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EDITORIAL

The continued recourse to the process of reforms in India has resulted in the rapid progress of the economic sectors of the country. The commercial banks in India have grown significantly, both functionally and geographically. But, all is not well with them when we look at their loan portfolios. It is reported that the total loan restructuring resorted to by them is estimated at Rs.1.5 lakh crore as at March-end 2012, when compared to Rs.1.1 lakh crore a year earlier. It is pertinent to have an updated understanding of their performance, particularly in respect of efficiency and productivity. There is also a plethora of microfinance institutions operating in the country and in the recent period their working has come under close scrutiny due to malfunctioning of some among them. They are expected to serve the lower strata of the society to uplift their standard of living through linkages with banks for finance, and the government and other agencies have also been extending a helping hand to them. This has made the functioning of those with amiable objectives somewhat difficult and they need to gear up their working to continue to meet their avowed goals. There is a need for an overhauling of this set up in totality. Insurance sector is another one in focus with the offer of various products including those of the Postal life insurance. The Insurance Regulatory Development Authority has been playing a positive role to make this sector render services with greater commitment to meet the interests of the insured better.

Stock markets serve as barameter of an economy. In India stock markets have grown enormously with increasing interest evinced by retail investors. The reforms also have strengthened the functioning of these markets. Yet, recourse to the regulatory framework is needed to protect the interests of the small investors in a continuum.

In the corporate sector, mergers and acquisitions have been resorted to at the global level by some of the Indian companies which include Tatas, Infosys, Mittal group and others. The prominent among these in the recent period is the acquisition of Corus by Tata Steel and JLR by Tata Motors. Tax revenues are an important source in the fiscal operations of an economy. With a major share of revenue accruing from the services sector, taxing the services in a fair manner such that those taxable are not left out is crucial. The sector of business process outsourcing is growing in India providing large scale employment opportunities and the organizations recruiting the relative personnel have been spending huge amounts on their training to instill requisite talents in them. In such a situation, their retention is a challenging task calling for strategies of lasting value. Studies on consumer preferences in buying products and services are of much value in the realm of competitive analysis, particularly in the case of fast moving consumer goods. Companies use in-house people and external agencies as well for research in this field. This is essential at any level of operations of business entities, be it domestic or global.

The present issue carries paper in these areas with qualitative and quantitative analysis. It is hoped that they add value to the existing literature on the relative subjects.

Editor

Efficiency Analysis and Productivity Growth of Commercial Banks in India : A Dea Approach

C. Babu* and R. Kasilingam**

Abstract

Commercial banks play a vital role in the economy for two reasons: they provide a major source of financial intermediation and their checkable deposit liabilities represent the bulk of the nation's money stock. Evaluating their overall performance and monitoring their financial condition is important to depositors, owners, potential investors, managers and, of course, regulators. The prime objective of this study is to analyze the technical efficiency, cost efficiency and total factor productivity change of commercial banks by taking advances and investments as output variables deposits and no. of employees as input variables by using DEA model. The sample consist of sixty commercial banks in India including 27 public sector banks, 22 private sectors banks and 11 foreign sector banks. The study results indicate that the average efficiency of public sector banks is higher than that of private sector banks for the year 2009-10. Furthermore, foreign sector banks are much efficient than public and private sector banks when all commercial banks are analyzed. Finally, it is concluded that business per employee and cost of funds are the factors which cause variations in the banks efficiency.

Key words: Technical efficiency, cost efficiency, total factor productivity, DEA, Factor determining efficiency

Introduction

Banking is the process of mobilizing the savings from the general public and making funds available to the individual customers and the business organizations for the overall development of money market and Indian economy. Banks are the important component of any financial system. They play important role of channelizing the savings of surplus sectors to deficit sectors. The efficiency and competitiveness of banking system defines the strength of any economy. Indian economy is not an exception to this and banking system in India also plays a vital role in the process of economic growth and development. The banking and financial sector in India underwent a significant liberalization process in the early1990s, which led to reforms in the banking and financial sector and changed the Indian banking structure. During the period from 1992 to 1997, interest rates were liberalized and banks were allowed to fix lending rates. By 1977 CRR was reduced to 9.5% and SLR was reduced to 25%. As a sequel to these reforms, new private sector banks were allowed to enter into the market. Many of these private sector banks brought with them new technologies. Private sector banks started product innovation and competition. The failure of Global Trust Bank made Indian depositors to question the sustainability of private sector banks. Efficiency of commercial banks is one of the most interesting and important issues for both government and private sectors. The purpose of this present study is to analyse the efficiency of Indian commercial banks and to find out the factors determining the efficiency of banks.

Review of Literature

Several studies have addressed the question of bank efficiency, especially in developed economies; in contrast, studies analyzing the efficiency of banks in emerging economies such as India are far fewer.

Buch (1997) asserts that foreign-owned banks use modern technology from and rely on the human capital of their parent banks, so that they would be expected to perform better than government-owned or domestic

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private banks in transitional economies. On similar lines, private banks would be expected to perform better than government-owned banks.

Berg, Forsund and Clausssen (1993) introduced the Malmquist index as a measurement of the productivity change in the banking industry. They focused on the Norwegian banking system during the deregulation period 1980-1989. Their results indicated that deregulation lead into a more competitive environment. The increase of productivity was faster for larger banks, due to the increased antagonism they faced.

Favero and Papi (1995) used the non-parametric Data Envelopment Analysis on a cross section of 174 Italian banks in 1991 to measure the technical and the scale efficiencies of the Italian banking industry. In addition, regression analysis is also used to investigate determinants of banks' efficiency. According to the empirical results, efficiency was best explained by productivity specialization by bank size and to a lesser extent by location (north-Italian banks were more efficient than south-Italian banks).

Drake and Weyman-Jones (1996) used non-parametric DEA techniques and a translog stochastic frontier approach to estimate scale and technical and allocative inefficiencies. They used data of 46 UK building societies and employed an intermediation approach and they found considerable variability in inefficiencies across building societies in the sample, with allocative inefficiency dominating the technical and scale inefficiencies. The cost frontier results, suggested very little allocative or technical inefficiency with constant returns to scale. However, the efficiency rankings provided by the two approaches were found to be remarkably identical.

Pastor, Perez and Quesada (1997) analysed the productivity, efficiency and differences in technology in the banking systems of United States, Spain, Germany, Italy, Austria, United Kingdom, France and Belgium for the year 1992. Using the nonparametric approach DEA together with the Malmquist index, they compared the efficiency and differences in technology of several banking systems. According to the results France had the banking system with the highest efficiency level followed by Spain, while UK presented the lowest level of efficiency.

Bhattacharya (1997) used DEA to measure the productive efficiency of Indian commercial banks in the late 1980's to early 1990's and to study the impact of policy of liberalizing measures taken in 1980's on the performance of various categories of banks. The study found that the Indian public sector banks were the best performing banks, as the banking sector was overwhelmingly dominated by the Indian public sector banks, while the new private sector banks were yet to emerge fully in the Indian banking scenario.

Chen and Yeh (1998) measured the operating efficiency of 33 banks in Taiwan. Applying the DEA approach in their study, they used variables like loan services, portfolio investment, interest income and non-interest income as the output of banks, while the number of staff employed, bank assets, the number of bank branches, operating costs, and deposits were used as the input variables.

Fernandez, Gascon and Gonzalez (2002) studied the economic efficiency of 142 financial intermediaries from eighteen countries over the period 1989-1998 and the relationship between efficiency, productivity change and shareholders' wealth maximization. The authors applied DEA to estimate the relative efficiency of commercial banks of different geographical areas (North America, Japan and Europe). Their results showed that commercial bank productivity across the world had grown significantly (19,6%) from 1989 to 1998. This effect had been principally due to relative efficiency improvement, with technological progress having a very moderate effect.

Aziz Ponary Mlima and Lennart Hjalmarsson (2002) reviewed various definitions of input and output measurement in the banking industry and, conducted an experiment on the sensitivity of efficiency scores based on the choice of variables. The results suggest that efficiency scores are very sensitive to the choice of input and output variables.

Ali F. Darrat and Can Topuz (2002) examined several efficiency measures and productivity changes of banks in the case of Kuwait using the DEA approach. The results indicate that cost efficiency of Kuwaiti banks averages about 68%, implying that about 47% of banks' resources in Kuwaiti are not optimally processed. The results also suggest that the inefficiency sources are both allocative (regulatory), as well as technical (managerial).

Casu and Molyneux (2003) employed DEA to investigate whether the productivity efficiency of European banking systems had improved and converged towards a common European frontier between 1993 and 1997. The geographical coverage of the study is France, Germany, Italy, Spain and the United Kingdom. Their results indicated relatively low average efficiency levels. Nevertheless, it is possible to detect a slight improvement in the average efficiency scores over the period of analysis for almost all banking systems in the sample, with the exception of Italy.

Schure, Wagenvoort and O'Brien (2004) estimated the productivity of the European banking sector for the period 1993-1997. They found that larger commercial banks were more productive on average than smaller banks. However, the Italian and the Spanish banks were found to be the least efficient.

Casu, Girardone and Molyneux (2004) for the period 1994-2000, in an efficiency analysis of the European banking institutions found that Italian banks had an 8,9% productivity increase, Spanish banks had a 9,5% increase, while German, French and English banks had 1,8%, 0,6% and 0,1% productivity increase, respectively. The main reason for such improvement in efficiency for the Italian and Spanish banks is the cost reduction that these institutions managed to achieve.

T. T. Ram Mohan and Subhash Ray (2004) made a comparison between PSBs and their private sector counterparts based on measures of productivity that use quantities of outputs and inputs. They employed two measures of productivity: Tornqvist and Malmquist total factor productivity growth. They attempted these comparisons over the period 1992-2000, comparing PSBs with both domestic private and foreign banks. Out of a total of four comparisons we have made, there are no differences in three cases, PSBs do better in two, and foreign banks in one. To put it differently, PSBs are seen to be at a disadvantage in only one out of six comparisons. It is difficult, therefore, to sustain the proposition that efficiency and productivity have been lower in public sector banks relative to their peers in the private sector.

Dimitrios Angelidis and Katerina Lyroudi (2006) examined the productivity of the 100 larger Italians banks for the period 2001-2002. Inputs and outputs are used as nominal values (millions of euros) and as the natural logarithms of these values. The mean error between the actually total factor productivity and the estimated one is calculated according to both approaches. Moreover, the weighted arithmetic mean of the Malmquist productivity index is calculated in addition to the geometric mean. Also, the correlation coefficient and the ranking correlation coefficient are computed to shed more light to the relationship between bank's size and its performance. The empirical results revealed that the use of natural logarithms and neural networks regression reduces the errors in the estimates. Finally, there is rather an inverse relationship between size and productivity growth, in contrast to the literature. However, this relationship is not statistically significant for our sample firms.

Jenifer Daley and Kent Matthews (2008) explored the results and relationships between bank efficiency estimates using accounting ratios and non-parametric DEA with bootstrap among Jamaican banks between 1998 and 2007. The results indicate different outcomes for the traditional accounting ratios and the sophisticated DEA methodology in the measurement of bank efficiency. GLS random effects two-variable regression tests for superiority using a risk index for insolvency suggest an advantage in favour of the DEA.

Christos Floros and Georgia Giordani (2008) showed how useful the number of ATMs is for modeling and estimating banking efficiency. They examined banking efficiency for Greece using data from top 10 commercial banks. To estimate banking efficiency they employed DEA and FDH using three inputs (number of employees, number of branches and number of ATMs) and one output (loans). They found that large banks are more efficient than medium and small sized banks. Furthermore, they report that banks with a large number of ATMs are more efficient than those with a less number of ATMs.

Mihir Dash (2009) studied the technical efficiency of Indian banks segmented in terms of ownership by using DEA model with five input variables (viz. borrowings, deposits, fixed assets, net worth, and operating expenses) and four output variables (advances & loans, investments, net interest income, and non-interest income), and the efficiency scores were calculated for a sample of forty-nine major banks operating in India. He found that foreign banks were slightly more efficient than public and private banks, and that there was not much of a difference in the efficiency of public and private banks.

Objectives of the Study

- To estimate the technical efficiency, cost efficiency and total productivity change of commercial banks in India using DEA model.
- To find out the relationship between technical efficiency and age of banks and business per employee.
- To identify the factors which discriminate the efficient, above average and below average banks on the basis of technical efficiency.

Sample and Data

The sample consists of 60 commercial banks including 27 public sector banks, 22 private sector banks and 11 foreign sectors banks. The study is purely based on the Secondary Data which has been collected from the audited financial results published by Reserve Bank of India in its website for the period 2008-09 to 2009-10. DEA analysis is used to estimate technical efficiency, cost efficiency and total factor productivity.

Data Envelopment Analysis

Data envelopment analysis is a performance measurement technique which can be used for analyzing the relative efficiency of productive units, having the multiple inputs and multiple outputs. It is a non-parametric analytic technique which allows us to compare the relative efficiency of decision making units (DMU's) as benchmark and by measuring the inefficiencies in input combinations in other units relative to the benchmark. DEA benchmarks firms only against the best producers. It can be characterized as an extreme point method that assumes that if a firm can produce a certain level of output utilizing specific input levels, another firm of equal scale should be capable of doing the same. The most efficient producers can form a 'composite producer', allowing the computation of an efficient solution for every level of input or output. Where there is no actual corresponding firm, 'virtual producers' are identified to make comparisons. DEA is a linear programming methodology to measure the efficiency of multiple decision-making units (DMUs) when the production process presents a structure of multiple inputs and outputs.

Technical Efficiency : Technical Efficiency reflects the ability of the firm to obtain maximal output from given set of inputs. The technical efficiency (TE) of a firm is most commonly measured by means of a ratio. It will take a value between zero and one, and hence provides an indicator of the degree of technical efficiency of the firm. A value of one indicates the firm is fully technically efficient.

Cost Efficiency : The cost efficiency is a mix of technical and allocative efficiencies. Technical efficiency (TE) is just the proportional reduction in inputs possible for a given level of output in order to obtain the efficient use of inputs. Allocative efficiency (AE) reflects the ability of a firm to use the inputs in optimal proportions, given their respective prices. The two measures could be combined to give a measure of total economic efficiency (EE), or overall efficiency (OE), or cost efficiency, which is a product of two efficiency measures (OE = TE x AE).

Total Factor Productivity Change

The Malmquist TFP index calculates the change in productivity between two points by estimating the ratio of the distances of each point relative to a common technology. The Malmquist input oriented TFP change index between the base period t and the following period t+1 is defined as:

$$M\,(y_t,x_t,y_{t+1},x_{t+1}) = \left[\frac{d_{t+1}(Y_{t+1}, X_{t+1})}{d_t(Y_t, X_t)}\;X\;\frac{d_t(Y_{t+1}, X_{t+1})}{d_{t+1}(Y_{t+1}, X_{t+1})}\right]^{1/2}$$

A value of M greater than unity implies a positive TFP growth from the period t to period t+1. Otherwise, a value of M less than one indicates a TFP decline. The total factor productivity change (M) can be decomposed into technical efficiency change (TEC), how much closer a firm gets to the efficient frontier and technological change (TC), how much the benchmark production frontier moves at each firm's observed input mix.

