motivated the use of a specification with variables of the same order of integration. Estimates then showed that the logarithm of per capita GDP and external financing variables are cointegrated both individually and globally. The long-term relationship was estimated with fixed effects in different countries.

The estimated error correction model to balance showed that external capital flows towards countries of the CEMAC zone have varied impacts on the logarithm of real GDP per capita in the short term with lagged variables of a period. The sign of the coefficient of the correction mechanism to balance not only confirmed the long-term relationship, but it also showed the speed with which the logarithm of real GDP per capita would return to its equilibrium path in response to a particular shock.

The results thus enrich released by relativizing those achieved by Reisen and Soto (2001), concerning the countries of UEMOA and finding no significance of the positive impact of FDI on real GDP, as well as those of Durham 2003, and Malek Mansour Gheereart 2005 or Vita and Kyaw, 2009, opposing the first. By contrast, they also confirm those achieved by Rodrik, Subramanian (2009), in which the sign of the effects of the 2008 crisis is significantly positive across the different variables representing capital flows outside transmission channels or expected effects of international financial conditions.

But even more, beyond these results, the calculation of densities of the transmission channels of the effects of variations caused by the international financial situation allows for a ranking of transmitting the flow more easily to changes in real GDP. Thus, the fact that private foreign capital are at the forefront of this ranking back on the table the issue of external funding for growth in developing countries.

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ECONOMIC MODELING OF THE COST OF INPUTS FOR RICE PRODUCTION: A CASE STUDY ON BANGLADESH

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ABSTRACT

Bangladesh is a small country and rice is our staple food. Agriculture is the single largest producing sector of the economy since it comprises about 18.6% (data released on November, 2010) of the country's GDP and employs around 45% of the total labor force. The performance of this sector has an overwhelming impact on major macroeconomic objectives like employment generation, poverty alleviation, human resources development and food security. A plurality of Bangladeshis earns their living from agriculture. We know rice and jute is the primary crops, wheat is assuming greater importance. Tea is grown in the northeast. Because of Bangladesh's fertile soil and normally ample water supply, rice can be grown and harvested three times a year in many areas. Due to a number of factors, Bangladesh's labor-intensive agriculture has achieved steady increases in food grain production despite the often unfavorable weather conditions. Without the proper control and supervision it is not possible to become economic model. In this paper I examine the significance of cost inputs and use of inputs in explaining technical efficiency of rice production in Bangladesh.

KEYWORDS

Food security, human resource development, macro economics, poverty alleviation.

1. INTRODUCTION

Bangladesh has a large agrarian base with 76 percent of total population is living in the rural areas and 90 percent of the rural population directly related with agriculture. Increasing food production and attaining food security in Bangladesh require sustainable growth of agricultural sector. The Agro-Economic contribution is 20.83 percent of the Gross Domestic Product. Rice is the main food for above 150 million populations. The population growth rate is 2 million per year. According to this rate, the total population will become 233.2 million within 2050. However, she faces a tremendous challenge for providing food security to the increasing population. Therefore, it is imperative to increase rice production in order to meet the growing demand for food emanating from population growth. The diverse climatic phenomena like cyclone, drought, changing rainfall patterns and temperature; there has been a significant lost in food grain production in every year. Therefore, the Climate Change Impacts on Rice Production in Bangladesh, challenges are faced by the agricultural sectors from the climatic conditions.

2. STATEMENT OF THE PROBLEM

Most of the population of Bangladesh is directly or indirectly dependent on the agricultural sectors and most of the employment sectors are circled in agricultural base. So it is high time our concentration should be increased in the agricultural sector. In our country many kinds of product is cultivated some are directly used for food; some are used in industrial sectors, and so many kinds. I prefer to analyze the cost of inputs of the different agriculture product, and how the corresponding cost of the production can be economic model. In case of this research I try to give emphasize on the Economic Modeling of the Cost of Inputs for rice Production.

3. OBJECTIVES OF THE STUDY

Mainly Farmers & Farming are the life-blood of modern economy. The specific objectives were the followings:

1. To get an overall idea about the Rice Cultivation Systems as a whole under the study.

2. To generate per unit cost of production and profit per acre.
3. To evaluate the factors affecting the Rice Cultivation Systems & analysis the relating factors & identifies the findings as the Economic Model.
4. To identify the problems & give suggestion for Rice Cultivation in Bangladesh.

4. LIMITATION OF THE STUDY

Several limitations had taken place in this study. Among them, the following were worth mentioning:

1. Personal barriers like inability to understand some agriculture terms created a few problems the researcher.
2. The survey was conducted in the field. However, due to confidential reason, all necessary information was not available.
3. Respondents were very busy. A study that encloses interview of 30 farmers cannot conclude anything accurately and as such, it was based on miss information.

5. REFERENCE & LITERATURE

Abdul Hakim (1980) said that the problem of rice cultivation is irrigation, natural disaster, lack of proper cost minimization of cultivation, lack of modern technology the rice cultivation is hampering.

Akkas & Billal(1997) emphasize on the rice production for the economic development of our country. The suggest that with the proper combination and hybrid system of cultivation, it is possible to produce desired level of rice.

BRR(1982) describe the overall situation and weather condition of our country for rice cultivation.

Cantrell, Ronald P. and Gene P. Hettel (2004): New challenges and technological opportunities for rice based production systems for food security and poverty alleviation in Asia and the Pacific.

Iqbal(1994) in his study found that the rice cultivation is the major and main cultivation. But in this cultivation have more problem in Bangladesh.

L. C. Guerra, S. I. Bhuiyan, T. P. Tuong, and R. Barker (1998): Producing more rice with less water from irrigated systems., and UNDP Harry Nesbitt (July 2003): Water used for agriculture in the Lower Mekong Basin. Panya Polsan, Masatoshi Aoki and Sa-Nguan Patamatamkul (July 2004): Comparative actual water consumption of irrigated and rain fed paddy rice field using Bower ratio method. 2nd APHW Conference, Singapore.

Saleh(1998) examined how to produce more rice in a small size land by hybrid systems. He also said that most of the farmer of our country is illiterate.

V Banarjee (1980) observed that the scarcity of irrigation, proper utilization of the land and the lack of proper cultivation system in Bangladesh

6. METHODOLOGY OF THE STUDY

6.1 PROFILE OF THE STUDY AREA

Research was done on farmers of seven villages of Marjal Union of Raipura Upzila under Narsingdi districts, Dhaka division of Bangladesh. There are about 500 farmers are cultivating rice in the Marjal Union. Out of these 30 farmers has been selected for the study. A total of 30 clients, who have taken rice cultivation have been interviewed for collecting data.

6.2 RESEARCH DESIGN

In this section, I would try to follow the appropriate methodology to obtain the necessary primary and secondary data and analyze them in the light of desired objectives of the study. There are various methods of study in the nature of a set pattern for conducting socio-economic research.

7. SOURCES OF DATA

The study is involved in collection of data both from the primary and secondary sources. Different types of data and their sources are discussed under the following heads:

7.1 PRIMARY DATA

Primary data have been collected through field survey. One set schedule of questionnaire was used for the respondents. The data thus collected have been subsequently processed, tabulated and analyzed for the purpose of the study.

7.2 SECONDARY DATA

The secondary sources include govt. publications; annual reports on rice cultivation, seminar papers, journals, published and unpublished thesis, and topic relected various books, web site etc.

8. ANALYSIS AND INTERPRETATION OF THE DATA

TABLE 8.1: SUMMARY OF VARIABLE COST AND TOTAL COST

Respondents	Land rent	Human Labor	Seeds	Total
1	10500	6000	3000	19500
2	7500	5400	3000	15900
3	9120	3800	1520	14440
4	8580	7436	1502	17518
5	9000	4800	1269	15069
6	7000	12000	1500	20500
7	10000	2400	2000	14400
8	9000	3000	1500	13500
9	7700	12936	1232	21868
10	6000	8700	900	15600
11	10500	3900	825	15225
12	12000	2400	2000	16400
13	8016	1336	1169	10521
14	10000	4000	500	14500
15	7600	6080	1292	14972
16	8750	5000	438	14188
17	8758	4832	1208	14798
18	12000	2800	2000	19800
19	10405	8538	1634	20577
20	9000	3000	1500	13500
21	10500	2400	1950	14850
22	9000	6000	3000	18000
23	8750	5000	1250	15000
24	7000	12000	1200	20200
25	9135	5220	1044	15399
26	9900	3900	1500	15300
27	6000	2550	1410	9960
28	9000	2400	1890	13290
29	9990	2331	1998	14319
30	10000	2400	2000	14400

Note: The cost for per acre in rice cultivation about 30 respondents in taka.

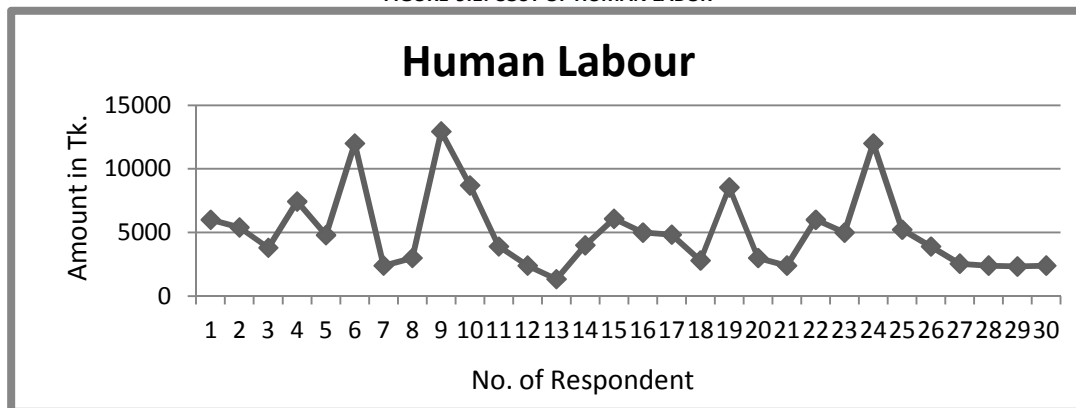
Here the cost of Rice cultivation of 30 respondents shows vertically the costs (land rent cost, seeds, labor, irrigation, fertilizer, insecticide, farmyard manure and machinery). Actually the rent of land, irrigation and human labor cost are the high reason. Here we may see that the maximum total cost per acre is 46284(tk.) and minimum total cost per acre is 22830(tk.) and the average total cost is 34116(tk.) so here a big fluctuation is exists in maximum total cost and minimum cost. So our duty is to find out that if the cost of the production increased then actually the net output or net return will increase or not, or the decrease of maximum cost will not effect on average output. We also calculate that if the cost increase or decreased then total output fluctuates or not, that means the responsiveness of output in case of rise or decrease of cost.

9. GRAPHICAL REPRESENTATION OF THE COST

9.1 COST OF HUMAN LABOR

The cost which is incurred for the manual activities of the rice cultivation. In case of rice cultivation it is so significant. However the cost of human labor are shown in following graph:-

FIGURE-9.1: COST OF HUMAN LABOR

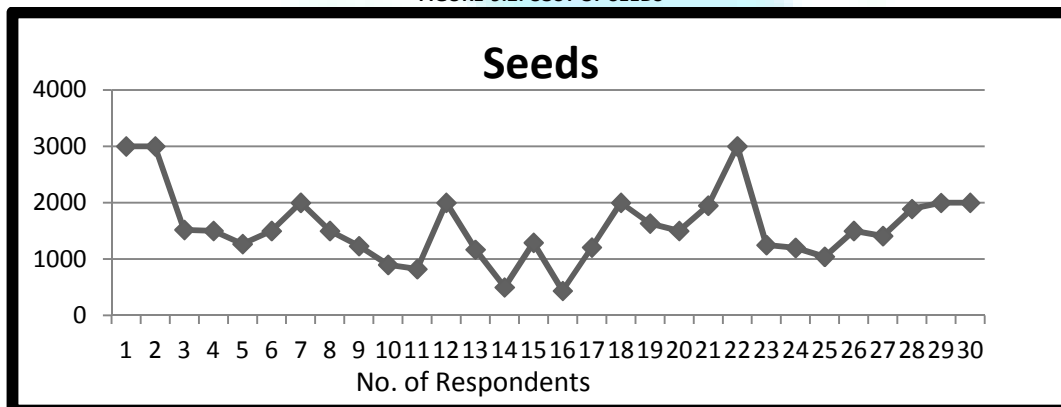


The figure-9.1 shows the variation of the cost of labor of the 30 respondents. The table also shows the minimum cost is TK.1336 and the maximum cost is TK.12936 per acre.

9.2. COST OF SEEDS

Cost incurred for weeding is called seeds cost. However the cost of Seeds are shown in following graph.

FIGURE-9.2: COST OF SEEDS

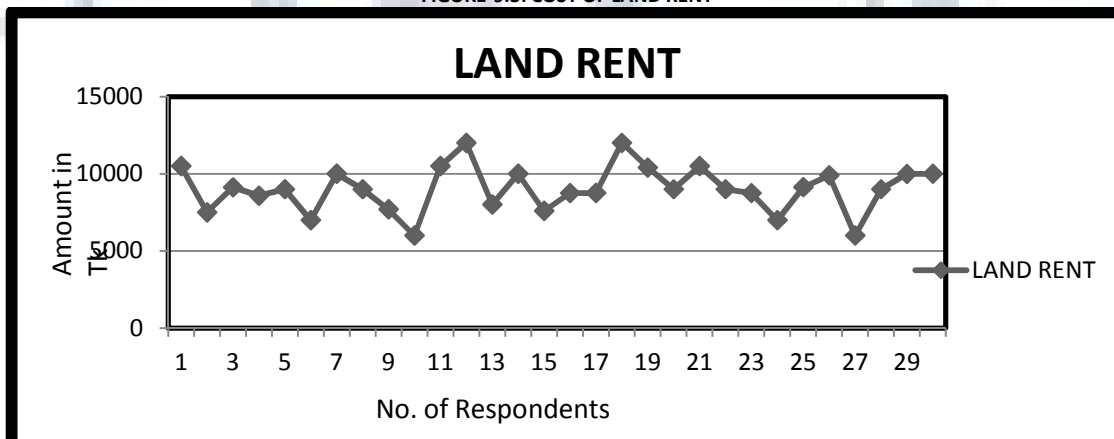


The figure-9.2. shows the variation of the cost of seeds of the 30 respondents..The table also shows the minimum cost is TK.438 and the maximum cost is TK.3000 per acre.

9.3. LAND RENT COST

Land rent costs are the cost which is given to the owner of the land for the use of the land. However the costs of land are shown in following graph.

FIGURE-9.3: COST OF LAND RENT



The figure-9.3.vii shows the variation of the cost of land rent of the 30 respondents. The table also shows the minimum cost is TK.6000 and the maximum cost is TK.12000 per acre.

TABLE 9.1: THE TOTAL COST AND TOTAL REVENUE OF THE RESPONDENTS

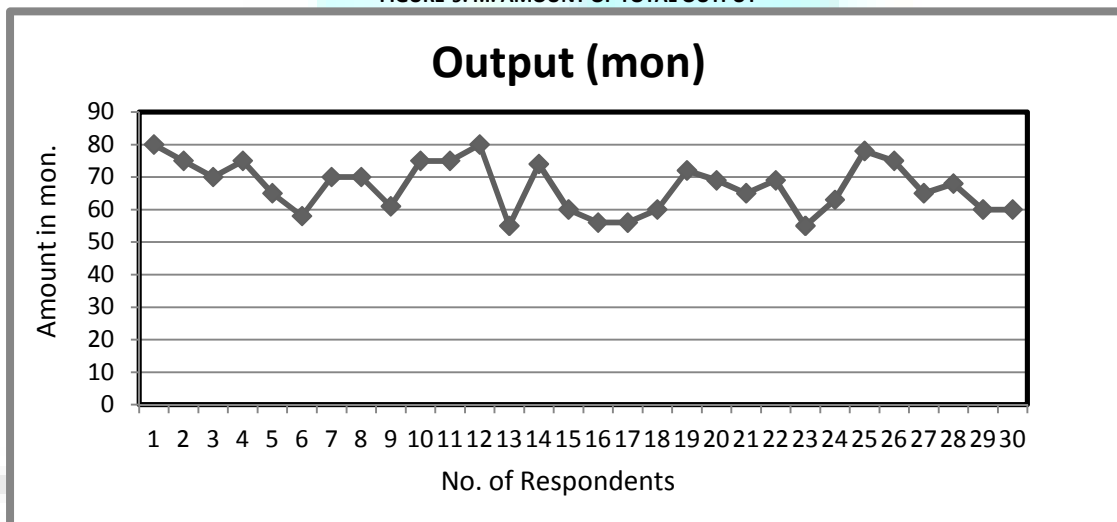
Respondents	Output (mon)	Tk. Per 40kg	Return	Total return	Total cost	Net Revenue
1	80	600	48000	62000	45900	16100
2	75	600	45000	58000	38100	19900
3	70	600	42000	56000	39140	16860
4	75	600	45000	58000	30884	27116
5	65	600	39000	51000	25869	25131
6	58	600	34800	47800	35140	12660
7	70	600	42000	55000	33300	21700
8	70	600	42000	55000	27600	27400
9	61	600	36600	48600	35559	13041
10	75	600	45000	55000	34260	20740
11	75	600	45000	59000	41535	17465
12	80	600	48000	60000	34600	25400
13	55	600	33000	46000	29893	16107
14	74	600	44400	58400	38800	19600
15	60	600	36000	50000	30719	19281
16	56	600	33600	45600	23001	22599
17	56	600	33600	45600	25142	20458
18	60	600	36000	49000	32600	16400
19	72	600	43200	57200	37351	19849
20	69	600	41400	53400	42600	10800
21	65	600	39000	52000	33600	18400
22	69	600	41400	53400	40800	12600
23	55	600	33000	47000	24875	22125
24	63	600	37800	52800	34810	17990
25	78	600	46800	61800	46284	15516
26	75	600	45000	58000	41400	16600
27	65	600	39000	53000	22830	30170
28	68	600	40800	55800	30510	25290
29	60	600	36000	49000	32500	16500
30	60	600	36000	48000	33000	15000

9.4 GRAPHICAL PRESENTATION OF THE TOTAL OUTPUT AND REVENUE

9.4. I. AMOUNT OF TOTAL OUTPUT

The output means what amount of production is achieved. However the total output is shown in following graph.

FIGURE-9.4.I. AMOUNT OF TOTAL OUTPUT

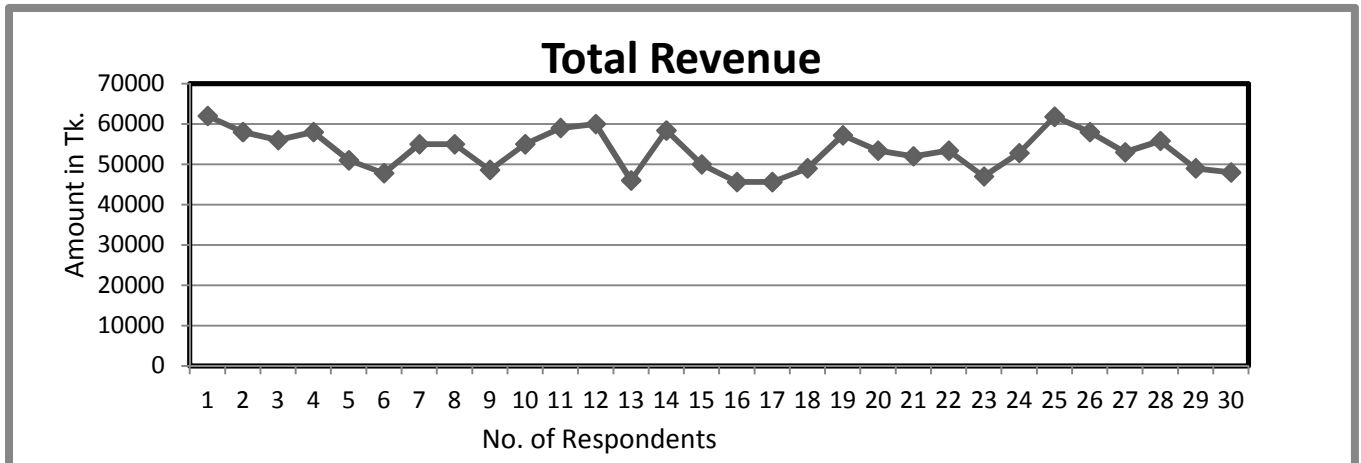


The figure-9.4.I. shows the variation of the total output of the 30 respondents. The table also shows the minimum output is 55 mon and the maximum output is 80 mon per acre.

9.4. II. TOTAL REVENUE

The price of goods sold and service rendered by a business. Equal to the inflow of cash and receivables in exchange for services rendered or goods delivered during the period. However the total revenue is shown in the following graph.

FIGURE-9.4.II. AMOUNT OF TOTAL REVENUE

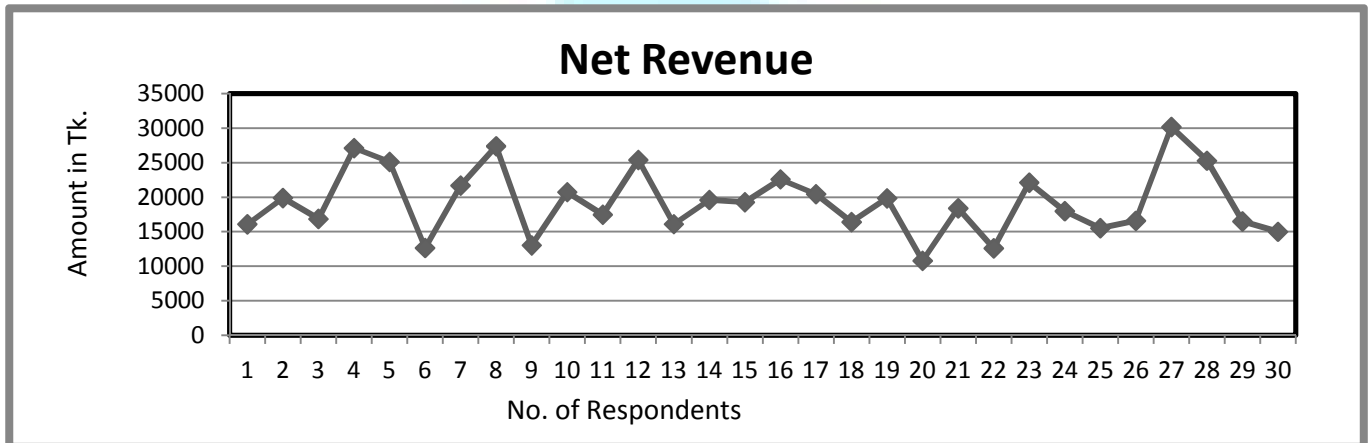


The figure-9.4.II. shows the variation of the total revenue of the 30 respondents. The table also shows the minimum revenue is TK 45600.and the maximum revenue is TK 62000, per acre.

9.4. III. NET REVENUE

The total cost subtracting from total revenue is called net revenue. However the net revenue are shown in the following graph.

FIGURE-9.4.III. AMOUNT OF TOTAL REVENUE



The figure-9. 9.4. III. shows the variation of the net revenue of the 30 respondents. The table also shows the minimum net revenue is TK 10800.and the maximum net revenue is TK 30170, per acre.

RECOMMENDATION

By considering the problems of rice cultivation in my study at Marjal Union of Narsingdi district some suggestion are given below.

1. Government should take the necessary steps to improve the rice cultivation.
2. Overall cost controlling system should be developed by the authority of Government agricultural board.
3. Trained manpower should be appointed to solve the supervisory problem of rice cultivator.
4. Strong and efficient administration should be established to control the cost of every sector of the cultivation.
5. Modern technology should be undertaken for better cost control.
6. Fruitful research should be conducted on cost minimization and also for betterment of rice cultivation.
7. Control the cost of irrigation, fertilizer, seeds and other items which are need for the cultivation.
8. Use of electric irrigation system for rice cultivation.
9. High technology need to use for Irrigation.

CONCLUSIONS

The development partners have been very alert in canvassing actionable proposals and suggestions in achieving the development of rice in Bangladesh and using it as a springboard to alleviate poverty and promotion of food security in the country. The study has also enabled the formation or strengthening of a common platform for rice cultivation and advocacy and facilitated the discussions for prioritized research and action plans. Following the discussion, debates and consensus building on the central theme of this study.

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THE ROLE OF MARKETING-MIX STRATEGIES ON GROWTH OF MICRO AND SMALL ENTERPRISES IN MERU COUNTY-KENYA

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ABSTRACT

In Kenya, the small and micro enterprise sector plays a significant role in employment creation, poverty alleviation and income generation. The sector annually absorbs a large number of unemployed Kenyans and supports about 75% of the country's workforce (vision 2030). However, the sector is faced with many problems relating to marketing mix. This leads to business stagnation or failure. This study reveals the important role played by the marketing mix strategies in the growth of Micro and Small Enterprises programmes (SMEP). The study was carried out in Igembe south District with respondents drawn from customers served by SMEP. The research focused on business managers operating manufacturing, wholesale, retail, open air and service businesses. The bio-data revealed that majority of MSE managers were over 40 years (41.5%) had over 10 years experience in business (42.6%) and few have undertaken marketing skills training (26.5%) while informal market research was undertaken by 40.8%. The study revealed that the place and price strategies were the most important in MSE growth as compared to product and promotion strategies. It was further revealed that the prices were determined by the manufacturer or distributors and that micro and small enterprise (MSE) manager had less influence. The study concludes that the products offered are determined by the customers and that MSE managers indeed rely heavily on personal selling and public relations which were limiting in effect.

KEYWORDS

growth, marketing mix, macro enterprises, small enterprises.

INTRODUCTION

Governments world over have continued to turn their attention to micro and small business enterprises as the main engine of economic development and growth. This is because during the early stages of economic development, MSEs embodied unique opportunities for creating employment and wealth. The national Baseline Survey (1999), for example, revealed the existence of some 1.3 million MSEs employing as many as 2.4 million Kenyans (ICEG, CBS, KREP, 1999). In realizing the important role of small business enterprises alot of support has been extended to this sector to help it develop. Some of the initiatives developed include the Development Finance Company of Kenya (DFCK,) Industrial and Commercial Development Corporation (ICDC), Kenya Industrial Estate (KIE), Youth development Fund, Women Development Fund and Kenya Industrial Training Institute (KITI) to provide financial and educational support to small business enterprises. Besides, there are many non- governmental organizations and donor agencies currently operating in Kenya with the aim of stimulating sustainable development of small business enterprises through provision of loans, technical assistance, marketing, training and extension services. The British government through its Department of International Development (DFID) has over the years increased its spending towards the development of small business enterprise in Africa. However, notwithstanding this contribution and effort expended to the development of these entities, all does not auger well in this growth sector. According to National MSE Baseline Survey (1999), it is estimated that only about five percent survive the fifth year after inception. Several reasons have been suggested to explain this, chief among them fierce competition these firms encounter after inception. Therefore, the main question of interest is what has prevented these firms from succeeding in this environment? Previous studies have shown lack of capital, qualified personnel and lack of market as the main cause of business mortality in Kenya. Odera (1989) argues that marketing related activities like prices, styles output and lack of advertisement among small scale enterprises were major problems. This study sought to find out whether these enterprises utilize the marketing mix elements of product, price, place and promotion, and if they do utilize such elements, which ones in particular?

REVIEW OF LITERATURE

MARKETING CONCEPTS

Five concepts have been adopted by marketing managers in the running of their businesses (Kotler and Armstrong, 2006). Production concept holds that consumers prefer products that are widely available and inexpensive. The product concept has it that consumers will buy products with innovative features. The selling concept holds that consumers cannot buy products if left alone. Hence, buyers spend a lot of time and resources in aggressive selling and promotional activities. The marketing concept is consumer focused and holds that firms develop products to satisfy consumer needs. The societal concept is an integrated approach which holds that all factors need to be considered in marketing. Hence, the firm should determine needs, wants and interest of target markets. The above concepts will influence the choice of marketing mix strategy efforts of firms.

MARKETING MIX CONCEPTS

The theory of marketing is founded on what is often referred to as the marketing mix elements (4ps). This mix consists of products, price, placement and promotion. According to Ferrel (1982), these four elements are called marketing decision variables because a marketing manager can vary the type and amount of these elements.

PRODUCT

A product can be defined as anything offered to consumers for possible purchase and consumption. It includes physical objects that are tangible as well as the intangible such as services (Kibera, 1997). Small business enterprises usually provide products and services as customers' demand. Variable elements such as size, shape, colour and packaging among others can be changed to make products quite different from those of competitors. Small business enterprises can use such programs of developing products like extensions, promoting alterative uses, designing new benefits for existing customers, promoting use of related products and packaging in different sizes.

PRICE

From a marketing perspective price is the value placed on a good or service by customers at some point in time. It goes by many others names including rent , tuition fees, fares, salaries and wages (Kibera 1998). According to Kotler (2001), marketers use any of the three approaches in setting prices: cost plus, demand

based and competition oriented pricing strategies. In cost plus pricing strategy, marketers set prices by totaling their costs and adding a reasonable margin. In the case of demand oriented pricing strategy, marketers whether in large or small firms charge high prices when and where demand for a product is strong and a low price when and where demand is weak. The relevant price range is determined by the buyers' capability and willingness to pay (demand) and the sellers' cost of producing and distributing the product. It is actually arrived at through negotiation and this is a widely used pricing strategy by Kenya's small businesses. Competition based pricing strategies occur where the manager may decide to charge a price which is higher or lower than the competition by a certain percentage. However, there is a school of thought that pricing should be based on analyzing the product's competitive advantages, the user's perception, the target market and that managers should focus on cost cutting at a level that allows a healthy profit (Peter & Donnelly, 1992).

PLACE

A channel of distribution refers to the route or path followed by a product as it moves from the producer to the consumer (Kibera, 1998). In Kenya, most intermediaries are small businesses which are normally family owned and are used by large businesses as sources of raw materials and as outlets for manufactured products.

According to Assael (1985), the simplest channel is that of the producers selling direct to the consumer. When the market intermediaries are used, the process is referred to as indirect marketing. The choice of the channel of distribution depends on factors such as customer characteristics, size of the market, geographical dispersion of the customers and their buying habits. In the case of Kenya, the purchasing power is low and under-stocking in small outlets is high as compared to developed countries (Meredith et al, 1982). Other factors considered are perishability, degree of product standardization, and whether the product is targeted for industrial or household use. Highly perishable products like agricultural products require short channels although this is not always the case in Kenya because of poor infrastructure. Producer characteristics, financial status, product mix past channel experiences and the desired degree of channel control should also be considered.

PROMOTION

Effective promotion requires understanding the market one is trying to reach, who the customers are, where they come from, when they buy and why buy from them (Meredith et al 1982). Kinnear (1994) defines promotional strategy as a controlled, integrated program of communication methods and materials designed to present an organization and its products to prospective customers, to communicate need satisfying attributes of products to facilitate sales and thus contribute to long run profit. The marketing mix communicates to consumers. For instance, the physical product itself communicates a great deal to the consumer as do the parts of the extended product such as the brand name, shape, size and colour. The physical appearance and quality of the product send signals to the consumers as to what the product should mean to them. The price of the product also communicates to the consumers. These are promotion tools which can be used by both large and small businesses to attract new customers and maintain current ones.

THE EMPIRICAL REVIEW

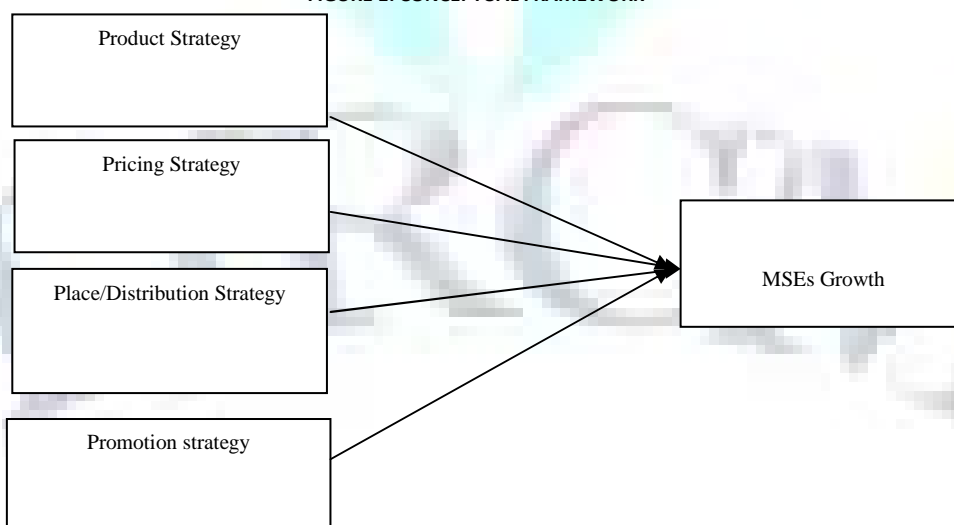
Many studies have been conducted on the marketing mix in various industries. For example studies carried out by Parker and Torries (1993) found out that small business enterprises were also being used to achieve broad development objectives. These included: promotion of national and regional socio-economic development, alleviation of poverty and employment creation. Further they provide several social economic linkages, facilitation of transition to market economy and promotion of a competitive economic structure.