Analysis of Technical Efficiency

Technical efficiency is calculated by output by maximum possible output for the given input. Technical efficiency measures effectiveness of utilizing input for generating output in comparison with benchmarking performance. The output variables used for this study are 1 – Advances or loans created in Indian rupees and 2 – Investments made in Indian rupees. The input variables are 1 – Deposits accepted in Indian rupees and 2 – Total number of employees employed.

Table 1: Technical Efficiency Score And Ranks

	BANKS	FOR ALL BANKS		FOR SECTOR WISE	
	PUBLIC SECTOR BANKS	TE	Rank	TE	Rank
1.	State Bank of Bikaner	0.365	17	0.928	5
2.	State Bank of Hyderabad	0.347	27	0.882	10
3.	State Bank of India	0.375	13	0.953	2
4.	State Bank of Indore	0.369	14	0.938	3
5.	State Bank of Mysore	0.362	19	0.922	6
6.	State Bank of Patiala	0.342	32	0.871	15
7.	State Bank of Travancore	0.361	20	0.917	7
8.	Allahabad Bank	0.322	46	0.828	23
9.	Andhra Bank	0.345	29	0.876	12
10.	Bank of Baroda	0.346	28	0.881	11
11.	Bank of India	0.35	26	0.89	9
12.	Bank of Maharashtra	0.304	53	0.773	27
13.	Canara Bank	0.344	31	0.876	12
14.	Central Bank of India	0.31	51	0.789	26
15.	Corporation Bank	0.325	45	0.851	18
16.	Dena Bank	0.329	43	0.838	21
17.	IDBI Ltd	0.489	6	1	1
18.	Indian Bank	0.336	36	0.855	17
19.	Indian Overseas Bank	0.34	34	0.865	16
20.	Oriental Bank of Commerce	0.331	41	0.842	20
21.	Punjab and Sind Bank	0.317	49	0.832	22
22.	Punjab National Bank	0.357	22	0.908	8
23.	Syndicate Bank	0.368	15	0.937	4

24.	UCO Bank	0.321	47	0.818	24
25.	Union Bank of India	0.335	38	0.851	18
26.	United Bank of India	0.296	54	0.874	14
27.	Vijaya Bank	0.32	48	0.813	25
	Average			0.87	
	Private Banks				
28.	Axis Bank	0.352	24	0.846	6
29.	Bank of Rajasthan Ltd.	0.264	57	0.728	18
30.	Catholic Syrian Bank Ltd.	0.305	52	0.714	19
31.	City Union Bank Ltd.	0.317	49	0.741	17
32.	Development Credit Bank.	0.345	29	0.806	10
33.	Dhanalakshmi Bank Ltd.	0.336	36	0.786	13
34.	Federal Bank Ltd	0.356	23	0.833	8
35.	HDFC Bank Ltd.	0.359	21	0.838	7
36.	ICICI Bank Ltd.	0.428	8	1	1
37.	IndusInd Bank Ltd.	0.367	16	0.858	5
38.	ING Vysya Bank Ltd.	0.341	33	0.798	11
39.	Jammu and Kashmir Bank	0.295	55	0.69	21
40.	Karnataka Bank Ltd.	0.29	56	0.70	20
41.	Karur Vysya Bank Ltd.	0.334	39	0.781	14
42.	Kotak Mahindra Bank Ltd.	0.415	9	0.97	4
43.	Lakshmi Vilas Bank Ltd.	0.33	42	0.771	15
44.	Nainital Bank Ltd.	0.245	58	0.573	22
45.	Ratnakar Bank Ltd.	0.352	24	0.823	9
46.	SBI Commercial Ltd.	0.199	60	1	1
47.	South Indian Bank Ltd.	0.328	44	0.767	16
48.	Tamilnad Mercantile Bank .	0.34	34	0.794	12
49.	Yes Bank Ltd.	0.395	11	1	1
	Average			0.8098	
	Foreign Banks				
50.	Bank of America	0.788	3	0.788	3
51.	Bank of Nova Scotia	1	1	1	1
52.	Barclays Bank	0.333	40	0.333	10
53.	BNP Paribas	0.495	5	0.495	5
54.	Credit Agricole Bank	1	1	1	1
55.	Citibank	0.365	17	0.365	9
56.	DBS Bank	0.645	4	0.645	4
57.	Deutsche Bank	0.443	7	0.443	6
58.	HSBC	0.201	59	0.201	11
59.	Standard Chartered Bank	0.411	10	0.411	7
60.	ABN AMRO Bank	0.385	12	0.385	8
	Average	0.37775		0.55	

Private Bank -The SBI Commercial and International Bank Ltd. (SBICIBL) has been merged with State Bank of India with effect from 29th July 2011.

From the table 1 it is clear that Bank of Nova Scotia and Credit Agricole Bank are the most technically efficient banks in India for the year 2009-10. Both are foreign sector banks. The foreign banks employ less number of people and prefer to use technology to carryout their standardized work. The efficiency of Barclays is 0.33 and its rank is 40 and the efficiency of HSBC is 0.201 and its rank is 59. This indicates some foreign banks are operating at poor efficiency level. The average level of efficiency of public sector banks is 34.47 percent and standard deviation is 3.55 percent. The average level efficiency of private sector banks is 33. 35 percent and standard deviation is 5.24 percent. The average efficiency of foreign sector banks is 55.14 percent and standard deviation is 27.11 percent. The average technical efficiency score of all commercial banks is 37.77 percent. This shows that the average level of efficiency of foreign banks is more but the standard deviation is very high. This indicates that some foreign banks are highly efficient and some banks are very poor in efficiency. The average efficiency of public sector banks is close to overall average efficiency and standard deviation is also very less. This indicates that there is a consistency among public sector banks in performance. Almost all banks have efficiency between 30 percent and 40 percent. The performance of private sector banks is also good except few banks like SBI commercial, Nainital Bank and Bank of Rajasthan.

Public sector banks : Technical Efficiency is also calculated by taking public sector banks alone. The result shows that Industrial Development Bank of India (IDBI) Ltd is the most technically efficient bank among the public sector banks for the year 2009-10. SBI stands in second position. Though SBI is having more number of branches and more employees, it could be able to maintain efficiency level. The ranks of SBI subsidiaries are also good. This means that all SBI subsidiaries are performing well. The bank of Maharashtra and Central bank are poor performing banks. The average technical efficiency score of public sector banks is 87 percent. When all banks are considered the average efficiency of public sector banks is 34 percent and it is 87 percent when only public sector banks are considered. This is mainly because high level efficiency of two foreign sector banks namely Bank of Nova Scotia and Calyon Bank. The public sector banks should also consider ways to improve efficiency to catch up foreign banks.

Private banks : Among the private sector banks three banks stand in no 1 position viz. ICICI Bank Ltd, SBI Commercial and International Bank Ltd, and Yes Bank Ltd. The average technical efficiency score of private sector banks is 80.98 percent. Poor performing banks are Nanital bank, Jammu and Kashmir bank and Karnataka bank.

Foreign banks : Bank of Nova Scotia and Calyon Bank are the most technically efficient banks among the foreign sector banks for the year 2009-10. The average technical efficiency score of foreign sector bank is 0.55. It seems to be low due to the out-performance of Bank of Nova Scotia and Calyon Bank which affects the relative efficiency of other banks. Poor performing banks are Barclays and HSBC.

Cost Efficiency : To estimate cost efficiency the inputs and outputs factors used are: Output 1 – Advances or loans created in Indian rupees Output 2 – Investments made in Indian rupees Input 1 – Deposits accepted in Indian rupees Input 2 – Total number of employees employed, Input price 1 – Price of deposits in Indian rupees Input price 2 – Price of labour in Indian rupees. The Price of deposits is equal to interest paid on deposits divided by the total value of deposits and Price of labour - amount of salaries and wages paid to employees divided by the number of employees at each bank

Table 2: Cost Efficiency Score And Ranks

	BANKS	FOR ALL BANKS		FOR SECTOR WISE	
	PUBLIC SECTOR BANKS	CE	Rank	CE	Rank
1.	State Bank of Bikaner	0.33	17	0.824	4
2.	State Bank of Hyderabad	0.328	21	0.818	7
3.	State Bank of India	0.328	21	0.81	9
4.	State Bank of Indore	0.347	11	0.866	2
5.	State Bank of Mysore	0.329	19	0.82	5
6.	State Bank of Patiala	0.326	25	0.816	8
7.	State Bank of Travancore	0.329	19	0.82	5
8.	Allahabad Bank	0.299	42	0.75	22
9.	Andhra Bank	0.32	31	0.789	16
10.	Bank of Baroda	0.324	26	0.794	14
11.	Bank of India	0.328	21	0.808	10
12.	Bank of Maharashtra	0.278	52	0.691	27
13.	Canara Bank	0.322	29	0.799	13
14.	Central Bank of India	0.289	50	0.719	26
15.	Corporation Bank	0.315	33	0.805	11
16.	Dena Bank	0.305	36	0.757	19
17.	IDBI Ltd	0.402	7	1	1
18.	Indian Bank	0.298	43	0.734	25
19.	Indian Overseas Bank	0.302	41	0.746	23
20.	Oriental Bank of Commerce	0.324	26	0.8	12
21.	Punjab and Sind Bank	0.297	44	0.756	20
22.	Punjab National Bank	0.321	30	0.792	15
23.	Syndicate Bank	0.338	14	0.841	3
24.	UCO Bank	0.303	40	0.753	21
25.	Union Bank of India	0.317	32	0.787	18
26.	United Bank of India	0.273	53	0.788	17
27.	Vijaya Bank	0.297	44	0.735	24
	Average			0.7933	
	Private Banks				
28.	Axis Bank	0.334	15	0.842	4
29.	Bank of Rajasthan Ltd.	0.22	57	0.655	20
30.	Catholic Syrian Bank Ltd.	0.26	56	0.634	21
31.	City Union Bank Ltd.	0.297	44	0.716	16
32.	Development Credit Bank	0.293	49	0.723	14
33.	Dhanalakshmi Bank Ltd.	0.28	51	0.68	18
34.	Federal Bank Ltd	0.33	17	0.81	7
35.	HDFC Bank Ltd.	0.304	37	0.755	10
36.	ICICI Bank Ltd.	0.411	6	1	1
37.	IndusInd Bank Ltd.	0.342	12	0.842	4
38.	ING Vysya Bank Ltd.	0.296	47	0.749	11
39.	Jammu and Kashmir Bank .	0.272	55	0.674	19
40.	Karnataka Bank Ltd.	0.273	53	0.684	17
41.	Karur Vysya Bank Ltd.	0.313	35	0.762	9

42.	Kotak Mahindra Bank Ltd.	0.328	21	0.822	6
43.	Lakshmi Vilas Bank Ltd.	0.304	37	0.732	13
44.	Nainital Bank Ltd.	0.218	58	0.536	22
45.	Ratnakar Bank Ltd.	0.295	48	0.717	15
46.	SBI Commercial Ltd.	0.192	59	1	1
47.	South Indian Bank Ltd.	0.304	37	0.748	12
48.	Tamilnadu Mercantile Bank	0.314	34	0.78	8
49.	Yes Bank Ltd.	0.39	8	0.993	3
	Average			0.7661	
	Foreign Banks				
50.	Bank of America	0.554	3	0.554	3
51.	Bank of Nova Scotia	0.755	2	0.755	2
52.	Barclays Bank	0.323	28	0.323	10
53.	BNP Paribas	0.423	5	0.423	5
54.	Credit Agricole Bank	1	1	1	1
55.	Citibank	0.342	12	0.342	8
56.	DBS Bank	0.376	9	0.376	6
57.	Deutsche Bank	0.431	4	0.431	4
58.	HSBC	0.192	59	0.192	11
59.	Standard Chartered Bank	0.356	10	0.356	7
60.	ABN AMRO Bank	0.333	16	0.333	9
	Average	0.3371		0.4623	

Source: Private Bank -The SBI Commercial and International Bank Ltd. (SBICIBL) has been merged with State Bank of India with effect from 29th July 2011.

The table 2 clearly describes that Credit Agricole bank is the only bank having highest efficiency in terms of cost for the study period 2009-10. Following Credit Agricole, Bank of Nova Scotia stands in second position. Nova Scotia is technically efficient for the same time period, but not cost efficient due to its allocative inefficiency. The bank of America is standing in position 3 in both technical and cost efficiency. The top five positions are occupied by foreign banks. The efficiency of Barclays is 0.323 and its rank is 28 and HSBC has same rank (59) both in terms of technical and cost efficiency. The average cost efficiency score of all commercial banks is 33.70 percent. The average level of efficiency of public sector banks is 31.73 percent and standard deviation 21.53 percent. The average level efficiency of private sector banks is 29.86 percent and standard deviation is 11.78 percent. The average efficiency of foreign sector banks is 46.22 percent and standard deviation is 22.98 percent. It shows that the average level of efficiency of foreign banks is more but the standard deviation is very high. This indicates that some foreign banks are highly efficient and some banks are very poor in efficiency. The average efficiency of public sector banks are close to overall average efficiency but the standard deviation is very high. The performance of some private sector banks is good (ICICI and Yes Bank) and some banks have poor efficiency (SBI commercial, Nainital Bank, Catholic Syrian Bank).

Public sector banks : Cost efficiency is calculated among public sector banks alone separately. The analysis shows that Industrial Development Bank of India (IDBI) Ltd is the most cost efficient bank among the public sector banks for the financial year 2009-10. SBI Indore is in second rank and Syndicate bank is in third position. All SBI subsidiaries are performing well. The bank of Maharashtra and Central bank are poor performing banks among the public sector banks in India. The average cost efficiency score of public sector banks is 0.793. Out of 27 banks more than 50 percent banks are having efficiency more than the overall average cost efficiency score. When all banks are considered the average efficiency of public sector banks is 32 percent and it is 79 percent when only public sector banks are considered.

Private banks : Among private sector banks two banks namely ICICI Bank Ltd and SBI Commercial and International Bank Ltd occupy top position in cost efficient for the year 2009-10, but their rank is 6 and 59 rank respectively when all banks are considered. The average technical efficiency score of private sector banks is 0.766. Though Yes Bank Ltd is technically efficient, it is not cost efficient due to its allocative inefficiency. Nainital Bank, Catholic Syrian Bank and Bank of Rajasthan are the poor performing banks among private sector banks.

Foreign banks : The Calyon Bank (Credit Agricole) is the only cost efficient bank among the foreign sector banks for the year 2009-10. The average cost efficiency score of foreign sector bank is 0.46. Out of 11 foreign banks HSBC, Barclays Bank and ABN AMRO are the low performing banks. It seems to be low due to the performance of Calyon Bank which affects the relative efficiency of other banks.

Total Factor Productivity Change : The inputs and outputs variables used for the calculation of Total Factor Productivity Change are Output 1 – Advances or loans created in Indian rupees, Output 2 – Investments made in Indian rupees, Input 1 – Deposits accepted in Indian rupees, Input 2 – Total number of employees employed.