Wairachu (2001) carried out a study in the petroleum industry to establish the extent to which petroleum companies used marketing strategies in liberalized economy. The study targeted seven oil marketing companies. The study concluded that only 35% of the companies utilized marketing mix strategies. He recommended a more structured marketing department in the petroleum companies.

Kagwiria (2004) sought to determine the extent to which Kenyan universities practiced education marketing. She studied all the public and private universities in Kenya. The study found out that public universities were reluctant in marketing their services while private utilized all the 7Ps of service marketing. She recommended more effort by public universities in marketing their education services.

A study by Matwere (2004) sought to establish the extent to which marketing mix variables were utilized in the sugar industry in Kenya. He found out that among the 4Ps, price was the most challenging for the sugar marketers while place and promotion strategies were fairly utilized by the firms. In another study in the insurance industry, Kyevea (2005) conducted a survey of marketing mix used by life insurance companies in responding to the challenges of HIV/AIDS. The main objective was to determine the extent to which insurance companies use marketing mix variables and the factors influencing their choice of the marketing mix to use. The study found that most of the insurance companies (78%) utilized the 7ps of service although the order in which they were utilized varied from company to company. The first priority was given to product benefits, price, distribution, promotion, people, process and physical evidence in that order. Customer needs was the major factor that influenced the choice of the mix to use in a particular market. However, the foreign owned companies seemed to be better in utilization of the marketing mix as compared to their local counterparts.

FIGURE 1: CONCEPTUAL FRAMEWORK



The growth of MSEs is dependent on the product pricing, place and price strategies used. The growth of MSEs is measured by the sales turnover. If the MSE are not located in the right market, prices are not attractive and products are not delivered to the customers, the MSEs cannot succeed in realizing target growth. In addition to these, the product offered must be communicated to the buyers using the right promotion mix.

IMPORTANCE OF THE STUDY

SMEs may use the findings to improve their marketing strategies. Such enterprises will be able to identify the marketing mix elements that they can effectively use to promote their goods and services. In this way they will be able set proper marketing strategies in order to achieve market share, to grow in size and

achieve higher profits. It may also be of value to the government agencies and Voluntary organization such as foreign companies and international aid agencies in general and to the ministries of Youth Affairs, Finance, Commerce and Industry all of which have an interest in helping the development of the small business and the intermediate sector.

STATEMENT OF THE PROBLEM

The role played by small business in Kenya, especially since 1980's to date cannot be overemphasized. However, in spite of their important contribution to the Kenyan economy, the significant efforts made by the government, the donor community the MFIs and other private sector organizations to support and promote the development of MSEs in Kenya, MSEs have continued to experience constraints which contribute to their failure, stagnation or slow growth. Several challenges and problems are mentioned. Chief among them is recent external trade liberalization in Kenya which opened the Kenyan market to intense competition from foreign firms, a move which was disastrous to many Kenyan firms. Those MSEs which could not "swim" actually "sank" (World Bank, 2004). The problem has arisen possibly due to lack of application of the marketing mix strategies which often spur growth and profitability. Being such an important sector, with a potential to grow, the large number of people involved and the risk of failure and stagnation this call for an investigation as to what prohibits MSEs from achieving their potential. Studies by Wairachu (2001) and Kaguira (2004) concentrated on other facets of challenges faced by MSEs. However, none of them has investigated the role of marketing mix on the growth of MSEs in Meru County. This study is therefore designed to evaluate the role of marketing mix strategies on the growth of MSEs.

OBJECTIVES

The general objective of this study was to investigate the role of marketing mix strategies in the growth of MSEs Meru county and the specific objectives were to:

1. Investigate the role of Product Strategies in the growth of MSEs in Meru County
2. Investigate the role of Pricing Strategies in the growth of MSEs in Meru County
3. Investigate the role of Distribution Strategies in the growth of MSEs in Meru County
4. Investigate the role played by Promotion in the growth of MSEs in Meru County

HYPOTHESES

H₀- There is no relationship between the MSEs Growth and effective marketing mix strategies

H₁ – There is a relationship between the MSEs Growth and use of effective market mix strategies.

RESEARCH METHODOLOGY

A descriptive research design was employed to investigate the role of marketing mix in the growth of MSEs in Kenya. The target population of the study consisted of 940 Small and Micro Enterprises in Meru County. This list was obtained from the SMEP coordinating office in the District. SMEP was selected because it was the longest serving micro finance institution in Kenya. Stratified proportionate random sampling technique was used to obtain a sample of 94 MSEs, which represented 10 percent of the target population. The questionnaires were used to collect general information on the MSEs operators and the marketing mix strategies used as well as challenges faced when implementing the same. Statistical Package for Social Scientists (SPSS) was used in the quantitative analysis process and data was presented in frequency tables and percentages. In addition, The Chi-square was used to test the hypotheses. The qualitative data was analyzed using content analysis, where the common themes were presented in form of a discussion.

RESULTS & DISCUSSION

PRODUCT STRATEGY

TABLE 1: PRODUCT TYPE

	Frequency	percentage
Consumer goods	59	62.8%
Industrial goods	7	7.4%
Service	28	29.8%
No response	0	0
TOTAL	94	100%

Source: Researcher's Primary Data (2008)

The table 1 shows the type of products MSEs Offer. The consumer goods category was dominant. This means that most MSEs engage in the sale of foodstuffs for household consumption and a few offer services such as hotels, salons and barber shops. This can be attributed to the ease with which they enter such business such as low capital required and cheap premises and licensing and ready market.

The number for industrial goods (7.4%) was very low possibly due to the fact that such businesses require substantial capital to venture into.

TABLE 2: PRODUCT DETERMINANT

	Frequency	percentage
Manufacturer	8	8.5%
Customers	60	63.8%
Self	22	23.4%
Not sure	4	4.4%
TOTAL	94	100%

Source: Researcher's Primary Data (2008).

The table 2 reveals the products for a specific market are not determined by the business operator or the manufacturer, but the demand for what MSE operators can offer to them for a price.

TABLE 3: PRODUCT AVAILABILITY

	Frequency	Percentage
Products availability	58	61.7%
Products not available	33	35.1%
No response	3	3.2%
TOTAL	94	100%

Source: Researcher's Primary Data (2008)

The information reveals that (61.7%) had products available when required by Customers while 35.1% did not have the products. The results present an interesting scenario where 35.1% indicated that products were not available when required by the customers. The MSE owners argued that the tendency not to stock a variety of products was meant to avoid dead stock.

TABLE 4: PRODUCT MARKETABILITY

	Frequency	Percentage
Don't sell fast	37	39.4%
Sell fast	49	52.1%
No response	8	8.5%
TOTAL	94	100%

Source: Researcher's Primary Data (2008)

Table 4 reveals that 52.1% of the respondents felt that their products sell fast while 39.4% do not sell as fast as anticipated by the business operators. Further investigation revealed that the high level of competition made it difficult to sell products as fast as planned. The respondents felt that the failure to engage in market research and lack of marketing skills were some of the main factors that contribute to poor marketability of products. To succeed, the business managers will have to reinvent their marketing strategies such as provision of quality products, sales promotion and attractive prices.

TABLE 5: PRODUCT PACKAGING

	Frequency	Percentage
Provided product package	49	52.1%
No product package	37	39.4%
No response	8	8.5%
TOTAL	94	100%

Source: Researcher's Primary Data (2008)

The results of table 5 revealed that 52.1% provided their customers with packaged products while 39.4% did not. Those who package their products view it as an incentive that makes the customer feel appreciated and loyal to the businesses. The respondents felt that provision of paper bags was an extra cost which if factored in would be transferred to the customers.

PRICING DECISIONS

Pricing is a very essential component of determining growth or failure of a business. If price levels are not right, the result will be either reduced sales as a result of customer dissatisfaction or losses when cost are not adequately covered.

TABLE 6: COMPETITION LEVEL

	Frequency	Percentage
Very stiff	38	40.4%
Fair	33	35.1%
Am not sure	18	19.1%
No response	5	5.3%
Total	94	100%

Source: Researcher's Primary Data (2008)

From the information given in table 6 above, 40.4% reported stiff competition, 35.1% rated it as fair, 19.1% were not sure and 5.3% did not respond. In charging the prices of product, MSEs need to consider the competitors' prices and the reaction of customers on the same. This is because customers are sensitive to price changes and base their judgment on the prices the competitors charge for similar products. MSEs have a tendency to charge their prices when market leaders change it other than basing it on demand or cost.

TABLE 7: PRODUCT PRICE DETERMINANT

	Frequency	Percentage
Manufacturer	9	9.65%
Distributor	33	35.1%
Customers	17	18.1%
Business owner	31	33.0%
No response	4	4.3%
Total	94	100%

Source: Researcher's Primary Data (2008)

The prices of products are dictated to by the price of manufacturers, distributors and the expectations of the customers. From the data provided by table 7, 35.1% reported that distributors determined product prices while 33% of the business owners determined the same. If the product prices are not satisfactory to the customer, they tend to switch to other businesses. The business owner cannot however reduce prices below certain limits because they have already been determined by the manufacturer or the middlemen.

TABLE 8: EFFECT OF PRODUCT COST ON PRICING

	Frequency	Percentage
Yes	71	75.5%
No	16	17.0%
No response	7	7.4%
Total	94	100%

Source: Researcher's Primary Data (2008)

The data in table 8 reveals that the cost of purchasing products determines the price of products. This comprised 75.5% while those who did not consider it were 17.0%. The results confirm that the cost to consider when pricing a product is the purchase value of the same product. The business owner must look for ways of reducing cost so that he can increase margin such as buying goods in bulk to benefit from economies of scale as well as indentifying cheap sources of credit and cheap products.

TABLE 9: DEMAND FOR PRODUCTS AND PRICING

	Frequency	Percentage
Demand influences price	53	56.4%
Does not influence price	32	34.0%
No response	9	9.6%
TOTAL	94	100%

Source: Researcher's Primary Data (2008)

The data in table 9 reveals that most of the prices offered by SMEs are influenced by demand. There is a tendency for business to increase prices when there are an increase in demand for certain products.

PLACE DECISIONS

TABLE 10: BUSINESS LOCATION

Location	Frequency	Percentage
Within Municipality	51	54.3%
Outside Municipality	25	26.6%
No response	18	19.1%
TOTAL	94	100%

Source: Researcher's Primary data (2008)

Businesses within the municipality are more popular than those outside the municipality because of the high concentration of buyers. The tendency to locate more businesses within the municipality can be attributed to the concentration of customers with a higher purchasing power, which result in increased sales and profits.

TABLE 11: DISTRIBUTION LEVEL

	Frequency	Percentage
Producer	1	1.1%
Retailer	59	62.8%
Agent	8	8.5%
Wholesaler	6	6.4%
Broker	3	3.2%
No response	14	14.9%
TOTAL	94	100%

Source: Researcher's Primary Data (2008)

A big majority of MSE owners are involved in retail businesses where they were directly dealing with the buyers. The agents who constituted 8.5% were also significant as providers of products to the retailers. Therefore, the levels of distribution of products are few. This means that the MSEs cannot deal directly with the manufacturers but they rely on the middlemen or suppliers who are appointed agents of the manufacturers.

PROMOTION STRATEGY

TABLE 12: PROMOTION ACTIVITIES

	Advertising		Sales promotion		Public relations		Personal selling	
	Freq	%	Freq	%	Freq	%	Freq	%
To a great extent	3	3.2%	5	5.3%	16	17%	24	25.5%
To some extent	3	3.2%	1	1.1%	25	26.6%	19	20.2%
To a little extent	2	2.1%	19	20.2%	8	8.5%	8	8.5%
To no extent	24	24.5%	11	11.7%	7	7.4%	5	5.3%
Not applied	62	65.9%	58	61.7%	38	40.4%	38	40.4%
Total	94	100%	94	100%	94	100%	94	100%

Source: Researcher's primary data (2008)

Table 12 shows the various promotion activities and their importance in relation to increase in sales. It is evident that the sales increase in MSEs is influenced more by other factors besides promotion activities. Generally, the data points out that public relations and personal selling contribute to sales increase in MSEs. The data reveals that MSEs should strive to use the promotional activities so as to remain competitive. Therefore, the marketing mix efforts MSEs should be geared towards influencing demand for products.

TABLE 13: MARKETING SKILLS

	Frequency	Percentage
Contribute to sales increase	55	58.5%
No effect on sales	26	27.7%
Not necessary	13	13.8%
TOTAL	94	100%

Source: Researcher's Primary Data (2008)

The information in Table 13 clearly portrays that most of the MSE owners felt that good marketing skills were responsible for increased sales. This constitutes 58.5% as compared to 27.7% who indicated that such skills had no effect on sales. Businesses like any other income generating activity require some skills, which can be learnt formally or informally. Therefore, marketing skills are necessary for business growth. With increased sales turnover a business can meet its operational costs and make some profits which can be ploughed back.

TABLE 14: 4Ps OF MARKETING

Priority	Product		Place		Promotion		Price	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	9	9.6%	19	20.2%	9	9.6%	17	18.1%
2	17	18.1%	10	10.6%	15	16.0%	10	10.6%
3	10	10.6%	16	17.0%	10	10.6%	21	22.3%
4	18	19.1%	10	10.6%	21	22.3%	8	8.5%
Not sure	40	42.6%	39	41.5%	39	41.5%	38	40.4%
TOTAL	94	100%	94	100%	94	100%	94	100%

Source: Researcher's Primary Data (2008)

The information in Table 14 shows that price is given higher priority by business owners/managers. However, the data further reveals that the number of those who could not prioritize the 4Ps was around 40%. This shows that the 4Ps are of equal importance and are used to complement each other.

RELATIONSHIP BETWEEN MSE GROWTH AND MARKETING MIX STRATEGIES

An independent sample t test was used to investigate the relationship between growth and the product as the independent variable. The inferential analysis indicated that there is no significant relationship between growth and product, price and Place each with $p = 0.001$. The results however indicated that there was a significant relationship between the MSE growth and promotion variable with $P = 0.561$ more than alpha value 0.05. Thus the null hypothesis is accepted.

SUMMARY OF FINDINGS AND CONCLUSION

Majority of the businesses have been in existence for more than 10 years (42.6%). This length of time is enough to give them enough experience in applying in marketing mix. It was revealed that majority of the MSEs owners engaged in farming and only joined the business because did not specialize in any of the two. The research confirmed that the pricing of products was determined by the manufacturers, competitors or the supplier and that the business managers had to estimate the product costs carefully. The sales trend of 27.7% as stable and 29.8% as stagnant presents scenario of poor performance or businesses that are just

surviving. This is aggravated by the increased expenditure 67%.The promotion activities in MSEs were carried out by the operators (66.0%), while the distributors and manufacturers seen play an insignificant role in the activity. The most popular forms of promotion are personal selling and public relations. Advertising was the most un-popular form of promotion mainly due to the financial implications while word of mouth was mostly used.

The study reveals that the growth of MSEs in Kenya can be attributed to the effective utilization of the place/ distribution, price and product strategies or decision. At the practitioners' point of view, the promotion strategy did not contribute to business growth. This is because many SMEs did not have time and money to engage in the promotion activities. Therefore, sales can be made whether promotion activities are carried out or not. From the study we conclude that the adoption of marketing mix is critical to their growth.

RECOMMENDATIONS

From the results of the study, the researcher recommends the following:

1. It should be made mandatory for all institutions providing credit to MSEs to train MSE operators in marketing skills.
2. The government should play a significant role in enabling the MSEs to compete effectively in the market either through business skills development, favorable policies and affordable financial support and other incentives.

SCOPE FOR FURTHER RESEARCH

- Promotion strategies were found to be poorly implemented by the respondents. This, being a vital element in marketing, calls for further research to find out how else the activity was carried out.
- Competition was rated as serious threat to the survival of MSE in Kenya. This calls for further research to establish how MSEs deal with the stiff competition.
- The study focuses on the 4Ps and recommends further study on the people, physical facilities and process (3Ps) and their contribution to business growth.

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BANK -SPECIFIC DETERMINANTS OF PROFITABILITY OF QUOTED COMMERCIAL BANKS IN KENYA

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ABSTRACT

The aim of this study is to examine the impact of bank-specific determinants of Kenyan commercial banks profitability. This study used a panel dataset of audited financial statement of nine banks between the years of 2007 and 2011. Ordinary Least Square (OLS) regression technique was used to investigate the impact of Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality and Liquidity on major profitability indicator namely, return on asset (ROA). The study utilized explanatory research design. Document analysis was employed to collect secondary data. The estimation results show that most bank-specific determinants of profitability, with the exception of liquidity, insignificantly affected commercial banks profitability in Kenya. The results of the study are of value to bank regulators, academics and policy makers.

KEYWORDS

Capital Adequacy, Profitability, Assets Quality, Bank-specific and Financial Performance.

1.0 INTRODUCTION

Banks and other financial institutions are a unique set of business firms whose assets and liabilities, regulatory restrictions, economic functions and operating make them an important subject of research, particularly in the conditions of the emerging financial transformation in the world. During the last decades the banking sector in Kenya has experienced major transformation in its environment due to improvement in the requirement of financial services and high tech facilities, resulting in significant impacts on its profitability. Both internal and external factors have been affecting the profitability of banks over time. Hence, identification and analysis of the determinants of bank profitability have attracted for many years the interest of academic researchers as well as bank management, supervisors and financial service participants. The study of bank performance becomes even more important in view of the ongoing financial and economic crises, which have had a fundamental impact on the banking industry in many countries around the globe. The problem of banking and financial system soundness has become more important in all countries over the recent years. The financial sector, and especially the banking system, is vulnerable to systemic crises which has led to the creation of costly safety nets, as depositor insurance schemes with well-known moral hazard problem (Athanasoglou *et al*, 2006).

According to Short (1979) and Bourke (1989) the determinants of commercial bank Profitability can be divided into two main categories namely the internal determinants which are management controllable and the external determinants which are beyond the control of the management of the institutions. Empirical studies pertaining to the relationship between bank-specific factors and profitability provides mixed finding. Earlier studies by Flamini *et al.*, (2009) Kosmidou, 2008; Sufian and Chong, 2008) establishes a positive and significant relationship between internal factors and profitability. Besides, the earlier works by Dietrich and Wanzenried (2011), and Funacova and Poghosyam (2011) report a negative but insignificant relationship internal factors and profitability.

The present study aims at examining the key determinants of bank profitability in Kenya. The study of determinants of bank profitability in Kenya could be justified due to the limited stock of knowledge on determinants of bank profitability in Kenya. Though determinants of bank profitability are thoroughly examined in developed and emerging countries, studies related to determinants of bank profitability in Kenya are scarce. Previous studies on Kenya banks have emphasized on other aspects of bank performance. For instance, Olweny and Siphon (2011) study the relationship between banking sectoral factors and profitability of commercial banks in Kenya. Another study by Flamini *et al* (2009) on bank profitability has considered Kenyan banks as part of a larger sample pooled across a number of Sub-Sahara countries. According to Flamini *et al.*, (2009), bank profitability is high in Sub-Saharan Africa (SSA) compared to other regions. Given the conflicting results cited above, the present study examines whether bank-specific affects the profitability of commercial banks in Kenya.

2.0 REVIEW OF LITERATURE**REVIEW OF RELATED LITERATURE ON DETERMINANTS OF BANK PROFITABILITY**

Commercial banks profitability could be affected by a number of determining factors. In most literatures bank profitability usually expressed as a function of internal and external determinants. Bourke (1989) also indicated that the determinants of commercial bank profitability can be divided into two main categories namely the internal determinants which are management controllable and the external determinants which are beyond the control of management. The internal determinants of commercial banks profitability are those management controllable factors which account for the inter-firm differences in profitability, given the external environment. Vong and Chan (2008) define internal determinants of bank profitability as factors that are influenced by a bank's management decisions. As stated by Rasiyah (2010) internal determinants can be broadly classified into two sub-categories namely financial statement variables and non-financial statements variables. The financial statement variables are determining factors which are directly driven from items in a balance sheet and profit & loss accounts of the bank. On the other hand, the nonfinancial statement variables are those factors which do not directly displayed on the financial statements accounts.

The external determinants of commercial bank profitability are those factors which are external to the commercial banks and hence outside the control of management. As defined by Athanasoglou *et al.*, (2005) the external determinants are variables that are not related to bank management but reflect the economic and legal environment that affects the operation and performance of financial institutions. Unlike the internal determinants, external determinants are indirect factors, which may be uncontrollable, but nevertheless influence the bank's profitability. Although the commercial banks cannot control these indirect factors but can build flexibility into their operating plans to react to changes in these factors (Rasiyah, 2010). The following sections discussed about external determinants of commercial bank profitability such as industry-specific determinants and macroeconomic variables.

Uhomoibhi, (2008), investigated the determinants of bank profitability in Nigeria. This study sought to econometrically identify significant macroeconomic determinants of bank profitability. Using a panel data set comprising 1255 observations of 154 banks over the 1980-2006 period and macroeconomic indices over the same period, regression results reveal that real interest rates, inflation, monetary policy, and exchange rate regime are significant macroeconomic

determinants of bank profitability in Nigeria. Banking sector development, stock market development, and financial structure are insignificant; and the relationship between corporate tax policy and bank profitability in Nigeria is inconclusive.

Kosmidou (2008) examined the factors that affect the performance of Greece Banks for the period 1990-2002 using unbalanced time series data of 23 banks. A number of internal and external factors were considered in the study and were regressed against the banks' ROAA. The study finds that ROA was positively correlated with high capital and lower cost to income ratio as well as with size and the growth of GDP. Moreover it was found that inflation had significant negative effect on performance.

Naceur and Goaid, (2010), investigated the determinants of commercial bank interest margin and profitability in Tunisia. This study investigated the impact of banks' characteristics, financial structure and macroeconomic indicators on banks' net interest margins and profitability in the Tunisian banking industry for the 1980-2000 period. Individual bank characteristics explain a substantial part of the within-country variation in bank interest margins and net profitability. High net interest margin and profitability tend to be associated with banks that hold a relatively high amount of capital, and with large overheads. Size is found to impact negatively on profitability which implies that Tunisian banks are operating above their optimum level.

Haron (2004) examined the impact of different factors on the profitability of Islamic Banks. The study considered total income to total assets, net profit before tax to total assets, net profit before tax to capital and reserves, net profit after tax to capital and reserves as dependent variables in the analysis. Further, the study took into account a number of internal and external factors such as total financing to total deposits, total capital and reserves to total assets, total deposit in current accounts to total assets, total deposit in investment accounts to total assets, total funds in profit sharing principles to total assets, total funds in mark-up principles to total assets, income from financing activities to total financing, bank's share of income to total savings and investment deposits, total expenditure to total assets, staff expense to total assets, provision for loan loss to total assets, other expenses to total assets, money growth supply (M2), inflation, dummy variable (1 if a bank operates in a monopolistic market) market share, consumer price index, size as explanatory variables. The study showed positive relationship between profitability, and liquidity, capital structure, and money supply while an inverse relation between profitability and asset structure and market share. Moreover, the study found mixed result with regard to the impact of size on bank profitability.

Khrawish et. al (2011) examined the determinants of Islamic bank profitability in Jordan. This study examined and analysed the factors that might have an effect on the Jordanian Islamic bank profitability during the period from 2005 through 2009 by using Multiple Linear Regression Model. The analysis revealed that there are significant and positive relationship between Return on Assets (ROA) and Provision for Credit Facilities + Interest in Suspense)/Credit Facilities (PRFCFI/CF), Total Equity/ total Assets (TE/TA) and total income / Total Asset (TI/TA) of the Islamic Banking, and there are significant and negative relationship between ROA and the Bank size (Log TA), Total liabilities/ Total Assets (TL/ TA) Annual Growth Rate for Gross domestic product (GDPGR), Inflation Rate (INF) and Exchange Rate (ERS) of the Islamic Banking. Also this study found that there are significant and positive relationship between Return on equity (ROE) and Log TA, TL/ TA, TI/TA and ERS of the Islamic Banking, and there are significant and negative relationship between ROE and PRFCFI/CF, TL/ TA, GDPGR and INF of the Islamic Banking.

Sufian and Habibullah (2009) examined the determinants of commercial bank profitability in Bangladesh using the data of 37 banks over the period 1997-2004. The result of the study indicates that loans intensity, credit risk and cost are the bank specific factors that have positive and significant impact on the profitability of Bangladeshi commercial banks. However, the finding of the study is inconclusive with regard to the impact of size on profitability. While size is found to have positive and significant impact on ROA and NIM, its impact on ROAE is negative and significant. As far as the external factors are concerned, the study indicates that such factors have no significant impact on the profitability of commercial banks in Bangladesh.

Athanasoglou, et al, (2008), investigated the determinants of bank profitability in South Eastern European Region using an unbalanced panel dataset of South Eastern European (SEE) credit institutions over the period 1998-2002. They found a positive relationship between banking reform and profitability.

Flamini et al. (2009) took a sample of 389 banks in 41 SSA countries to examine the determinants of bank profitability and explore the relationship between profits and equity in the region. To do that they considered a number of bank specific and macroeconomic variables including credit risk, activity mix, capital, bank size, market power, GDP growth and inflation as factors to influence bank profitability in the region. They found that higher returns on assets were associated with large bank size, activity diversification, and private ownership, and that banks returns were also affected by macroeconomic variables.

Badola and Verma (2006) investigated the major determinants of profitability of public sector banks in India using data over the time period 1991-02 to 2003-04. They considered net profit as dependent variable and spread (S), non-interest income, Credit/deposit ratio, Non-performing assets as a percentage to Net advances, Provision and contingencies, operating expense, business per employee as independent variables in their analysis. The study found high degree of association between profitability and the independent variables.

Park and Weber (2006) carried out a study to examine the major determinants of profitability of Korean banks over the period 1992-2002 testing the market structure hypothesis against the efficient structure hypothesis. In estimating the technical inefficiency they used three inputs (labor, capital and deposits) and three outputs (commercial loans, consumer loans, and securities). The proxies that they used for operating efficiency included operating expense per employee (log) and operating expense per branch that of asset inefficiencies are total asset per employee (log) and asset per branch. They alternatively used ROA and ROE as measures of bank profitability in their analysis. Their study reveals that market share has a significant positive impact on bank profitability, favoring the market structure /performance hypothesis. However, when they controlled bank efficiency, they found market share to have insignificant impact on profits, providing evidence in support of the efficient structure hypothesis. Contrary to the market structure hypothesis they found concentration to have a negative impact on bank profitability over the entire period. They also found that banks with a greater net interest margin, lower operating cost per employee or branch, less technical inefficiency, a higher equity capital ratio, a smaller non-performing loan share are found to be more profitable.

Pasiouras and Kosmidou (2007) examined the factors that influence the profitability of commercial domestic and foreign banks in the 15 European Union countries using bank data over the period 1995-2001. In their analysis they measured bank profitability by ROAA and considered a number of internal and external factors. In their study they found that capital strength and efficiency management as the most determinant factors of profitability of both domestic and foreign banks; while equity to asset ratio is positively related with profitability, cost to income ratio is negatively associated. Moreover, their study indicates that liquidity is statistically significant and positively related to the profitability of domestic commercial banks, but liquidity is statistically significant and negatively related to foreign banks. Their study also finds negative association between bank size and profitability of both domestic and foreign banks. Though inflation growth and GDP growth rates are statistically significant and are positively related to the profitability of domestic banks, they are negatively related to foreign banks. Moreover, their study indicates that while concentration is statistically significant and negatively related to domestic bank profitability; it is statistically significant and positively related to foreign bank profitability.

More recent study by Dietrich and Wanzenried (2011) carried out a study to identify the factors that influence the profitability of commercial banks in Swaziland for the period 1999 to 2006 by taking data from 453 banks. They used ROAE and ROAA alternatively as dependent variables and considered eleven bank-specific and five industry-specific and macroeconomic factors as explanatory variables in their analysis. The study found a positive and significant relationship between bank profitability and equity to total assets as well as GDP growth rate, whereas bank size and cost to income ratio were found to be negatively and significantly associated with bank profitability. Moreover the study revealed that private banks were more profitable than state-owned banks.

A study carried out by Sufian and Chong (2008) examined the key factors that influence the profitability of banks in Philippines during the period 1990-2005. Their study indicates that all the bank specific variables are the major determinants of bank profitability in the country. The result of their finding reveals that bank size, credit risk, inflation, and expense preference behavior have negative impact on bank profitability in Philippines whereas diversification and capitalization have positive impact. However, economic growth, money supply, and stock market capitalization are found to have no significant impact on the profitability of banks in Philippines.

Kosmidou et al (2006) examined the factors that affect the profitability of UK domestic commercial banks from the period 1995-2002. Their finding indicates that capital strength is the most significant factor that positively affects UK owned commercial banks' profitability. Moreover, factors such as efficiency management in expense and bank size are also factors that have influence on the profitability of domestic UK commercial banks. More specifically, their study shows that cost to income ratio and bank size have a significant and positive impact on both measures of UK's bank profitability. Their study also indicates that liquidity has a

positive effect on ROA but a negative effect on NIM, and loan loss reserve to total loans has positive and significant on NIM but has no significant impact on ROAA. Moreover, all the external factors considered in the study are found to individually have significant impact on UK's bank profitability: they found economic growth, concentration, and inflation to have positive and significant impact on bank performance.

Naceur and Goaied (2001) that examined the factors that affect the performances of Tunisian banks for the period 1980 to 1995 have found a positive association between bank profitability and equity to asset ratio. A review of the literature raises serious questions about the extent to which bank-specific factors are affecting bank profitability with some studies showing positive relationship while other studies show negative results.

3.0 IMPORTANCE OF THE STUDY

The results of this study have a great importance for the management of Kenyan commercial banks through identifying significant determining factors of profitability. In addition, the study has a great significance for regulators, policy makers, managers and the government which regulate the sector and ensures the safety of the public resource and sustainable economic development. The result of this study contributes to the existing literature by providing evidence on the relation between bank-specific determinants and their financial performance. This study was selected since the banking sector in Kenya is one of the vital economic sectors, however there are few studies on the Kenyan commercial banks performance. The current study, therefore, seeks to fill this gap of bank-specific determinants of Kenyan commercial banks using panel data from the banking industry in Kenya.

4.0 STATEMENT OF THE PROBLEM

Commercial banks always play an important role in the economic development of every country. During the last decade, the banking sector of Kenya has experienced major transformation in terms of investment and geographic distribution due to the financial sector reform and liberalization of 1995. These reforms have brought about many structural changes in the sector and have also encouraged foreign banks to enter and expand their operations in the country. Kenya's financial sector is largely bank-based as the capital market is still considered narrow and shallow (Ngugi *et al*, 2006). Over the last few years the Banking sector in Kenya has continued to register growth in assets, deposits, profitability and products offering. The growth has been mainly underpinned by an industry wide branch network expansion strategy both, automation of a large number of services and a move towards emphasis on the complex customer needs rather than traditional 'off-the-shelf' banking products. Banks dominate the financial sector in Kenya and as such the process of financial intermediation in the country depends heavily on commercial banks. In fact Ngugi *et al*, (2006) describes the banking sector in Kenya as the bond that holds the country's economy together hence any failure in the sector has an immense implication on the economic growth of the country. This is due to the fact that any bankruptcy that could happen in the sector has a ripple effect that can lead to bank runs, crises and bring overall financial crisis and economic doom. By dwelling on bank-specific, determinants this study will be conducted to shed light on the financial performance of banks in Kenya, and measures that should be taken to enhance their performance. Further, the current banking failures in the developed countries and the bailouts thereof motivated this study to evaluate the financial performance of banks in Kenya.

5.0 OBJECTIVES

GENERAL OBJECTIVE

The primary objective of the study is to examine the impact of bank-specific determinants of commercial banks profitability in Kenya.

SPECIFIC OBJECTIVES

1. To examine the relationship between capital adequacy and profitability of commercial banks in Kenya.
2. To investigate the relationship between asset quality and profitability of commercial banks in Kenya
3. To investigate the association between management efficiency and profitability of commercial banks in Kenya
4. To examine relationship between earning quality and profitability of commercial banks in Kenya
5. To determine the relationship between liquidity and profitability of commercial banks in Kenya

6.0 HYPOTHESES

H1: There is a significant relationship between capital adequacy and profitability of commercial banks in Kenya.

H2: There is a significant relationship between asset quality ratios and profitability of commercial banks in Kenya

H3: There is a significant relationship between management efficiency and profitability of commercial banks in Kenya

H4: There is a significant relationship between earning and profitability of commercial banks in Kenya

H5: There is a significant relationship between liquidity and profitability of commercial banks in Kenya

7.0 RESEARCH METHODOLOGY

7.1 RESEARCH DESIGN

The study utilized explanatory research design as it sought to identify and evaluate the causal relationships among the key study variables. A panel data study design was also used. The advantage of panel data analysis is that more reliable estimates of the parameters in the model can be obtained between the different variables under consideration (Gujarati, 2004).

7.2 SAMPLING DESIGN

The sample size for the study comprised a total of nine commercial banks which were listed on the Nairobi Stock Exchange (NSE) in the period 2007-2011. Purposive sampling was used to get the sample in order to include a representation critical to providing answers to the research hypotheses. The unit of analysis in this study was all the nine listed commercial banks operating in Kenya. All the 43 licensed commercial banks in the country were the target population of this study.

7.3 DATA SOURCE AND COLLECTION METHODS

The data for this study was collected from secondary sources. The secondary sources of data were the audited financial statements of the sample commercial banks over a period of five years (2007-2011). Data for the study were extracted from the annual reports of the nine listed banks. The website of each of the banks was visited to collect necessary data for the study. In all, 45 observations were obtained after editing the annual reports of the nine banks and were used for the study.

7.4 DETERMINANTS OF BANK PROFITABILITY AND VARIABLE SELECTION

VARIABLE SPECIFICATION: INDEPENDENT VARIABLE

Independent variables of the study on which data were collected include the following:

CAPITAL ADEQUACY

The bank's capital is one of the bank specific factors that influence the level of bank profitability. According to Athanasoglou *et al*. (2005) capital is the amount of own fund available to support the bank's business and acts as a buffer in case of adverse situation. Capital adequacy reflects the capital strength of a bank. The Capital adequacy of a bank is measured as the equity to asset ratio (Demerguç-Kunt and Huizingha (1999), Sudin (2004), Uhomoibhi (2008) and Hamid (2003). Since this ratio is a measure of capital strength, commercial banks with high equity to asset ratio are relatively assumed to be safe in the event of loss or liquidity. This is because the large size of equity is expected to reduce the capital risk and a lower capital ratio may trigger safety and public confidence concerns for the respective bank. Therefore, taking into account the risk-return hypothesis, equity to asset ratio and bank performance would obviously be negatively associated. Conversely, banks with higher equity to asset ratio will have lower risk and this would enhance their credit worthiness. Hence, they will have lower cost of funding. Further, banks with high equity to asset ratio will have lower needs to solicit external funding because, banks with high equity to asset ratio will

have more profitability. Sangmi and Nazir, (2010) assert that the Capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations and has a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures. It is expected a significant positive relationship between Capital adequacy and Return on Asset.

ASSET QUALITY

The asset quality of a bank is measured by the ratio of non-performing loans to total loans (Demerguç-Kunt and Huizingha (1999), Sudin (2004). The asset quality is measured to ascertain the component of non-performing assets as a percentage of the total assets. This shows what types of advances the bank has made to generate interest income (Sangmi and Nazir, 2010). It is argued by Dang, (2011) that the quality of loan portfolio determines the profitability of banks and has a direct bearing on bank profitability. Since, the highest risk facing a bank is the losses derived from delinquent loans low nonperforming loans to total loans shows good health of the portfolio a bank. Hence the lower the ratio the better the bank is performing.

MANAGEMENT EFFICIENCY

The Management Efficiency of a bank is measured by the ratio of operating profit to income ratio (Rahman et al. in Ilhomovich, 2009; Sangmi and Nazir, 2010). The higher the operating profits to total income the more the efficient management is in terms of operational efficiency and income generation. The operating profit to income ratio is considered as an explanatory variable since it shows how a bank's management is operationally efficient in managing the affairs of the bank which will eventually have an impact on the bank's profitability. This ratio measures the efficiency and effectiveness of management as they are tasked with making crucial decisions depending on its risk perception. Management Efficiency is represented by different financial ratio such as the expense to asset ratio, total asset growth, loan growth rate and earnings growth. Sangmi and Nazir (2010) argue that the performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems and quality of staff. Thus, the operating profit to income ratio, which is a proxy for management efficiency, is predicted to have a positive relationship with profitability.

EARNING QUALITY

The earning quality of a bank is measured by the ratio of net profit to average assets. This ratio measures the efficiency in utilization of assets and how much a bank can earn profit from its operation for every shilling spent in the form of assets. The quality of earnings is a very important criterion that determines the ability of a bank to earn consistently. It basically determines the profitability of bank and explains its sustainability and growth in earnings in future (Athanasoglou et al., 2005). Thus, net profit to average assets ratio, which is a proxy for earning quality, is predicted to have a positive relationship with profitability.

LIQUIDITY

The liquidity of a bank is measured by the ratio of total loans to customer deposits. It shows the capacity of a bank to meet payments as and when its depositors and other suppliers of funds require. Liquidity refers to the ability of the bank to fulfill its obligations, mainly of depositors. A lower liquidity ratio implies that the bank will face difficulty in meeting payments in the right time hence the bank will struggle to get funds or else it will have to incur an extremely high rate of interest which will mount the cost of funding and eventually affects the profitability of the bank unfavorably. Conversely, an extremely higher ratio of this would mean that the bank has kept excess liquid assets inactive and hence losing interest income. According to Dang (2011) adequate level of liquidity is positively related with bank profitability. The most common financial ratios that reflect the liquidity position of a bank according to the above author are customer deposit to total asset and total loan to customer deposits. Other scholars use different financial ratio to measure liquidity. Some researchers, Hamid (2003) and Sudin (2004) used the cash to deposit ratio as a proxy for liquidity.

VARIABLE SPECIFICATION: DEPENDENT VARIABLE

The dependent variable was the banks profitability. Return of Asset (ROA) was used as a proxy to measure profitability of the banks and Return on Equity (ROE) which were the dependent variables. It shows how well the shareholders funds are managed and used to generate return.. Return on Asset (ROA) measures the overall efficiency of management and gives an idea as to how efficient management is at using its assets to generate earnings (Al-Manaseer et al., 2012). ROA is defined as profit after tax divided by total asset. According to Rivard and Thomas (1997), bank profitability is best measured by ROA because It is not distorted by high equity multipliers and reflects a better measure of a bank's ability to generate returns on its assets. Further, ROA takes account of the disparity in the absolute magnitude of the profits that may be related to size (Guru et al, 1999).

7.5 MODEL SPECIFICATION

On the basis of previous studies, the following model was developed to empirically investigate the key bank specific factors that influence the profitability of commercial banks in Kenya:

$$Y_{it} = \beta_0 + \sum \beta_k X_{it} + \epsilon_{it} \quad (1)$$

Where:

- Y_{it} represents the dependent variable (ROA) of bank i for time period t .
- β_0 is the intercept
- β_k represents the coefficients of the X_{it} variables
- X_{it} represents the explanatory variables (BGD, BSIZE, BCAP and BCR) of bank i for time period t .
- ϵ_{it} is the error term

Therefore, the panel data models relating to the impact of board gender diversity on the firm's financial performance was stated as:

$$ROA_{it} = \beta_0 + \beta_1(BCAP_{it}) + \beta_2(BAQ_{it}) + \beta_3(BME_{it}) + \beta_4(BEQ_{it}) + \beta_5(BLQ_{it}) + \epsilon_{it} \quad (2)$$

Where:

i denote banks ranging from 1 to 9 (cross-sectional dimension).

t denote years ranging from 2007 to 2011 (time-series dimension).

DEPENDENT VARIABLES

ROA_{it} Return on Asset for i th bank and time period t

INDEPENDENT VARIABLES

$BCAP_{it}$ Capital adequacy for i th bank and time period t

BAQ_{it} Asset Quality for i th bank and time period t

BME_{it} Management Efficiency for i th bank and time period t

BEQ_{it} Earning Quality for i th bank and time period

BLQ_{it} Liquidity for i th bank and time period

The study model is tested on time series cross-sectional bank level data in the context of Kenyan over the 2007-2011 period. The empirical specification focuses on the reported determinants of Kenyan commercial banks performance which is assumed to be a function of a set of bank characteristics.

7.6.1 MODEL RELIABILITY AND DATA PROPERTIES

The following diagnostic tests were carried out to ensure that the data suits the basic assumptions of linear regression models:

Multicollinearity: Multicollinearity exists when independents variables correlate with each other. Multicollinearity was investigated using Variance Inflation Factor (VIF) and correlation coefficient (Scores of 10 and 0.8 respectively show the existence of multicollinearity. As shown in Table 3, there is no serious problem of multicollinearity in the study.

Normality: Descriptive statistics were used to check for normality by examining the distribution of data, Kurtosis and Skewness of the distribution of the data were examined and most of the variables were close to normal distribution.

7.7 DATA ANALYSIS AND PRESENTATION

Correlation and Ordinary Least Square (OLS) regression analysis were employed to analyze data collected. The correlation analysis was used to identify the relationship between the independent, dependent and control variables using Pearson correlation analysis. The correlation analysis shows only the degree of

association between variables and does not permit the researcher to make causal inferences regarding the relationship between variables (Marczyk et al., 2005). Therefore, Ordinary Least Square (OLS) regression analysis was also used to test the hypothesis and to explain the relationship between bank-specific determinants and profitability of commercial banks in Kenya. SPSS 17 software was used for analysis and the results were presented through tables.

8.0 RESULTS AND DISCUSSIONS

DESCRIPTIVE STATISTICS OF FINANCIAL PERFORMANCE OF COMMERCIAL BANKS

Table 1 presents the descriptive statistics of the bank specific factors that determine the financial performance of commercial banks in Kenya. As indicated in the Table, the average capital ratio of listed Commercial Banks in Kenya was 0.2214(22.14%) According to the CBK, each bank in Kenya has to maintain above 8 % of their risk weighted assets as Capital.

TABLE 1: DESCRIPTIVE STATISTICS FOR ALL STUDY VARIABLES

	N	Minimum	Maximum	Mean	Std. Deviation
CAPITAL ADEQUACY	45	.14	.59	.2214	.09833
ASSET QUALITY	45	.00	.22	.0309	.03499
MANAGEMENT EFFICIENCY	45	0.64	0.82	0.742	.1765
EARNING QUALITY	45	.01	.07	.0427	.01414
LIQUIDITY	45	.23	.97	.7311	.16443
RETURN ON ASSET	45	.01	.07	.0411	.01369
Valid N (listwise)	45				

Source: SPSS correlation result based on the data obtained from sample commercial banks.

It is clear from this table that Kenyan banks are maintaining higher CAR than the prescribed level which could imply that banks prefer less risky investment resulting in lower profit. The average asset quality of the commercial banking sector in the stated period was 0.0309 (2.09%) which shows the existence of low exposure to credit risk and the relationship is expected to be positive with profit. The average management efficiency, of the commercial banking sector was 74.3% on average. It shows that in Kenya more than 70% of commercial banks income is derived from their intermediation) function. The Table also indicates that the average total loans to total deposit (Liquidity) were 73.11%. This indicates that commercial banks in Kenya use 73.11% of customer deposit for on lending which implies that banks are keeping more than the statutory liquidity requirement. Customer deposit is one of the cheapest sources of fund due to the high margin between deposit and lending rate that banks utilize to generate income. Further, the results show that commercial banks in Kenya target domestic resources, mainly customer deposit, for their banking business. As can be observed from the Table 1, the average ROA, for the sector as a whole was 4.11%. When Compared to other countries bank performances as expressed by the above ratios, the Kenyan banks' performance is above average. According to Flamini et al. (2009.) the average ROA in Sub-Saharan Africa,(SSA) was about 2%. Thus, the average ROA of listed Kenyan banks is above average of the SSA.

CORRELATION ANALYSIS OF BANK PROFITABILITY AND ITS BANK-SPECIFIC DETERMINANTS

This section presents the relationship between the identified bank specific factors and its relationship with bank performance as expressed by ROA. The Pearson's correlation matrix in Table 2 shows the relationship between the return on asset, capital adequacy, asset quality, management efficiency, earning quality and liquidity

TABLE 2: CORRELATION ANALYSIS OF RETURN ON ASSET (ROA) AND BANK DETERMINANTS

		CAPITAL ADEQUACY	ASSET QUALITY	MANAGEMENT EFFICIENCY	EARNING QUALITY	LIQUIDITY	RETURN ON ASSET
CAPITAL ADEQUACY	Pearson Correlation	1	.130	-.099	.274(*)	-.488(**)	.252(*)
	Sig. (1-tailed)	.	.197	.259	.034	.000	.047
	N	45	45	45	45	45	45
ASSET QUALITY	Pearson Correlation	.130	1	.229	-.171	-.235	-.077
	Sig. (1-tailed)	.197	.	.065	.131	.060	.308
	N	45	45	45	45	45	45
MANAGEMENT EFFICIENCY	Pearson Correlation	.099	.229	1	.632(**)	.038	.630(**)
	Sig. (1-tailed)	.259	.065	.	.000	.403	.000
	N	45	45	45	45	45	45
EARNING QUALITY	Pearson Correlation	.274(*)	-.171	-.632(**)	1	.065	.887(**)
	Sig. (1-tailed)	.034	.131	.000	.	.335	.000
	N	45	45	45	45	45	45
LIQUIDITY	Pearson Correlation	-.488(**)	-.235	.038	.065	1	.053
	Sig. (1-tailed)	.000	.060	.403	.335	.	.366
	N	45	45	45	45	45	45
RETURN ON ASSET	Pearson Correlation	.252(*)	-.077	-.630(**)	.887(**)	.053	1
	Sig. (1-tailed)	.047	.308	.000	.000	.366	.
	N	45	45	45	45	45	45

* Correlation is significant at the 0.05 level (1-tailed).

** Correlation is significant at the 0.01 level (1-tailed).

Source: SPSS correlation result based on the data obtained from sample commercial banks.

Table 2 presents the Pearson correlations between return on assets and bank-specific determinants. The analysis show the capital ratio is positively related to ROA at 1 percent significance level but the relationship is weak. This relationship may indicate that banks face no volatility in earnings due to leverage. Bouwman, (2009) argues that higher capital ratios encourage banks to invest in safer assets, such as lower-risk loans or securities, which may affect bank performance Asset quality is negatively related to bank profitability which implies that the banks have poor asset quality or high nonperforming loans to total asset related to poor bank performance. The negative correlation coefficient between poor asset quality and return on equity is very strong. This is may be due to the fact that loan constitutes the largest share of assets that generate income for the investment. Management efficiency and earning quality are positively related to profitability and these relationships are strong. On other Liquidity is also positively related to ROA, but the relationship is very weak. This may be due to the fact that liquidity management is more related with fulfilling depositors' obligation (safeguarding depositors) than investment as explained in the agency theory.

REGRESSION RESULTS AND DISCUSSION

To assess the impact of bank's specific factors on their profitability, the dependent variable return on assets was regressed on the independent variable (capital adequacy, asset quality, management efficiency, earning quality and liquidity). The analysis in Table 3 indicates that the overall effect of the explanatory variables on the bank's profitability is statistically significant (overall p-value=0.000). The first objective of this study was to examine the relationship between capital adequacy and profitability of commercial banks in Kenya. It was hypothesized that there is a significant relationship between capital adequacy and profitability of commercial banks in Kenya. The relevant results are presented in Table 3 below.

**TABLE 3: SUMMARY OF REGRESSION RESULTS
MODEL SUMMARY (b)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.897(a)	.804	.779	.00644

a Predictors: (Constant), LIQUIDITY, MANAGEMENT EFFICIENCY, ASSET QUALITY, CAPITAL ADEQUACY, EARNING QUALITY
b Dependent Variable: RETURN ON ASSET

ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.007	5	.001	32.017	.000(a)
	Residual	.002	39	.000		
	Total	.008	44			

a Predictors: (Constant), LIQUIDITY, MANAGEMENT EFFICIENCY, ASSET QUALITY, CAPITAL ADEQUACY, EARNING QUALITY
b Dependent Variable: RETURN ON ASSET

COEFFICIENTS (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.011	.009		1.199	.238		
	CAPITAL ADEQUACY	.004	.012	.025	.286	.776	.644	1.553
	ASSET QUALITY	.039	.029	.100	1.330	.191	.886	1.129
	MANAGEMENT EFFICIENCY	.003	.002	.144	1.516	.137	.556	1.798
	EARNING QUALITY	.778	.096	.803	8.060	.000	.506	1.977
	LIQUIDITY	.003	.007	.042	.480	.634	.670	1.491

a Dependent Variable: RETURN ON ASSET

Source: SPSS regression results based on the data obtained from sample banks

As shown in Table 3, the capital adequacy does not affect the profitability of listed commercial banks in Kenya ($\beta=0.004$, $-value= .286$). The relationship between capital adequacy and the return on asset (ROE) is insignificant although it has a positive coefficient. The above results thus leads to the rejection of Hypothesis one that there is a significant relationship between capital adequacy and profitability of commercial banks in Kenya. This hypothesis can be rejected with 95% confidence level. The empirical finding is inconsistent with those of Pasiouras and Kosmidou (2007), Demircuc-Kunt and Huizinga (1999), Berger (1995), Staikouras and Wood (2003), Goddard et al. (2004), and Kosmidou (2008). These studies indicate that well-capitalized banks face lower risks of going bankrupt, by building their creditworthiness, thus reducing their cost of funding which will ultimately enhance their profit margin. Therefore by strengthening the capital structure of Kenyan commercial banks is crucial since it provides the banks an additional buffer and cushion to endure financial crises and offers better safety for depositors during unstable macroeconomic conditions. Well-capitalized banks are considered less risky and are better able to raise uninsured funds in order to compensate the drop in deposits (Van den Heuvel, 2002).

The second objective of this study was to investigate the relationship between asset quality and profitability of commercial banks in Kenya. It was hypothesized that there is a significant relationship between asset quality ratios and profitability of commercial banks in Kenya. Table 3 above show that The relationship between asset quality and profitability (ROA) is insignificant ($\beta=0.039$, $-value= .191$) and it has a negative coefficient implying a very weak relationship. Thus, hypothesis is rejected since there no significant relationship.

The third objective of this study was to evaluate the association between management efficiency and profitability of commercial banks in Kenya. It was hypothesized that there is a significant relationship between management efficiency and profitability of commercial banks in Kenya. The above results show that the relationship between management efficiency and profitability is insignificant ($\beta=0.003$, $-value= .137$) although it has a positive coefficient. Based on these findings, the third hypothesis is rejected since there no significant relationship between management efficiency and profitability of listed commercial banks in Kenya. Though the relationship between management efficiency and profitability is statistically insignificant, its sign provides important implication for bank managers. According to Pasiouras and Kosmidou (2007), and Kosmidou (2008) operationally efficient commercial banks reported higher profits compared to commercial banks that have poor expense management. A reduction in costs increases the profits of the commercial banks.

Objective four sought to examine relationship between earning quality and profitability of commercial banks in Kenya. Table 3 shows that there is positive significant association between earning quality and profitability ($\beta=0.778$, $-value= .000$). A positive and significant correlation between earning quality and profitability indicates that commercial banks in Kenya over the period 2000-2009 were focusing on making sound lending decisions which reaffirms that banks with more earning tended to engage in higher loan risk lending for higher profits. Thus, the fourth hypothesis is accepted since there is significant relationship. Between earning quality and profitability,

The fifth objective sought to determine the relationship between liquidity and profitability of listed commercial banks in Kenya. The results indicates that there is no significant association between liquidity and profitability ($\beta=0.003$, $-value= .634$). However, the positive correlation between liquidity and bank profitability prima facie reveals that the more liquid a bank is the less profitable it will be. It's important to note that a bank should be liquid enough to meet its depositors' demand of withdrawing money at any time they want to withdraw or risk facing difficulty in meeting payments in the right time due to its low liquidity. A lower liquidity ratio means that the bank will not effortlessly get funds or else at an extremely high rate of interest which will mount the cost of funding and eventually impact on the profitability of the bank unfavorably. Based on the findings, quoted commercial banks in Kenya may increase their interest rates to attract deposits, which boosts their liquidity, but at the same time lowers their interest margins. This could also be linked to the effect of monetary policy, where an increase in reserve requirements puts pressures on bank interest margins, and vice versa..

9.0 RECOMMENDATIONS

On the basis of the results, the following recommendations were forwarded. The study suggests that the managers of Kenyan commercial banks should formulate policies aimed at enhancing the profitability of the banks through improving the banks' capital, implementing risk management practices, devising mechanisms to better control bank operational costs, and utilizing bank liquid assets more productively to generate higher returns. Thus, a lot needs to be done to improve and optimize the bank performance in Kenya.

10.0 CONCLUSIONS

The study was carried out to explore the key bank-specific that influence the profitability of quoted commercial banks in Kenya using panel data of banks over the period 2007-2011. Using the camel model, five internal factors were regressed against return on assets (ROA) of the banks. Capital adequacy, asset quality,

management efficiency, and liquidity are among the bank-specific factors that have positive but insignificant impact on the profitability of quoted commercial banks in Kenya. The earning quality was found to have positive and statistically significant impact on profitability. Although majority of bank-specific factors are statistically insignificant, their signs provide relevant policy implications, and thus, should not be undermined and policy makers and the bank regulators should focus on formulating policies aimed at making the banking sector more competitive, sound and transparent.

11.0 SCOPE FOR FURTHER RESEARCH

Based on the outcomes of this study, the following issues are suggested for further research.

- First, increasing the study population and the sample size to the whole financial sector.
- Second, by taking evidence from other industries and increasing the number of observations through the use of large sample size and long years data.
- The relationship bank-specific and bank's financial performance can also be further explained if future researchers conduct study including more internal variables.

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13.0 APPENDICES

APPENDIX 1: LISTED BANKS IN KENYA

	LISTED BANKS IN KENYA
1.	Barclays Bank Ltd
2.	CFC Stanbic Bank Ltd
3.	Diamond Trust Bank Ltd
4.	Equity Bank Ltd
5.	Kenya Commercial Bank Ltd (KCB)
6.	National Bank Of Kenya Ltd (NBK)
7.	NIC Bank Ltd
8.	Standard Chartered Ltd
9.	Cooperative Bank of Kenya Ltd

Source: Central Bank of Kenya Annual Report (2012)

TREND OF AREA, PRODUCTION AND PRODUCTIVITY OF RICE CROP IN ASSAM

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ABSTRACT

Though there was a remarkable shift in the state's economy from primary to secondary and tertiary sector in the recent years, Assam still continues to be predominantly an agrarian economy. Agricultural sector continues to support more than 75% population of the state directly or indirectly providing employment of more than 53% of the total workforce (Economic Survey, Assam, 2011-12). Rice is the main crop of Assam. So, the growth and development of rice cultivation is very important in Assam. The total rice production in the state stands at 1.141million tonnes to 5.086million tonnes with an average rice crop yield ranging from 855 kg/ha to 1969 kg/ha during 1950-51 to 2010-11 period. This increase in yield was primarily due to increase in area under modern variety since 1980s. Rice yield thus found positively associated with the adoption of modern technology. However, the adoption needs to be further accelerated because at the current rate of increase in area under HYV, the state would take at least two decades to achieve complete adoption level. Thus the task for development of this sector is very challenging. Besides, mere enhancing production and productivity of rice, overall development of this sector is need of the hour, not only for the state alone but also for other rice consuming states in the country.

KEYWORDS

Assam, Rice, State.

INTRODUCTION

Rice is the main crop of Assam and it occupies about two third of the total cropped area in the state. Another specialty is that the rice is traditionally grown throughout the year viz., ahu or autumn rice (February/March-June/July), sali or winter rice (June/July-November/December) and boro or summer rice (November/December-May/June) with sali or winter rice is the dominant crop of the state.

The total rice production in the state stands at 1.141million tonnes to 5.086million tonnes with an average rice crop yield ranging from 855 kg/ha to 1969 kg/ha during 1950-51 to 2010-11 period. On the demand side, though the decadal population growth rate of Assam has declined from 18.92 percent to 16.93 percent in 2011, the requirement of rice in the state is still high as the population of the state has reached an all time high mark of 31 million, with a population density of 397 persons per sq.km(2011,census report). Thus, it is imperative to take in-depth study in the trend of area production and productivity of rice in Assam.

REVIEW OF LITERATURE

At present numbers of rice technologies are developed to suit the Assam condition. But those technologies are yet to adopt by farmers to a greater extent. From various studies, it is clear that Assamese farmers do not adopt rice technologies properly. In a study conducted by Hussain (1982) found that majority of Assamese farmers did not adopt recommended rice technologies. In another study, Gogoi (1989) found that overall adoption of recommended plant protection measures was low to medium in Assam. Das (1996) observed that 37.5% farmers had full gap of adoption of sali rice technologies. In case of hybrid rice varieties, Basumatary (2000) found that majority of farmers of Assam obtained low yield to very low as compared to the yield of potentials of hybrid varieties of rice. In a study, Deka (2004) determined the factors causing instability and inefficiency in rice production in Upper Brahmaputra Valley Zones (UBVZ) and Hilly Zones (HZ). Among the factors affecting instability in yield of total rice, irrigation, fertilizer and rainfall have been found to have reducing but non- significant on instability in yield in UBVZ. In HZ irrigation, fertilizer and rainfall have been found to have negative effect on instability in yield. Cropping intensity has been found to have inverse relation to farm-size, being the highest in marginal and lowest in large farms for both the zones. Drought is a major constraint affecting rice production especially in rainfed areas of Asia. Despite its importance in rice growing areas, the magnitude of economic losses arising from drought, its impact on farm household and farmer's drought coping mechanisms are poorly understood. Pandey et.al. (2006) provides insights into these aspects of drought based on a cross-country comparative analysis of rainfed rice growing areas in China, India and Thailand and found that economic cost of drought is substantially higher in eastern India than in other two countries. Higher probability and greater spatial covariance of drought and less diversified farming systems with rice accounting for a large share of household income are likely to be the main reasons for this higher cost of drought in eastern India. Farmers deploy various coping mechanisms but such mechanisms are largely unable to prevent a reduction in income and consumption, especially in eastern India. As a result, welfare consequences on poor farmers are substantial with a large number of people falling back into poverty during drought years. In a recent study conducted by Saikia (2012) found that the adoption behaviour of farmers of Assam is very poor. According to her, 79.17% farmers possessed poor adoption behavior in case of sali rice production technology, the main crop of Assam. If this trend continues then Assam will not achieve the target and will face the problems of savior food insecurity. Therefore, the state should take necessary step to increase the rate of adoption of rice technologies among farmers. Singh (2013) made an attempt to understand the status of rice cultivation and inter-district disparity within the state by using an Agricultural Development Index (ADI).The index results shows that the status of agricultural sector (rice cultivation) in Assam is much lower than the national level. Besides, the inter-district disparity in terms of overall development of this sector (rice cultivation) is also clearly visible in the state.

STATEMENT OF THE PROBLEM

In Assam, rice has been the major food in the consumption basket. But the state has by and large fallen in a situation of 'food -trap' in the post independent period where the growth in consumption demand for rice persistently exceeds the production growth for a longer period. The result once a surplus state become a net importer of rice from the early 1970's.Though there have been some achievements in the 1980's,the process again weakened in the later period(Barah, Betne and Bhowmick,2001). Insufficient irrigation facilities, lack of technical knowhow, and damage caused by natural calamities coupled with inconsistent weather like flood stands as impediment in the production of rice in Assam.

OBJECTIVES

TO NARROW DOWN THE AREA OF STUDY, SOME SPECIFIC OBJECTIVES OF THE PRESENT STUDY ARE LISTED BELOW:-

1. To study the trend and growth of area, production and yield of rice in Assam in comparison with India.
2. To analyze the area and production status of rice in Assam.

RESEARCH METHODOLOGY

The study is based upon secondary data. The data were collected from the various publications and websites of Director of Economics and Statistics government of India and Department of Agriculture, Assam state. The other requisite data were collected from the various published and unpublished sources. The basic statistics viz. arithmetic mean(X) standard deviation (SD) and co-efficient of variation (CV) were estimated to know the average position and variability in the

area and production of rice in Assam in comparison with India. Karl Pearson's coefficient of correlation method is also used to analyse the area and production status of rice in Assam.

DURATION OF PERIOD

The data have been collected for the period 1950-51 to 2010-11.

RESULTS AND DISCUSSION

TREND AND GROWTH OF AREA, PRODUCTION AND YIELD OF RICE IN ASSAM IN COMPARISON WITH INDIA

During sixty years since independence, the area under rice has increased by about 70.26 percent, while the production has more than doubled registering about 345.74 percent growth, mainly on account of area expansion. The linear growth rate of productivity is barely 130.29 percent during (1950-51 to 2010-11) period, which is quite low. Thus, the state agriculture department has prioritized optimum and efficient use of available resources to enhance the production and productivity of the rice. In Assam, the soil, topography, rainfall and climate in general are congenial for agricultural activities mainly for paddy cultivation. The paddy cultivation occupies 91.5% of the net cropped area and 62.6% of the gross cropped area in the state during the year 2010-11 (Economic Survey, 2011-2012).

TABLE 1: TREND AND GROWTH OF AREA, PRODUCTION AND YIELD OF RICE IN ASSAM (1950-51-2010-2011)

Year	Area (million hectares)	Production (million tonnes)	Yield (kg/ha)
1950-51	1.510	1.141	855
1960-61	1.716	1.633	968
1970-71	1.974	1.986	1022
1980-81	2.228	2.459	1120
1990-91	2.526	3.270	1313
2000-01	2.652	4.170	1470
2010-11	2.571	5.086	1983

Source: - Directorate of Economics and Statistics, Department of Agriculture, Assam state

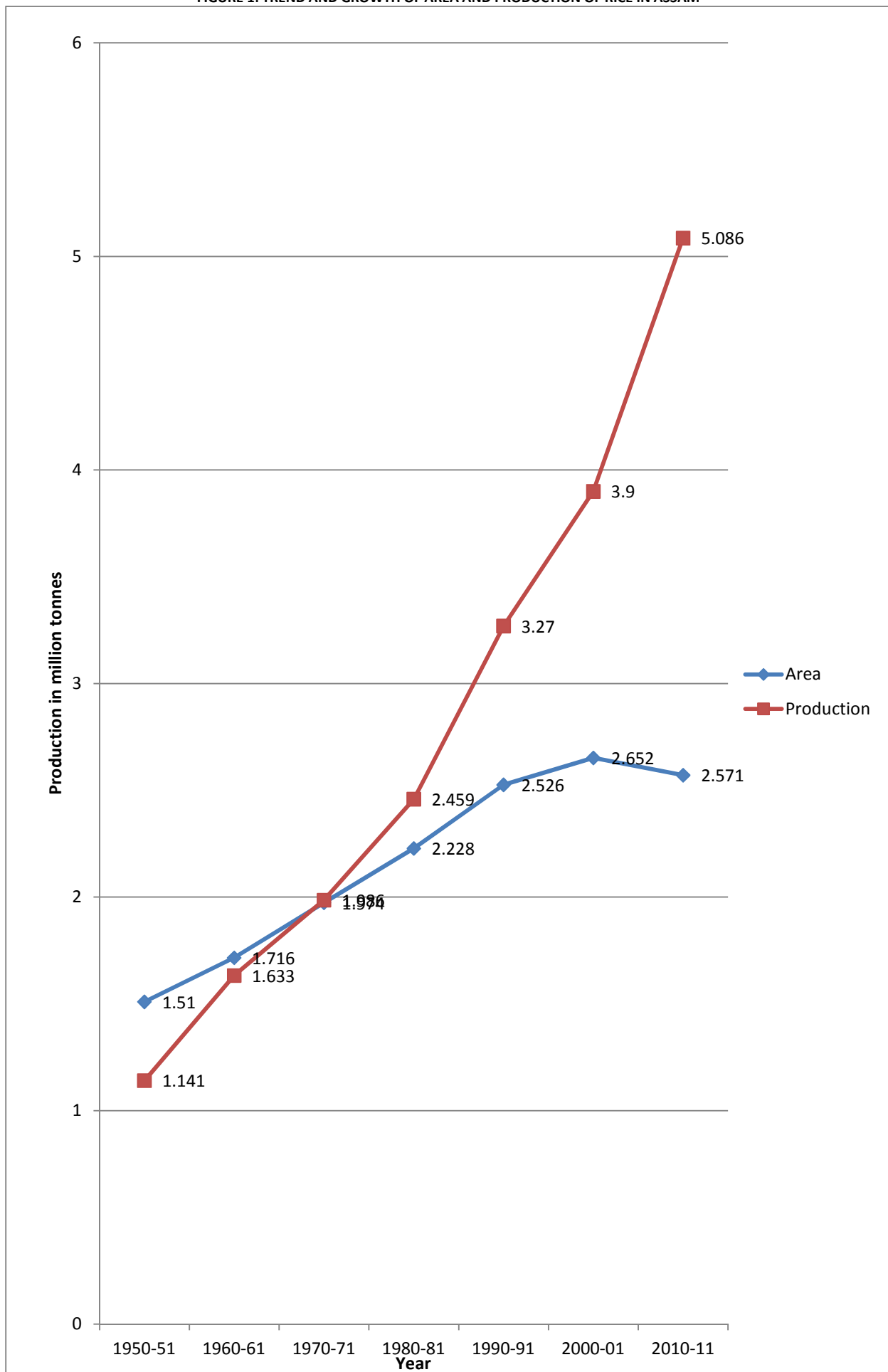
TABLE 2: TREND AND GROWTH OF AREA, PRODUCTION AND YIELD OF RICE IN INDIA (1950-51 to 2010-2011)

Year	Area (million hectares)	Production (million tonnes)	Yield (kg/ha)
1950-51	30.81	20.58	668
1960-61	34.13	34.58	1013.2
1970-71	37.59	42.22	1123.2
1980-81	40.15	53.63	1335.7
1990-91	42.69	74.29	1740.2
2000-01	44.71	84.98	1900.7
2010-11	42.86	100.00	2240.0

Source: Directorate of Economics and Statistics, Government of India, Krishi Bhavan, New Delhi.