Table 3: Total Factor Productivity Change

	BANKS	FOR ALL BANKS			FOR SECTOR WISE		
	PUBLIC SECTOR BANKS	Effch	Techch	Tfpch	Effch	Techch	Tfpch
1.	State Bank of Bikaner	1.033	0.973	1.005	1.473	0.938	1.382
2.	State Bank of Hyderabad	1.068	0.973	1.039	1.16	0.896	1.039
3.	State Bank of India	1.105	0.973	1.075	1.142	0.918	1.048
4.	State Bank of Indore	1.041	0.973	1.014	1.132	0.896	1.014
5.	State Bank of Mysore	1.003	0.973	0.976	1.09	0.896	0.976
6.	State Bank of Patiala	1.015	0.973	0.987	1.102	0.896	0.987
7.	State Bank of Travancore	1.002	0.973	0.975	1.088	0.896	0.975
8.	Allahabad Bank	1.003	0.973	0.976	1.057	0.958	1.012
9.	Andhra Bank	0.999	0.973	0.972	1.085	0.896	0.972
10.	Bank of Baroda	1.002	0.973	0.975	1.089	0.896	0.975
11.	Bank of India	1	0.973	0.973	1.087	0.896	0.973
12.	Bank of Maharashtra	0.997	0.973	0.97	0.978	0.981	0.959
13.	Canara Bank	1.003	0.973	0.976	1.089	0.896	0.976
14.	Central Bank of India	1.026	0.973	0.998	1.071	0.914	0.978
15.	Corporation Bank	1.068	0.981	1.047	1.124	0.967	1.087
16.	Dena Bank	1.058	0.973	1.03	1.15	0.896	1.03
17.	IDBI Ltd	0.947	1.047	0.992	1	1.047	1.047
18.	Indian Bank	1.022	0.973	0.995	1.111	0.896	0.995
19.	Indian Overseas Bank	0.98	0.973	0.953	1.064	0.896	0.953
20.	Oriental Bank of Commerce	1.024	1.003	1.027	1.113	0.896	0.997
21.	Punjab and Sind Bank	0.961	0.973	0.935	1.017	0.966	0.982
22.	Punjab National Bank	1.043	0.973	1.015	1.133	0.896	1.015
23.	Syndicate Bank	1.128	0.973	1.098	1.226	0.896	1.098
24.	UCO Bank	1.009	0.973	0.982	1.096	0.935	1.025
25.	Union Bank of India	1.036	0.973	1.008	1.126	0.896	1.008
26.	United Bank of India	0.983	0.973	0.957	1.184	0.96	1.136

27.	Vijaya Bank	1.059	0.973	1.031	1.136	0.924	1.05
	Private Banks						
28.	Axis Bank	1.092	0.973	1.063	1.045	1.017	1.063
29.	Bank of Rajasthan Ltd.	1.109	0.973	1.079	0.858	1.167	1.001
30.	Catholic Syrian Bank Ltd.	1.131	0.973	1.1	1.156	0.907	1.048
31.	City Union Bank Ltd.	0.992	0.973	0.966	1.102	0.88	0.969
32.	Development Credit Bank .	1.054	0.973	1.026	1.194	0.918	1.097
33.	Dhanalakshmi Bank Ltd.	1.127	0.973	1.096	1.248	0.866	1.08
34.	Federal Bank Ltd	1.104	0.973	1.075	1.11	0.927	1.029
35.	HDFC Bank Ltd.	1.115	0.973	1.086	1.107	0.926	1.025
36.	ICICI Bank Ltd.	0.922	0.973	0.897	1	1.03	1.03
37.	IndusInd Bank Ltd.	1.108	0.973	1.079	1.141	0.938	1.07
38.	ING Vysya Bank Ltd.	1.092	0.973	1.063	0.969	1.051	1.018
39.	Jammu and Kashmir Bank.	1.003	0.973	0.976	1.055	1.003	1.058
40.	Karnataka Bank Ltd.	1.076	0.973	1.047	0.828	1.172	0.971
41.	Karur Vysya Bank Ltd.	1.044	0.973	1.016	1.152	0.888	1.024
42.	Kotak Mahindra Bank Ltd.	0.841	0.973	0.818	0.97	0.917	0.889
43.	Lakshmi Vilas Bank Ltd.	0.999	0.973	0.972	1.116	0.874	0.975
44.	Nainital Bank Ltd.	0.997	0.973	0.97	1.109	0.916	1.016
45.	Ratnakar Bank Ltd.	1.238	0.973	1.204	1.405	0.856	1.203
46.	SBI Commercial	0.8	0.983	0.786	1	1.218	1.218
47.	South Indian Bank Ltd.	1.079	0.973	1.05	1.146	0.902	1.034
48.	Tamilnad Mercantile Bank.	1.065	0.973	1.036	1.172	0.888	1.041
49.	Yes Bank Ltd.	1.109	1.028	1.14	1.103	1.102	1.215
	Foreign Banks						
50.	Bank of America	1.347	1.14	1.536	1.347	1.14	1.536
51.	Bank of Nova Scotia	1	1.019	1.019	1	1.019	1.019
52.	Barclays Bank	0.787	1.106	0.87	0.787	1.106	0.87
53.	BNP Paribas	0.835	1.143	0.955	0.835	1.143	0.955
54.	Bank	1	0.993	0.993	1	0.993	0.993
55.	Citibank	0.848	1.074	0.911	0.848	1.074	0.911
56.	DBS Bank	0.996	1.116	1.112	0.996	1.116	1.112
57.	Deutsche Bank	1.374	1.096	1.506	1.374	1.096	1.506
58.	HSBanks bC	0.784	1.016	0.796	0.784	1.016	0.796
59.	Standard Chartered Bank	0.988	0.973	0.961	0.988	0.973	0.961
60.	ABN AMRO Bank	0.795	0.973	0.774	0.795	0.973	0.774

Source: Private Bank -The SBI Commercial and International Bank Ltd. (SBICIBL) has been merged with State Bank of India with effect from 29th July 2011.

The table 3 describes total factor productivity of the commercial banks in India. The table 3 indicates that 30 banks out of 60 banks (50 per cent) have positive growth in total factor productivity in the year 2009-10 compared to the previous year 2008-09. In the foreign banks only four banks out of 11 have shown productivity change and four banks have shown efficiency change and eight banks have shown technology change. Out of four banks which have shown change productivity, three could achieve productivity change because of efficiency change and one bank due to technology change. Further except DBS bank all other banks have shown a growth in total factor productivity due to its technical efficiency. A growth in technological change can be noticed in most of the foreign banks. In the private sector banks except Yes bank no other bank has shown technological change, whereas seventeen banks have shown efficiency change and fifteen banks have shown change in productivity. All the banks which have shown change in productivity could be able to achieve that because of change in efficiency. In the public sector banks eleven banks have shown change in productivity and only two banks have shown change in technology and 21 banks have shown change in efficiency. All the eleven banks which have shown change in productivity is due change in efficiency. Out of 60 banks 42 banks have shown change in efficiency and only 11 banks have shown change in technology. Private sector banks and public sector banks have shown change in efficiency and foreign banks have shown change in technology.

Public sector banks : When analysis is done among the 27 public sector banks 14 banks i.e. 51.85% of the banks have shown growth in total factor productivity in the year 2009-10 compared to 2008-09. All the banks except Bank of Maharashtra have shown change in efficiency. A growth in technological change can be witnessed only in case of Industrial Development Bank of India (IDBI) Ltd.

Private Sector banks : When analysis is done among 22 private sector banks, 18 banks (82 per cent) have shown growth in total factor productivity in the year 2009-10 compared to previous year 2008-09. The banks which have not shown productivity change are Karnataka bank, Kotak, LVB and City union bank. Except Bank of Rajasthan and ING Vysya, all other banks have shown growth in productivity due to its technical efficiency change. A growth in technological change can be witnessed in some of the banks in this sector.

Foreign banks : Only 4 banks out of 11(36 per cent) banks have shown the growth in total factor productivity for the year 2009-10 compared to 2008-09. Except DBS bank all other banks have shown a growth in total factor productivity due to its technical efficiency. Most of foreign banks have shown growth in technological change.

Segmentation of Banks on the Basis of TE Score

The commercial banks in India are classified into highly efficient, above average and below average banks on the basis of their Technical Efficiency score. Highly efficient banks are banks which are having efficiency score 1, which means they are 100 percent efficient banks. Above average banks are banks which are having efficiency above average level of efficiency. Below average banks means banks having efficiency less than average efficiency.

Table 4: Classification Of Banks Based On Efficiency

	All Banks		Public Sector Banks	
Particulars	Frequency	Percentage	Frequency	Percentage
Highly Efficient	2	3.33	1	3.70
Above Average	10	16.67	12	44.45
Below Average	48	80	14	51.85
TOTAL	60	100	27	100

From the table 4 it is clear that only two banks have 100 percent efficiency and 16.67 percent of banks are above average and 80 percent of banks are below average. Among public sector banks 3.70 percent of banks are highly efficient, 44.45 percent of banks are above average and 51.85 percent of banks are below average. This indicates that maximum number of banks is operating below average level of efficiency.

Table 5: Classification of Private Banks and Foreign Banks

	Private banks		Foreign banks	
Particulars	Frequency	Percentage	Frequency	Percentage
Highly Efficient	3	13.64	2	18.18
Above Average	6	27.27	2	18.18
Below Average	13	59.09	7	63.64
TOTAL	22	100	11	100

From the table 5 it is clear that among 22 private banks 13.64 percent of banks are highly efficient, 27.27 percent of banks are above average and 59.09 percent of banks are below average. Among foreign banks 18.18 percent of banks are highly efficient, 18.18 percent of banks are above average and 63.64 percent of banks are below average.

Factors influencing Technical Efficiency

To find out the factors influencing technical efficiency, regression analysis is performed. Technical efficiency score is taken as dependent variable, Age of the bank, Number of branches, Business per employee, Cost of funds, Capital adequacy ratio, Non-performing assets, Deposits and Number of employees are taken as independent variables. Before doing regression analysis correlation analysis is used to find out the relationship among variables.

Table 6: Relationship Between Efficiency And Age Of Banks

Case	Correlation co-efficient	Sig. (2-tailed)
All Banks	-0.268*	0.038
Public Sector Banks	0.040	0.844
Private Sector Banks	-0.468*	0.028
Foreign Sector Banks	-0.383	0.245

There is a significant negative correlation between technical efficiency score and age of the bank when all banks considered as a whole and private sector banks alone considered separately. This means that old banks are not efficient. Utilization of old resources is very difficult.

Table 7: Correlation between Technical Efficiency and Business Per Employee

Case	Correlation co-efficient	Sig. (2-tailed)
All Banks	0.840**	0.000
Public Sector Banks	0.288	0.146
Private Sector Banks	0.561**	0.007
Foreign Sector Banks	0.885**	0.000

There is a significant positive correlation between technical efficiency score and business per employee in the case of all banks, private sector banks and foreign sector banks are considered separately. This indicates that the efficiency of banks depends on business per employee.

Table 8: Factors Influencing Technical Efficiency

	All Banks	Public Sector	Pvt. Sector	Foreign
Age of the bank	NS	NS	NS	-0.299
No. of Branches	NS	-2.641	NS	NS
Business per Employee	0.874	NS	0.858	0.944
Cost Of Funds	NS	NS	NS	-0.173
Capital Adequacy Ratio	NS	NS	0.380	-0.282
Non-Performing Assets	0.121	NS	0.513	0.420
Deposits	-1.102	NS	NS	NS
No. Of Employees	0.874	4.006	NS	NS
Age of the bank	NS	NS	NS	-0.299

NS indicates non significant. Some of the variables do not have influence on technical efficiency and such variables are written as non significant variables. The beta co-efficients for different variables are given in the table 8. By using beta co-efficient regression equation can be written.

- **All Banks:** TE score = 0.874 Business per employee + 0.121 Non-performing assets - 1.102 Deposits + 0.874 Number of employees
- **Public Sector Banks:** TE score = -2.641 Number of branches + 4.006 Number of employees
- **Private Sector Banks:** TE score = 0.858 Business per employee + 0.380 Capital adequacy ratio + 0.513 Non-performing assets
- **Foreign Sector Banks:** TE score = -0.299 Age of the bank + 0.944 Business per employee - 0.173 Cost of funds - 0.282 Capital adequacy ratio + 0.420 Non-performing assets

Discriminant Analysis

In the earlier section, it was seen that the banks are divided into three segments such as highly efficient, above average and below average based on their technical efficiency. Now, it is necessary to check whether such classification is right and all the 8 determinants such as Age of the bank, Number of branches, Business per employee, Cost of funds, Capital adequacy ratio, Non-performing assets, Deposits and Number of employees have influence in making such classification. For this purpose discriminant analysis is used. All the 60 commercial banks in India are considered for the analysis. The category of banks is considered as a dependent variable and all others are taken as independent variables for the purpose of discriminant analysis.

Table 9: Structure Matrix

	Function	
	1	2
Business Per Employee	.850*	-0.085
COF	-.596*	0.497
Age	-.180*	-0.093
No of employees	-.113*	0.092
Deposit	-.108*	0.026
NPA	0.150	.410*
No of Branches	-0.152	.190*
CRAR	0.080	-.093*

* Variables which having relationship with functions

As there are three categories, two linear equations can be formed. The structure matrix table (Table 9) contains co-efficient for the variables. The two domain functions can be written by using co-efficients in the structure matrix table. The functions are

$$Z1 = 0.850\ X1 - 0.596\ X2 - 0.180\ X3 - 0.133\ X4 - 0.108X5 \text{ and}$$

$$Z2 = 0.410\ Y1 + 0.190Y2 - 0.093Y3$$

Where X1 = Business per employee, X2 = Cost of funds, X3 = Age of the bank, X4 = Number of employees, X5 = Deposits, Y1 = Non-performing assets, Y2= Number of branches, Y3 = Capital adequacy ratio. The first function is the function of Business per employee (0.850) and Cost of funds (-0.596).

Table 10: Eigen Values

Function	Eigen value	% of Variance	Cumulative %	CanonicalCorrelation
1	2.450[a]	88.7	88.7	0.843
2	0.312[a]	11.3	100.0	0.488

The eigen value for the first function is very high when compared to the second function (Table 10). The first function describes 88.7 percent of variance among banks. The eigen value for the second function is very less and it describes only the remaining 11.3 percent of variance. To understand more about discriminant function, canonical correlation is used. The canonical correlation measures the association between the discriminant functions and the 8 determinants. The canonical correlation between the first function and 8 determinants is very high but canonical correlation for the second function is only 0.488 but that itself is significant enough to describe the existence of relationship. As already stated, the first function describes about 88.7 percent of the variance in efficiency among banks. This means that these three segments differ significantly in Business per employee and Cost of funds.

Table 11: Wilks Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	0.221	80.802	16	0.000
2	0.762	14.543	7	0.042

Table 11 contains Wilks' lambda, the chi-square, its degrees of freedom and its significance level. The small values of Wilks' lambda indicate strong group differences among mean values of 8 determinants. The significance value of 0.000 indicates that the group differences are significant

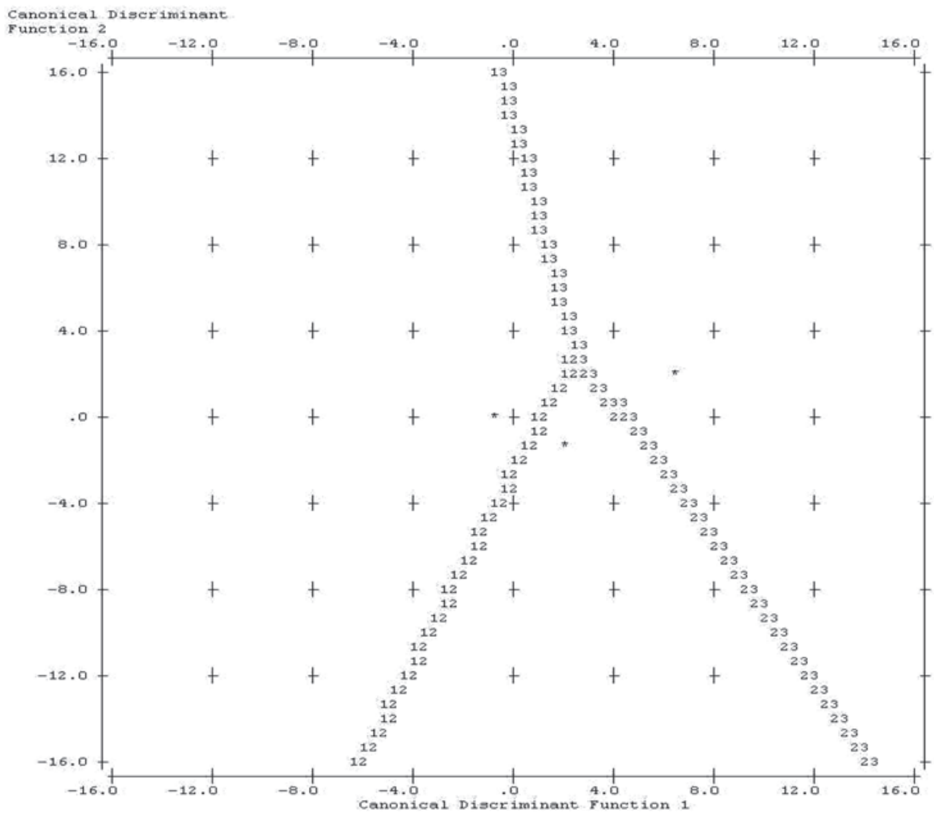

Figure 1: Territorial Map

From the territorial map (Figure 1) it is clear that function one distinguishes between segments one (below average) and two (above average) and also two (above average) and three (highly efficient). Hence, function one explains 88.7 percent of variance among banks. The discriminant function two distinguishes between first group and third group only.

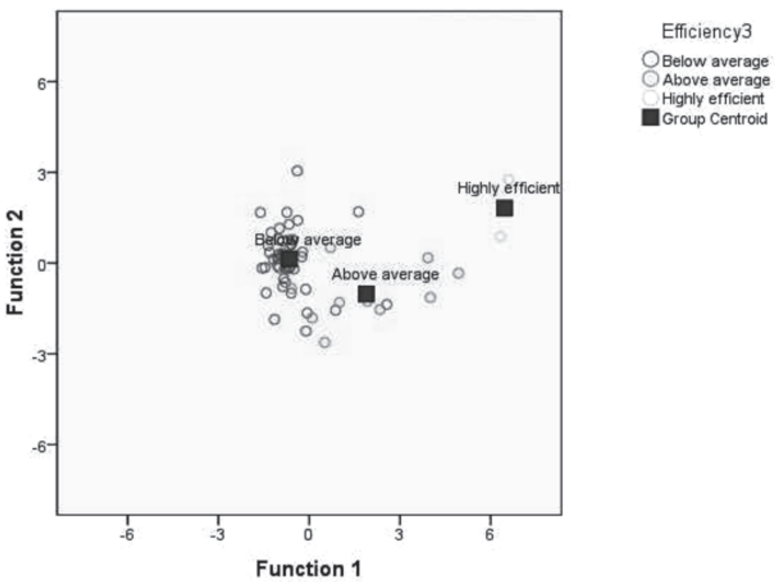

Figure 2: Canonical Discriminant Functions

The discriminant diagram (Figure 2) shows that three segments are different groups having clear demarcation and the segments differ mainly on function one. Hence, it can be inferred that the characteristics of three segments are different with respect to their determinants.

Conclusion

The efficiency of commercial banks in India is calculated by taking advances and investments as output variables and deposit and no. of employees as input variables. Analysis shows that Bank of Nova Scotia and Credit Agricole Bank are the most technically efficient banks in India for the year 2009-10. Both are foreign sector banks. The foreign banks employ less number of people and prefer to use technology to carryout their standardized work. Though few foreign banks operate in very high efficiency some banks such as Barclays and HSBC are operating at very poor efficiency. The average efficiency of public sector banks is close to overall average efficiency and standard deviation is also very less. This indicates that there is a consistency among public sector banks in performance. Almost all banks have efficiency between 30 percent and 40 percent. The performance of private sector banks is also good except few banks like SBI commercial, Nainital Bank and Bank of Rajasthan. Credit Agricole bank is the only cost efficient bank for the study period 2009-10. Bank of Nova Scotia stands in second position. Nova Scotia is technically efficient, but not cost efficient due to its allocative inefficiency. The top five positions in cost efficiency are occupied by foreign banks. The average cost efficiency score of all commercial banks is less than technical efficiency. The average cost efficiency of foreign bank is more but the standard deviation is also very high. The average efficiency of public sector banks are close to overall average efficiency but the standard deviation is very high. Thirty banks out of 60 banks (50 per cent) have positive growth in total factor productivity in the year 2009-10 when compared to the previous year 2008-09. Most of the foreign banks have shown growth in technology. In the private sector banks except Yes bank no other bank has shown technological change, whereas seventeen banks have shown efficiency change and fifteen banks have shown change in productivity. All the banks which have shown change in productivity could be able to achieve that because of change in efficiency. In the public sector banks eleven banks have shown change in productivity and only two banks have shown change in technology and 21 banks have shown change in efficiency. Private and public sector banks could be able to show change in productivity due to change in efficiency. The age of the banks is having impact on efficiency on private banks and foreign banks. The business per employee is the discriminating factor between efficient and inefficient banks.

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Marketing Strategies of Microfinance Institutions and the Performance Implications: A Conceptual Overview

Priyanka Jayashankar * and Robert V. Goedegebuure **

Abstract

Under the ambit of the research paper, conceptual linkages have been established between marketing strategies and social performance outcomes and financial performance. The following research questions have been formulated:

1) What is the nature of the relationship between marketing strategies and social performance of microfinance institutions (MFIs)?

2) Which marketing strategies have a stronger impact on social performance of MFIs at a field level?

3) What is the relevance of social performance outcomes for marketers in the micro finance sector?

4) What is the nature of the relationship between marketing strategies and financial performance?

5) Does the relationship between marketing strategies and financial and social performance of MFIs vary across different institutional structures (for-profit and non-profit MFIs)?

6) Does the relationship between marketing strategies and financial and social performance of MFIs vary across different macro-environments?

The various elements of the conceptual model have been discussed in this paper.

Key Words : MFIs, Marketing Strategies, Social Performance.

Introduction

"*The key to ending extreme poverty is to enable the poorest of the poor to get their foot on the ladder of development. The ladder of development hovers overhead, and the poorest of the poor are stuck beneath it. They lack the minimum amount of capital necessary to get a foothold, and therefore need a boost up to the first rung*." *Jeffrey Sachs (2005)*

Preview

In the wake of the success of microfinance institutions (MFIs) such as Grameen Bank (Bangladesh) and Banco Sol (Bolivia), economists (Moyo, 2009) have argued that governments in the developing world would have to reduce their dependency on foreign aid and shift their focus towards microfinance, venture capital and trade liberalization to boost economic growth. The Advisors Group to the United Nations in 2005 (the Year of Microcredit) stated that the critical role of access to microfinance in reducing poverty is much better understood by policymakers.

Promoting microfinance is on the international development agenda, as a means toward achieving the Millennium Development Goals. As a powerful development tool, microfinance has enabled many borrowers to break free from the shackles of moneylenders. Microfinance views poor people as having an immense amount of assets; it is a system that allows those who are traditionally excluded from the formal financial sector to raise capital for a whole range of needs (De Soto, 2005). The need for market-based poverty alleviation

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solutions becomes all the more acute due to the absence of pro-poor policies and the lack of access to education and credit at the BoP (World Bank, 2003 and Kirchgeorg and Winn, 2006.) Policy makers and microfinance pioneers have begun promoting the growth of non-farm enterprises, as well as innovative management practices and cost-reduction techniques among MFIs (Cull et al, 2009.)

The socio-economic benefits of microfinance are palpable in terms of micro-enterprise productivity gains, gender empowerment, and a higher standard of living for the bottom of the pyramid segment (BoP). As a contrast to development banks of the past, MFIs have adopted a more market-oriented approach to lending in order to enhance their financial sustainability (Hartarska and Nadolnyak 2007). During the early stages, state-run organizations had absolute control over the disbursal of subsidized credit. However, there's currently a growing influx of funds from capital markets into the microfinance sector (Hartarska and Nadolnyak, 2007). Commercially oriented agencies and fund had invested $23 billion in 450 MFIs worldwide (Moyo, 2009). Social entrepreneurs are playing a pioneering role in the microfinance sector, which is now replete with both non-profit and commercial institutions.

Rapid commercialisation and increasing competition have induced MFIs to fine-tune their management practices and business models across emerging markets and developing countries. Whilst NGOs in the microfinance sector are predisposed to compete to attract funding from donors and allocate resources to beneficiaries, for-profit MFIs vie for "time, attention and dollars" as they pitch to local and global investors (Wall Street Journal, 2007.)

In spite of the rise in competition among MFIs in regions across South Asia, Africa and Latin America, several markets still remain untapped. The microfinance industry is yet to reach 5 per cent of the world's poor (Moyo, 2009; Maier and Pischke, 2008). There's a growing thrust among profit-oriented MFIs on increasing the breadth of outreach across untapped markets. Doubts are now being raised about the socio-economic impact of microfinance. Many micro-entrepreneurs backed by MFIs are still unable to scale up their low margin businesses.

Mere access to low cost finance is not the panacea for spurring business development and job creation in developing countries, as micro-loans are frequently used for consumption smoothing (Dichter, 2007). While the steady increase in micro-loan off-take and the scope for expansion into new markets have given rise to a lot of euphoria among microfinance circles, experts fear the onset of a mission drift, whereby MFIs neglect their social mission (if any) in favor of maximizing profits. One would also need to understand the various stages of evolution of the markets in which MFIs operate. Generally, whenever a product/service is successfully launched by a few providers, there is likelihood of me-too players entering the market. In the consolidation stage, firms seek positions in the market based on their competitive advantages. MFIs anticipating that stage have to find an optimal mix of establishing strong and sustainable positions in existing markets and expanding into untapped markets. A myriad of factors co-determine the choices of individual MFIs: governance practices and operating costs Brau and Woller (2004); market forces (Hartarska, 2004); accountability to a diverse group of stakeholders (Churchill, 2000; Schreiner, 2000; Norell, 2001); market characteristics and marketing tactics (Churchill, 2000; Morduch, 2000; Woller et al, 1999; Rhyne, 1998; Ruthven, 2001 and Orozco and Hamilton, 2008); customization of microfinance vehicles, technologies and performance assessments to clients' needs (Bhatt and Tang, 2004); operational aspects like the use of credit scoring techniques (Schreiner, 2000).

The efficacy of microfinance programmes in alleviating poverty and enhancing the empowerment of the poor has spawned several debates amongst academic circles (Kabeer, 2000.) Striking a trade-off between financial and social performance targets remains a primary concern for a host of microfinance practitioners and policy makers.

Thus, it would be pertinent to determine whether marketing strategies would help MFIs brace themselves against competitors, meet performance targets and also bring about a desirable change in the financial behaviour and standard of living of the poor. From a social marketing perspective, one may delve deeper into the product development and communication strategies used by MFIs to improve the socio-economic status of their clients and also bring about greater empowerment at a grassroot level. Mounting evidence suggests that companies can establish financially and socially sustainable ventures in subsistence marketplaces (Weidner et al, 2009.) However, there is still a dearth of conceptual clarity on the type of marketing strategies/ tactics applicable in such markets (Weidner et al, 2009.)

A broad distinction has to be made between the institutional structures of for-profit and non-profit organizations. In for-profit organizations, market prices link buyers and sellers, wages link employees and employers, and profits link shareholders and management (Anheier, 2000). MFIs can be broadly categorized based on their institutional structure (Greuning et al, 1998): MFIs that depend on other people's money (NGOs); MFIs that depend on members' money; and MFIs that leverage the public's money. The MFI's structure is a key determinant of its standards of behaviour. The institutional structure affects the managerial decision-making process of MFIs (Hudon, 2006; Lapenu, 2002). Ceteris paribus, non-profit firms tend to be more complex than for-profit businesses, as they manage diverse constituencies, stakeholders and have multiple revenue sources including donations, fees and charges, and public sector payments like subsidies, grants and contracts (Anheier, 2000).

The financial and social performance of an MFI is linked to the double bottom line concept, whereby the institution can become commercially viable and also catalyze social development (Tulchin, 2003). Performance indicators have gained credence among MFIs, which need funding from investors and international donors. Investors consistently track performance metrics such as the return on investment, default rates and portfolios at risk in order to gauge the financial sustainability of MFIs. Robust measures and standards are needed for measuring the social impact of MFIs, as poverty alleviation and the improvement in the standard of living of low income groups remain key priorities for MFIs, which are run as nonprofit organizations. Socially responsible investors, for their part, attach a lot of significance to the socio-economic impact of microfinance on low income communities (Counts, 2008; Cull et al, 2007).

According to CGAP (2008), billions of dollars of foreign investment are still pouring into the microfinance from donor agencies and social investors, rather than investors seeking maximum financial returns. While researchers concur that the market indeed is a powerful force, it cannot fill all gaps in the microfinance sector (Cull et al, 2009). Given the above polemical issues, which dominate microfinance research, a study on the impact of marketing strategies on the social and financial performance of MFIs will shed light on the depth versus breadth trade-off (Hartarska, 2004). The missing profit motive allows for a great variety of preferences, motivations and objectives to materialize in non-profit organizations (Anheier, 2000). Profit-oriented MFIs give greater priority to the breadth of outreach (the number of clients) than to the depth of outreach (poverty alleviation brought out by the MFI). The microfinance sector is at crossroads, with a growing number of MFIs striving to strike a balance between socio-economic empowerment and financial sustainability.