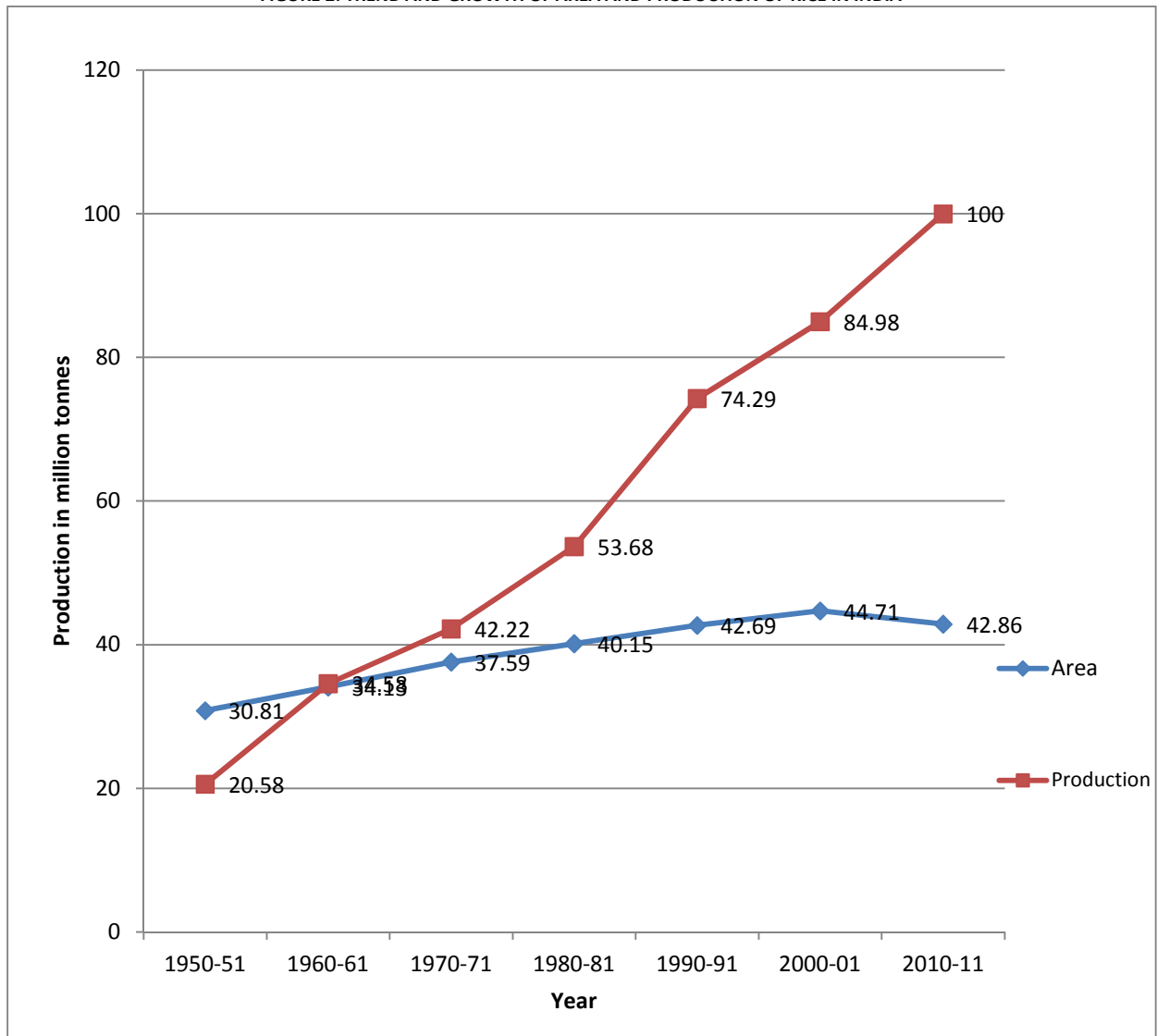
Despite the fact that yield rates of the principal crops have increased since independence, these are still below the average yield rates of the country and significantly below the yield rates of the high performing states. So, this implies that to increase or to meet the projected demand of rice in this state, we have to either increase the production of rice by introducing some new varieties or with the existing modern varieties or steps have to be initiated for the expansion of area under rice cultivation. But more than 83 farmers of Assam are small and marginal farmers and situation is rainfed, hence there is no ample scope to increase the area under rice cultivation. So, the best way to meet the projected demand of rice is to increase the production of rice by introducing some new varieties. According to agronomists, the potential yield and average yield of some varieties of rice like, Ranjit, Bahadur, Kushal, Maniram, Piyolee, Gitesh, Jalashree, etc ranges from about 5-7 t/ha provided, all the recommended practices are followed rightly. Whereas, the present average yield of rice in the farmer's fields ranges from about 1-2.5 t/ha (Saikia and Barman, 2013).

FIGURE 1: TREND AND GROWTH OF AREA AND PRODUCTION OF RICE IN ASSAM



Source: Directorate of Economics and Statistics, Department of Agriculture, Assam state.

FIGURE 2: TREND AND GROWTH OF AREA AND PRODUCTION OF RICE IN INDIA



Source: Directorate of Economics and Statistics, Government of India, Krishi Bhavan, New Delhi.

From the figure (1) and (2), it was observed that there has been fluctuation in area, production and productivity of rice both in Assam with the increasing trend, but it is much lower than the national average. To achieve the target of rice production, it is important to increase the rate of adoption of rice technologies. For production of yield fertilizer plays an important role. But the trend of fertilizer consumption in the state in terms of nutrient (NPK) per hectare as much lower than the national average consumption. According to the state agriculture department, consumption of fertilizer in the state was at 67.09 kg per hectare during the year 2010-11. Integrated Pest Management (IPM) is another key component of sustainable agricultural production. Assam having a diverse eco-system with sub-tropical climate, the crop production is associated with loss of biotic stress problem which share 20-30 % of the yield loss. In case of modern rice cultivation farm mechanization is a critical input as it facilitates timely agricultural operation. But in Assam, the growth of mechanization is also slow. At present, the availability of farm power in the state is only 0.90 HP per hectare as compared to 1.40 HP per hectare at national level (Economic Survey, Assam, 2011-12). In order to make the point more clear and to know the variations and extent of growth in area, production and productivity of rice the statistical analysis were carried out by using various statistical tools as presented in table below-

TABLE 3: VARIABILITY, TREND AND GROWTH ANALYSIS OF RICE USING STATISTICAL TOOLS (1950-51 to 2010-11)

Statistical tools	Assam		India	
	Area(million hectares)	Production(million tonnes)	Area(million hectares)	Production(million tonnes)
A.M.	2.16	2.78	38.99	58.61
S.D.	0.17	1.74	22.14	35.40
C.V. (%)	7.87	6.25	56.78	90.79

Source: Computed by Author.

From the table (3), variability in area under rice was more 56.78 percent for all India level followed by 7.87 percent for Assam. Similarly, the variability in the production of rice was more 90.79 percent for the overall India level. This has indicated comparatively low instability in production of rice at Assam than the all India level. This may due to the soil of the state is mostly fertile alluvial soil and this adjoining with river Brahmaputra are composed of sandy and clay in varying proportion makes it possible to grow different varieties of rice. The Union Government in 2008-09, recognized Assam as the best performing state amongst the seven eastern zone states, which include West Bengal, Orissa, Bihar, Jharkhand, Chattisgarh, Uttar Pradesh and Assam, for its encouraging progress in production and productivity of rice under the National Food Security Mission (The Assam Tribune, 2010).

TABLE 4: CORRELATION ANALYSIS BETWEEN AREA AND PRODUCTION STATUS OF RICE IN ASSAM

Year	X	X ²	Y	Y ²	XY
1950-51	1.510	2.2801	1.141	1.3018	1.72291
1960-61	1.716	2.9446	1.633	2.6666	2.8022
1970-71	1.974	3.8966	1.986	3.9441	3.9203
1980-81	2.228	4.9639	2.459	6.0466	5.4786
1990-91	2.526	6.3806	3.270	10.6929	8.2600
2000-01	2.652	7.0331	3.900	15.2100	10.3428
2010-11	2.571	6.6100	5.086	25.8673	13.0761
N=7	15.177	34.1089	19.475	65.7293	45.6099

Source: - Computed by Author

THE METHOD OF KARL PEARSON'S CORRELATION OF COEFFICIENT

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{\sum X^2 - \frac{(\sum X)^2}{N}} \times \sqrt{\sum Y^2 - \frac{(\sum Y)^2}{N}}}$$

$$= \frac{45.6099 - 42.2245}{\sqrt{34.1089 - 32.905} \times \sqrt{65.7293 - 54.1822}}$$

$$= \frac{3.3854}{\sqrt{1.203} \times \sqrt{11.5471}}$$

$$= \frac{3.3854}{1.09 \times 3.398}$$

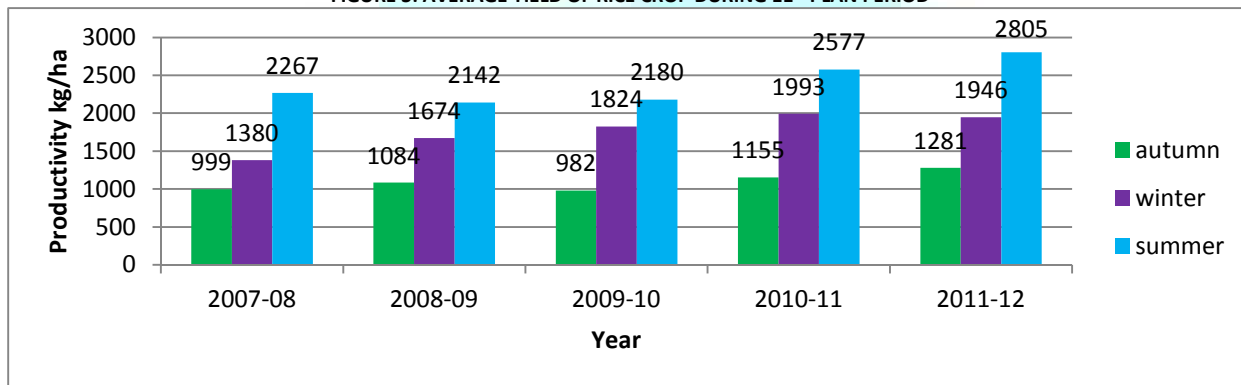
$$= \frac{3.3854}{3.7038}$$

= 0.9140342351 (highly positive correlation)

If we take area under rice as a major aspect in enhancing the rice production throughout the years we may find a highly positive correlation between them that is, +0.9140342351.

The present paper is divided into seven sections. Starting from introduction, review of literature, objectives and statement of the problem in section I, II, III and IV respectively, section V deals with the methodology in the context of rice cultivation in Assam. The section VI portrays the results and discussions of rice cultivation and it is followed by findings, suggestion and conclusion as whole in section VII.

FIGURE 3: AVERAGE YIELD OF RICE CROP DURING 11th PLAN PERIOD



Source: Directorate of Economics and Statistics, Assam

Winter (kharif) rice dominates both area and production in Assam, followed by autumn (pre-kharif) rice and summer (rabi) rice. But the share of winter rice declined from 78 percent in 1952 to 66 percent in 1999. Thus, the state should adopt appropriate policy strategy to enhance the yield of winter rice at least to the level of national level. The area under summer rice showed an increasing trend over the period of last eleven years (1998-99 to 2008-09). It was 10.28 percent more in 2008-09 as compared to the area during 2007-08 (3.23 lakh hectares). The production of summer rice in the state was 7.68 lakh tonnes during the year 2008-09 which was recorded as all time high in the state. It was about 4.88 percent higher than for the year 2007-08 (7.32 lakh tones). However the yield rate of summer paddy was marginally low during 2008-09 as compared to the yield rate of 2007-08 (Gogoi and Bordoloi, 2011). During 11th plan period yield of summer rice has increased by about 24 percent which is quite satisfactory.

TABLE 5: TARGET OF AREA, PRODUCTION AND PRODUCTIVITY OF RICE CROP DURING 12th PLAN PERIOD (AREA IN LAKH HECTARE, PRODUCTION IN LAKH MT AND PRODUCTIVITY IN KG PER HECTARE)

Rice	2012-13	2013-14	2014-15	2015-16	2016-17
Area	27.20	27.90	28.40	29.50	30.00
Production	65.00	68.00	70.00	73.40	75.00
Productivity	2420	2470	2495	2515	2530

Source: Directorate of Economics and Statistics, Assam.

MAJOR FINDINGS OF THE STUDY

1. There is a slight increase of area under rice in Assam from 1.510 million hectares to 2.571 million hectares during 1950-51 to 2010-11 period followed by production and productivity from 1.141 million tonnes to 5.086 million tonnes and 855 kg/ha to 1983 kg/ha in the same period.
2. There is slight variation in the area and production of rice in Assam and the overall India levels.
3. A highly positive correlation (+0.9140342351) exists between area and production of rice in Assam.

SUGGESTIONS

1. A proper research programme is required to be carried out for improving physiological efficiency of plant for better photosynthesis efficiency and translocation so as to reduce sterility under low light intensity, thereby increasing productivity.
2. Cultivation of hybrid rice is required to be popularized among the farmers in suitable so that production and productivity areas can be increased.
3. Use of Bio-fertilizers such as Blue Green Algae, Azospirillum, Azotobacter and Azolla may be encouraged among the farmers for supply of nitrogenous nutrient and thereby reducing the cost of chemical nitrogenous fertilizers.
4. To encourage the Integrated Pest Management approach for effective control of pests and diseases by emphasizing the need based application to pesticides.
5. Strong extension network for effective transfer of latest technologies, improvement of credit and market facilities and crop insurance are required for rainfed lowland ecology.
6. Sustainability from both ecological and economic point of view is important for increasing rice productivity in different ecosystem.

CONCLUSION

Being the main item of food basket, rice was of crucial importance to the agricultural economy as we have analyzed above. Though there is an increasing trend of area and production of rice in Assam, its production has been subjected to multiple risks. Slow technical change and negligible support of infrastructure including surface irrigation facility, hampered the growth of rice production system in Assam. Besides, low input use also affected rice production. The use of chemical fertilizer was lower than the national average. Thus the Government should come forward and take appropriate policy measures for the upliftment of this sector.

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ANALYSIS OF HOME LOANS BY PUBLIC SECTOR BANKS: INTER-BANK & INTRA-BANK ANALYSIS

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ABSTRACT

Housing sector is very important for fulfilling the need of housing of the people. Investment in housing can be conceived as the main framework for social and economic development. Introduction of the national housing policy and declaration of the housing as priority sector has helped a lot to fulfill the housing need of the economy. Banks and other institutions are providing housing finance to masses. Housing finance is provided for the purpose of purchase, construction, renovation and improvement of housing to the individuals or any corporate body. Banks are now everywhere and the schemes are implemented even in villages and small towns. Various benefits of home loans like attractive interest rates, technical and financial assistance in owning a home, liberal laws and door to door services are arising. To analyze the housing scenario in Punjab: study of public sector banks has been under taken and it has been realized that this business has been growing over the years and more and more amount is disbursed according to the requirement. It is indicated in the paper that the outstanding housing loan portfolio of banks is on rise continuously over the last many years.

KEYWORDS

home loans, finance, public sector banks.

INTRODUCTION

Housing is one of the basic necessities. Besides, it is fundamental to people's physical, psychological, social and economic well-being. All over the world, the provision of satisfactory housing has been a major problem and continuous efforts have been made to meet the ever increasing needs of each generation. While the problem of housing is chronic in the developing countries, most of the advanced countries are also facing this problem in varying degrees and dimensions. (Saluja 2008)

Although housing sector is very important and investment in housing can be conceived as the main framework for social and economic development, but the issue remained neglected for a long period. In India housing sector could not catch the attention of policy makers during the early years of development planning. It was only in 1988, that a National Housing Policy was framed and housing was declared as a priority sector area. The National Housing Bank (NHB) was set up in the same year as a subsidiary of Reserve Bank of India for promoting housing finance both at local and regional levels and for providing support to financing institutions. In order to clear the housing backlog, construction of two million dwelling units per year were planned. (Saluja 2008)

Housing finance is provided for the purpose of purchase, construction, renovation and improvement of housing to the individuals or any corporate body. There are two sources of housing finance i.e. formal sources and informal sources. Formal sources comprise of central and state government, housing and urban development corporation (HUDCO), insurance organizations and corporations like LIC, GIC, commercial banks, co-operative banks and special housing finance institutions like HDFC and ICICI. Informal sources include own funds, or borrowing from relatives, friends and private lenders.

Of the above mentioned sources, the role of scheduled commercial banks is changing and increasingly playing a crucial role. The banking sector is getting ready to be able to support adequately a higher rate of economic growth as well as to prepare itself for facing new challenges in the present scenario. In order to maintain competitiveness and to meet rising expectations of the customers, banks are enhancing their role. Deregulation in the financial sector has also brought about new opportunities for banks. It defined a clear shift in the role of banks. After the macro economic crisis India experienced in 1991-1992, an altogether different approach to the functioning of the banking sector as a whole in the development process was undertaken (Kamath 2010)

In the last few years housing scenario in India has changed drastically. It has taken a front seat and people are looking forward to owning houses. It is no more a dream that requires lifetime saving. Banks are now everywhere and the schemes are implemented even in villages and small towns. It would not be wrong to say that there has been boom in the number of home loan mortgage brokers in India. (Antule 2010)

Various benefits of home loans like attractive interest rates, technical and financial assistance in owning a home, liberal laws and door to door services are arising. Home loans work like any other debt. That is loans are simply specific amount of money that we borrow from bank, a private lender, or some other type of lender. Afterwards, we must repay our debts with interest. However unlike other types of loans, home loan are different in several respects like tenure of the loan, amount involved, interest rates, security and documentation involved.

REVIEW OF LITERATURE

Review of literature helps to have a proper insight onto various aspects of the issues under study. A number of studies on various aspects of home loans have been carried out:

Elumalai (1989) in his article "National Housing Bank", pointed out that housing shortage was an acute problem not only in metros but also in graded cities, state capitals and industrial belts. He pointed out that increasing prices, fall in purchasing power of money and increase in population were the major cause of houselessness. He criticized the formulation of NHB. Home Loan Account Scheme (HLA) and opined that it could not serve the purpose of rural poor as scheduled commercial banks had only 31,641 branches in rural areas, which covered 5.78 lakh villages as on December 1988. He suggested that HLA Scheme should be implemented through post offices and by providing mobile services that could collect deposits.

Chaturvedi (2000) in his article, "Interest Rates on Housing Finance Falling" highlighted the competition between public sector housing finance companies, private sector housing finance companies and banks. He depicted the falling interest rates offered by these institutions and analyzed the role of various housing finance companies and commercial banks played in various regions and concluded that private sector companies were doing good business in urban areas, while cooperative banks, HUDCO and various nationalized banks were leading in rural areas.

Gupta and Aggarwal (2003) in their article entitled, "The Consumer Financing Business in India – Building Blocks for the Future Companies" highlighted the role of housing finance companies in India for the period 2001-2003. For the purpose of their research a survey conducted by FICCI on 47 banks and housing finance companies had been used and it was concluded that banks had overtaken housing finance companies in the home loan market. Banks had captured 65.5 percent share of the total home loan disbursement in 2002-2003 that was 43.6 percent in 2001-02.

Verma et al. (2009) in their research paper, "Retail Finance-Housing" studied Indian housing finance industry from the period 2004-2008. For the purpose of the study tools like Trend analysis and Compound annual growth rate had been used. They analyzed that housing finance industry remained vulnerable to asset price decline and low income level growth. The decline in property prices had made loan disbursed in 2007-08 susceptible to higher negative equity. Home loan disbursement grew at CAGR of 16 percent during 2004-2008. They concluded on the basis of trend analysis that decline in income level will affect repayment capacity of borrowers and housing finance disbursement would register a CAGR of 5 percent for the period 2007-2013.

Thus we find that housing finance has occupied the minds of researchers. A host of studies and analytical work has been carried out at national level.

OBJECTIVES OF THE STUDY

The presented study has been undertaken with the following objectives:

1. To analyze the extent and growth of home loans by sampled banks.
2. To compare the extent and growth of home loans by sampled banks.

SCOPE OF THE STUDY

The present study is confined to the State of Punjab. For purpose of the study five scheduled commercial banks State Bank of India, State Bank of Patiala, Punjab National Bank, Bank of India and Punjab & Sind Bank have been taken.

METHODOLOGY

To analyze housing finance situation of the sampled banks, secondary data has been collected from regional offices, circle offices, zonal offices and head offices of the sampled banks. Along with this various reports of National Housing Bank and RBI master circulars on housing finance has been collected and personal interaction has been carried out with managers of the sampled banks and PNB hub. Averages, percentage change, percentage share and compound annual growth rates have been calculated. Time period of the study is 2005-06 to 2011-12.

ANALYSIS OF THE HOME LOANS

Banks are providing housing finance to individuals under Housing Finance Scheme. Housing finance schemes are divided into three parts.

1. Direct Housing Finance
2. Indirect Housing Finance
3. Investment in bonds of National Housing Bank and HUDCO.

Direct housing finance refers to finance provided to individuals or groups of individuals. Indirect housing finance refers to finance provided to housing finance institutions, housing boards and other housing agencies. According to the purpose of the study, the area of consideration is Direct Housing Finance.

Direct housing finance situation of the sampled banks has been represented. In this context three categories of information has been collected and analyzed i.e. total number of home loan accounts opened, total amount disbursed and total amount outstanding.

DIRECT HOUSING FINANCE IN PUNJAB**TABLE 1.1.1: STATE BANK OF PATIALA (PUNJAB)**

Year	Total No. of Home Loan Accounts	Total amount Disbursed (Rs. Cr.)	Total amount outstanding (Rs. Cr.)
2005-06	5459	175.07	158.34
2006-07	5526	233.42	206.61
2007-08	5527	270.3	240.04
2008-09	5517	304.89	271.12
2009-10	5857	410.8	353.24
2010-11	5212	432.73	373.84
2011-12	6100	490.25	425.10
Average	5600	331.07	289.76
CAGR	0.98 ^{ns}	18.46 ^{***}	17.58 ^{***}
% change	11.74	180.03	168.47

Source: SBoP, Head Office.

*** and ** indicate significant at one and five per cent level of probability, respectively, ns : non-significant

The table 1.1.1 shows disbursement of home loans by State Bank of Patiala in Punjab, along with number of home loan accounts opened and total amount outstanding for the period 2005-06 to 2011-12. The bank showed more than two times rise in total amount disbursed to Rs.490.25 crores in 2011-12 from Rs. 175.07 crores in 2005-06. In addition to this, the compound annual growth of loan amount disbursed was 18.46 percent. Outstanding home loan amount showed hike from Rs.158.34 crores in 2005-06 to Rs. 425.10 crores in 2011-12. There was not much difference between CAGR of home loan disbursed and amount outstanding. If we look at the extent of home loans, on an average 5600 were number of accounts opened every year for disbursing housing loans. The rate of interest charged was between 9 and 12.25 percent per annum. On comparing it with all India figures, growth rates of both disbursement and outstanding of Punjab was more than that of India.

TABLE 1.1.1 (a)**DIRECT HOUSING FINANCE (STATE BANK OF PATIALA)**

Year	URBAN			RURAL			SEMI-URBAN		
	No. of Home Loan Accounts	Total Amount Disbursed (Rs Cr.)	Total Amount Outstanding (Rs.Cr.)	No. of Home Loan Accounts	Total Amount Disbursed (Rs Cr.)	Total Amount Outstanding (Rs.Cr.)	No. of Home Loan Accounts	Total Amount Disbursed (Rs Cr.)	Total Amount Outstanding (Rs.Cr.)
2005-06	2615	104.4 (59.63)	94.22 (59.50)	1054	32.4 (18.51)	32.25 (20.37)	1790	38.27 (21.86)	31.87 (20.13)
2006-07	2736	128.21 (54.93)	114.03 (55.19)	1179	39.06 (16.73)	33.83 (16.37)	1611	66.15 (28.34)	58.75 (28.44)
2007-08	2937	159.57 (59.03)	143.77 (59.89)	969	35.96 (13.30)	30.7 (12.79)	1621	74.59 (27.67)	65.57 (27.32)
2008-09	2703	152.29 (49.95)	137 (50.53)	1074	56.77 (18.62)	46.43 (17.13)	1740	95.83 (31.43)	87.69 (32.34)
2009-10	2761	212.64 (51.76)	184.2 (52.15)	877	51.53 (12.54)	44.24 (12.52)	2219	146.63 (35.70)	124.8 (35.33)
2010-11	2358	218.63 (50.52)	190.79 (51.03)	815	51.98 (12.01)	44.04 (11.78)	2039	162.12 (37.47)	139.01 (37.19)
2011-12	4031	223 (45.49)	197.66 (46.50)	1094	84.99 (17.34)	72.48 (17.05)	1025	182.26 (37.17)	154.96 (36.45)
Mean	2877.29	171.25	151.67	1008.86	50.38	43.42	1720.71	109.41	94.66
CAGR	3.4	13.84^{**}	13.31^{**}	-2.56	14.63^{**}	12.60^{**}	-3.12	29.10^{**}	28.91^{**}
% change	54.15	113.60	109.79	3.80	162.31	124.74	-42.74	376.25	386.23

In the above table urban, rural and semi-urban area wise distribution of housing finance status, for the year 2005-06 to 2011-12 has been represented for State Bank of Patiala .It can be seen that out of the total, maximum number of home loan accounts were opened in urban areas, they became almost double by the year 2011-12; total amount disbursed and total amount outstanding was maximum in urban areas and least was in case of rural areas. It showed that banks were concentrating on urban areas and rural areas were not much preferred. In case of number of home loan accounts opened the growth rate in urban areas i.e. 3.4 percent and in rural and semi urban areas it was -2.56 percent and -3.12 percent. In addition to this 29.10 percent growth was noticed in disbursement in semi urban areas and that was maximum, followed by compound annual growth in rural areas that was 14.63 percent and then came growth in disbursement in urban areas that was 13.84 percent. On the contrary if we compare growth rates of total amount outstanding, this was also maximum in semi urban areas i.e. 28.91 percent.

TABLE 1.2.1: BANK OF INDIA (PUNJAB)

Year	Total No. of Home Loan Accounts	Total amount Disbursed (Rs. Cr.)	Total amount outstanding (Rs. Cr.)
2005-06	3500	51.26	126.78
2006-07	3768	52.56	139.48
2007-08	3925	51.56	162.24
2008-09	4121	43.38	180.82
2009-10	4479	42.42	201.91
2010-11	4423	37.42	204.76
2011-12	4309	44.31	214.6
Average	4075	46.13	175.80
CAGR	3.92***	-4.58***	9.60***
% change	23.11	-13.56	69.27

Source: Bol, Head Office.

*** and ** indicate significant at one and five per cent level of probability, respectively, ns: non-significant

In the table 1.2.1, Direct Housing Finance situation of Punjab for Bank of India has been illustrated. First of all, number of home loan accounts opened showed average annual growth rate of 3.92 percent, which was significant. In addition to this, there was fluctuations in total amount disbursed and it fell dramatically in 2010-11to Rs. 37.42 crores. The compound annual growth rate for advances was negative i.e. -4.58 percent. Moreover, outstanding amount of housing loans was increasing every year at the compound annual growth of 9.60 percent. Outstanding amount became almost double over the years. Overall percentage change in outstanding was much more than percentage change in disbursement that was negative. The rate of interest charged was between 9 and 13 percent per annum.

TABLE 1.3.1: PUNJAB & SIND BANK (PUNJAB)

Year	Total No. of Home Loan Accounts	Total amount Disbursed (Rs. Cr.)	Total amount outstanding (Rs. Cr.)
2005-06	2994	19.52	129.66
2006-07	3587	51.54	180.16
2007-08	3686	38.62	194.04
2008-09	3736	45.33	209.68
2009-10	3869	61.72	259.64
2010-11	3918	62.26	228.16
2011-12	4339	75.46	263.76
Average	3733	50.64	209.30
CAGR	4.89***	19.14***	10.89***
% change	44.92	286.58	103.42

Source: Punjab & Sind Bank, Head Office.

*** and ** indicate significant at one and five per cent level of probability, respectively, ns : non-significant

Table 1.3.1 shows disbursement of home loans by Punjab & Sind Bank in Punjab, along with number of home loan accounts opened and total amount outstanding for the period 2005-06 to 2011-12.The bank showed almost two and half times rise in total amount disbursed to Rs. 75.46 crores in 2011-12 from Rs. 19.52 crores in 2005-06.In addition to this, the compound annual growth of loan amount disbursed was 19.14 percent. Moreover, outstanding home loan amount showed hike from Rs.129.66 crores in 2005-06 to Rs.263.76 crores in 2011-12.So far as outstanding loan amount was concerned, it showed growth rate of 10.89 percent. If we look at the extent of home loans, on an average 3733 accounts were opened every year for disbursing housing loans. The rate of interest charged was between 9 and 12.25 percent per annum.

TABLE 1.2.1 (a)

Year	URBAN			RURAL			SEMI-URBAN		
	No. of Home Loan Accounts	Total Amount Disbursed (Rs Cr.)	Total Amount Outstanding(Rs.Cr.)	No. of Home Loan Accounts	Total Amount Disbursed(Rs Cr.)	Total Amount Outstanding (Rs.Cr.)	No. of Home Loan Accounts	Total Amount Disbursed(Rs Cr.)	Total Amount Outstanding(Rs.Cr.)
2005-06	2930	24.93 (48.63)	107.34 (84.67)	46	0.01 (.019)	0.042 (.033)	524	26.29 (51.35)	19.4 (15.30)
2006-07	3057	24.92 (47.41)	118.03 (84.62)	144	0.09 (.17)	5.34 (3.83)	567	27.55 (52.42)	16.11 (11.55)
2007-08	3190	43.81 (84.97)	138.92 (85.63)	153	1.76 (3.41)	6.72 (4.14)	582	5.99 (11.62)	16.6 (10.23)
2008-09	3315	41.24 (95.07)	153.43 (84.85)	176	1.62 (3.73)	6.87 (3.80)	630	0.52 (1.2)	20.52 (11.35)
2009-10	3564	31.1 (73.31)	166.56 (82.49)	213	3.07 (7.24)	9.55 (4.73)	702	8.25 (19.45)	25.8 (12.78)
2010-11	3387	28.55 (76.30)	160.48 (78.37)	218	1.95 (5.21)	9.88 (4.83)	818	6.92 (18.49)	34.4 (16.8)
2011-12	3357	33.63 (75.90)	172.25 (80.27)	204	2.48 (5.60)	10.17 (4.74)	748	8.2 (18.5)	32.18 (14.99)
Mean	3257.14	32.60	145.29	164.86	1.57	6.94	653.00	11.96	23.57
CAGR	2.62**	3.00	8.23**	22.26**	129.40*	90.53	7.35**	-19.11	13.22**
% change	14.57	34.90	60.47	343.48	24700	24114.29	42.75	-68.81	65.88

Source: Bol, Head Office.

Figures in the brackets are parenthesis, **and*indicate significant at one and five per cent level of probability, respectively

In the above table urban, rural and semi-urban area wise home loan distribution for the year 2005-06 to 2011-12 has been represented for Bank of India .It can be seen that out of the total, maximum number of home loan accounts were opened in urban areas and extent was maximum in urban areas too, that was 3257.14 home loan accounts opened every year. Total amount disbursed declined from Rs.26.29 crores in 2005-06 to Rs 8.2 crores in 2011-12, in semi urban areas, but increased in urban area from Rs 24.93 crores in 2005-06 to Rs 33.63 crores in 2011-12. Growth wise, total amount disbursed and total amount outstanding both were maximum in rural areas i.e. 22.26 percent and 129.40 percent. It meant that BoI had been catering to the need of housing of rural India.