Overview of the problem statement and research model

Woller (2002) has referred to the *problem of marketing failure in the microfinance industry*, which is defined as the failure to integrate sound marketing practices into organizational design and strategy. Woller (2002), Cohen (2002) and Dunn (2002) argue that MFIs need to be more client-focused, including offering a mix of financial products tailored to the various needs and wants of the poor customers. While MFIs have succeeded in increasing the breadth of outreach (the number of clients) by providing standardized financial products, the depth of outreach (the social-economic impact of microfinance) has remained limited in several cases. The shallow depth of outreach can be attributable to MFIs' lack of knowledge of clients' financial requirements; lack of client-orientation in product development; lack of assessment of the impact of financial products on clients. The impact of marketing strategies on the performance of MFIs is the fundamental research problem to be addressed in the study. Marketing is an integral part of a firm's business strategies (Wind and Robertson, 1983). Marketing strategies enable a firm to assess consumer's needs and also gain competitive advantage.

It is assumed that the organizational mission – commonly regarded as the starting point of marketing strategies – differs between for-profit and not-for-profit MFIs, leading to different strategic and tactical choices. As for-profit MFIs are guided by the single bottom-line that states their profits, it may be expected that their marketing strategies may lead them to expand into similar markets (however defined) with standardized offerings and a focus on improved efficiency, while not-for-profit MFIs may focus on products that meet the social-economic needs of the local markets, under the restriction of no-losses. The outcome of the process in terms of social and financial performance may be in line with the organizational goals (not-for-profit MFI score higher on social performance; for-profit MFIs on financial performance).

Social marketers can induce a behavioural change among the target audience. In a similar vein, the promotion of micro-finance can bring about a change in consumer behaviour, which can be studied through the use of social performance indicators. Social performance outcomes can also provide useful insights for market researchers in the microfinance sector.

Research on financial services marketing clearly points towards the impact of marketing strategies on the financial performance of businesses. Thus, one can infer that marketing strategies impact the financial performance of MFIs. Studies also point to the over-arching impact of the macro-environment of the host country on the performance of MFIs (Vanroose and D'Espallier, 2009.)

The following major research questions have been addressed through the study:

1. What is the nature of the relationship between marketing strategies and social performance of MFIs?
2. Which marketing strategies have a stronger impact on social performance of MFIs at a field level?
3. What is the relevance of social performance outcomes for marketers in the microfinance sector?
4. What is the nature of the relationship between marketing strategies and financial performance?
5. Does the relationship between marketing strategies and financial and social performance of MFIs vary across different macro-environments?
6. Does the relationship between marketing strategies and financial and social performance of MFIs vary across different institutional structures?

Each of the major research questions have been encapsulated in the research model, as illustrated below:

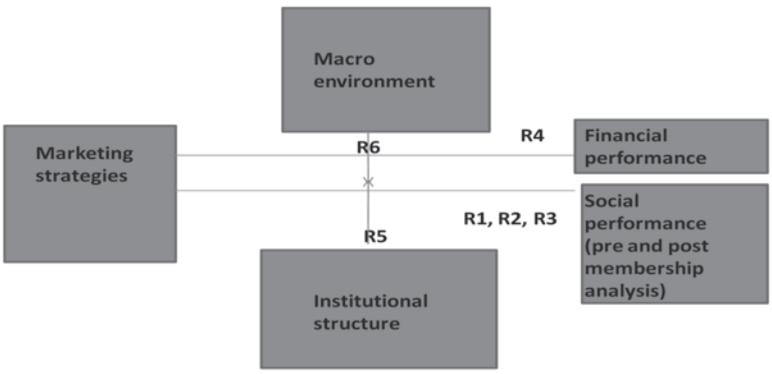

Figure 1: Linking the conceptual model with the major research questions

The following hypotheses have been formulated, which are directly linked to the research model.

Hypothesis 1) Marketing strategies have a direct, positive impact on the social performance of MFIs.

Hypothesis 2) Microfinance clients are socio-economically better off than non-clients in the long-run (which is measurable in terms of social performance indicators)

Hypothesis 3) Marketing strategies have a direct, positive impact on the financial performance of MFIs.

Hypothesis 4) The institutional structure has a moderating effect on the relationship between marketing strategies and the performance of MFIs

Hypothesis 5) The macro-environment has a moderating effect on the relationship between marketing strategies and the performance of MFIs

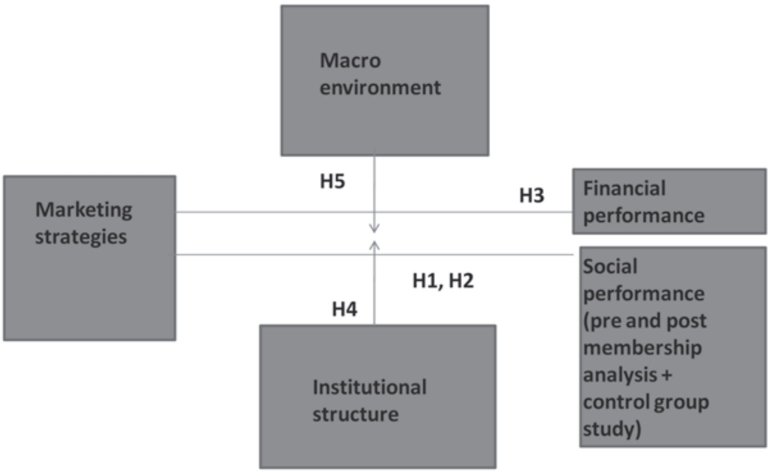

Figure 2 Linking the hypotheses to the research model

Elements of the model

Applying marketing concepts at the BoP: Households at the BoP tend to rely on both formal and informal sources of credit due to irregular and unpredictable income flows (Collins et al, 2009). Studies indicate that moneylenders in India succeed in retaining their clientele in spite of charging high interest rates due to the speed and flexibility of their services (Megicks et al, 2004.) Hence, it is incumbent upon MFIs to alter the financial behaviour of their clients (by reducing their dependence on moneylenders) through their marketing interventions.

As social marketers, MFIs strive to bring about a desirable behavioural change at the BoP. One can adopt a behavioural perspective to understand the reasons behind the low participation of the poor in the financial mainstream (Bertrand et al, 2006.) MFIs would need to understand the nuances of communities at the BoP. An archetypal BoP market is characterised by powerful group influencers, social networks, relationships between subsistence-level producers and consumers (Viswanathan and Rosa, 2007 and Weidner et al, 2010.) Marketers involved in the process of poverty alleviation would need to give credence to behaviour profiling and also segment low-income clients based on their diverse household/ occupational backgrounds (Kotler et al, 2006.) Prahalad and Hart (2002) have alluded to the heterogeneity of the BoP segment and consequently social marketers would need to distinguish between the needs and wants of each segment (Kirchgeorg and Winn, 2006 and WBCSD, 2004).

Social marketers would have to delve deeper into the behavioural patterns of the BoP across different segments. In this context, Rothschild's continuum would assume significance, wherein at one end of the continuum, people would be willing to use the service promoted by the social marketer in their self-interest. Those in the middle of the continuum would neither be willing nor resistant to the social marketing initiative.

A behavior change can be triggered by social marketers among these populations by increasing perceived benefits and reducing perceived barriers. The audience at the other end of the continuum would be resistant to the idea propagated by the social marketer, as they perceive it to be inimical to their self-interest. Rothschild's (1999) continuum would be applicable to the microfinance market, as illustrated in the following figure:

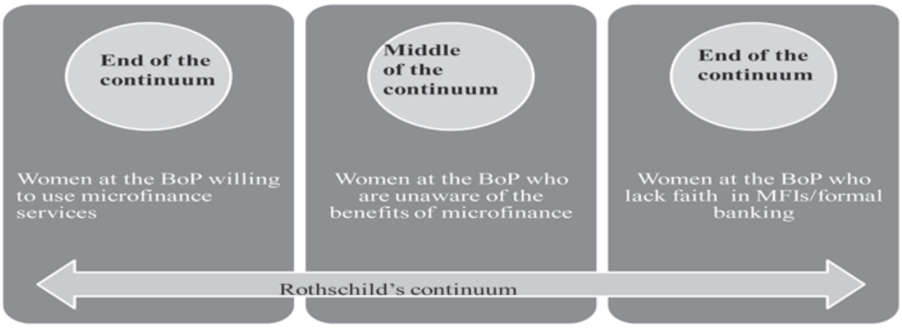

Figure 3: Applying Rothschild's continuum in the microfinance sector

Women's self-help groups and micro-entrepreneurs who consider microfinance socio-economically empowering, would fit into the end of the continuum (which is on the extreme left as illustrated above). In the middle of the continuum, low income groups would be unaware of the benefits of microfinance and they would continue to rely on informal credit sources. Those at the extreme right of the continuum may have an adverse view of microfinance due to suspicions caused by cultural barriers or lack of faith in formal banking.

Marketing strategies

Marketing strategies would take precedence among MFIs operating in highly competitive markets. As MFIs' dependence on subsidies and grants from donors reduces, they would have to meet higher financial performance targets through their marketing activities and develop sustainable business models. MFIs, many of which do not accept deposits, need to generate leads and attract new customers. Marketing, in this respect, would enable MFIs to build up their business models in terms of the volume of potential customers (Pollinger et al, 2007.) The majority of MFIs operate on the premise that 'once they open doors, clients will come in,' (Cohen and Wright, 2003.) Pawlak and Matul (2004) call for a more proactive role on the part of MFIs to develop strategic marketing plans. MFIs strive to fulfil the social mission of reaching out low income groups that have been excluded from the mainstream financial services sector. MFIs would have to gain a deeper understanding of the needs, perceptions, preferences, reference groups, and behavioural patterns of the target audience.

A wide range of functions come under the gamut of social marketing, as it adds new dimensions to communication theory, diffusions of innovation and social research and development (Sirgy et al, 1985). While Kotler (1975) has focused on increasing the acceptability of an idea through social marketing, Andreason (2002) has laid more emphasis on behavioural change. Processes used for marketing in the private sector are applicable in social change programs (Andreason, 2002.) Social marketing is intrinsically a consumer-driven process and results in a behavioural change. Financial and non-financial microfinance products such as emergency loans, insurance or educational inputs would enable microfinance clients to smooth consumption and cope with emergencies (Simanowitz, 2002.)

Simple marketing interventions can bring about a desirable change in the target audience and induce them to avail of socially beneficial products (Bertrand et al, 2006.) Mainstream commercial marketing techniques such as audience analysis and segmentation; consumer research; product conceptualization and development; message development and testing; and the use of paid agents, volunteers, and incentives would be applicable for social marketers (Ling et al, 1992.)

Marketing in the financial services sector has evolved to be increasingly strategic and less tactical (Crane and Clarke, 1988) due to the advent of globalization, mergers, acquisitions and deregulation (Devlin et al, 1995.) In a service organization, the marketing function regards the superiority of product offering as critical to wining over competition and to achieve increased sales (Rhee and Mehra, 2006.) The quality of service rendered towards customers has also gained credence in financial services marketing literature (Malhotra and Mukherjee, 2003.) Retail banks are beginning to adopt a more people-oriented approach to enhance customer service (Malhotra and Mukherjee, 2003). A competitive positioning strategy can be established at the level of the financial product category, organization or brand (Devlin et al, 1995). *Thus, within the ambit of the study, the product attributes, service quality, positioning and customer service would be critical for developing marketing strategies in the financial services sector.*

i) Product development strategies in the microfinance sector: New product development strategies directly impact the performance of financial services firms (Alam and Perry, 2002). The market-oriented research consultancy, Microsave (Wright et al, 2005), has brought to light the key components of product development for the microfinance industry. Pilot testing, flexibility in loan repayment schedules, the use of actuaries for developing micro-insurance products and differential pricing for various client segments are among the product development strategies advocated by Microsave. Researchers have attributed the rise in client dropout rates and delinquencies across MFIs to the lack of flexibility in product design (Dunn, 2000). Large-scale MFIs in the past tended to adopt a one-size-fits all approach to develop standardized microfinance products. However, market-oriented MFIs are now beginning to customise their loan products in accordance with the consumption patterns, lifestyle and occupational background of their clients. Churchill (2000) has pointed out that clients are no longer credit-centric as they want to minimize their dependency on debt. Thereby, MFIs, which had earlier focused solely on the provision of loans, are now diversifying their product range by offering remittance, savings, insurance and in some cases, equity schemes.

ii) Service delivery in the microfinance sector: Amid rising competition and increased heterogeneity of customer demands, industries are faced with the challenge of managing their new service offerings (Menor and Roth, 2008.) New service delivery methods such as for depositor services, such as phone centers, ATMs, and online banking may exhibit greater economies of scale than traditional branching networks (Radecki et al, 1997). Service delivery innovation in microfinance has also been catalyzed through the use of information technology, which in turn, would help reduce transaction costs. A market survey conducted by Women's World Banking (2001) revealed that the turnaround time (the rapidity with which the MFI disburses a loan) was considered a critical service delivery attribute by microfinance clients from diverse regions. MFIs worldwide are still faced the challenge of developing full-proof delivery channels for savings products (Parikh, 2005). Access to low cost technology such as PDAs (Parikh, 2005) and collaborations between MFIs and the Government to deliver aid (Sriram and Upadhyayula, 2004) would also strengthen microfinance delivery channels.

iii) Client relationship strategies in the microfinance sector: Financial service providers tend to forge relationships with their clients, as there's immense scope for customer involvement due to the complicated and risky nature of financial services. Carpenter (1997) distinguishes meaningful relationships, in which the bank is perceived as having the customer's best interests at heart; and mainstream or unfulfilling relationships wherein the client views the bank less favourably and there's likelihood of the client to switch over to other financial service providers.

Churchill (2000) has pointed out that MFIs need to adopt appropriate business strategies to enhance customer loyalty due to the increase in competition and the emergence of a more discerning clientele. Loan officers of

MFIs play a critical role in building up lasting relationships with clients. Socially motivated MFIs consider one-to-one relationships between loan officers and borrowers as a key client retention strategy. Thus, relationship marketing concepts would be applicable in the microfinance sector. The loan officer's interactions with clients, the product education and capacity building programmes, and counseling services in loan utilization, gender discrimination, health and sanitation rendered across different client segments would be among the key components of an MFI's client relationship strategy.

iv) Positioning strategies in the microfinance sector: Financial services companies need to develop strong positioning strategies amid rising competition (Easingwood and Mahajan, 1989). The MFI would also have to re-emphasize its social mission while reaching out to stakeholders such as donors and aid agencies. Its core competencies would have to be clearly defined in order to gain recognition from investors. The MFI would have to articulate clearly its positioning strategy for clients, investors and donors. The attributes of loan/ saving products can be reiterated through promotional activities or workshops organized by loan officers in order to increase the MFI's client outreach. Positioning strategies would enable the MFI to (at least partially) address the issues of multiple borrowing and client defection. The MFI can also establish its brand identity based on a unique attribute such as the size of its operations or its service quality.

Linking marketing strategies with financial and social performance

Empirical studies point towards a direct impact of marketing strategies such as product development (Alam and Perry, 2002), service delivery (Greising, 1994; Rust et al, 1995), client relationship strategies (Speed and Smith, 1993) and positioning (Zineldin, 1996) on the business performance of financial services companies. Market orientation, which is the organization-wide information generation and dissemination and appropriate response related to current and future customer needs and preferences (Kohli and Jaworski, 1990), has a positive impact on business profitability. Product development and consumer education strategies can bring about a desirable behaviour change among the target audience (Sridharan and Viswanathan, 2008.) The impact of diverse social marketing strategies such as consumer research, market segmentation, product concept development and testing, directed communication and incentives (Kotler and Roberto, 1989) on MFI clients' socio-economic status and overall empowerment can also be analysed in greater depth.

Institutional structure of MFIs: The microfinance sector is replete with diverse ownership structures such as non-profit organisations, non-banking financial companies, commercial banks and credit unions, which include savings and credit cooperatives (SACCOs) and rotating and savings credit associations (ROSCAs) in Africa. Each ownership structure has a unique set of characteristics, which may strengthen or undermine the board's ability to fulfil its role and responsibilities (Rock et al, 1998.)

Board members of MFIs, who are usually investors, donors, creditors and employees, play an important role in shaping outreach-related outcomes (Hartarska, 2004). The extent to which MFIs have a dual focus on profitability and outreach towards poor borrowers is determined by the composition and priorities of the board (Rock et al, 1998.) Equity investors serving as board members (which include both commercial banks and finance companies) may focus more on financial sustainability than on enhancing depth of outreach, which would induce the MFI to increase the efficiency of its service delivery, standardize product design and expand rapidly.

The board members of non-profit organisations focus on the overall governance and social mission of the organisation, and not just the financial performance alone, while the managers focus on the operational aspects (Anheier, 2000.) This, in turn, would affect the marketing strategies of non-profit MFIs. For instance, donors, who are represented on the board, are likely have a stronger emphasis on serving poorer borrowers and enhancing depth of outreach. This would induce the non-profit MFI to develop loan products for socio-economically vulnerable market segments (for example, loan amounts of smaller denominations) and expand in underdeveloped regions (rather than expanding in more developed regions, where the loan repayment capacity of micro-entrepreneurs is higher).

Empirical studies indicate that profit-oriented MFIs perform better financially than non-profit MFs (Gutierrez-Nieto et al, 2007). However, non-profit MFIs are more successful in reaching out to poorer clients, which is tantamount to greater depth of outreach (Mersland and Strom, 2007.) Subsidized MFIs are likely to attract clients of sustainable MFIs by fixing lower interest rates (Schicks, 2007). The sustainable MFIs, in turn, would follow suit by offering low-interest loans, which eventually would impede their financial performance (Aghion and Morduch, 2005).

Donors funding non-profit MFIs lay considerable emphasis on conducting impact assessment studies in order to fulfil the political objective of the stakeholder. It is probable that non-profit MFIs would be more predisposed to enhance their social performance through their products.

A non-profit MFI, which gets transformed into a profit-oriented MFI, would have to alter its relationship with various stakeholders drastically. Such an institution would have to attract more investors than donors, focus on public relations instead of fund-raising activities and conduct more market research instead of impact assessment studies (Churchill, 1997.) This would eventually lead to a change in the social mission and social performance targets of the MFI. An NGO-MFI, which has been recently transformed into a regulated financial institution, may face the risk of alienating clients, who are unfamiliar with the regulations of the formal financial services sector. Thus, an NGO-turned-non-banking financial company (NBFC) would have to solicit feedback from clients and also educate clients about changes taking place in the institution (Churchill, 1997).

Non-profit MFIs get transformed into for-profit entities in order to enhance the customer base and attract more commercial capital. Regulated NGOs transforming into for-profit MFIs have access to diverse sources of social capital, which include NGOs, public entities, specialized equity funds, and investors (Rock et al, 1998).

To meet the financial targets of investors, MFIs would have to pursue aggressive growth and expansion strategies, which would have several implications with respect to marketing. According to Churchill (2000), during the onset of aggressive branch expansion, MFIs may lose focus on existing clients in pursuit of new loan applicants. This would evidently have major repercussions on client retention and loyalty. Conversely, a valid counter-argument would be that for-profit MFIs will be able to develop robust business models and allocate more funds for marketing-related activities. Hence, it can be inferred that the change in legal status would impact the MFI's management decisions and market orientation.

Macro-environment

The microfinance sector is becoming a key component of institutional investors' emerging markets portfolio, as a result of which geopolitical risk assessment and sovereign ratings of MFIs' host countries would gain credence. Commercial investors are likely to gravitate towards those economies, wherein MFIs offer high rates of return on investment at recognised levels of risk, while donors and niche social investors would focus on fragile states and post-conflict zones (Harrington, 2006.) Although a well-developed banking system and a financially deeper economy can facilitate the growth of MFIs, Vanroose and D'Espallier (2009) posit that MFIs reach more clients and perform better in those regions where there is limited access to formal financial services, which attests to the market failure hypothesis. At the same time, it must be noted that high interest and inflation rates can adversely impact the growth of microfinance, which indicates that a greater degree of macro-economic stability would be conducive to the sector's growth. MFIs in specific country-contexts have grown in an unsustainable fashion, while in some regions, MFIs' growth has been inadequate to meet business opportunity and development needs (Centre for Study of Financial Innovation, 2011). The inflow of foreign capital would also affect the performance outcomes of MFIs. A study by Mersland et al (2011) reveals that international influence enables MFIs to enhance their social performance. To extrapolate further, one may surmise that the governance and management strategies of MFIs would vary across diverse economies depending on the level of foreign capital inflow, the development of the formal banking sector, competitive environment, socio-cultural influences, the regulatory structure and macro-economic conditions. The development of the financial services sector, income inequality, GDP growth and governance-related indicators such as corruption and law and order can affect the functioning of MFIs in a host country (Ahlin et al, 2009.) Arguably, the confluence of such factors would give rise to considerable variations in the marketing strategies of MFIs across different regions.

Financial performance of MFIs: Substantial research has been conducted in the past on the success and failure of MFIs. A growing number of MFIs are striving to attain greater financial self-sufficiency, which is the institution's ability to operate without subsidy or grants. Rhyne (1998) has drawn a distinction between MFIs belonging to the poverty camp and those with a pro-sustainability focus. Lobbyists in the poverty camp argue that governments and donors need to play a more dominant role in microfinance in order to safeguard the interests of the poor. They also pitch for a subsidized interest rate, which would be affordable for low income groups. On the other hand, for-profit MFIs point out that higher interest rates are required for greater financial sustainability, which would ultimately enable them to increase their outreach. Concerns have been raised about a mission drift, whereby MFIs veer from the social mission in pursuit of greater financial sustainability. Performance related data on MFIs was scant in the past (Hartarska, 2004). However, in recent times, the competition for donors, investors and clients has risen drastically, and as a result, MFIs are more transparent in their disclosure of performance-related data. Investors seek to maximize returns and avoid risks to a greater degree compared to donors and they have a strong thrust on standardized financial performance indicators (Tulchin, 2003.) Hence, it would be incumbent upon MFIs to project their financial performance and management credentials to attract investors.

Social performance of MFIs: The economic and socio-political outcomes of microfinance can be conceptualized with greater clarity through the use of social performance indicators. Social performance not only focuses on the final impact of microfinance, but also provides a framework to understand the processes by which social objectives are achieved (IFAD, 2006.) While economic indicators pertaining to consumption, expenditure and assets have been extensively used in impact assessment, the social indicators, which came into vogue in the 1980s, were predominantly focusing on education status, educational status, access to health services and nutritional levels (Hulme, 1997). Socio-economic indicators also have a wider scope, covering issues as diverse as political awareness, gender relations, and empowerment.

Research methodology

Overview of research design: The hypotheses and research questions have been formulated based on a deductive research methodology, which entails a search to explain causal relationship between variables (Saunders et al, 2009). *The purpose of the study is to explain causal relationships between marketing strategies and the financial and social performance of MFIs.*

The study consists of a mixed methods research design, wherein both quantitative and qualitative tools have been used to test the hypotheses. The veracity of research findings and inferences can be tested through the use of multiple methods (Tashakori and Teddie, 2003.) According to Saunders et al (2009), a mixed method research design would also facilitate the triangulation of data.

The quantitative techniques can help gauge the impact of marketing strategies on the social and financial performance of MFIs. A survey strategy, which is usually associated with the deductive approach, has been used to suggest possible relationships between the marketing and performance variables (Saunders et al, 2009). The survey strategy facilitates the usage of descriptive and inferential statistics and it can help generate findings that are representative of the whole population (Saunders et al, 2009).

A quantitative study has already been conducted, wherein both MFIs and MFI clients have been administered questionnaires. The qualitative study is also based on a deductive research methodology, whereby the basic components of the investigation, such as the research questions and propositions are already pre-determined (Rowley, 2002).

In order to gain a complete understanding of the marketing strategy elements and the social performance of MFIs, a multiple case study approach has been deployed to corroborate the findings from the quantitative analysis. A multiple case study approach would enhance the external validity of the qualitative study and give finer insights into the marketing problems and deductive theory-testing efforts pertinent to the microfinance sector (Meredith, 1998.)

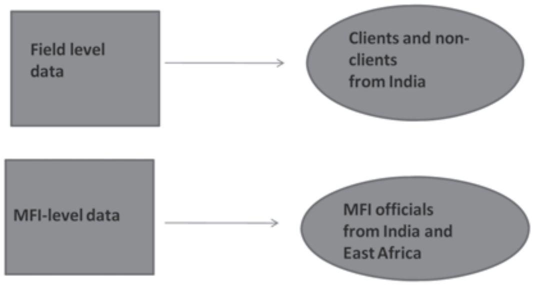

Figure 4: Overview of data collection

As illustrated in the diagram above, both MFIs and clients are the units of analysis (which would also be referred to as embedded units of analysis in case study research, Yin, 2009).

A control group of non-clients has also been included in the research design.

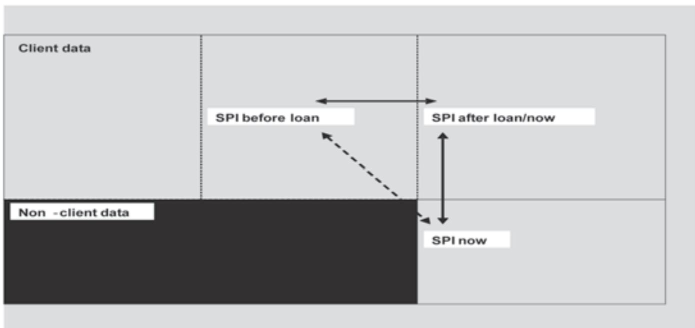

Figure5: Pre- and post-membership analysis of social performance

Based on the social performance outcomes, MFIs can determine how they can market themselves to a range of stakeholders, including clients, policy makers, social investors and government officials. The study determines whether MFIs have been effective as social marketers in bringing about a desirable socio-economic change in the lives of clients.

There is a distinct tradition in the literature on social science research methods that advocates the use of multiple methods (Jick, 1979.) While survey research can contribute to the generalizability of results (Jick, 1979), qualitative data is superior to quantitative data in density of information, vividness, and clarity of meaning (Weiss, 1968.) Triangulation of quantitative and qualitative data is an integral part of the research methodology. The survey methodology in the study entails the collection of information from MFI officials and clients about themselves and the social units to which they belong (Rossi et al, 1983.) The data collected has been used to test the hypothesized linkages between marketing strategies and social and financial performance of MFIs.

Many issues of interest to marketers cannot be studied outside the context in which they naturally occur (Bonoma, 1985.) In order to impart more contextual sensitivity (Bonoma, 1985) to the study, qualitative data collection tools such as structured and semi-structured interviews have been used to triangulate the findings from the quantitative study. Officials from MFIs have shared their perspective on the formulation of marketing strategies through interviews. Structured interviews have been conducted in order to elicit the client's feedback on the impact of marketing strategies of MFIs. Topics pertinent to the major research questions and hypotheses have been discussed during the sessions (such as the impact of microfinance products on clients). Secondary data (which include annual reports and other in-house publications) have also been obtained from MFIs.

Case study research and other forms of qualitative data would enable marketing scholars to move closer to marketing managers, while laying a clinical foundation for advancing marketing knowledge in nascent domains such as microfinance marketing (Bonoma, 1985.) A multiple case study approach has been used to analyze the qualitative data. The following qualitative research design has been developed:

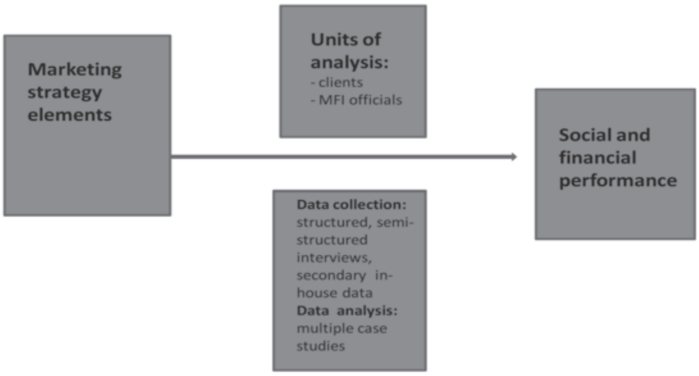

Figure 6: Qualitative research design

Sampling mix for the study*:* Survey instruments were developed for MFI officials, MFI clients and a control group of non-clients. In the initial phase, the proposed sample size for the MFI questionnaire was 100, which was to comprise of an equal number of Indian and East African MFIs. Over 100 MFIs across India and East Africa were contacted via telecons, emails and meetings, out of which 88 responded. The MFI sample consists of 42 participants from India, and 46 from East Africa (predominantly Kenya, and a few players from Tanzania, Uganda, Rwanda, Ethiopia and Mozambique.) The respondents are the heads, CEOs and senior level managers of MFIs.

A client questionnaire has also been deployed to conduct field studies across Southern India. Prior to the field study, the questionnaire was scrutinised by the heads and a mid-level manager of three different NBFC-MFIs in India and minor modifications were made in accordance with their suggestions. Subsequently, the questionnaire was administered to 200 clients belonging to four different MFIs across three South Indian states – Tamil Nadu, Kerala and Karnataka. The socio-cultural, economic and political dynamics vary considerably across these states and hence, the sample mix is highly heterogeneous. Kerala has the highest human development index ranking among Indian states, especially in terms of literacy, but remains far less urbanized than Tamil Nadu. Clients from industrialised, semi-urban and rural households were surveyed in Tamil Nadu, which is characterised by a high degree of urbanisation. The establishment of large scale manufacturing plants and special economic zones has changed the occupational patterns of low income groups in the state. Karnataka is also witnessing urbanisation due to the growth of the software industry and clients' lifestyle to some extant had been impacted by the emergence of engineering institutes in the town of Tumkur. However, Hiriyur, which is also a town in Karnataka, still has an agrarian setting and many of the clients surveyed there were employed in agro-based units.