TABLE 1.4.1: PUNJAB NATIONAL BANK (PUNJAB)

Year	Total No. of Home Loan Accounts	Total amount Disbursed (Rs. Cr.)	Total amount outstanding (Rs. Cr.)
2005-06	6800	2960	2194
2006-07	10151	3142	2970
2007-08	12254	3470	7176
2008-09	18964	2900	7259
2009-10	21386	4650	9764
2010-11	24355	11264	17041
2011-12	23546	8777	24934
Average	16779	5309.00	10191.14
CAGR	24.05***	24.37***	48.62***
% change	246.26	196.52	1036.46

Source: Punjab National Bank, Head Office.

*** and ** indicate significant at one and five per cent level of probability, respectively, ns : non-significant

The above table represents number of home loan accounts opened, disbursement of home loan amount and total amount outstanding of Punjab National Bank in Punjab for the period 2005-06 to 2011-12. It is clear that average number of home loan accounts opened per annum were 16779. The compound annual growth rate of no. of home loan accounts opened was 24.05 percent. However, the compound annual growth rate of loan amount disbursed was 24.37 percent. On the other hand, outstanding was growing at the rate of 48.62 percent, which was double than that of growth rate of amount disbursed for home loans and significant at one percent level of probability. Though outstanding growth rate was much high, but still extent of the loans was much more in case of PNB as compared to any other bank. The rate of interest charged was between 9 and 11.75 percent. On comparing the growth rates of amount disbursed and amount outstanding with the growth rates at India level, it was much more at Punjab level.

TABLE 1.4.1 (a)

DIRECT HOUSING FINANCE (PUNJAB NATIONAL BANK)									
Year	URBAN			RURAL			SEMI-URBAN		
	No. of Home Loan Accounts	Total Amount Disbursed (Rs. Cr.)	Total Amount Outstanding (Rs. Cr.)	No. of Home Loan Accounts	Total Amount Disbursed (Rs. Cr.)	Total Amount Outstanding (Rs. Cr.)	No. of Home Loan Accounts	Total Amount Disbursed (Rs. Cr.)	Total Amount Outstanding (Rs. Cr.)
2005-06	3823	2260.73 (76.35)	1490.26 (67.92)	531	125.93 (4.25)	280.6 (12.79)	2446	573.34 (20.53)	423.14 (19.29)
2006-07	5582	2528.24 (80.47)	1549.77 (52.18)	611	98.01 (3.12)	993 (33.43)	3958	515.74 (16.41)	427.23 (14.39)
2007-08	7408	2622.61 (75.58)	1698 (23.66)	561	52.18 (1.50)	1099.62 (15.32)	4285	795.21 (22.92)	4378.38 (61.01)
2008-09	11833	2215.15 (90.43)	1625.35 (22.39)	577	28.6 (.99)	539.1 (7.43)	6554	656.25 (8.58)	5094.55 (70.18)
2009-10	11082	3538.17 (76.09)	1936.45 (19.83)	768	452.46 (9.73)	2665.0 (4.63)3	9536	659.37 (14.18)	5162.52 (75.54)
2010-11	11972	6454.92 (57.31)	8351.48 (49.00)	1652	991.03 (8.80)	1036.2 (5.81)7	10731	3813.05 (33.89)	7653.25 (45.18)
2011-12	12260	6647.13 (75.73)	17921.89 (71.87)	1148	69.12 (.79)	1136.86 (.28)	10138	2060.75 (23.48)	5875.25 (27.85)
Mean	9137.14	3752.42	4939.03	835.43	259.62	1107.21	6806.86	1296.24	4144.90
CAGR	21.37**	21.31**	47.92*	17.92**	19.50	20.27	28.68**	31.43*	63.86*
% change	220.69	194.03	1102.60	116.20	-45.11	305.15	314.47	259.43	1288.49

Source: PNB, Head Office,

Figures in the brackets are in parenthesis, **and*indicate significant at one and five per cent level of probability, respectively

In the above table urban, rural and semi-urban area wise distribution of housing finance status, for the year 2005-06 to 2011-12 has been represented for Punjab National Bank .It can be seen that out of the total, maximum number of home loan accounts were opened in urban areas (137.14), followed by semi urban areas i.e. 6806.86. Compound annual growth rate of total amount disbursed and total amount outstanding was maximum in semi urban areas i.e. 31.43 percent and 63.86 percent. Moreover, least growth rate was in case of rural areas i.e. 19.50 and 20.27 percent. It showed that banks were concentrating on urban and semi urban areas. In case of growth rate of number of home loan accounts opened maximum was the growth rate in semi-urban areas i.e. 28.68 percent. This is understandable because minimum loans have been given in rural areas. If we compare growths rates of disbursement and amount outstanding at Punjab level with that at India level, it was much more at Punjab level.

TABLE 1.5.1: STATE BANK OF INDIA (PUNJAB)

Year	Total No. of Home Loan Accounts	Total amount Disbursed (Rs. Cr.)	Total amount outstanding (Rs. Cr.)
2005-06	27639	786	1883.51
2006-07	30341	2865	1008.18
2007-08	31624	2657	1164.81
2008-09	31585	3006	1229.07
2009-10	39813	4147	2644.39
2010-11	37861	5692	4684.74
2011-12	38059	9724	10759.47
Average	33846	4125.29	3196.31
CAGR	6.00***	39.72***	50.20***
% change	37.70	1137.15	1117.81

Source: SBI, Head Office.

*** and ** indicate significant at one and five per cent level of probability, respectively, ns : non-significant

From the table 1.5.1, the figures show enhancement in home loan amount disbursed in Punjab by SBI from Rs.786 crores in 2005-06 to Rs. 9724 crores in 2011-12. It showed high compound annual growth rate of 39.72 percent, which was significantly very high. In addition to this, if we look at the extent of the average number of home loan accounts opened, they were 33846 per annum. On the other hand outstanding amount was much more, even the highest as compared to other sampled banks. In the year 2011-12, Rs. 10759.47 crores were outstanding. The compound annual growth rate of total amount outstanding was 50.20 percent. The rate of interest charged was between 9 and 12.25 percent per annum. On comparing it with growth rates of amount disbursed and amount outstanding at India level, growth rates at Punjab level were much more than that at India level.

TABLE 1.5.1 (a)

DIRECT HOUSING FINANCE (STATE BANK OF INDIA)									
Year	URBAN			RURAL			SEMI-URBAN		
	No. of Home Loan Accounts	Total Amount Disbursed # (Rs Cr.)	Total Amount Outstanding (Rs. Cr.)	No. of Home Loan Accounts	Total Amount Disbursed* (Rs Cr.)	Total Amount Outstanding (Rs. Cr.)	No. of Home Loan Accounts	Total Amount Disbursed* (Rs Cr.)	Total Amount Outstanding (Rs. Cr.)
2005-06	16469	-	1443.17 (76.62)	3540	-	90.34 (4.80)	7630	-	350 (18.58)
2006-07	18024	-	653.25 (64.79)	7307	-	98.33 (9.75)	5010	-	256.6 (25.46)
2007-08	18160	-	733.48 (62.97)	11342	-	119.32 (10.24)	2122	-	312.01 (26.79)
2008-09	18447	-	771.98 (62.81)	4473	-	144.13 (11.73)	8665	-	312.96 (25.46)
2009-10	20560	-	950.04 (35.93)	6207	-	217.03 (8.21)	13046	-	1477.32 (55.86)
2010-11	18450	-	922.93 (19.70)	6086	-	459.9 (9.82)	13325	-	3301.91 (70.48)
2011-12	18448	-	931.77 (8.66)	6252	-	262.77 (2.44)	13359	-	9564.93 (88.90)
Mean	18365.43	-	915.23	6458.14	-	198.83	9022.43	-	2225.10
CAGR	1.84	-	-1.28	2.67	-	27.88**	21.5	-	80.84**
% change	12.02	-	-35.44	76.61	-	190.87	75.09	-	2632.84

Source: SBI, Head Office.

#Not provided by the Bank as yet, Figures in the brackets are in parenthesis, **and* indicate significant at one and five per cent level of probability, respectively. In the above table urban, rural and semi-urban area wise distribution of housing finance status, for the year 2005-06 to 2011-12 has been represented for State Bank of India. It can be seen that out of the total, maximum number of home loan accounts were opened in urban areas i.e. 18365.43, followed by semi urban areas i.e. 9022.43. Total amount outstanding was maximum in semi urban areas (Rs 2225.1 crores) and least was in case of rural areas i.e. Rs 198.83 crores. It showed that bank was concentrating on urban and semi urban areas. In case of number of home loan accounts opened, maximum was the growth in semi-urban areas i.e. 21.5 percent and 2.67 percent and 1.84 percent in rural and semi urban areas. On the contrary, if we concentrate on total amount outstanding this was also maximum in semi urban areas and it was 80.84 percent and outstanding was growing over the years.

MOVING ONTO PERCENTAGE SHARE

TABLE 1 (a): OVERALL PERCENTAGE SHARE OF NO. OF HOME LOAN ACCOUNTS OPENED

Banks	Punjab's share as a percentage share of total in India	Number of home loan accounts in Punjab in Urban areas, Rural areas & Semi urban areas		
SBoP	50.06	53.93	18.01	28.18
BoI	1.97	79.93	4.05	16.06
PNB	15.24	50.18	4.59	37.38
SBI	2.53	54.26	19.08	26.66
P&SB	79.83	-	-	-

Source: Calculation based on previous tables

It is clear from the table that out of total number of home loan accounts opened in India, percentage share of Punjab & Sind Bank was maximum i.e. 79.83, followed by SBoP i.e. 50.06 percent. It indicated that these two banks concentrated more in the State Punjab. But on the other hand, one reason could be that these banks originated in Punjab and so their area of concern remained Punjab State. Out of the three largest banks of India (SBI, SBoP and PNB), only PNB had been successful in opening home loan accounts in Punjab, its share was 15.243 percent out of total share of India. Share of SBI and BoI remained least. It was very clear from the table that rural area's share out of total share of Punjab was least and it was almost same in case of BoI and PNB. Overall percentage share was maximum for all the sampled banks in urban areas.

TABLE 1 (b): OVERALL PERCENTAGE SHARE OF TOTAL DISBURSEMENT

Banks	Punjab's share as a percentage share of total in India	Disbursement in Punjab in Urban areas, Rural areas & Semi urban areas		
SBoP	38.05	51.73	15.22	33.05
BoI	.40	70.66	3.4	25.93
PNB	30.54	70.68	4.9	24.42
SBI	1.78	-	-	-
P&SB	44.63	-	-	-

Source: Calculation based on previous table

It is clear from the table that out of total amount disbursed in India, percentage share of Punjab & Sind Bank was maximum i.e. 44.63 percent, followed by SBoP i.e. 38.05 percent. It indicated that these two banks concentrated more in the State Punjab. But on the other hand, one reason could be that these banks basically originated in Punjab and so their area of concern remained Punjab State. Three largest banks of India had been successful in disbursement in Punjab. Share of SBI was just 1.78 percent and that of BoI remained less than one percent. It was very clear from the table that rural area's share out of total share of Punjab remained least. The share of rural areas was least for BoI i.e. just 3.4 percent. Share of urban areas had been maximum out of total disbursement in Punjab. PNB, BoI & SBoP diverted more than 50 percent of their funds in urban areas for financing houses.

TABLE 1 (c): OVERALL PERCENTAGE SHARE OF TOTAL OUTSTANDING

Banks	Punjab's share as a percentage share of total in India	Outstanding in Punjab in Urban areas, Rural areas & Semi urban areas		
SBoP	38.42	52.43	14.99	32.67
Bol	2.43	82.64	3.95	13.41
PNB	5.55	48.46	10.86	40.67
SBI	5.38	27.41	5.95	66.64
P&SB	65.85	-	-	-

Source: Calculation based on previous table

It is clear from the table that out of total amount outstanding in India, percentage share of Punjab & Sind Bank was maximum i.e. 65.85 percent, followed by SBoP i.e. 38.42 percent. It was very clear from the table that in semi-urban areas outstanding out of total share of Punjab was the maximum for SBI i.e. 66.64 percent followed by PNB i.e. 40.67 percent. Least outstanding share was of rural Punjab. Bank of India's share of outstanding was maximum that was 82.64 percent of total outstanding in Punjab and in rural areas maximum share of outstanding in Punjab was of SBoP i.e. 52.43 percent and moreover in semi urban areas SBI's share of outstanding was maximum i.e. 66.64 percent.

NOW WE TURN TO A COMPARATIVE STUDY OF NUMBER OF HOME LOAN ACCOUNTS OPENED, TOTAL AMOUNT DISBURSED AND TOTAL AMOUNT OUTSTANDING IN PUNJAB BY THE SAMPLED BANKS

Figures from tables (1.1.1 to 1.5.1) show that from 2005-06 to 2011-12 there was noticeable hike in number of home loan accounts opened in Punjab by all the sampled banks, with fluctuations in between. Maximum number of home loan accounts were opened by SBI i.e. 33846, followed by PNB (16779), then came SBoP (5600) and Bol (4075). Least number of accounts were opened by Punjab & Sind Bank (3733). If we compare the growth rates, growth rate of number of home loan accounts was maximum of PNB i.e. 24.05 percent, then came the growth rate of SBI i.e. 6 percent and least was of SBoP i.e. just 0.98 percent.

Moving on to total amount disbursed, it was evident that starting from 2005-06, there was rise in the loan amount disbursed of all the five sampled banks. So far as Bol was concerned, its amount disbursed showed noticeable fall in the year 2010-11 and in all other years they were fluctuating. Similarly, in case of PNB loan amount plummeted in the year 2007-08 and 2011-12. In addition to this there was dramatic rise in the amount disbursed in the year 2010-11. Thus, except Bol, all other sampled banks' compound annual growth rate showed rise in the disbursement of home loan amount. In spite of fluctuations, annual growth rate of direct housing finance was maximum at 39.72 percent for SBI, followed by PNB, Punjab & Sind Bank and SBoP, least growth rate was noticed for Bol (-4.58 percent) due to procedural formalities, less cooperation of the staff and highest rate of interest as compared to any other sampled bank.

Comparative position of total amount outstanding of direct housing finance by sampled banks for the period 2005-06 to 2011-12, show that from 2005-06 to 2011-12, there was rise in the outstanding amount for all the sample banks. Moreover, outstanding loan amount of PNB rose multiple times in the year 2007-08. Maximum compound annual growth in outstanding loans was of SBI i.e. 50.20 percent followed by PNB i.e. 48.62. Growth rate of outstanding was not much different for Bol and Punjab & Sind Bank. Least growth rate had been noticed by Bol i.e. 9.60 percent.

CONCLUSION

Growth rate of housing industry became possible because of rise of middle class. As housing is the basic necessity, every individual wants to invest in housing. It is a long term investment and house is an asset. With this thinking people are striving hard to own a house and rising growth rate of disbursement proves that banks are also taking initiative to fulfill this dream of individuals. But on the other hand challenging factor is also there. Banks must pay attention to this aspect also.

The Scheduled Commercial Banks are the major players of the housing finance market in India. Through different schemes and direct housing finance mechanism, banks serve those segments of the society which have been ignored by the Housing finance institutions. They give small loans for expansion of houses also to the poor section through golden jubilee scheme. Through banks government has been trying to increase the accessibility of housing finance to the poor.

It is clear from the above paper that the outstanding housing loan portfolio of banks is on rise continuously over the last many years. Demand for housing finance is expanding in housing finance market. So to fulfill the requirement of the people banks had been disbursing more and more funds. On the contrary, it is clear from the above analysis that whatever had been the case, outstanding at India level, Punjab level, Urban, Rural and Semi-urban area wise had been rising over the years, so there is a need for creation of credit risk management mechanisms which will encourage the lenders to provide finance to the poor. These credit risk management mechanisms could be in the form of Credit Guarantee fund/Risk fund by the Government, Title insurance, Credit Bureau and other alternative forms of collateral. There is a strong need for strengthening of laws related to the recovery of Housing loans too. Introduction of appropriate risk mitigants would provide further boost to banks in increasing their lending in rural areas. Risk mitigants which could be introduced in the form of title Guarantee. In a majority of the rural areas a clear title of the land pertaining to the existing houses, is not available. In the absence of such clear titles, the banks find it difficult to provide housing loans on such property. Therefore, to cover the risk of default / defects in the title, a simple affidavit by the borrower being the legal heir of the house property duly signed by the village Panchayats or Land Revenue Officer, can be treated as a valid document for the purpose of creation of the mortgage.

Rural Risk Fund (RRF) presently, the banks have high risk perception for lending to the poor. The risk fund will provide credit guarantee cover for loans upto Rs. 1 lakh taken by the BPLs. However, for effective operationalisation of such a fund, the Ministry of Rural Development could consider providing an initial corpus of Rs. 1000 crore to NHB to set up such a fund to be exclusively used for providing cover to banks for small loans say upto Rs. 1 lakh taken by the poor where the primary security i.e., valid collateral e.g., title deed is not available.

Mortgage Credit Guarantee, would cover all loans given by banks i.e., in urban and rural areas with loans above Rs. 1 lakh. NHB with the other institutions will bring in the required corpus of initial funds and banks will be paying premium for the credit cover which may be shared between banks and the ultimate borrowers.

Appropriate legislative amendment on land titles and borrower's affidavit attested by the village panchayat to be treated as sufficient documentary evidence for banks and financial institutions to lend can bring about. Amendments allowing mortgage of agricultural land as collateral for housing loan can also be thought of.

Rationalisation of Stamp duty and Registration charges and bring them down to a minimum token amount in the case of rural housing to encourage registration of mortgages and building up proper land records.

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TREND AND PATTERNS OF FDI INFLOW INTO INDIA

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ABSTRACT

The objective of my paper is to understand the trends and patterns of FDI in India. This study is based on secondary data. The required data have been collected from various sources viz., i. RBI Hand Book of Statistics, ii. UNCTAD, WIR series (various issues), iii. Economic Survey, Government of India, IV. World Development Indicators, World Bank, v. Economist Intelligence Unit (EIU): Country Data.vii. Bombay Stock Exchange (BSE) data base. It is a time series data and the relevant data have been collected for the period 1980 to 2010. The simple graphical and tabular analyses are used to study the trends and progress of FDI in India. From 1947-48 to 1990-91, there was an absolute increase in the FDI stock. After year 1992-93 onwards to 2009-10 FDI in India as percentage of worlds has increased continuously; it may be the liberalization policy in India that was introduced in 1991. The regional distribution of FDI inflows is highly concentrated patterns. Five regional offices receive around more than 70% of Indian FDI inflows. The share of FDI in GDP has been very small in absolute term, remaining less than one (1980-1993-94). However the ratio improved dramatically after that. GDP growth rate is steadier than FDI after post reform era. India's FDI as percentage of GFCF is at a much lower rank improving from 0.21 in 1980 to a ratio of 0.36 in 1993 and then showing a marked improvement reaching to a ratio of 9.40 in 2008-09. Acquisition of existing shares of companies by foreign investors contributed substantially to the FDI Equity Inflows and it peaked in 2005-06 and 2006-07 to reach almost two-fifths of the total FDI Equity flows. Acquisition of shares together with reinvested earnings (which do not represent actual inflows) account for a substantial proportion of the reported total inflows.

KEYWORDS

FDI, foreign trade, GDP.

1. INTRODUCTION

Ever since Indian economy opened up in 1991 with the framework of liberal economic reforms, the variation in the effect of policy is clearly reflected in the trends and patterns of inward FDI flows. FDI inflows rose by leaps and bounds both in amount and in number of foreign collaboration, approval. Economic reforms in India have deregulated the economy and stimulated domestic and foreign investment, taking India firmly into the forefront of investment destinations. The government, keen to promote investment in the country, has radically simplified and rationalised policies, producers and regulatory aspects. Foreign investment is welcomed in almost all the sectors, except those of strategic concern (defence and atomic energy). A series of incentives has been announced to promote investments. These include import of capital goods at concessional customs duty, liberalisation of external commercial borrowing norms and concessional tax treatments for certain sectors. Since the initiation of economic liberalisation process in 1991, sectors such as automobiles, chemicals, services, chemicals, food processing, oil and natural gas and telecommunications have attracted considerable investments. Today, in the changed investment climate, India offers exciting business opportunities in virtually every sectors of the economy. The expectation of the policy makers was that an "investor friendly" regime will help India establish itself as a preferred destination of foreign investors. These expectations gave mixed results despite the consistent attempts by the policy makers to increase the attractiveness of India by further changes in policies that included opening up of individual sectors, raising the hitherto existing caps on foreign holding and improving investment procedures. The major questions that are addressed here: What are the sectors attracting most FDI in India in the post reform era? Which countries are bringing more FDI into India in the post reform era and why? What are trends of FDI Indicators in India? What are the internal determinants of FDI inflows in India? This chapter analyses the trends and patterns of inward FDI flows of India.

1.1 THE RESEARCH PROBLEM

As argued earlier, FDI plays a vital role as a source of capital, management and technology in India. FDI can also fill the gap between desired investments and locally mobilised saving. Output of a foreign firm can be an input of the domestic industry and vice versa. If this is so, the FDI can create demand for the products of industries producing goods purchased. The adverse implications of FDI are those when FDI is competitive with home investment, and the profit in the domestic industries falls, leading to fall in domestic saving. Added to this problem, the outflow of profit is too large in many cases, putting pressure on the foreign exchange reserves.

It can be observed from the fact that FDI highlights the possibility of substantial opportunities as well as considerable dangers. Therefore, the main objective to examine the trends of FDI inflows to India.

1.2 OBJECTIVE OF THE STUDY

To understand the trends and patterns of FDI in India.

1.3 HYPOTHESES OF THE STUDY

The following hypothesis can be derived on the basis of above objectives;

Hypothesis 1: It is hypothesized that there is a change in trends and patterns of FDI in India.

1.4 DATA AND METHODOLOGY

This study is based on secondary data. The required data have been collected from various sources viz., i. RBI Hand Book of Statistics, ii. UNCTAD, WIR series (various issues), iii. Economic Survey, Government of India, iv. World Development Indicators, World Bank, v. Economist Intelligence Unit (EIU): Country Data.vii. Bombay Stock Exchange (BSE) data base. It is a time series data and the relevant data have been collected for the period 1980 to 2010. The simple graphical and tabular analyses are used to study the trends and progress of FDI in India.

Singh S., Singh M. (2011), "Trends and prospects of FDI in India" This study investigates the trend of FDI inflow to India, during 1970–2007 using time series data. This paper aims to study the reasons behind the fluctuations of the FDI inflow in India and to search the cause that is responsible for the fluctuations of the trends of FDI.

My paper is divided into three sections. In the first section i.e in introduction I explained the objective of my study, the advantage of FDI in India, the hypothesis and data and methodology. In the second section I will do the literature survey. In the third section I will analyse the policy and pattern of FDI inflow into India which will include FDI inflow in India (from 1948-2010), Source Countries of FDI Flow into India, FDI Inflows in India in Post Reform Era, Sectors Attracting Highest FDI Equity Inflows, Region Wise Distribution of FDI, Policy Stance towards FDI: Post-Reforms etc and conclusion.

2. LITERATURE REVIEW

Singh J. (2010), "Economic Reforms and Foreign Direct Investment in India: Policy, Trends and Patterns", in the context of increasing competition among nations and subnational entities to attract Foreign Direct Investment (FDI), the present paper tries to analyze the emerging trends and patterns of FDI inflows into India in response to various policy measures announced by the Government of India since mid-1980 and later. The empirical analysis tends to suggest that the FDI inflows, in general, show an increasing trend during the post-reform period. Furthermore, country-wise comparison of FDI inflow also indicates that FDI inflow into India has increased considerably in comparison to other developing economies in the recent years. Thus, the study indicates that the FDI inflows into India responded positively to the liberalization measures introduced in the early 1990s.

The aspects of foreign direct investment i.e. political scenario and trends are analyzed by most of the studies by and they are, Bhattacharya (1994), Jain (1994), and Prasad and Chandra (1994), Subramanian, et al, (1996) and Kumar (1998) and (2000). These studies in general highlighted the difference phases in the policies relating to FDI and brought out the significant changes in the composition of FDI in the 1990s. Studies by Subramanian, et al. (1996) found that the availability of primary material inputs for manufacturing and the large size of the domestic market for the sale of the manufactured products are the two principal economics determinants of location of FDI inflow. Other two factors that are influenced the FDI are the growth rate of GDP and the level of infrastructure. P.D. Jeromi (2001) in his studies of Foreign Direct Investment in India, Policy, Trend and Impact finds there three reasons for FDI in India viz, Real Sector reforms, Inrastructure development and Privatization.

Naga Raj (2003) discusses the trends in FDI in India in the 1990s and compare them with china. The study raises some issues on the effects of the recent investments on the domestic economy. Based on the analytical discussion and comparative experience, the study concludes by suggesting a realistic foreign investment policy.

Kulwinder Singh (2005) analyzed the developments (economic and political) in India relating to the trends in two sectors:- Industry and Infrastructure. The study concludes that the impact of the reforms in India on the policy environment for FDI presents a mixed picture. The industrial reforms have gone far, though they need to be supplemented by more infrastructure reforms, which are a critical missing link.

Basu P., Nayak N.C, Vani Archana (2007) in their paper "Foreign Direct Investment in India: Emerging Horizon", intends to study the qualitative shift in the FDI inflows in India in – depth in the last fourteen odd years as the bold new policy on economic front makes the country progress in both quantity and the way country attracted FDI.

Morris Sebastian (1999) in his study "Foreign Direct Investment from India: 1964-83" studied the features of Indian FDI and the nature and mode of control exercised by Indians and firms abroad, the causal factors that underlie Indian FDI and their specific strengths and weaknesses using data from government files. To this effect, 14 case studies of firms in the textiles, paper, light machinery, consumer durables and oil industry in Kenya and South East Asia are presented. This study concludes that the indigenous private corporate sector is the major source of investments. The current regime of tariff and narrow export policy are other reasons that have motivated market seeking FDI.

3. FDI INFLOW IN INDIA (FROM 1948-2010)

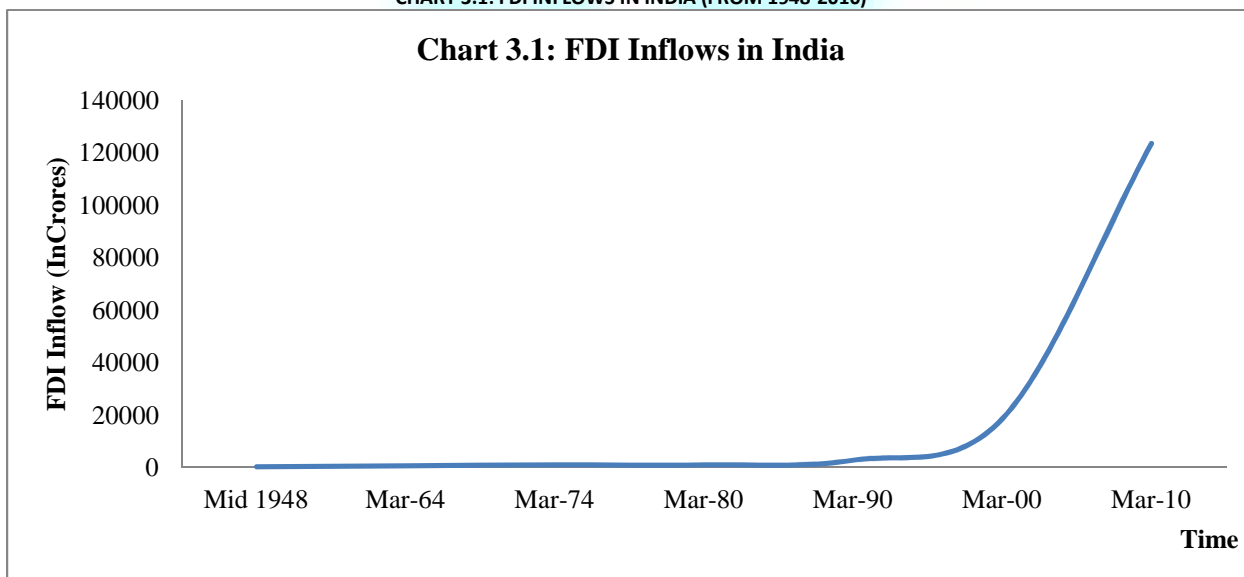
Table –3.1 shows FDI inflows in India from 1948-2010. FDI inflows during 1991-92 to March 2010 in India increased manifold as compared to during mid 1948 to march 1990 (Chart-3.1). The measures introduced by the government to liberalize provisions relating to FDI in 1991 lure investors from every corner of the world. There were just few (U.K, USA, Japan, Germany, etc.) major countries investing in India during the period mid 1948 to march 1990 and this number has increased to fifteen in 1991. India emerged as a strong economic player on the global front after its first generation of economic reforms. As a result of this, the list of investing countries to India reached to maximum number of 120 in 2008. Although, India is receiving FDI inflows from a number of sources but large percentage of FDI inflows is vested with few major countries. Mauritius, USA, UK, Japan, Singapore, Netherlands constitute 72 percent of the entire FDI inflows to India.

TABLE 3.1: FDI INFLOWS IN INDIA (FROM 1948-2010)

Amount of FDI	Mid 1948	Mar-1964	Mar-1974	Mar-1980	Mar-1990	Mar-2000	Mar-2010
In crores	256	565.5	916	933.2	2705	18486	1,23,378

Source: Kumar (1995), various issues of SIA (Secretariat for Industrial Assistance) Publication.

CHART 3.1: FDI INFLOWS IN INDIA (FROM 1948-2010)



Source: Compiled from various issues of SIA (Secretariat for Industrial Assistance) Publication.

The FDI inflows in India during mid 1948 were a modest sum of Rs, 256 crores. It is almost double in March 1964 and increases further to Rs. 916 crores. India received a cumulative FDI inflow of Rs. 5,384.7 crores (3.78 %) during mid 1948 to march 1990 as compared to Rs.1, 41,864 crores during August 1991 to march 2010 (Table-3.1). It is observed from the (Chart 3.1) that there has been a relatively marginal flow of FDI in India upto 1980. It slightly started improving since then and structurally improved during 1990s and since 2000 there has been a sharp rise. The FDI inflows in India during mid 1948 were Rs, 256 crores. It is almost double in March 1964 and increases further to Rs. 916 crores. India received a cumulative FDI inflow of Rs. 5,384.7 crores during mid 1948 to march 1990 as compared to Rs.1,41,864 crores during August 1991 to march 2010 (Table-3.1). It is observed from the (Chart – 3.1) that there has been a steady flow of FDI in India after its independence. But there is a sharp rise in FDI inflows from 1998 onwards.