To ensure greater heterogeneity and pre-empt any bias in the sampling mix, around 3-4 joint liability/self-help groups were surveyed during every field visit. For each MFI, the field visits were conducted across different regions/ municipalities of the city over a span of four days. The study was conducted in urban, semi-urban and rural areas. Clients were briefed about the Likert scales, dichotomous scales and the pre and post-membership analysis. The client questionnaire had been translated into three South Indian languages (Tamil, Malayalam and Kannada) and subsequently back-translated into English. All of the self-help group/ joint liability group members of the MFIs were women.

Clients belonging to the following MFIs have taken part in the study:

i) Mahasemam in Chennai, Tamil Nadu (35 clients surveyed across diverse suburbs/ commercial areas of Chennai)ii) Hand in Hand in the areas SV Chathram and Baluchetty (in Kanchipuram district) in Tamil Nadu (57 clients)iii) IDF / Initiatives for Development Foundation in Kunigal, Tumkur (both towns are located in the district of Tumkur) and Hiriyur in Karnataka (49 clients)iv) ESAF / Evangelical Social Action Forum in Vadanapilly and Perinjanam in Kerala (59 clients)A control study was also conducted wherein 67 non-clients (who were all women) participated. Officials from the MFIs Hand in Hand and Nirantara have participated in structured interviews. Five clients from the MFI Hand in Hand have also taken part in in-depth interviews at a field level. The qualitative data has been analysed in the form of case studies.*1.4.3 Detailed conceptual model for study*

The following figure gives an overview of all the variable constructs to be used in the study on MFIs and clients. The independent variable constructs (the marketing strategies), the moderators (the institutional structure and macro-environment) and the dependent variables (financial and social performance) have been illustrated below:

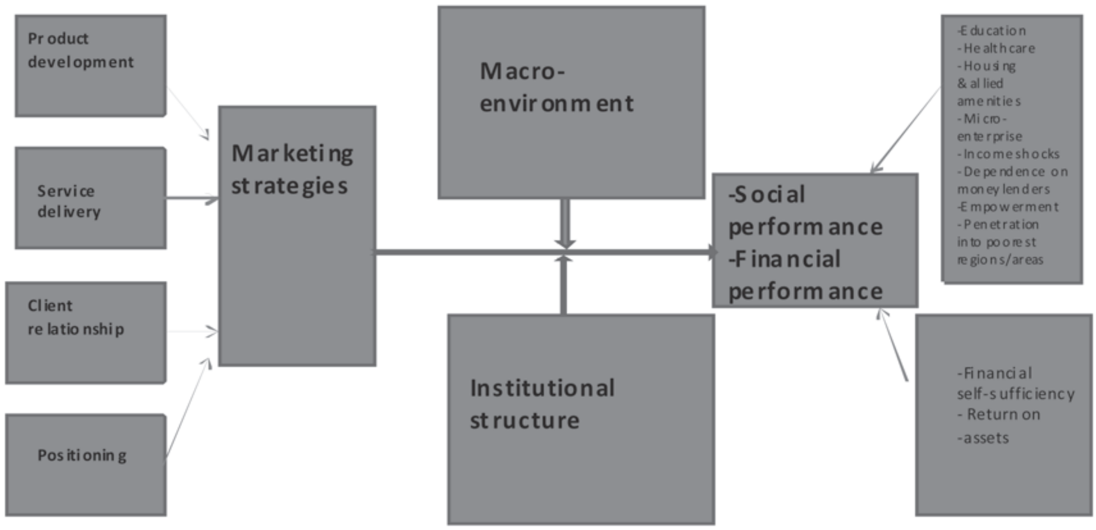

Figure 7: Detailed conceptual model

The following table gives an overview of the indicators for each of the marketing strategies, which cannot be measured directly. The indicators have been extracted from literature on financial services, social marketing and microfinance.

Table 1: Marketing strategy constructs

Marketing strategy constructs	Indicators	Sources
Product	- Market research	- Dunn (2002)
development	- Pilot testing - Product diversification - Customization of loan products	- Alam and Perry (2002) - (Hernandez and Mugica, 2003)
Service delivery	- Physical infrastructure - Use of technology - Turnaround time - Partnership-based distribution models	- Sharma and Reddy (2003) - Ivatury (2004) - Parikh (2005) - Parasuraman et al (1985)
Client relationship	- Client segmentation - Financial education of clients - Business development services - Provision of social services	- Eisengrech and Bell (2006) - Dunn (2002) - Walsh et al (2004) - Maibach (2002)
Positioning	- Brand identity - Social mission - Promotion - Competitive advantage	- Saunders and Watters (1993) - Zineldin (1996) - Pringle and Thomson (1999) - Neilson and Chadha (2008)

The social performance construct consists of the following indicators:

i) **Education:** Education is a widely used social performance indicator, and it is also part of the *Progress out of Poverty Index scorecard* (Schreiner, 2006) and *Internal Learning System* (Noponen, 2003) methodology.

ii) **Healthcare:** Based on a comprehensive literature review on microfinance, Zeller et al (2003) have pointed out that healthcare is an important impact assessment outcome.

iii) **Dependence on informal credit:** Low income groups can enhance their financial security by reducing their dependence on moneylenders, who charge usurious interest rates as well as pawnbrokers.

iv) **Penetration into poorest regions/municipalities:** MFIs can enhance their depth of outreach into regions where traditional banking systems are absent (Zeller et al, 2003.) In order to evaluate the MFI's focus on socially excluded clients, the penetration level into the poorest regions/municipalities has been factored into the study.

v) **Income shocks:** There is considerable emphasis on income shocks such as episodes of hunger in the Progress of out of Poverty Index and other social performance management tools.

vi) **Housing and allied amenities:** C-GAP's Poverty Assessment Tool focuses on housing quality. Cashpor, an Indian MFI specializing in housing finance services, has developed a housing quality index, which is used extensively as a social performance indicator. The allied amenities include access to stoves, electricity and sanitation (which are also used as indicators in social impact assessment studies on microfinance.)

vii) **Empowerment:** The empowerment outcome of target groups assumes significance under the Internal Learning System. The political awareness, control over loan usage by women borrowers and bargaining power of clients will be factored in.

viii) **Micro-enterprises' performance:** There is a strong focus on the viability of enterprises availing of microfinance in social performance methodologies such as SEEP/AIMS (Jayashankar and Goedegebuure, 2011.) A substantial amount of credit is allocated to micro-entrepreneurs by MFIs.

The influence of the MFI's institutional structure has been factored into the study. Research by Hartarska (2004) and Cull et al (2007) reaffirms the influential role of the institutional structure. The moderating effect of the institutional structure has been measured on a dichotomous scale.

MFIs in the study have been categorized into:

- For-profit organizations
- Not-for profit organizations

Financial sustainability is a critical determinant of an MFI's performance and the following metrics can be used to evaluate the success or failure of its marketing strategies:

i) Financial self-sufficiency: Cull et al (2007) used the metric for measuring MFIs' financial performance. The following calculation has to be made for determining financial self-sufficiency:

Adjusted operating revenue / (Adjusted financial expense + loan loss provision expense + operating expense)

ii) Return on assets: Narver and Slater (1990) deployed return on assets as a business performance metric to measure the impact of marketing orientation. Cull et al (2007) used the measure as a dependent variable in a study on MFIs' financial performance and outreach. Return on assets can be calculated by dividing adjusted net operating income after taxes by average total assets.

Development of the research instruments

The survey methodology entails the collection of information from MFI officials and clients about themselves and the social units to which they belong (Rossi et al, 1983.) The data collected has been used to test the hypothesized linkages between marketing strategies and social and financial performance of MFIs. The questionnaires, which have been administered to MFIs and clients, are predominantly close-ended. Responses are relatively easier to compare for close-ended questions, as they are pre-determined (Saunders et al, 2009.) Large-scale, open-ended questionnaire surveys would not be suitable for the proposed study, as responses to open-ended questions would be time-consuming to code (Saunders et al, 2009.) The MFI and client questionnaire items are entirely based on the constructs and indicators of the conceptual model. With the advent of globalization, there's a strong thrust on the usage of standardized, close-ended questions in public opinion research worldwide (Heath et al, 2005.)

Thus, a close-ended questionnaire would be an appropriate data collection instrument for a cross-country study on microfinance marketing. The anchoring of vignettes and self-assessment are also integral components of survey research (King et al, 2004.) However, vignettes have not been anchored in the research instruments, as Heath et al (2005) point out that the vignette method can be time-consuming and expensive. In order facilitate self-assessment in the MFI questionnaire, response levels to the indicators for each of the marketing strategy constructs are based on a five-point Likert scale. The only open-ended items in the survey instruments are the questions pertaining to the financial performance of MFIs. The percentage increase/decrease in return on assets and financial self-sufficiency of MFIs are the financial performance indicators.

The perceptions of MFI officials and clients of various marketing strategy constructs have been factored in. To ensure consistency in the data collection and analysis, the marketing constructs are based on the same sets of indicators in both the client and MFI questionnaires. A dichotomous scale has been used to measure social performance in the client questionnaire. To add more veracity to the data collection, clients have been questioned on a range of social performance indicators in order to determine the socio-economic change brought about by the MFI. The clients have been surveyed about their socio-economic profile both prior to and after joining the MFI.

Scaling and data analysis

The hypotheses for the study have been developed through a deductive research methodology, drawing upon existing theories and concepts. The study also examines the relationship between multiple independent and dependent variables. A deductive methodology has been deployed to develop the marketing and social performance scales. The research entails a prior understanding of the phenomena under investigation and a thorough review of literature to develop necessary theoretical definitions of the various marketing and social performance constructs for the study (Hinkin, 1995.) Thus, the indicators have been condensed into specific constructs prior to data collection (Hinkin, 1995.)

The indicators used in both the MFI and field-level research instruments are predominantly attitudinal and perceptual. Perceptual, attitudinal, intentional and behavioural inputs can facilitate marketing decision-making (Terblanche and Boshoff, 2006.) Consumers' perceptions of product features and studies on purchase behaviour have key implications for market researchers (Fuente and Guillén, 2005.) Multiple-response datasets are commonplace in the field of consumer behaviour and behavioural constructs are often developed based on specific products, brands, product consumption contexts and perceptions about brand attributes (Edwards and Allenby, 2003.) Consequently, consumers' perceptions of marketing strategy elements have been ranked on a five-point Likert scale as part of the study. In a seminal article on the development of marketing constructs, Churchill (1979) has pointed out that marketers need to develop multi-item measures for their constructs.

There are also several related constructs used by various marketing theorists to describe the way in which managers might orient their approach to a market (Wrenn et al, 2002.) Managers' perceptions of marketing strategies/ tactics have spawned considerable empirical studies (Narver and Slater, 1990 and Kohli and Jaworski, 1990.) In a similar vein, MFI executives'/ managers' perceptions of marketing strategy elements have been measured on a multiple response scale.

While researchers in the past have validated specific types of marketing constructs and scales, it must be noted that long scales can increase respondent fatigue and attrition (Jong et al, 2008.) Moreover, constructs and scales developed in the US may not be applicable in developing countries owing to socioeconomic, institutional and cultural differences (Jong et al, 2008.) The research has a strong focus on consumers and producers at the BoP and officials hailing from the microfinance sector in developing countries.

Companies are required to develop products and services, which match the cash flows of BoP consumers, who typically have a low disposable income and receive their income on a daily rather than a monthly basis (Anderson and Markides, 2007.) Consequently, the perceptual indicators pertaining to MFIs' marketing strategy elements have been developed based on the financial behaviour and consumption patterns of the BoP in India. As open-ended questions pertaining to MFI clients' perceptions of marketing strategy elements would induce respondent fatigue and also hinder the development of measurable marketing constructs, a multiple-respondent format has been used. To facilitate a cross-country comparison of MFI executives'/managers' perceptions of marketing strategy elements, four-point and five-point Likert-scales have been incorporated into the research instrument.

The internal consistency of the model can be determined through the use of the Cronbach alpha test. In psycho-social research, composite scores are computed as factor scores, which can subsequently be converted into continuous variables. Indicators/observed variables in psycho-social research are typically non-continuous, ordinal, or in some cases, dichotomous (Rowe, 2002). Likewise, the data obtained from MFI officials and clients are predominantly ordinal and dichotomous.

A multivariate methodology has been used to determine the effects of various marketing strategy constructs on both social and financial performance. Multivariate methods are mostly empirical, deal with market reality by working backwards from reality to conceptualisation and handle the complexity inherent in marketing research (Sheth, 1971.) General linear modelling (a multivariate tool) can be applicable for experimental designs in the domain of market research (Kuhfeld et al, 1994.) GLM techniques have been used in exhaustive service marketing studies, which entailed the use of perceptual indicators (Zeithaml et al, 1985.) T-tests were administered to the pre- and post-membership social performance constructs in order to quantify the socio-economic impact of microfinance.

Addressing the major research questions through the research design

1) What is the nature of the relationship between marketing strategies and social performance of MFIs?

The quantitative study gives insights into the relationship between the marketing strategy constructs and social performance outcomes. Questionnaires have been administered to clients on their perceptions of the MFI's marketing strategies and the impact of microfinance on their standard of living. A set of social performance indicators have been included in the client questionnaire. MFI heads' perceptions of marketing strategy elements and social performance outcomes have also been factored into the study. The qualitative study also sheds light on the relationship between some of the marketing strategy elements and social performance.

2) Which marketing strategies have a stronger impact on social performance of MFIs at a field level?

The marketing strategy and social performance indicators have been condensed into latent constructs for the client study. The multivariate analysis can help determine which marketing strategy constructs have a stronger impact on social performance at a field level. The qualitative inputs obtained through case studies on MFI clients also provide insights into marketing strategies, which have a stronger impact on social performance.

3) What is the relevance of social performance outcomes for marketers in the microfinance sector?

The field study on MFI clients and non-clients (i.e. the control group) provides insights into the social performance outcomes of microfinance-led interventions. MFI clients have been surveyed about their pre- and post-membership socio-economic status based on a set of social performance indicators. The social performance assessment would help determine the extent to which MFIs have succeeded in improving the quality of life of their clients. A t-test has been administered to a draw a comparison between the pre- and post-membership socio-economic status of clients. The socio-economic status of clients has also been compared with that of control group members. Based on the social performance outcomes, MFIs can deduce marketing-related implications with respect to product development, segmentation and behaviour change among target audiences. The qualitative study also brings to light certain empowerment-related outcomes through MFI clients' testimonies.

4) What is the nature of the relationship between marketing strategies and financial performance?

Questionnaires have been administered to MFIs in order to determine whether the marketing strategies – namely product development, service delivery, client relationship management and positioning - have a quantifiable impact on their financial performance. MFIs have been asked to provide necessary financial indicators such as the financial-self sufficiency ratios and return on assets. "The qualitative study also brings to light marketing strategies that enhance client loyalty, which, in turn, would help increase profitability."

5) Does the relationship between marketing strategies and financial and social performance of MFIs vary across different institutional structures (for-profit and non-profit MFIs)?

The moderating effects of for-profit and not-for profit institutional structures on the relationship between marketing strategies and the performance of MFIs has been brought to light through the research. The marketing strategies and financial and social performance of MFIs have been factored into the questionnaire addressed to

MFI heads. The financial performance of both for-profit and non-profit MFIs has been compared.