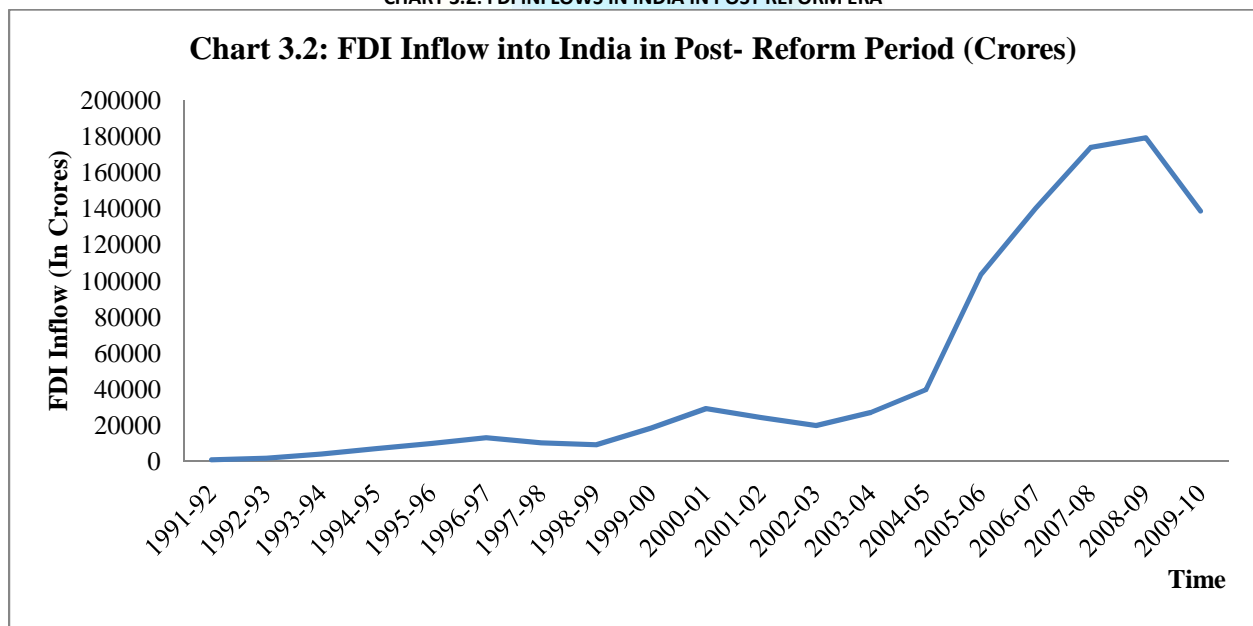
3.1 FDI INFLOWS IN INDIA IN POST REFORM ERA

TABLE 3.2: FDI INFLOWS IN INDIA IN POST REFORM ERA

Year	FDI (Crores)	Annual % increase
1991-92	965	
1992-93	1838	90.47
1993-94	4126	124.48
1994-95	7172	73.82
1995-96	10015	39.64
1996-97	13220	32.00
1997-98	10358	-21.65
1998-99	9338	-9.85
1999-00	18406	97.11
2000-01	29235	58.83
2001-02	24367	-16.65
2002-03	19860	-18.50
2003-04	27188	36.90
2004-05	39674	45.92
2005-06	103367	160.54
2006-07	140180	35.61
2007-08	173741	23.94
2008-09	179059	3.06
2009-10	138462	-22.67
Compound growth rates		
1991-10	0.30	
2000-10	0.22	
2005-10	0.08	

Source: RBI, Handbook of Statics on Indian Economy

CHART 3.2: FDI INFLOWS IN INDIA IN POST REFORM ERA

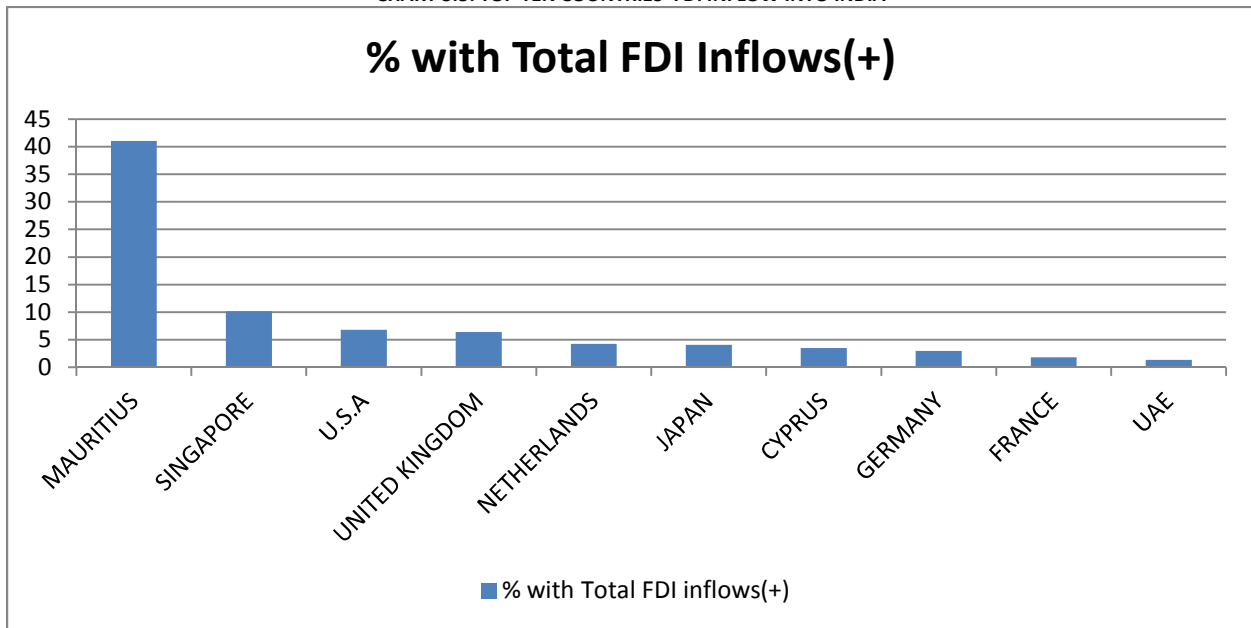


Source: Compiled from RBI, Handbook of Statics on Indian Economy

India's economic reforms way back in 1991 has generated strong interest in foreign investors and turning India into one of the favourite destinations for global FDI flows. According to A.T. Kearney¹, India ranks second in the world in terms of attractiveness for FDI. A.T. Kearney's 2007 Global Services Locations Index ranks India as the most preferred destination in terms of financial attractiveness, people and skills availability and business environment. Similarly, UNCTAD's 76th World Investment Report, 2005 considers India the 2nd most attractive destination among the TNCs. The positive perceptions among investors as a result of strong economic fundamentals driven by 19 years of reforms have helped FDI inflows grow significantly in India. The FDI inflows grow at about 20 times since the opening up of the economy to foreign investment. India received maximum amount of FDI from developing economies. FDI flow in India was valued at 173741 crore in 2008. In 2008-09, India's FDI touched Rs. 173741 crores up 56% against Rs. 103367 crores in 2005-06. The FDI inflow has declined since 2008 onwards because of the global financial crisis and it is also clear from the above chart. The percentage growth is 124.48 % in the year 1993-94 i.e just after liberalisation. In the year 2005-06 it touched to 160.54 % it's due to relaxation of FDI caps in mojar secors. Again the growth rate decreased in the year 2009-10 it's due to world financial crisis. The FDI grows at the rate 30% annually over the period 1991-2010. From 2000-10 it grows at the rate 22% annually. The compound growth rate from year 2005 -10 is 8% per annum.

¹ A.T. Kearney's (2007): Global Services Locations Index", www.atkearney.com

CHART 3.3: TOP TEN COUNTRIES' FDI INFLOW INTO INDIA



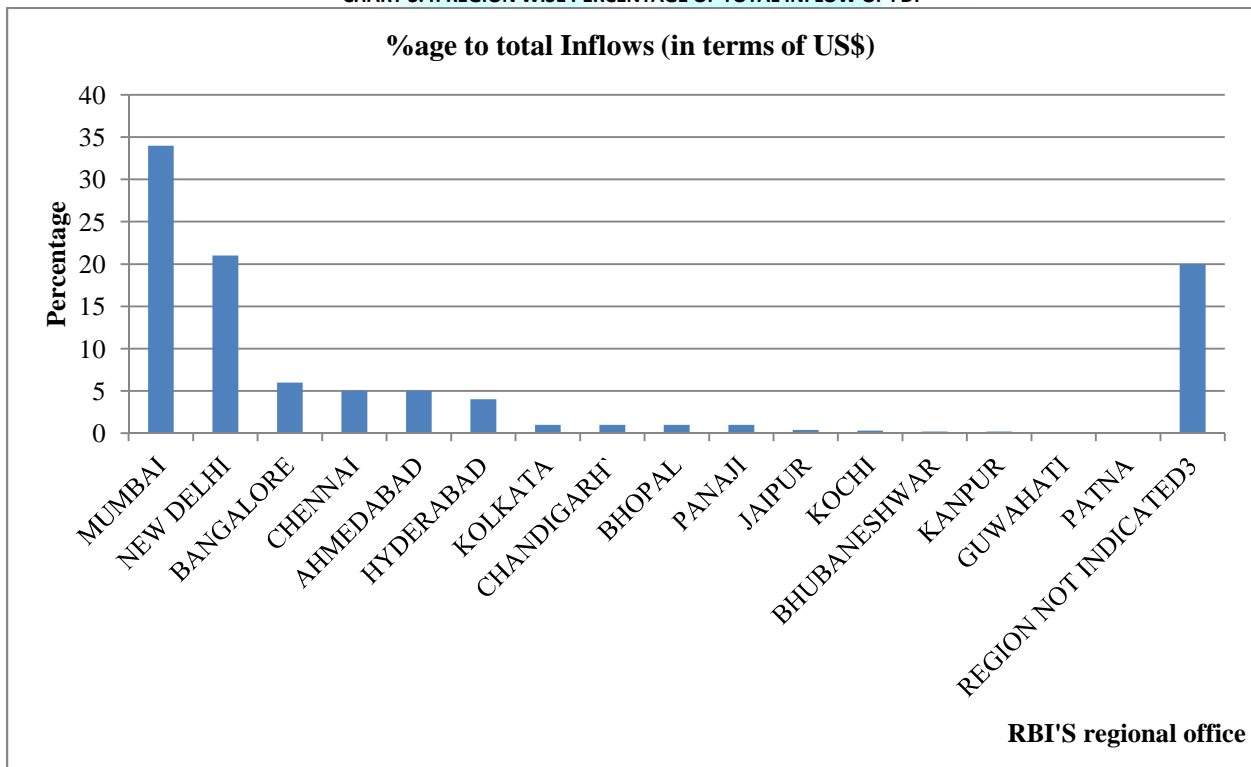
Source: Compiled from DIPP (Department of Industrial Policy & Promotion)

Among the source countries, Mauritius, Singapore, South Korea, Malaysia, Cayman Islands and many more countries predominantly appears on the list of major investors apart from U.S., U.K., Germany, Japan, Italy, and France which are not only the major investor now but during pre-liberalizations era also. The Table A3.1 presents the major investing countries in India during 2010-11. Mauritius (Chart-3.3) is the largest investor in India during 2010-11. FDI inflows from Mauritius constitute about 41.04% of the total FDI in India and enjoying the top position on India's FDI map from 1995. This is because of the Double Taxation Avoidance Treaty (DTAA) between the two countries, which favours routing of investment through this country. This (DTAA) type of taxation treaty has been made out with Singapore also. Much of this investment is suspected to be from Indian investors who route their investment to enjoy the concessions that FDI is entitled, which is often referred as 'round tripping'. Singapore is the second largest investing country in India. While comparing the investment made by both (Mauritius and Singapore) countries one interesting fact comes up which shows that there is a huge difference (between FDI inflows to India from Mauritius and the Singapore) in the volume of FDI received from Mauritius and the Singapore. The share of FDI from developed countries like US, UK, Germany, Japan etc, is 21.5%. Presently 132 countries are investing in India.

Thus an analysis of FDI inflow shows that only eight countries accounted for nearly 79.25 percent of the total FDI inflow in India. India is having DATT with most of the countries that they are investing in India. Countries with which we have DATT are USA, United Kingdom, UAE, Russia, Singapore, Mauritius, Netherlands, Japan, Cyprus, Germany, France and etc.² Their total FDI inflow in to India is 82.1%.

3.3 REGION WISE DISTRIBUTION OF FDI

CHART 3.4: REGION WISE PERCENTAGE OF TOTAL INFLOW OF FDI



RBI'S regional office

Source: Compiled from DIPP.

² www.allindiantaxes.com/income-tax-dtaa.php

The regional distribution of FDI inflows in the Table A3.2 shows highly concentrated patterns. Five regional offices receive around more than 70% of Indian FDI inflows. Mumbai, New Delhi, and their surroundings include almost the half of the FDI received by India since 2000. The areas of Bangalore, Ahmadabad receives 6 % and 5% respectively and Chennai and Hyderabad each with 5% lag behind. Then there are places surrounding Kolkata (1%), Chandigarh (1%) Panaji (1%). Most software companies are in Bangalore, Hyderabad, and Mumbai where the Indian industry originally developed, but they are also developing quickly in Delhi and Tamil Nadu. As to the main pole of competitiveness, they are mainly concentrated there only.

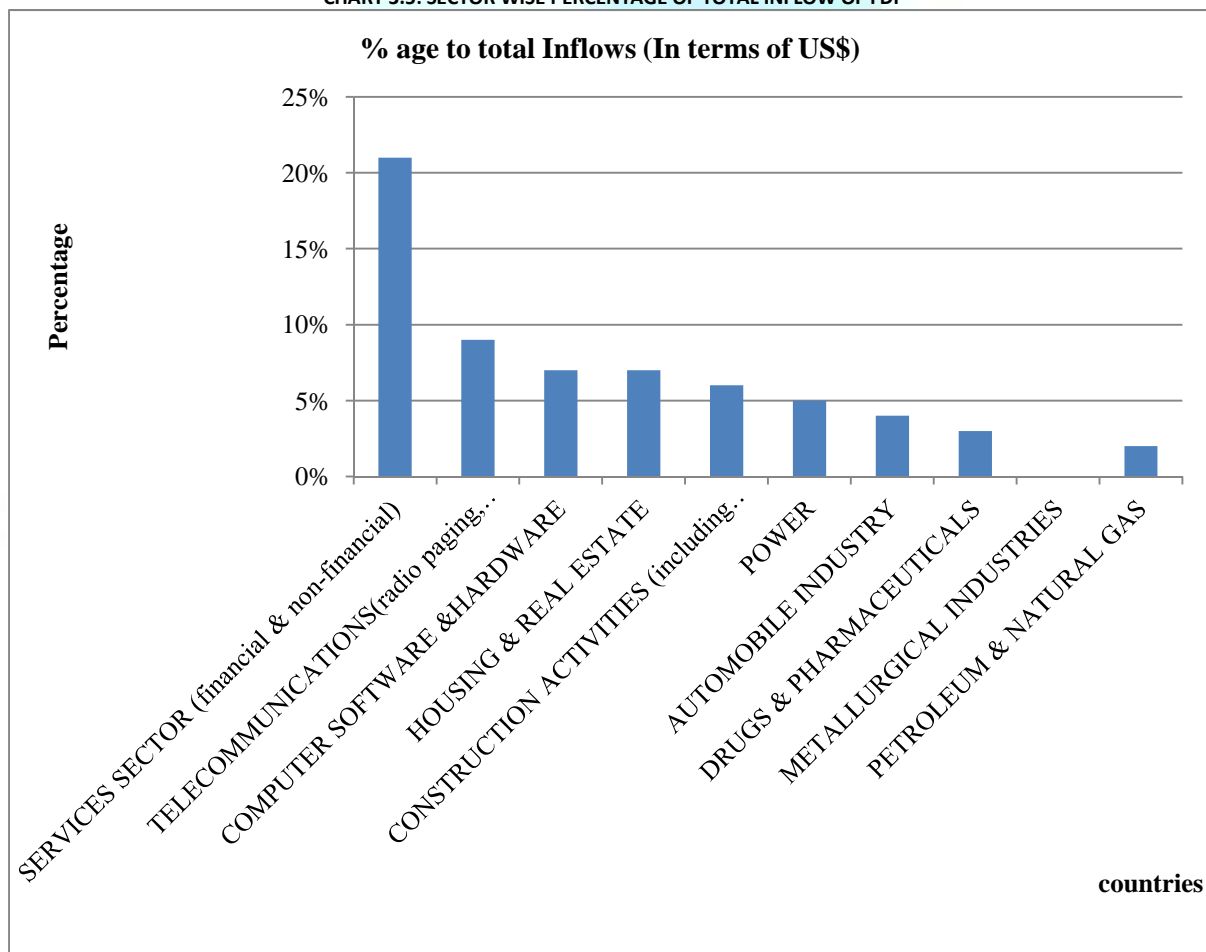
3.4 SECTORS ATTRACTING HIGHEST FDI EQUITY INFLOWS

TABLE 3.3: SECTOR WISE FDI INFLOW IN INDIA

			Amount Rupees in crores (US\$ in million)
Ranks	Sector	% age to total Inflows (In terms of US\$)	Cumulative Inflows (April '00 - July „11)
1	SERVICES SECTOR (financial & non-financial)	21%	132,069 (29,587)
2	TELECOMMUNICATIONS(radio paging, cellular mobile, basic telephone services)	9%	55,880 (12,299)
3	COMPUTER SOFTWARE &HARDWARE	7%	47,721 (10,723)
4	HOUSING & REAL ESTATE	7%	47,614 (10,683)
5	CONSTRUCTION ACTIVITIES (including roads & highways)	6%	41,314 (9,250)
6	POWER	5%	29,555 (6,545)
7	AUTOMOBILE INDUSTRY	4%	28,426 (6,280)
8	DRUGS & PHARMACEUTICALS	3%	21,885 (4,894)
9	METALLURGICAL INDUSTRIES	3 %	18,899 (4,325)
10	PETROLEUM & NATURAL GAS	2%	14,286 (3,276)

Source: DIPP

CHART 3.5: SECTOR WISE PERCENTAGE OF TOTAL INFLOW OF FDI



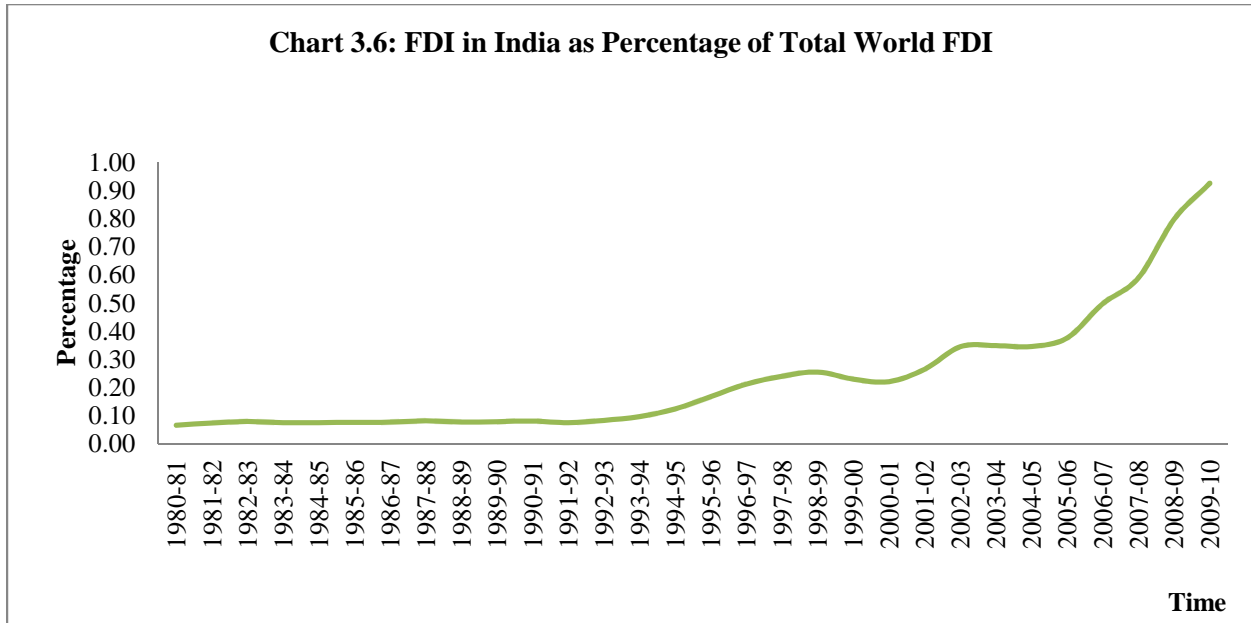
Source: Compiled From DIPP

Between 2000-2011, most of the FDI received by India was mainly in service sectors. Notably sectors such as Computer soft ware and hardware and telecommunication received 9 per cent of FDI inflows, housing and real estate(7%), construction activities (6%), automobile industry(4%), power(5%), metallurgical industries(3%), petrol and natural gas and chemical each (2%). In recent years some sectors such as services, computer software and hardware, telecommunications, constructions, housing and real estate have shown impressive results which is shown in the above Chart 3.5 and in table 3.3.

The Sector-wise Analysis of FDI Inflow in India reveals that maximum FDI has taken place in the service sector including the telecommunication, information technology, travel and many others. The service sector is followed by the manufacturing sector in terms of FDI. High volumes of FDI take place in electronics and hardware, automobiles, pharmaceuticals, cement, metallurgical and other manufacturing industries.

3.5 FDI AS % OF TOTAL WORLD FDI

CHART 3.6: FDI IN INDIA AS A PERCENTAGE OF TOTAL WORLDS FDI



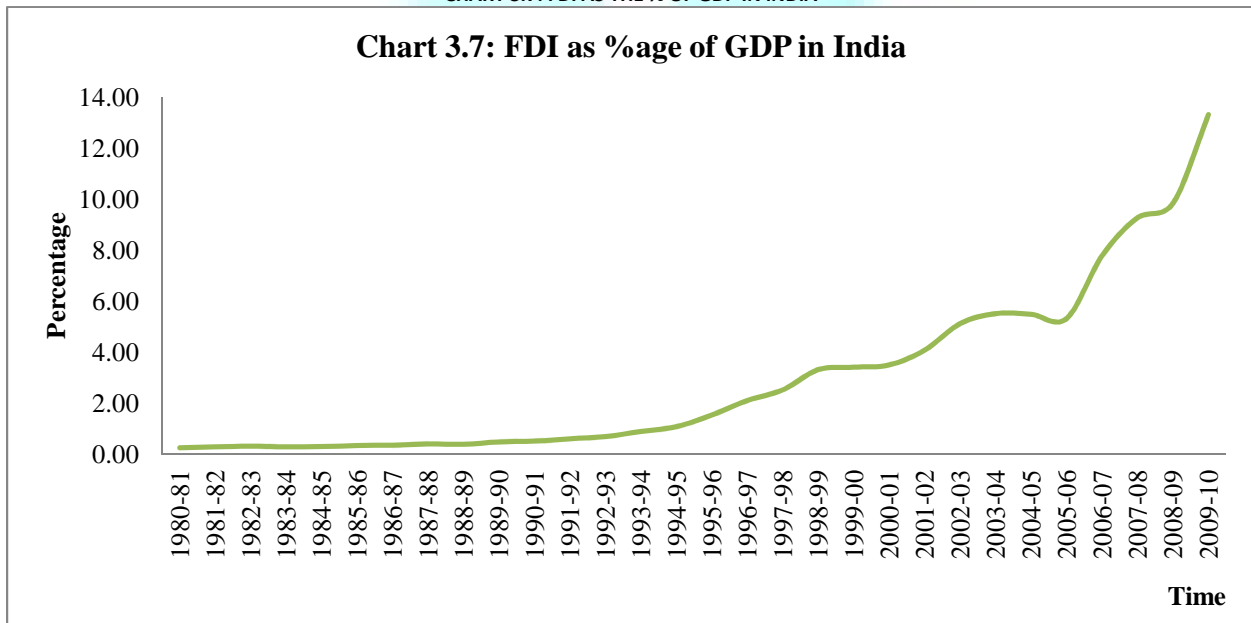
Source: UNCTAD

In the year 1980-81 it was only 0.06% of total world FDI. In the year 2009-10 it has become 0.92%, (15 times) as it shows a persistent increase of FDI as a percentage of total worlds FDI. Between the years 1985-86 to 1990-90 India's share in world FDI was more or less stagnant. After year 1992-93 onwards to 2009-10 it has increased continuously; it may be the liberalization policy in India introduced in 1991.

3.6 FDI AS THE % OF GDP IN INDIA

A country with ratio of FDI to GDP that is greater than unity is reckoned to have received more FDI than that implied by size of its economy³. It indicates that the country may have a comparative advantage in production or better growth prospect reflecting larger market size for foreign firms. However, if the country has the ratio value of less than one may be protectionist and backward or may possess a political and social regime that is not conducive for investment. Over all, FDI-GDP ratio is an index of the prevailing investment climate in the host economy.

CHART 3.7: FDI AS THE % OF GDP IN INDIA



Source: Compiled from DIPP

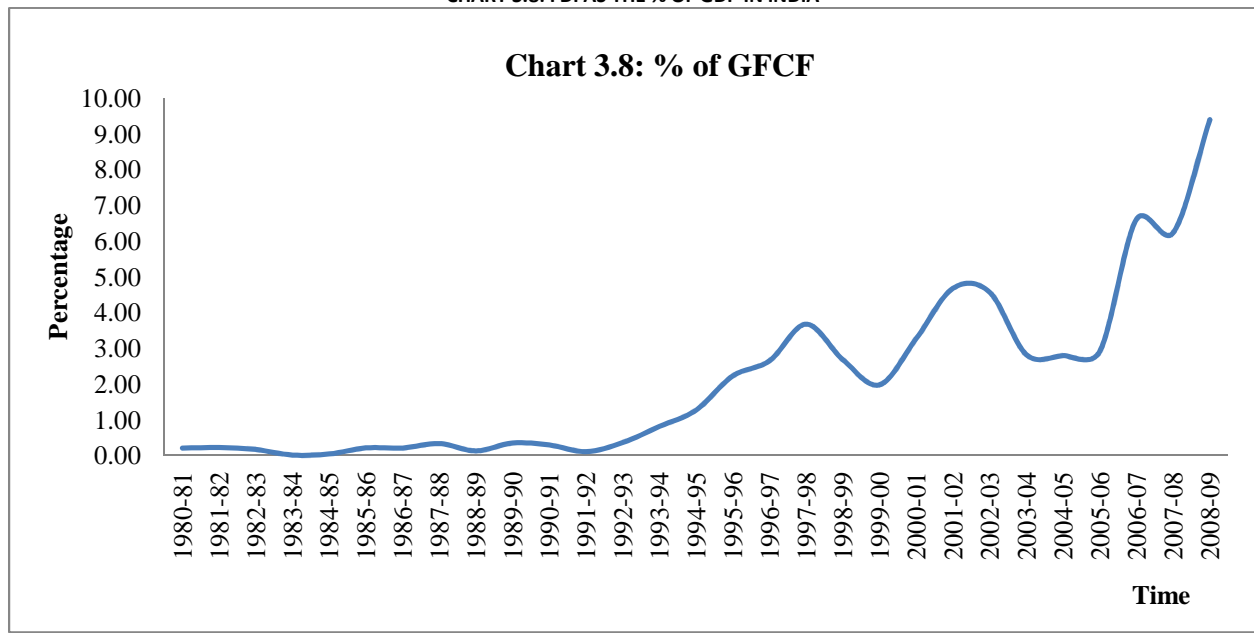
The Chart 3.7 gives a picture of FDI as a percentage of GDP for India for the year 1980-2009. The share of FDI in GDP has been very small in absolute term, remaining less than one (1980-1993-94). However the ratio improved dramatically after that. In the year 2006 it was 7.78 now it is 13.31, which reflects the growth in the domestic economy, improvement in the investment climate as well as the buoyancy in FDI flows.

³ Nirupam Bajpai and Nandita Dasgupta (2004): "What Constitutes Foreign Direct Investment? Comparison of India and China", CGSD, Working Paper No. 1

In the year 1980-81 it was only 0.24% of total GDP. In the year 2009-10 it has become 13.31, it shows the persistent increase of FDI as a % of total GGP .The average increase of FDI as % of total GDP is 2.96.In the year 1983-84 to 1987-88 it was more or less stagnant. After year 1993-94 on wards to 2009-10 it has increased continuously, it may be the liberalization policy in India introduced in 1991.

3.7 FDI AS % OF GFCF IN INDIA

CHART 3.8: FDI AS THE % OF GDP IN INDIA



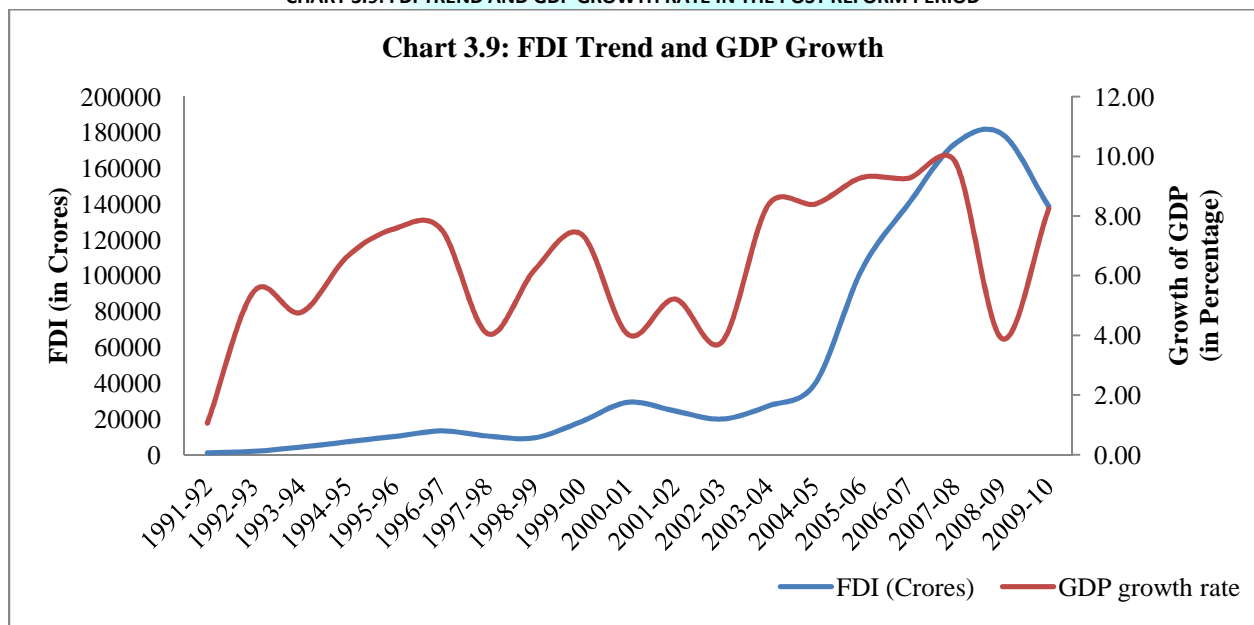
Source: Compiled from DIPP

A common measure of the relative size of the FDI is the FDI-Capital Formation Ratio given by the amount of FDI inflows in one year divided by the total fixed assets investment made by domestic and foreign firms in the same year. This can be a crude measure of significance of FDI to the capital formation. The share of inward FDI flows as a percentage of GFCF measures the relative weight of FDI in total aggregate investment taking place in host economy. Total investment includes both public and private sector investment taking place in the host economy. India is at a much lower rank improving from 0.21 in 1980 to a ratio of 0.36 in 1993 and then showing a marked improvement reaching to a ratio of 9.40 in 2008-09(Chart 3.8). This implies that FDI is increasingly playing a greater role in the capital formation of the domestic economy which has implication for the growth prospects after liberalisation.

In the year 1980-81 it was only 0.21% of total GDP. In the year 2008-09 it has become 9.40, it shows the persistent increase of FDI as a % of total GFCF. .The average increase of FDI as % of total GFCF is 2.10.In the year 1980-81 to 1991-92 it was more or less stagnant. After year 1993-94 on wards to 2009-10 it has increased continuously, it may be the liberalization policy in India introduced in 1991. After 2005-06, official statistics started reporting steep increases in FDI inflows.

3.8 FDI TREND AND GDP GROWTH RATE IN THE POST REFORM PERIOD

CHART 3.9: FDI TREND AND GDP GROWTH RATE IN THE POST REFORM PERIOD



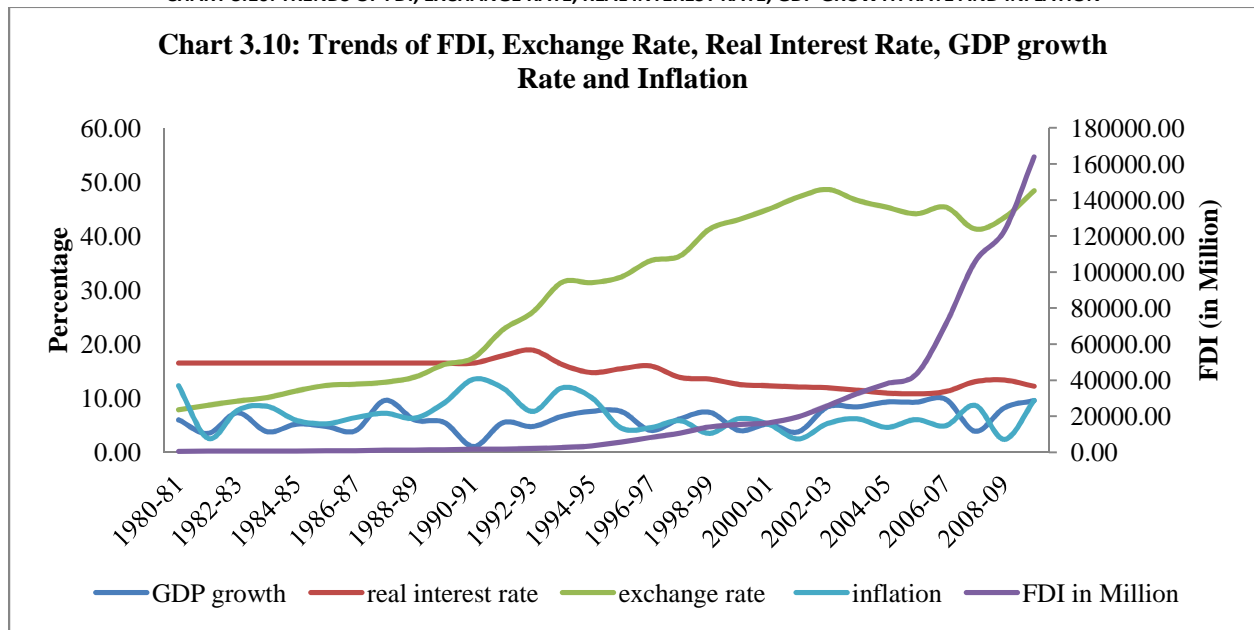
Source: RBI

The above graph depicts that the GDP growth rate is more steady than FDI after post reform era. Almost for a decade between 1991-03, after liberalization, FDI inflow was slow and it has indeed picked up from 2002-03. The GDP growth rate also remained between 5.4-6 percent during this period and started accelerating to 9 percent during 2005-09. The GDP growth rate again declined in the year 2007-08 and thereafter. However, the FDI flow seems to have accelerated since a year before GDP rate began to accelerate. It is perhaps ambiguous from the simple graph to conclude whether FDI followed GDP or preceded. After 2005-06, official statistics started reporting steep increases in FDI inflows because of raising the hitherto existing caps on foreign holding and improving investment procedures. Therefore, this can be verified in through the regression exercise, which shall undertake in the next chapter.

3.9 TRENDS OF FDI, EXCHANGE RATE, GDP GROWTH RATE, REAL INTEREST RATE AND INFLATION

Let us see the trends in the other macroeconomic variables such as real interest rate, inflation, exchange rate, visa-a-vis FDI. From the chart no [3.10] we can see that FDI increases exponentially since 2005-06, and falls after 2008-09. First, during the early post-reform phase, exchange rate depreciated significantly than before, from Rs.24 a dollar to Rs.49 a dollar during 1991-03 and thereafter during 2003-07 it appreciated to Rs.43 and depreciated to Rs.49 by 2010-11. One can surmise that big depreciation during 1991-03 itself could have taken exchange rate sufficiently high to lure FDI. This certainly can boost the net profitability of FDI, hence laid the foundation for attracting it. The appreciation has happened when the windfall flow of foreign exchange due to FDI arrival since 2005-06.

CHART 3.10: TRENDS OF FDI, EXCHANGE RATE, REAL INTEREST RATE, GDP GROWTH RATE AND INFLATION



Source: Economist Intelligence Unit (EIU)

When it comes to the inflation rate, it remained high between 7-12 percent during 1991-08, but steadily came down and remained below 4 percent during 1999-04. This has increased the real interest rate and encourages growth of capital formation in the country.

3.10 SECTORAL CAPS IN FDI INFLOWS TO INDIA- STATUS AS ON MARCH 31, 2010

When we take a look at the policy towards allowing FDI into different sectors, we observe the following. Sectoral Caps/Limits on investments by persons resident outside India or foreign companies for each industry includes FDI Prohibited Sectors, FDI permitted up to 26%, FDI Permitted up to 49%, FDI Permitted up to 51%, FDI Permitted up to 74% and FDI Permitted up to 100%. The following table 3.4 shows the sectoral caps in FDI inflows to India and it varies with due course of time.

TABLE 3.4: SECTORAL CAPS IN FDI INFLOWS TO INDIA :STATUS AS ON MARCH 31, 2010

(A)	FDI Prohibited
	(i) Retail trading(except single brand product retailing) (ii) Automatic energy (iii) Lottery business (iv) Gambling and betting (v) Nidhi company (vi) Trading in Transferable Development Rights(TDRs) (vii) Activities /sectors not opened to private sector investment (viii) Agriculture (excluding Floriculture ,Horticulture, Development of Seeds ,Animal Husbandry,Pisciculture and cultivation of vegetables,mushroomsetc. Under controlled conditions and services related to agro and allied sectors) and plantation (other than tea plantation)
(B)	FDI Permitted up to 26%
	(i) Broad Casting FM Radio-(FII+FDI) Limit up to 20 % approval News TV channels Radio--(FII+FDI) Limit FIPB approval (ii) Print Media- approval route (iii) Defence –approval route (iv) Insurance - -(FII+FDI) autonomy route (v) Petroleum and Natural Gas- FIPB Route
(C)	FDI Permitted up to 49%
	(i) Broadcasting(Setting up hardware facilities(FII+FDI) - approval route (ii) Scheduled Domestic Passenger Airline- autonomy route (iii) Assets Construction Companies – FIPB route (iv) Petroleum refining by PSUs(No disinvestment of domestic equity) - autonomy route (v) Commodity Exchanges- FII at 23%and FDI at 26% (vi) Stock exchanges- FII at 23%and FDI at 26% (vii) Credit Information Companies – FII + FDI up to 49% with a sublimit for FII at 24%
(D)	FDI Permitted up to 51%
	(i) Single brand product retailing
(E)	FDI Permitted up to 74%
	(i) Telecommunications(basic and cellular)-beyond 49% under FIPB route (ii) ISP with gate ways,radio-paging and end to end band with –beyond 49% under approval route (iii) Establishment and operation of satellites- approval route.-approval route (iv) Private Sector Banks- (FII + FDI)- automatic route (v) Non-schedule and Charactered Airlines - automatic route (vi) Cargo airlines and Ground handling - automatic route
(F)	FDI Permitted up to 100%
	(i) Development of existing Airport-beyond 74% under fipb route (ii) Exploration and mining of coal and lignite –automatic route (iii) Courier services (iv) Tea Sector –disinvestment of 26% within 5 years subject to government approval (v) NBFCs(subject to minimum capitalization norms)-automatic route (vi) Construction Development Projects- (automatic route (vii) ISP without gateway ,infrastructure provider (category1), and electronics mail and voice mail- beyond49 % under FIPB route automatic route. (viii) NRI investment in Domestic Airlines And air transport services- automatic route. (ix) Power Trading (x) Cigar and Cigarettes- FIPB route(subject to industrial licensing under industries (Devt.% Regulation Act,1951) (xi) Alcohol distillation and brewing –automatic route
Source: manual on investment in india- Foreign Direct Investment, Policy and Procedures ,2010	

3.11 ENTRY ROUTE-WISE DISTRIBUTION OF FDI EQUITY INFLOWS IN US \$ mn IN 2010

TABLE 3.5: ENTRY ROUTE -WISE DISTRIBUTION OF FDI EQUITY INFLOWS IN US \$ mn

Year	Entry Route			Total (2)+(3)+ 4	Share in Total (%)		
	FIPB/SIA	Automatic	Acquisition of shares		FIPB/SIA	Automatic	Acquisition of shares
1	2	3	4	5	6	7	8
2000-01	1,456	521	362	2,339	62.25	22.27	15.48
2001-02	2,221	802	881	3,904	56.89	20.54	22.57
2002-03	919	739	916	2,574	35.70	28.71	35.59
2003-04	928	534	735	2,197	42.24	24.31	33.45
2004-05	1,062	1,258	930	3,250	32.68	38.71	28.62
2005-06	1,126	2,233	2,181	5,540	20.32	40.31	39.37
2006-07	2,156	7,151	6,278	15,585	13.83	45.88	40.28
2007-08	2,298	17,127	5,148	24,573	9.35	69.70	20.95
2008-09	4,699	17,998	4,632	27,329	17.19	65.86	16.95
2009-10(P)	3,471	18,990	3,148	25,609	13.55	74.16	12.29
2010-11 (Apr-Nov)(P)	1,604	8,950	3,471	14,025	11.44	63.81	24.75

Source:Based on Table No.44, RBI Monthly Bulletin,January 2011,p.S 86,P:Provisional

It can be seen from Table (3.5) that acquisition of existing shares of companies by foreign investors contributed substantially to the FDI Equity Inflows and it peaked in 2005-06 and 2006-07 to reach almost two-fifths of the total FDI Equity flows. Acquisition of shares together with reinvested earnings (which do not represent actual inflows) account for a substantial proportion of the reported total inflows. It can be seen that even this level of inflow was sustained by a sudden increase in the inflows through the acquisition route. From a share of 12.29% in the FDI Equity inflows of 2009-10, its share doubled to 24.75% in

2010-11. Acquisition related inflows in value terms during the first eight months of 2010-11 already exceeded that for the entire 2009-10. And it is the inflows through the automatic route which were affected substantially rather than those through the Foreign Investment Promotion Board/Secretariat for Industrial Assistance (FIPB/SIA). It is the voluntary restraint on part of the foreign investors which was responsible for the slow down. The fall in FDI inflows has caused concern in policy circles.⁴

3.12 POLICY STANCE TOWARDS FDI: POST-REFORMS

Liberalisation has been combined with globalisation, thus benefiting deregulation since 1991. As global capital flows expanded manifold and into different sectors, From being assigned the role of supplementing and strengthening the domestic private sector, FDI was given greater freedom and a role of its own to contribute to India’s development process along with gradual liberalization of India’s economic policies which started in the 1980s. The New Industrial Policy, 1991, which accelerated the process of liberalisation, stated: While Government will continue to follow the policy of self-reliance, *there would be greater emphasis placed on building up our ability to pay for imports through our own oreign exchange earnings. ...Foreign investment and technology collaboration will be welcomed to obtain higher technology, to increase exports and to expand the production base...*

Foreign investment would bring attendant advantages of technology transfer, marketing expertise, introduction of modern managerial techniques and new possibilities for promotion of exports. The government will therefore welcome foreign investment which is in the interest of the country’s *industrial development*.⁵

A. Major Policy Reforms regarding FDI

Followings are some of the measures taken by the government to boost the inflows of FDI in the country after liberalisation:

- Removal of quantative restrictions of imports
- Financial sector reforms and decontrol of interest rates
- The Fiscal Responsibility and Budget Management Act enacted in 2003.
- Rupee made fully convertible on trade account
- Portfolio investments by FII allowed in both equity and debt markets.
- Rationalization of both indirect and direct tax structure.
- FDI up to 100 percent allowed in most sectors under the Automatic Route”
- Abolition of industrial licensing, except in few ‘strategic’ sectors.⁶

B. Various incentive schemes for attracting FDI

a. Central Government Investment Incentives

- 100 % profit deduction for developing , maintaining and operating infracture facilities
- Tax deduction of 100 % on profit for 5years and 50% for the next two years for undertaking in special economic zones
- Various capital study schemes and final incentives foe expansion in the north eastern region
- Tax exemption of 100 % on export profits for 10 years

Deduction in respect of certain intercorporate dividends to the extent of dividend declared

b. State Government Investment Incentives

- Interest rate and fixed capital subsidy
- Rebate on land cost, tax concessions and octroi
- Electricity duty, registration fee and stamp duty exemptions
- Single windows approval system for setting up industrial units.⁷

c. Progressive Liberalisation

TABLE 3.6: PROGRESSIVE LIBERALISATION

Progressive Liberalisation	
Pre -1991	FDI was allowed selectively up to 40% under FERA
1991	35 high priority industry groups were placed on the automatic route for FDI up to 51%
1997	Automatic route expanded to 111 high priority industry groups up to 100% /74%/51%/50%
2000	All sectors placed on the automatic route for the FDI except for a small negative list
Post 2000	Many new sectors opened to FDI ; i.e insurance(26%),defence industry(26%),tea plantation(100%). Sectoral caps in many sectors relaxed

Source: Invest India: A joint Venture of DIPP: Ministry of Commerce and Industry, FICCI and State Governments

3.13 RANKING OF THE VARIOUS FACTORS GROUPED UNDER CHARACTERISTICS OF INDIAN ECONOMY

TABLE 3.7: RANKING OF THE VARIOUS FACTORS GROUPED UNDER CHARACTERISTICS OF INDIAN ECONOMY

No.	Factors	Rank
1	Size of Indian Market	1
2	Size of Middle Income Class	2
3	Availability of Cheap Raw Material	3
4	Industrial Sector Diversifaction	4
5	Availability of Skilled Labour	5
6	Existence of Large Private Sector	6
7	Availibility of Unskilled Labour	7

Source: Kamlesh Gakhar (2006), pp-100

The huge size of market is considered as the most important factors attracting FDI in India, of all the factors related to the characteristics of Indian Economy. Every efficient international firms want to produce on a large scale to reap the economies of scale and to reduce the cost of production. Among the factors under characteristics of Indian economy, the second rank goes to large size of middle –income class in Indian economy. Large size of middle class implies there is a demand for standard products of international firms. This provides a good opportunity for foreign investment. Cheap labor reduces the cost of production and products can be sold at competitive price. So this factor is quite significant in its positive impact on FDI inflows in India. Indian industry has been diversified to a large extent and the growth rate is also appreciable. This leads to rise in demand for various items. Foreign investors consider this factor of crucial importance while talking decision to invest abroad. Availability of skilled labor got 5th rank among the factors grouped under characteristics of Indian economy.

⁴ A study by the Standard and Chartered Bank is reported to have identified issues relating to governance (e.g. scams, slow pace of public infrastructure projects and stalled economic reforms) and inflation have hurt investor confidence. It was suggested that unless more sectors are opened up and policies streamlined FDI inflows are unlikely to bounce back. See: “Governance, inflation hit FDI flow”, at <http://timesofindia.indiatimes.com/business/india-business/Governance-inflation-hit-FDIflow/articleshow/7428514.cms>. See also: Rajat Guha, “The FDI Trickle”, The Financial Express, January 2, 2011.

⁵ See: “Statement on Industrial Policy July 24, 1991” in Ministry of Commerce and Industry, Handbook of Industrial Policy and Statistics, 2001.

⁶ Kumar, U(2004): “ India’s Investment policy and outlook” ; OECD –India Investment Round Table

⁷.Check List for FDI Investment policy

3.14 RANKING OF DETERRENTS TO FDI IN INDIA

TABLE 3.8: RANKING OF DETERRENTS TO FDI IN INDIA

No.	Factors	Rank
1	Foreign investment policy and procedure	1
2	Infrastructure bottlenecks	2
3	High tax rate	3
4	Pro-labour laws or lack of exit policy	4
5	High import tariff	5
6	Political risk	6
7	Weak intellectual property rights	7
8	High rate of interest	8
9	Regional conflicts/tension	9

Source: Source: Kamlesh Gakhar (2006), pp-117

Certain drawbacks in the Indian foreign investment policy and procedures are the most important hurdles in the inflow of FDI. These drawbacks are lack of transparency in the policy, bureaucratic delay, and widespread corruption. At the macro level the 2nd most significant barrier to FDI inflow to India, as reported by the sample firms is the prevalence of infrastructure bottlenecks. Lack of developed infrastructure is a stumbling block in the way of international direct investment in India. High tax rates in India are the 3rd most prominent deterrent to FDI inflow in India. High corporate tax rates are reported as the most important impediment to FDI in India. Pro labor law is reported as 4th major macro-economic barrier to FDI inflow in India. Foreign investors want there should be flexibility in labor market conditions. Political risk is reported to be significant deterrent of FDI inflow in India.

3.15 ATTRACTIONS FOR FDI

India is becoming an attractive location for global business on account to its buoyant economy, its increasing consumption market, infrastructure growth and cost efficiency. According to exports and MNC managers, India is ranked just behind china and behind or equal terms with U. S (WIR, 2005). Though literacy and education rates are comparatively low level, when human resources are normalized by population size, this factor does not remain at deterrent. Indeed, Indian skills in research, product design, and customization of services, are acknowledged. India has one of the largest pools of scientist, engineers and technicians in the world, particularly in information technology, with competitive wage levels when compared to other industrialized countries and the use of English in the business and technical and managerial education.

The government also aims to attract foreign investments by setting up Special Economic Zones⁸, Science Parks and Free Trade and Warehousing Zones⁹. Foreign investment is particularly sought after in power generation, telecommunications, ports, roads, petroleum exploration and processing and mining. A ten years tax holiday is offered to companies engaged exclusively in scientific R& D with commercial applications. Since November 2005, FDI is allowed up to 100 percent in most activities under the automatic route. FDI is now freely allowed in many sectors with automatically approval¹⁰ freedom of location and choice of technology. Import and exports, repatriation of profits, dividends and capital are also free. Also IPRs are guaranteed. India is a more and more active partner in regional arrangements and agreements such as ASEAN, Gulf Cooperation Council, South Asian Free Trade Area, and Indian Ocean Rim Association for Regional Cooperation and SAARC. Since 2000 India has signed, many bilateral investment and trade agreements as well as double taxation treaties with increasing number of countries that stimulate export and investments (elimination of quotas, reduction of customs duties). Being the second most populous country in the world, India is also attractive for "market seeking" FDI. Half of the population is under 25 year's age. India's consumer market is growing quickly with an average of 12 percent a year. Living standards are rising, a vibrant middle class estimated to be 300 million with spending power is emerging in cities, and infrastructure needs are tremendous. The availability of qualified workers, the existence of internationally reputed R&D institutes (Indian Institute of Technology, Indian Institute of Science, Indian Institute of Chemical Technologies, Centre for Drug and Research etc), and the emergence of many Indian firms as service providers or as partners¹¹ contributed to attract MNCs in India to perform R& D.

4. CONCLUSIONS

This paper has examined the growth patterns and changing nature of Indian inward Foreign Direct Investment, with an emphasis on the post liberalization period, since FDI, along with trade, has been an important mechanism which was brought about a greater integration of Indian economy with world economy. The changing patterns reflect the growing investors' confidence in the country.

From 1947-48 to 1990-91, there was an absolute increase in the FDI stock. After year 1992-93 onwards to 2009-10 FDI in India as percentage of world's has increased continuously; it may be the liberalization policy in India that was introduced in 1991. The regional distribution of FDI inflows is highly concentrated patterns. Five regional offices receive around more than 70% of Indian FDI inflows. The share of FDI in GDP has been very small in absolute term, remaining less than one (1980-1993-94). However the ratio improved dramatically after that. GDP growth rate is steadier than FDI after post reform era. India's FDI as percentage of GFCF is at a much lower rank improving from 0.21 in 1980 to a ratio of 0.36 in 1993 and then showing a marked improvement reaching to a ratio of 9.40 in 2008-09. Acquisition of existing shares of companies by foreign investors contributed substantially to the FDI Equity Inflows and it peaked in 2005-06 and 2006-07 to reach almost two-fifths of the total FDI Equity flows. Acquisition of shares together with reinvested earnings (which do not represent actual inflows) account for a substantial proportion of the reported total inflows.

Inward FDI has boomed in post-reform periods. The Indian government policy towards FDI has changed over time in tune with the changing needs in different phases of development. The changing policy framework has influenced in trends and patterns of FDI inflows received by the country. At the same time, the composition and type of FDI has changed considerably. Even though service sector have attracted rising FDI, the manufacturing industries accounted for a steeply rising share of FDI stocks in India since mid-nineties. Thus, although the magnitude of FDI inflows has increased, in the absence of policy direction the bulk of them have gone into services and soft technology consumer goods industries bring the share of manufacturing and technology intensive among them down. In terms of investing countries, it can be noted that there is a high degrees of concentration with more than 50 percent of the investment coming from Mauritius, U.S, and Japan. Although, while FDI in India continues to be local "market seeking" in the first place, its world-market orientation has clearly increased in the aftermath of economic reforms. Thus while the growth of FDI inflows to India seem to be fairly improved; India's share in the global FDI regime is still negligible. This calls for policy review to remove obstacles such as infrastructural and bureaucratic hurdles.

⁸ For example export oriented units and units in export processing zones benefit of tax holidays (100 percent) for five years.

⁹ In free trade warehousing zones, FDI is permitted up to 100 percent

¹⁰ Initially FDI approval relied on matching exports and dividend repatriation. In July 1991, this approval becomes automatic in 34 industries designated high priority, up to an equity limit of 51 per cent.

¹¹ India software companies like TCS, Wipro, and Infosys have alliance with Ericsson, Nokia, and IBM.

TABLE A 4.1: SOURCE COUNTRIES OF FDI FLOW INTO INDIA IN 2010

Ranks	Country	Amount of Foreign Direct Investment Inflow		% with Total FDI inflows(+)
		In Rupees Crore	In US \$ Million	
1	MAURITIUS	263,018.83	58,752.83	41.04
2	SINGAPORE	64,802.78	14,566.64	10.18
3	U.S.A	44,036.83	9,782.47	6.83
4	UNITED KINGDOM	40,554.71	9,115.89	6.37
5	NETHERLANDS	27,377.23	6,090.86	4.25
6	JAPAN	26,588.57	5,865.11	4.1
7	CYPRUS	22,898.94	5,026.21	3.51
8	GERMANY	19,003.79	4,253.92	2.97
9	FRANCE	11,771.43	2,601.84	1.82
10	UAE	8,893.75	1,957.25	1.37
11	SWITZERLAND	8,574.90	1,894.62	1.32
12	ITALY	4,399.79	1,002.42	0.7
13	SPAIN	3,786.00	852.17	0.6
14	SOUTH KOREA	3,665.93	818.34	0.57
15	SWEDEN	3,665.44	807.44	0.56
16	CAYMEN ISLANDS	3,301.14	784.84	0.55
17	HONGKONG	3,361.43	749.33	0.52
18	BRITISH VIRGINIA	3,205.15	716.87	0.5
19	INDONESIA	2,798.91	605.43	0.42
20	THE BERMUDAS	2,252.11	502.05	0.35
21	RUSSIA	2,231.21	467.11	0.33
22	AUSTRALIA	2,096.45	461.76	0.32
23	BELGIUM	1,698.86	375.68	0.26
24	LUXEMBOURG	1,574.37	350.39	0.24
25	CANADA	1,554.20	348.85	0.24
26	OMAN	1,537.56	335.68	0.23
27	MALAYSIA	1,371.20	298.8	0.21
28	DENMARK	1,078.04	238.77	0.17
29	FINLAND	1,039.43	221.73	0.15
30	IRELAND	623.54	142.4	0.1
31	AUSTRIA	615.61	135.71	0.09
32	CHILE	625.39	135.29	0.09
33	SOUTH AFRICA	507.41	110.19	0.08
34	BRITISH ISLES	401.02	88.8	0.06
35	THAILAND	385.83	86.39	0.06
36	WEST INDIES	343	77.24	0.05
37	NORWAY	314	70.38	0.05
38	CHINA	318.23	67.4	0.05
39	ISRAEL	235.47	53.31	0.04
40	TURKEY	204.62	45.02	0.03

Source: Collected from DIPP.

TABLE A 4.2: REGION WISE DISTRIBUTION OF FDI

S.No.	RBI's - Regional Office	%age to total Inflows (in terms of US\$)	Amount Rupees in crores (US\$ in million) Cumulative Inflows(April'00-March'10)
1	MUMBAI	34	221,818 (49,611)
2	NEW DELHI	21	134,353 (29,710)
3	BANGALORE	6	40,434 (9,072)
4	CHENNAI	5	33,915 (7,541)
5	AHMEDABAD	5	32,853 (7,417)
6	HYDERABAD	4	27,972 (6,277)
7	KOLKATA	1	7,697 (1,785)
8	CHANDIGARH'	1	4,840 (1,059)
9	BHOPAL	1	3,364 (733)
10	PANAJI	1	3,329 (725)
11	JAIPUR	0.4	2,502 (532)
12	KOCHI	0.3	2,042 (454)
13	BHUBANESHWAR	0.2	1,302 (282)
14	KANPUR	0.2	1,089 (239)
15	GUWAHATI	0.1	316 (72)
16	PATNA	0	27 (6)
17	REGIONNOT INDICATED	20	127,917 (28,742)
SUB. TOTAL		100	645,772 (144,258)

Source: DIPP (Department of Industrial Policy & Promotion)

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HEDONIC CONSUMPTION & CHANGING DEMOGRAPHICS OF THE INDIAN CONSUMER: EMERGING TRENDS AND STRATEGIC IMPLICATIONS

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ABSTRACT

The foundation of Modern Hedonism can be traced back to the statement of Marketing Guru Levy who said "People buy products not only for what they can do, but also for what they mean", (Levy, 1959). As India shifts towards a nucleus family from that of joint family system, and people become more and more cocooned in their own small environment, the importance of pleasure spending or Hedonism is gaining relevance. Added to this is the fact that the Country's demographics are undergoing a rapid change, with the young people in the age group less than 25 forming more than 40 percent of the total population. Add to this the largest middle class in the world, and increased disposable income, making it one of the most sought after markets in the world. While previous research has focused on Hedonism being symbolized by experiential purchases rather than material ones, in this study the main focus has been on the Primary Intention of the consumer, and less on the physical aspects of the goods. The study follows an exploratory research methodology, and was conducted through Focus Group Discussions and Primary Consumer Survey. More than 200 respondents from the two most thriving Indian metropolitan cities of Bangalore and Delhi, belonging to various age groups, filled in the questionnaire. The results helped us identify various factors that shape the purchase behavior of the average Indian consumer. The results also pointed at a marked change in the preferences and mindset of the Indian consumer, and the effect of the changing demographics in India. In particular there was a clear divide in the behavior of various age groups as far as the Hedonic tendencies were concerned & a clear demarcation was visible between the pre- and post-Liberalization generations.

KEYWORDS

hedonic consumption, Indian consumer.

INTRODUCTION

Pleasure spending, or spending money with the intention of experiencing happiness and pleasure, is an important part of everyday consumer life. The joy of choosing, after going through complex decision making processes gives immense satisfaction to consumers. Choosers' satisfaction with a desirable outcome is greater than that of non-choosers because they enjoy contemplating a greater number of pleasant thoughts during the decision task; conversely, choosers' dissatisfaction with an undesirable outcome is exacerbated relative to that of non-choosers by the greater number of task related unpleasant thoughts (Botti and Iyengar 2004). The basic idea behind hedonistic thought is that pleasure is the only thing that is good for a person. This is often used as a justification for evaluating actions in terms of how much pleasure and how little pain (i.e. suffering) they produce. In very simple terms, a hedonist strives to maximize this total pleasure (pleasure minus pain).

Prior research indicates that consumers prefer making their own choices rather than having others choose on their behalf and that they are more satisfied with self-chosen as opposed to externally-dictated outcomes (Brehm 1966; Langer 1975). These prior studies have nevertheless investigated choice only in relation to hedonic consumption. It is possible therefore that the enhancing effects of choice on outcome satisfaction may be restricted to such hedonic contexts. Hedonic tasks are inherently self rewarding whereas utilitarian tasks are undertaken to pursue higher end goals. Conjoining hedonism, as a view as to what is good for people, to utilitarianism has the result that all action should be directed toward achieving the greatest amount of happiness for everyone.

While most of research has either been limited to the psychological affects, or the process of hedonistic buying, precious little seems to have been done for Indian consumers and marketers. The demographic and psychographic profile of India has been changing at a furious pace since the last decade. Opening up of the economy, liberalization, the largest middle class anywhere in the world, the choice of India as the latest destination for all MNC's, is bringing about a rapid change in the decision making and purchase pattern of the Indian consumer. Whereas earlier the emphasis was on thrift, the current emphasis is on spending as the earning members grow younger and younger in these new and changing demographics. With the profiles changing so consistently, there is a constant need for research and studies to keep up with the change.

The study tries to track & identify the causes of the growth of Open Hedonism, as a younger India emerges, considering the fact that more than two-thirds of Indian population is less than 35 years old, making it one of the most sought after markets, especially for marketers of Hedonic Products. We have tried to use the changing demographics of the consumers as the base of the research and study them according to various parameters used in any demographic study. We have also tried to study the two distinct age-groups, one from the pre-liberalization era, and another from the post liberalization era to help achieve our objectives. We used a comprehensive Literature Review to gain perspective of various studies undertaken till now and use the insights of these studies to further strengthen our research. We were hopeful that the above two would help us in establishing the effect of age on increasing Hedonic Consumption, if any. Finally we tried to derive implications for marketers from the findings and analyze how these could be used in the formulation of an effective marketing strategy.

LITERATURE REVIEW

As mentioned earlier, the Hedonic concept has been of substantial interest to researchers, and the need to probe further with respect to growing consumer consumption is visible in the comprehensive review being undertaken and the host of studies being conducted in the past few years. The enormity of the concept and its subsequent benefit to the marketers and researchers alike is gaining mammoth proportions, and generating keen interest to further our understanding of this concept. The concept is also gaining in credibility thanks to the growing belief that for some products and some situations the concept of Marketing is slowly but steadily moving away from the traditionalist view of basic 'need satisfaction', and towards the modern view that not all needs have to be utilitarian in nature. The consumer is increasingly looking for different ways to satisfy himself. As the marketers, in a rush to satisfy all basic and latent needs of a consumer, keep coming up with a whole lot of novel methods to satisfy both the utilitarian and convenience need of the consumers, they seem to have also been slowly but surely condemning the consumer to a more cocooned existence. With the development of new distribution channels including home delivery, e-shopping, TV shopping, Mail orders and what not, the consumer is increasingly missing the personal joy and satisfaction that he used to derive from using the traditional channels. At the same time the Marketers are not leaving any stone unturned in making and developing new products, ranging from personal home equipments, to do-it-yourself guides and kits for furniture, personal grooming products, electronic self-aids, and a host of products to massage the consumer's ego which are increasingly removing the social element involved in the traditional products & services.

All this is increasing the growing use of Hedonism in the consumer buying process. However it would be wrong to say that the concept of Hedonism is a new concept, and is a derivation of the needs of our changing times and values. Concept of Hedonism has been existing since the ancient ages, from the times of Socrates and Mahabharata alike.

For the purpose of this paper we will use the definition of Hedonic Consumption as defined by Hirschman & Holbrook in 1982 as "Hedonic Consumption designates those facets of consumer behavior that relates to the multi-sensory, fantasy, and emotive aspects of one's experience with the products" (Hirschman & Holbrook, 1982). This definition has not only been cited extensively in all major hedonic related research, but also seems apt for the objectives of our study.

While researchers have tried to apply Hedonic perspectives to various areas including Product Classes, Mental Constructs, Individual Differences, Behavioral and other constructs (Hoch & Loewenstein, 1991; Holbrook & Hirschman, 1982; Lee & Hyman, 2008; Warren, 1908), in this study we will try and focus on the Product Usage part, since that is more in tune with our study as it not just helps in identifying the features and attributes but also focuses on the decision making process (Huber & Holbrook, 1980). This would not just help in the marketer understanding the brand choice of the consumer but also the strategic implication behind such a brand choice (Hirschman, 1982; Hirschman & Holbrook, 1982; Hoch & Loewenstein, 1991).

HEDONISM-INDIAN CONTEXT

There exist a lot of differences between the ways Hedonism is looked upon in the western culture as compared to how we see it in India. In India sacrifice is looked upon as the ultimate test of human character. To build one's character one is supposed to shun various if not all type of pleasures which satisfy only oneself and are not in the larger interest of society. To sacrifice for the larger interest is the way we all are taught right from our early childhood, and any other ways are looked down upon. The objective is always universal happiness, and aim is to satisfy others, even if it means pain and abdication to one's own self. We are the land of Mahavir, Buddha, Rama, Sita and numerous other Gods, Goddesses, who have always believed in and taught us the importance of abdication, and sacrifice. The truth always lies in the greater good, and all other means and ways have been looked upon as negative characteristics. Self-pleasure has always been related with the bad and evil people, and is considered to be the most selfish and heinous act. The modern Mahatma, MK Gandhi, characterized the epitome of human values as we should follow in this country. In a quirky way, all this was also possible in the last couple of centuries as we were always short of fulfilling our needs, and the basic necessities gained significance over other more frivolous needs.

In contrast the western society has always been a society used to indulgence. The western society which was more or less limited to Europe had managed to advance its requirements multi-fold, and had used various means including conquering other nations, to satisfy this need for indulgence. The Christian God Jesus Christ is shown in various stages and is even depicted as an indulgent God. The last supper depictions clearly show Christ feasting & drinking wine, and hence most Western festivals allow one to indulge, whereas ours force the concept of 'Fasting' and 'Abstinence' on us.

RESEARCH QUESTION

The aim of this article is to study and identify the consumer choices on products that could be classified as Hedonic in nature, that is those products that can offer not just utilitarian but also an experiential and hedonic experience.. As mentioned before the objective is to find out the current trends and behavior change that is taking place due to the changing demographics of the Indian consumer, especially in the post-liberalization era. The main objective of the study was to analyze the various attributes/factors used, by the consumer during the purchase decision making process, in order of importance as placed by him. By doing so we hope to study and understand the consumer's mindset while purchasing a hedonic product, and also analyze differences, if any, that existed in the intentions of consumers belonging to the pre- and post-liberalization era. The study should help us understand the kind of attributes/ features that consumers from both these era lend importance to.

In addition we also had a minor objective to identify the influencers involved in the decision making process of consumers belonging to both the eras. This would help us in analyzing and identifying differences if any, and help marketers chart individual strategies based on the existing differences.

METHODOLOGY

Since precious little work seems to have been done in the Indian context, and since the Indian markets are in an expansion phase, we decided to go with a three phase methodology, which would not only allow us to address the main concerns of the study, but would also help us get a snapshot view of the changes, if any, that were taking place due to the fast paced liberalization that the country was undergoing.

In the *first phase* two Focus Discussion groups were formed. One focus group was formed of respondents who were less than 26 years. This group was primarily from Indian Institute of management Indore students. Since the students came from varied backgrounds, the discussions helped us in arriving at the various attributes looked at by the students while buying a Mobile Handset. The group also identified some of the major influencers in their purchase decision making process. The same process was repeated with the second Focus Group, consisting of working professionals in the age group of 36+. The only difference was that this discussion was conducted on Internet conference chat, as the respondents were located across the country. Both the Focus Group consisted of 6 respondents.

Once the criteria were identified, in *phase two* of the study, a test questionnaire was prepared and further tested on seven respondents in each of the age group identified. This enabled and helped in removal of any confusing statements/inferences. The testing was done by personally administering the questionnaire to the randomly selected participants, and was conducted online for both the groups of respondents. It also allowed us to make concise the list of criteria as identified in the focus group discussion.

Once the final questionnaire was prepared it was administered on both the sets of respondents in the *third and final phase* of the study. The administering was done online, since it was the quickest and most convenient method of reaching to all the respondents, who were located in various parts of the country. Also the online response would help protect the respondent's identity, helping in better and unbiased responses. The respondents were selected across two distinct age categories- One category consisting of people below 26 years of age, and the second category consisting of people above the age of 36. The main reason behind this distinct age groups was the objective of gaining insights into the changes that liberalization has brought, and also to avoid any permeation of data across categories, which would have biased our inferences.

Care was also taken to ensure that we had an equal mix of Males and Females in our responses. This was necessary to once again ensure that no biasness crept in. Also it could have helped us in gaining further insights as to whether there was any difference in the purchasing pattern across the genders. All respondents selected had to have a minimum of 2 years of work experience. This was to ensure that each of the respondents would not necessarily have to be influenced by his family's decision/financial ability. Each respondent could have the ability to make independent buying decisions if so required, thus removing any chance of family financial bias creeping in.

Finally all the respondents selected were either pursuing their PGP courses in Management, or had completed their PGDBM sometime in their career. This was one of the most important decisions, because we felt that this would take out any negative/positive effect of education on the respondent. Since all the respondents were equally qualified, any difference in pattern could not be attributed to the psychographic variable derived from education. In short the study neutralized the effect of Education on the whole survey, thus ensuring that we would get a much more objective analysis, which would provide us relevant references. The questionnaire was administered to more than 240 respondents, out of which 200 responded with the full questionnaire and were found to be valid for the purpose of the study. In the end the strategic implications for the marketers were analyzed and the possibilities of Future Research were discussed.

RESULTS AND FINDINGS

There were a total of 200 respondents, out of which 98 were females and 102 were males. 84 respondents belonged to the under-26 age group and 116 were from the over 36 age group. This allowed us a fine balance between the demographic profiles of the respondents.

We start by listing some of the salient features of the survey, which would provide us with an overview of the survey results. The detailed charts and graphs are then discussed later in the paper.

Forty-two percent of the respondents were students, twenty-nine percent were self-employed, and twenty-seven percent were salaried and just two percent were housewives. Fifty-nine percent of the respondents earned more than Rs.35000/- per month, whereas thirty-six percent earned less than Rs.5000/- per month, of who most were students and survived on internships and previous earnings. The rest were comprised of housewives.

Nokia was the most favored handset used by more than forty-four percent of the respondents. Samsung and Sony followed with twenty-five and twenty-four percent respectively, while LG failed to open its account, giving us an indication of the importance attached to the Brand name of a product.

Sleekness and Style were the highest ranked options, with more than sixty percent respondents selecting them as the most important feature they would look for, which implies that these features are in demand across age groups. Surprisingly PC connectivity and Blue Tooth enabling also featured reasonably high in spite of not being very highly ranked in the focus group discussions.

Eighty percent of the respondents mentioned that they had been using mobile handsets for more than three years, while fifty-nine percent mentioned that they had been using it for more than five years. This would imply that the usage of mobile handsets is percolating downwards among the younger generations. Not surprising was the fact that not one respondent mentioned that he/she had been using the handset for less than one year.

More than eighty-eight percent of the respondents mentioned that they had changed their handsets more than two times, while fifty-two percent clearly mentioned that they had changed their phones at least three times. This would clearly imply that consumers are no longer reluctant to change their handsets, in spite of the high costs involved.

Brand Name was ranked as the number one attribute that the respondents give importance to in relation to all the other attributes that were mentioned in the questionnaire. Durability was given the lowest ranking, with as many as sixty-six percent of the respondents putting it as the least important attribute, one of the clearest indication of the growing tendency towards hedonic consumption.

Friends were found to be the most influential source in the decision making process of forty-two percent of the respondents. Family members with twenty-four percent came as the next most important influencer. News items and advertisements scored pretty lowly as influencers.

Thirty-six percent of the respondents mentioned that the main reason for buying a phone would be an attractive handset, whereas peer pressure and personal like also scored quite high with twenty-two and twenty percent respectively. Less than twenty-two percent were ready to buy a new handset only in the case of old phone becoming mal-functional or obsolete. This too would imply the readiness of today's consumer to experiment with new gadgets, even with the older ones giving good utility.

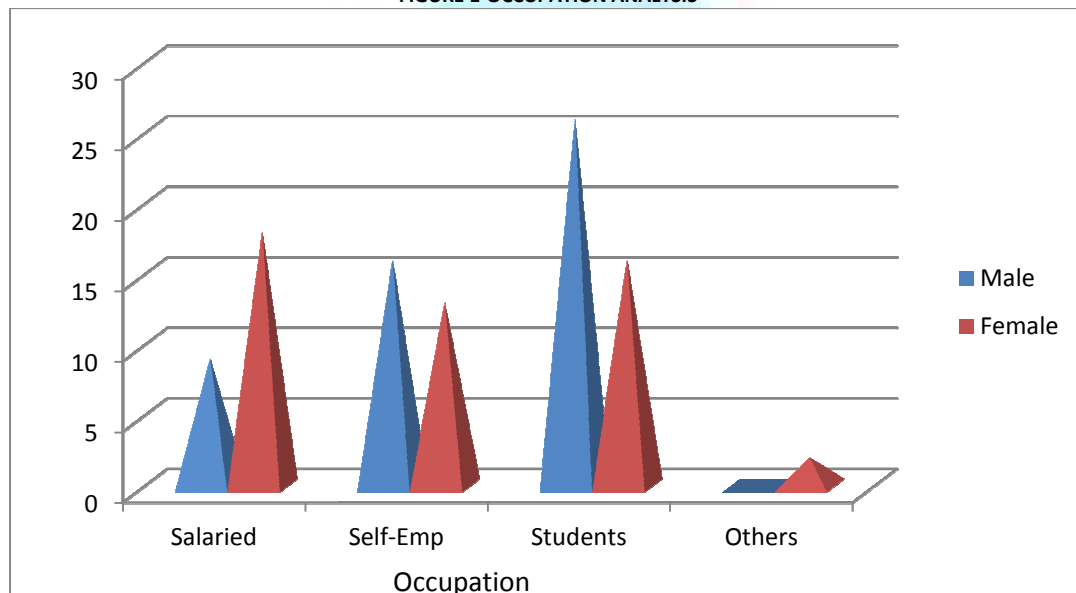
Seventy-five percent of the respondents said yes to purchasing an expensive watch, in spite of owning an expensive handset, which further implies that the buying power and mindset of the average Indian consumer is increasing, and his aspirational levels are touching new highs.

In deciding on the importance of the three main factors as emerged from the Focus Group Discussion, all the three attributes of Utility, Style & Looks, and Keeping up with the latest trends got similar kind of responses. This implies that there is major partiality towards the features from one age group or the other. Almost seventy percent of the respondents rated Durability as the lowest wanted feature in their decision making process.

Finally Increased affordability and need to be recognized as a fashion leader scored quite high in the reasons for repurchasing a new handset. Peer pressure and self-satisfaction were close behind, with gifting allowing for a new opportunity for positioning for the marketers.

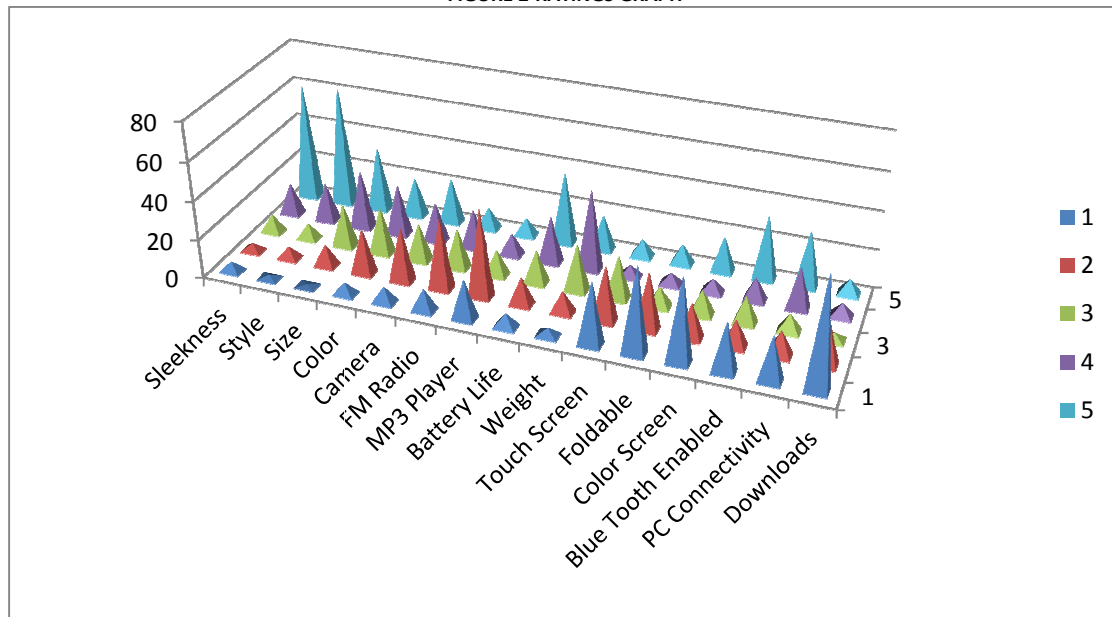
Some more in-depth analysis follows based on the raw data available from the survey. We now try to analyze the data based on our objectives as decided earlier, of trying to find the importance and effect of age on the hedonic aspect in purchase.

FIGURE 1-OCCUPATION ANALYSIS



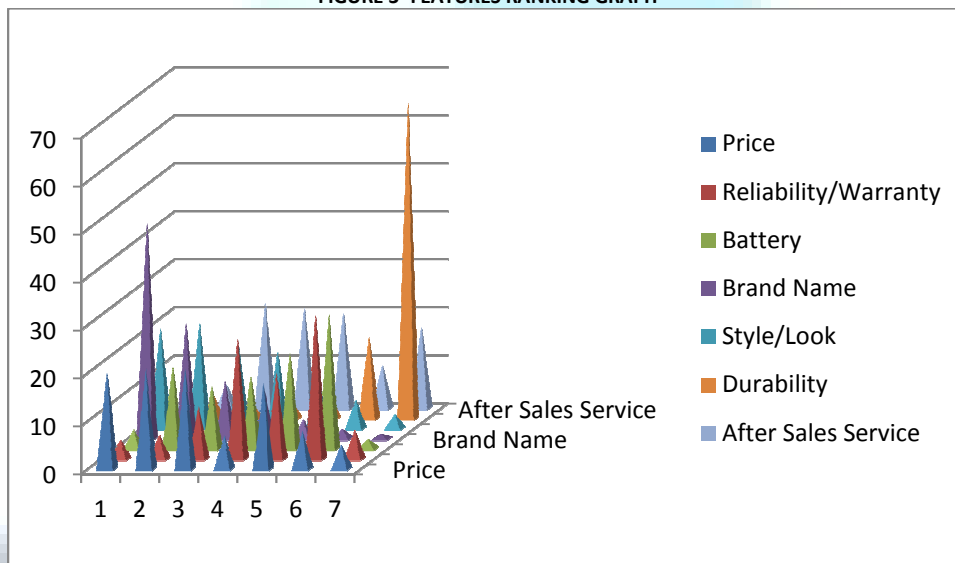
The above Figure clearly shows that the analysis is not biased as the proportion of males and females is almost equal. We can observe that more men are students and self-employed, but more females are salaried. However it is heartening to note that there exists almost complete equality in the spread of gender, thereby removing any chances of bias creeping in.

FIGURE 2-RATINGS GRAPH



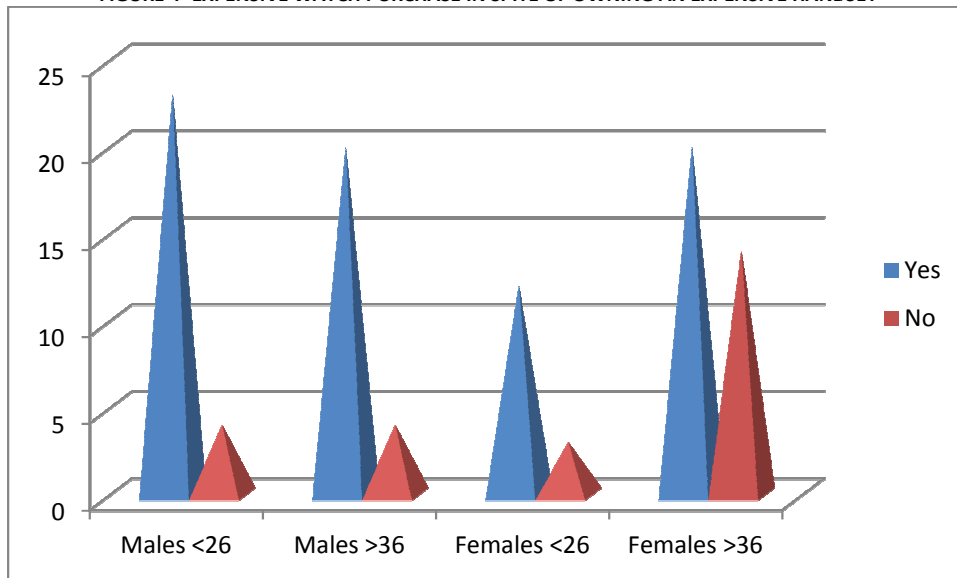
The above graph gives an extremely comprehensive view of the respondent's likes and dislikes, his preferences, and the choices that he is least bothered with. A closer look would clearly indicate the following. Sleekness and style get the highest scores across the two age groups, which clearly indicate the hedonic nature of the purchases. Battery life gets a reasonably good score, implying that the utilitarian value of the product is also important to some of the respondents. We also note surprising high scores for Blue-Tooth Enabling as well as PC connectivity. This should imply that the mobile handset is no longer just a one dimensional usage instrument, but is also finding other means to satisfy latent desires of consumers. Surprising thing to note is that features like FM Radio and MP3 players are hardly rated by any of the respondents. This is a loud and clear message for the marketer-unnecessary frills are not welcome, nor useful as a sales pitch. The most surprising observation however remains the absolute rejection of the Download feature that most companies today keep harping on. It should give them a warning to be more perceptible towards the consumer needs, rather than concentrating on useless marketing efforts. Or the marketer needs to improve this service to keep pace with the buyer. All in all the above figure sends out clear signals to the marketers, with strong likes and dislikes.

FIGURE 3- FEATURES RANKING GRAPH



The above figure too gives a comprehensive picture of the consumer's mindset. In this figure we have ranked the various features according to his choices and preferences. Notably all rankings have to be mutually exclusive, forcing the Respondent to make choices in a simulated atmosphere.

FIGURE 4- EXPENSIVE WATCH PURCHASE IN SPITE OF OWNING AN EXPENSIVE HANDSET

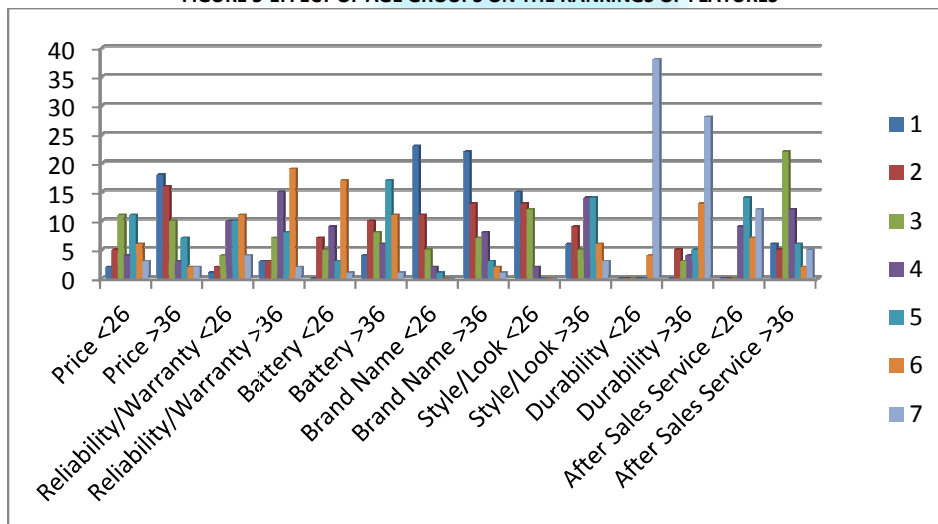


From the above figure we can easily notice that most of the men in each age group would want to own an expensive watch even after owing an extremely expensive mobile phone.

The Trend continues in the category of Females aged under-26. However the gap between the yes and no drops significantly for the category of Females aged over-36. This may imply that as age increases, especially in females, they tend to become more pragmatic and practical. This category may rely more on the utilitarian aspects rather than the Hedonic aspects.

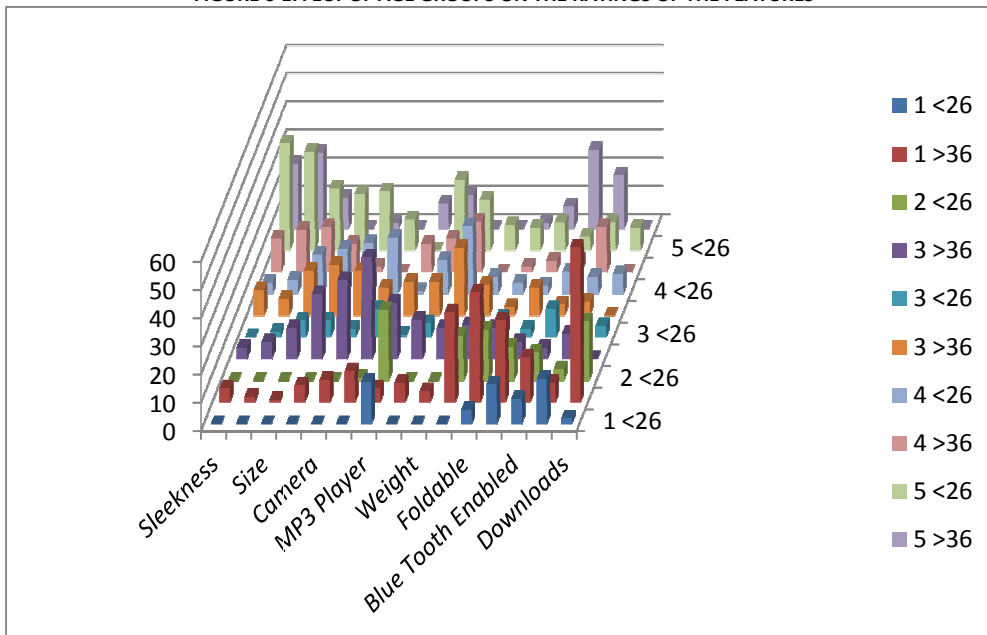
As explained in the figure below, this graph gives us a break-up of how the various age groups ranked the features. It is clearly noticeable that the needs of the two age groups seem to be changing and going in diverse directions. Most importantly it shows that the post-liberalization generation has a more hedonic approach in their purchases.

FIGURE 5-EFFECT OF AGE GROUPS ON THE RANKINGS OF FEATURES



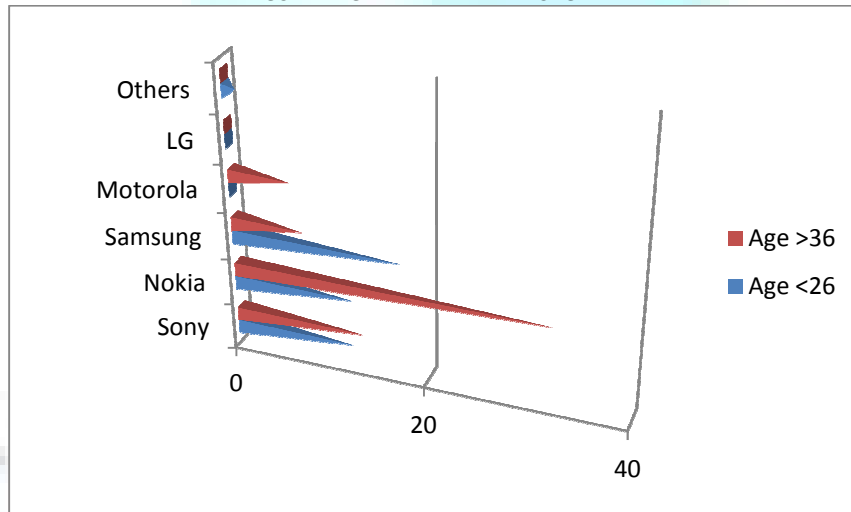
The Age Group of less than 26 years gives better ranks to the features of Brand Name, and Style/Looks. More importantly the group completely ignores the Price, Reliability and Battery features. The Age Group of more than 36 on the other hand is much more concerned about the price and the battery part, even though Brand Name still scores the best ranks even in this group.

FIGURE 6-EFFECT OF AGE GROUPS ON THE RATINGS OF THE FEATURES



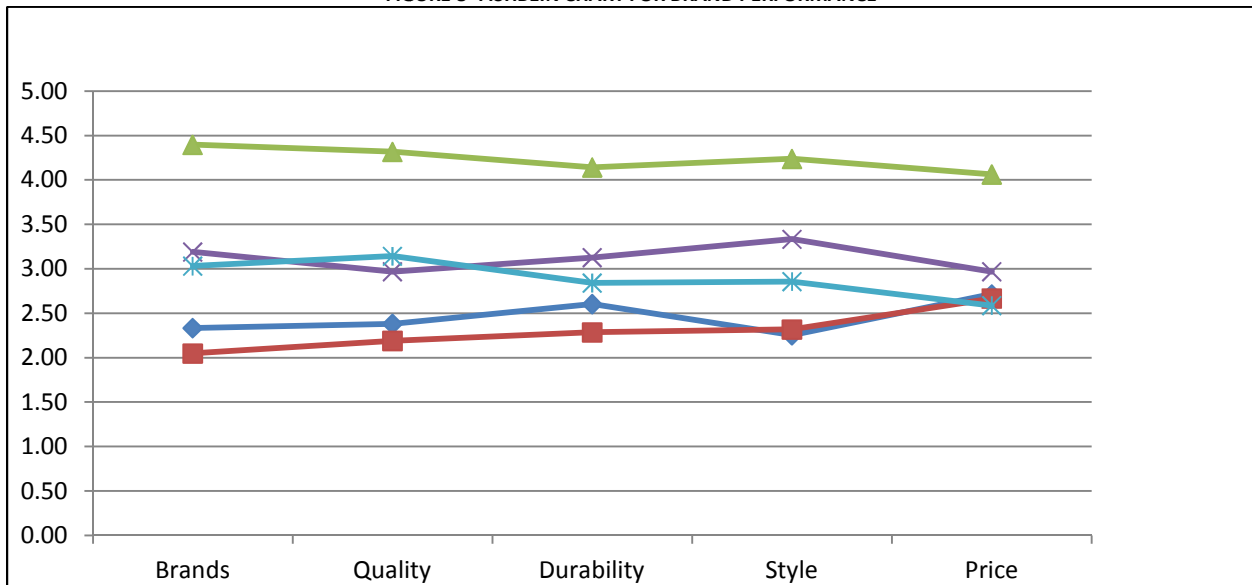
The above figure once again depicts a comprehensive picture. This time it shows us the split in the choices according to the age groups. This is an important analysis for us, since it helps us in identifying the various features that are important to the two age groups. It is clearly visible that the under-26 age group is very enamored by the sleekness and style of the products. The over-36 age category however shows much higher affinity towards the features of Blue Tooth Enabled and PC Connectivity. The over-36 category also thinks that the feature of Battery Life is reasonably important. In contrast the younger age group is clearly satisfied with only two features, and we can observe that both these features point towards a Hedonistic bend of mind. Other features get some representation from the under-26 age group, but most of the features are not really rated very highly by both the age groups. Finally we can clearly notice that the feature of Downloads is clearly rejected by both the age groups. In the final analysis it would be perfectly right if we infer from the above that the younger age group is more tilted towards the Hedonic satisfaction, and is not really bothered by the usage aspect of the product. The over-36 age group in contrast is much more concerned about the usage aspects, and is not as involved in satisfying their hedonic needs. We observe the trend of aspiring for more hedonic satisfaction as the age group is lowered from over-36 to under-26.

FIGURE 7-AGE BRAND PREFERENCE GRAPH



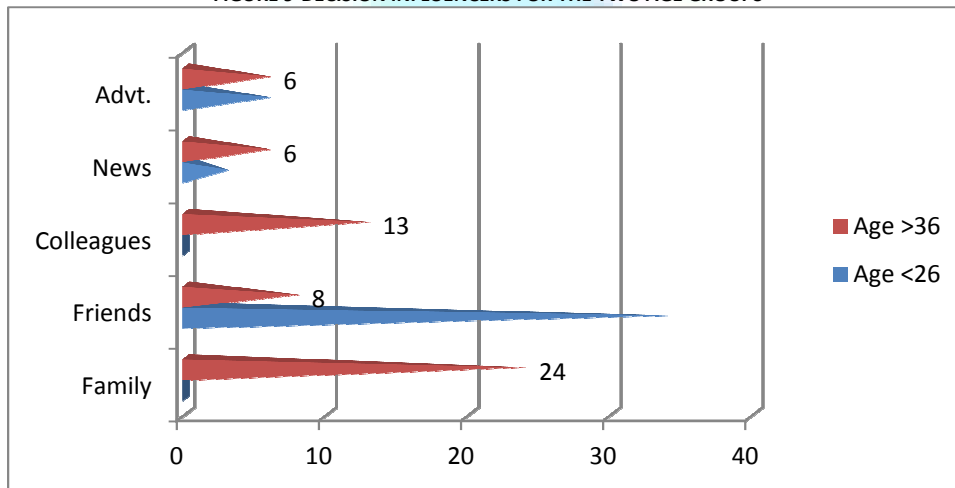
Here again we notice the differences between both the age group. Previously we had seen that both the age groups had given quite high rating and good ranking to the Brand Name of the product. But here we see that there is a vast difference between the brands chosen by each age group. While the over-36 age group has full belief in the tried and tested name of Nokia, the younger age group is seems to be more interested in the current brands of Sony and Samsung. These brands are catering to the current needs of the market, and hence the chosen brands over the older and more creditable brands like Nokia and Motorola. This again is a clear signal of the increasing Hedonic consumption of the younger age group. We can clearly observe that the under-26 age group is more comfortable with the new, latest and trendy brands, instead of the tried and tested brand of Nokia, which is the most preferred brand of the older age group. In fact even the younger age group recognizes the image of Nokia and awards it more credibility, as we can see from the Fishbein Chart. An observation of the Fishbein chart shows that customer’s perception about Nokia as a brand is extremely good and above its competitors’ brands in all aspects. Brand value of Nokia is perceived as very high in comparison to its competitors.

FIGURE 8- FISHBEIN CHART FOR BRAND PERFORMANCE



Hence it is relatively simpler to infer that the under-26 age group is more interested in satisfying their hedonic needs, than the actual utilitarian needs. The choice of preferred brand is changing as we move up through the age groups, with the over-36 age group clearly preferring the safe brand of Nokia over the newer and trendier competitors.

FIGURE 9-DECISION INFLUENCERS FOR THE TWO AGE GROUPS



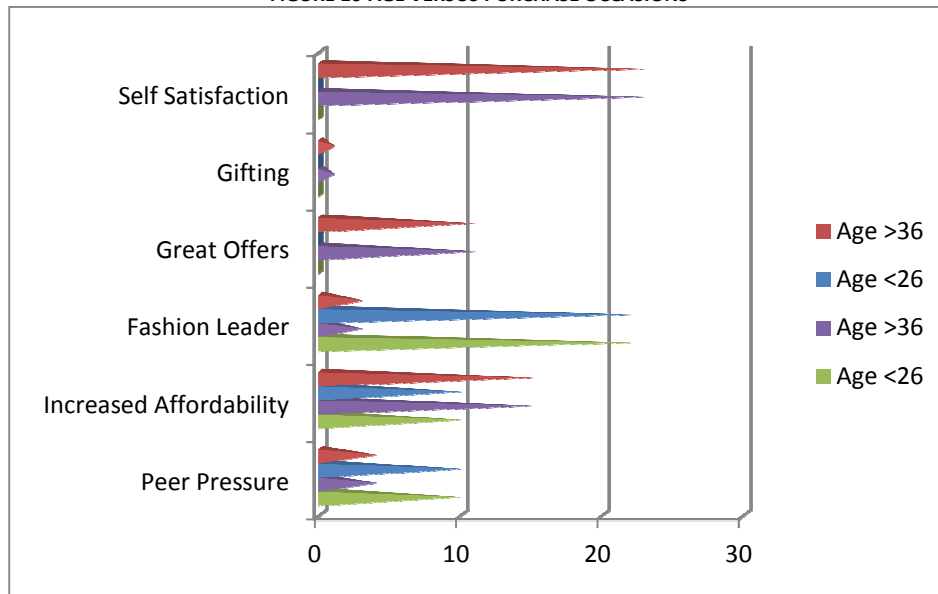
The above figure gives us a clear pointer towards the decision making process of both the selected age-groups. Here again we see a stark difference between both the age groups as far as their influencers are concerned. While the under-26 age group relies and is more influenced by his/her friends, the over-36 age group is influenced mostly by his/her family members.

This once again clearly tells us about the Hedonic intent of the younger age group. The under-26 age group is keen to impress their friends, their immediate social group, and hence is most concerned about what his/her immediate social group thinks. This age group is also influenced somewhat by the advertisements, again pointing towards Hedonic satisfaction.

The over-36 age group meanwhile relies mostly on immediate family, which allows us to infer that mostly it is a joint decision, and the utilitarian aspects of the products would be coming into the picture.

This figure and analysis again points towards our initial hypothesis, and suggests that the younger age group is more frivolous in its decision making, relying mostly on their hedonic needs. We reconfirm the analysis by looking at the figure 10, on the next page, which goes into further details, and clearly brings out the differences between both the age groups.

FIGURE 10-AGE VERSUS PURCHASE OCCASIONS



MANAGERIAL IMPLICATIONS

From the above analysis and findings, we can clearly infer various aspects and facets of the changing consumption pattern among the educated youth in India. These findings have clearly supported our hypothesis, which were formed at the beginning of the study.

Firstly it is clear that hedonic consumption is here to stay in India. As the choices available to the Indian Consumers grow, he is going to become more and more self-effacing, and start thinking about his own happiness. The study has defined hedonic consumption as those facets of consumer behavior that relate to the multisensory, fantasy and emotive aspects of product use. The study has argued that this hedonic viewpoint represents an important extension of traditional consumer research and offers a complementary perspective for conceptualizing many otherwise neglected consumption phenomena.

It is clear from our survey and the subsequent analysis and results, that all our hypothesis are correct, and that there is an increasing tendency among the younger generations to satisfy their hedonic needs, and do that without any guilt feelings. The behavior of consumers, we believe, is far more sensorily complex, imaginative and emotion laden than has been reflected in the traditional approach to marketing research. The hedonic approach, while certainly no complete solution, may take us further toward comprehending the multiple facets of the consumption experience.

The Implications for the marketers are also very clear. They now need to concentrate much more on the psychological aspects, and at the same time use this opportunity to create more effective programs.

LIMITATIONS & FUTURE SCOPE

The above study does come with a few limitations. Firstly the survey was restricted to only two age groups and hence results may not be completely universal in nature. Secondly the questionnaire designed was rather haphazard, and various scales were used to elicit responses. While this was good in getting a more comprehensive data, the different scales limited the use of statistical tools for the analysis. A uniform scale could have provided more in-depth analysis. Finally the choice of Post-Graduate respondents may have further declined the universal nature of this study, and a more varied respondent base might be needed to generalize the findings.

The Study also has further scope to be made bigger and used as a base for further research. One of the areas where further research could prove beneficial and increase our understanding is by studying the various age groups by adding more micro features and gaining a more thorough and comprehensive outlook. Further research could also be carried out as to the difference in perceptions between males and females regarding the satisfaction gaining process through use of Hedonic Consumption.

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