6) Does the relationship between marketing strategies and financial and social performance of MFIs vary across different macro-environments?

The moderating effect of the macro-environment on the relationship between marketing strategies and the performance of MFIs has been measured through a quantitative study involving the participation of MFI officials. The sample consists of equal number of Indian and African respondents, which in turn, would provide comparative insights into microfinance marketing.

Significance of the study

The study addresses a contemporary management issue, which is relevant for MFIs, donors, investors and policy makers. Social performance management and the double bottom line concept are currently much debated among microfinance circles. Marketing strategies also have a more critical role to play, as competition intensifies among MFIs. Woller (2002) called for a second microfinance revolution, wherein MFIs meet clients' needs rather than institutional needs. Non-profit MFIs are constrained by inefficiency and narrow goals (Vega, 1998). Such MFIs consider borrowers as target beneficiaries, and not as clients in competitive market niches (Vega, 1998.) Also, they tend to focus more on the level of subsidy than on the cost and quality of products, which can be delivered to clients. On the other end of the spectrum, for-profit MFIs, according to researchers, have compromised on the depth of outreach and have digressed from their social mission. The heterogeneity of the microfinance market has to be recognized in order to enhance outreach (Carney, 1998; Scoones, 1998; and Ellis, 2000). Nourse (2001) has argued that tailored lending services need to be provided for the poor.

Untapped markets are increasingly becoming saturated with new MFIs. As a result, MFIs are beginning to compete for the same clients (McIntosh, et al, 2005.) Research conducted in Uganda by McIntosh et al (2005) indicated that even aggressive MFIs, which are drawing clients from rival institutions, are concerned about the prevalence of multiple borrowing and the pre-existing debt levels of clients. Empirical studies on the organizational types remain rare and an empirical approach built on theoretical predictions relevant to MFIs could be used to identify the impact of various governance mechanisms (Hartarska, 2004.)

Considering the above literature gap, a conceptual framework on marketing strategies for non-profit and for-oriented MFIs would be pertinent. The marketing strategies of MFIs would vary across India and Africa. Each region is characterized by a unique set of political, macro-economic, technological and legal systems and socio-cultural constructs. The macro-environmental factors would impinge on the performance of most businesses and non-profit organizations. Due to the intensification of competition and a growing number of discerning clients, microfinance marketing assumes significance among practitioners and academic researchers. There's a paucity of academic literature on the marketing strategies and functions applicable to the microfinance sector.

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Constructing Zone of Tolerance of Postal Life Insurance Service Level – A Case Study of North Andhra Pradesh

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Abstract

This Research-based paper seeks to present the analysis based on the Parasuraman, Zeithaml and Berry (popularly known as PZB) conceptual SERVQUAL Three-Column Format Service Quality Model, in terms of the Minimum (Adequate) Expectations, Maximum (Desired) Expectations and Perceptions of Postal Life Insurance Customers of four revenue districts of North Andhra Pradesh. The study further analyses the significant variations based on the Gender and different Age Groups in relation to the Postal Life Insurance (PLI) after constructing hypothesis and testing the same by using appropriate software like SPSS and minitab. The principal objective of the study is to construct the Zone of Tolerance of the Customers in terms of five dimensions namely, Tangibles, Reliability, Responsiveness, Assurance and Empathy and to analyze further the parameters question-wise and dimension-wise to find out the level of service being offered and the service being expected. The relative position of perception of service received was analysed vis-à-vis expectations. The degree and the direction of discrepancy between the perception and the expectation which is the service quality were measured. This paper attempts to document the Service Quality of particular service users of India Post for the first time. Statistical tools like mean, variance, t-test and one way ANOVA were used to figure out the results. This study yielded valuable information on the Service Gaps between the Perceptions and the Expectations of Customers(Gap 5 of Service Quality Gap of PZB) and the extent of Tolerance the PLI Customers willing to allow. These results are hoped to help the service provider to appreciate the critical service deficiencies in terms of relative importance of questions that made the service quality dimensions and to devise strategies for service recovery or for service enhancement. Also, based on the findings the service provider can take resource decision.

Key words: Postal Life Insurance; Zone of Tolerance; Service Quality; PZB; Expectations; Perceptions.

Introduction

India Post, a Department of the Government of India is one of the biggest Postal systems in the world in terms of its extensive reach and network. India Post is committed to fulfill the Universal Service Obligation in terms of providing basic Postal Services throughout the country at an affordable price. For meeting this requirement, it has set up a network of 1, 55,015 Post Offices, out of which 1, 39,144(89.76%) are Branch Post Offices functioning in the rural areas. It has a staff strength of over 0.483 million including the Grameen Dak Sewaks working in the rural areas. On an average 7175 people are served per Post Office covering an average area of 21.21 sq.km. As on 31.3.2009, the Post has Rs.5636977 million deposits in its Savings Bank accounts. There are many financial services added to its basket over a period of time. The department has also entered in to partnerships with corporate bodies to retail variety of products and services.

Postal Life Insurance (PLI) is the oldest form of life insurance scheme which was introduced in the year 1884 exclusively covering the Government employees. As on 31.3.2009, 3.8 million lives were covered under PLI with corpus of Rs.141520 million.

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The following types of policies are available under PLI:

1.Whole Life assurance 2.Convertible Whole Life assurance 3.Endowment Assurance 4.Anticipated Endowment Assurance 5.Joint Life Endowment assurance and 6.Children Policy.

Insurance is primarily aimed at life protection. Saving element is ingrained in the Traditional Insurance also like the ones being offered by the Post Office as these would mature over a period of time. Irrespective of the fact that, whether Customer is aiming at life protection with investment or investment with life risk coverage, their expectations of the service delivery and their perceptions assume significance for a researcher. The present study aims to document these expectations and perceptions based on the PZB's SERVQUAL Three Column format.

Literature review

Eduardo Torres-Moraga and Luis Jara-Sarrua (2008), while quoting Abdul *et al*, (2007) they observed that the Super Market Managers have centered their efforts on determining which factors best represent, and how customers perceive the service quality offered by these establishments.

Nagaraju and Seema Varshney analysed the Gap-5 of the Gap model. The Study Document results indicated significant negative Gap between Tourists and Tour operator on many of the variables.

Nguyen D.Tho and Nigel.J.Barrett & Nguyen T.M.Trang concludes that among four components of service quality, only two i.e. competence and tangibles, were antecedents of customer satisfaction, which is, in turn, an antecedent of customer loyalty.

Gronroos (1984) based his definition of perceived service quality on two important dimensions viz. Technical Quality (the outcome dimension) and the functional quality (processed dimension). Customers perceive the quality of the service in these two dimensions – what they get and how they get.

U.Lehtinen and J.R.Lhtinen (1991) viewed Service Quality as three – dimensional viz. Physical quality, Interactive quality and corporate quality.

Parasuraman, Zeithaml and Berry (1998; 1991; 1993) presented SERVQUAL Model to evaluate Service Quality comprising of five dimensions of service viz. Tangibles (Physical facilities, Equipment and Appearance of personnel), Reliability (Ability to perform the promised service dependably and accurately), Responsiveness (Willingness to help customers and provide prompt service), Assurance (Knowledge and Courtesy of employees and their ability to inspire trust and confidence) and Empathy (Caring, individualized attention, that the firm provides to its customers).

Brody and Cronin (2001) explained Service Quality with three components viz. Interaction quality (attitude, behavior, and expertise), Physical environment quality (Ambiance, design, social factors) and outcome quality (waiting time, tangibles, and valence).

Dabholkar et al (2000) presented Retail service quality in terms of reliability, personal attention, comfort and features.

Sheetal B.Sachdev and Harsh V.Verma (2004) opined that among the definitions of Service Quality that measure the external perspective, the one given by PZB (1985) seems particularly useful.

According to Zeithaml and Bittner (1996), customers will have two types of expectations namely Desired and Adequate expectations. The desired expectations are the "wished for" level of performance, the customer hopes for. The adequate level of expectations is the lower level of expectations compared to the desired level. Between these two limits lies the "Zone of Tolerance (ZOT)".

Subhasis Ray and Shahid Ali (2008) analyzed the awareness level of customers on various investment channels including the Post Office; relative importance of various driving factors for taking Life Insurance, the preferred age limit and the preferred tenure of insurance.

Sunayna Khurana analyzed the customer preferences regarding plans and company, their purpose of buying insurance policies, satisfaction level and future plans.

Objectives of the Study

1. By using SERVQUAL three column format concept model of service quality, it is intended to construct Zones of Tolerance (ZOT) of Postal Life Insurance Customers in terms of minimum (adequate) expectations, desired expectations and perceptions.

2. Further the significance of perceptions of Gender will be studied. The gender-wise ZOTs will be studied.

3. Also, it will be analyzed to see the significance of three different age groups on perceptions. Relevant ZOTs of three age groups will be constructed.

Sample Design

The SERVQUAL Questionnaire was sent by post and served in person to Postal Life Insurance Customers. The filled in Questionnaire which were received back were thoroughly scrutinized and a final sample of 236 was used for the analysis. Content check was done initially by giving the questionnaire to experts to check face validity. Simple random sampling was done. This sample belongs to the four districts viz. Srikakulam, Vizianagaram, Visakhapatnam and East Godavari districts of Andhra Pradesh. The SERVQUAL Questionnaire is adapted with minor modifications. (Appendix-A)

Demographic Profile: Of the total 236 Respondents; 183 (78 percent) are Male and 53 (22 percent) are Female. The Age-Wise Profile of Respondents is as follows:

There are 8(3 percent) respondents below 25 years; 72(31 percent) between 26 to 35 years; 104(46 percent) between 36 to 45 years and 46(20 percent) above 46 years.

As Postal Life Insurance is only for Government Employees, the entire sample population belongs to employed category. By using descriptive statistics like Means, Variances, Independent T-Test, One way ANOVA, the sample was analysed. For the purpose of this analysis, SPSS Version16.0 and Mini Tab software are used.

Hypothesis Construction

Hypothesis No.1

Null Hypothesis:

"***There is no significant difference between the perceptions of Male and Female respondents***".

Alternative Hypothesis:

"***There is significant difference between the perceptions of Male and Female respondents***"

Hypothesis No.2

Null Hypothesis:

"There is no significant difference between the perceptions of three age groups viz. below 35 years, 36-45Years and above 46 years".

Alternative Hypothesis:

"There is significant difference between the perceptions of three age groups viz. below 35 years, between 36 and 45Years and above 46 years".

Analysis

In order to verify hypothesis 1, Independent Sample T-Test was conducted to compare Means and to establish the Hypothesis. The results are presented below:

Table 1: Male-Female Perceptions

		Sample Size	Mean	Standard Deviation	Value
Group-1	Male	183	6.70	0.204074	
Group-2	Female	53	6.79	0.19913061	
T-Statistic					2.8424
Degrees Of Freedom					234
Actual Confidence Level					99.51%
Top of FormAre means significantly different at the selected confidence level?					Yes

Conclusion: Null Hypothesis is Rejected i.e., means are not equal

Therefore, Null Hypothesis is rejected with the result that there is **significant** difference between the perceptions of Male and Female respondents.

Hypothesis No.2

Null Hypothesis:

*"**There is no significant difference between the perceptions of three age groups viz. below 35 years, 36-45Years and above 46 years**"*.

Alternative Hypothesis:

*"**There is significant difference between the perceptions of three age groups viz. below 35 years, between 36 and 45Years and above 46 years**"*.

Analysis

In order to verify the Hypothesis, one way ANOVA was run to compare Means between these three age groups with the following result.

Table 2: ANOVA SPSS output

Source	DF	SS	MS	F	P
Factor	2	0.6303	0.3152	6.84	0.002
Error	63	2.9028	0.0461		
Total	65	3.5332			

S = 0.2147 R-Sq = 17.84%R-Sq(adj) = 15.23%

Conclusion: Null Hypothesis is Rejected i.e., means are not equal

As the significance established is below 0.05; the Null Hypothesis is rejected, implying that there is **significant** difference between the three age groups with regard to perceptions.

Methodology

Zone of Tolerance (ZOT) of Service Level: Parasuraman, Zeithaml and Berry (1993) developed a conceptual model of zone of tolerance (ZOT), defining it as the area between a customer's "adequate expectations" (would) and "desired expectations" (should), revealing that customers assess service performance against two standards; what they "desire for" and what they "feel acceptable" and that, a zone of tolerance separates desired service from adequate service. If performance is below "adequate" level (the minimum level), considered acceptable to the customers, the customers will be frustrated and their satisfaction with the provider will be undermined. Where performance exceeds desired service, customer will be delighted. ZoT is, thus, the range in which customers do not notice service performance. The ZoT is simply calculated by arithmetically subtracting the "minimum mean value" from the "desired mean value" of training level. The ZoT is narrow for important service attributes. It means that customers are likely to be less willing to relax their expectations. The fluctuation in the individual customer's zone of tolerance is more a function of changes in the adequate service level, which moves reading up & down due to situational circumstances, than in the desired service level, which tends to move upward incrementally due to accumulated experiences.

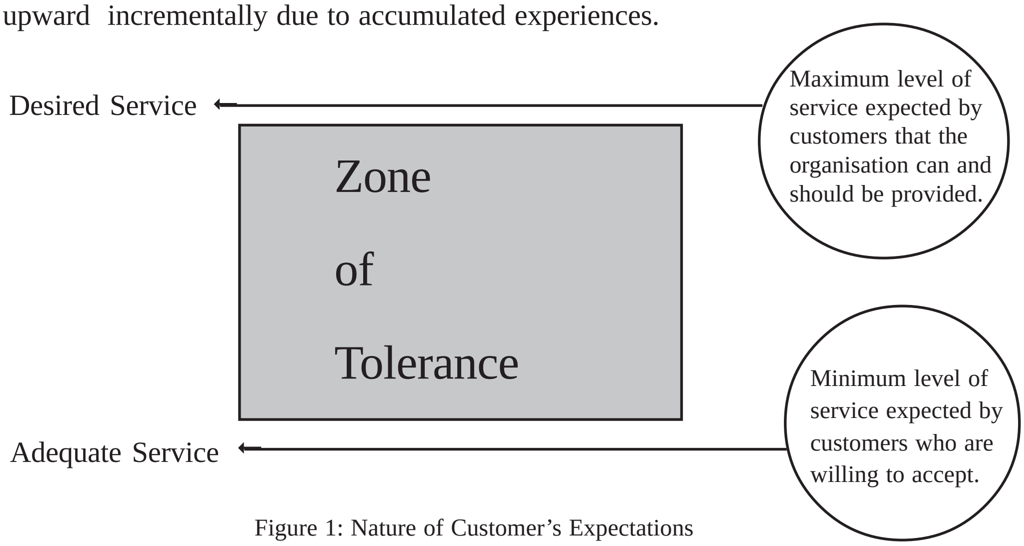

Figure 1: Nature of Customer's Expectations

Source: Modified illustration to Gap Model of V.A. Zeithaml, A. Parasuraman, & L.L. Berry.

The zone of tolerance represents the range of service performance that customers consider satisfactory (*Peter Hernon*, *2002*). According to Robert Johnson (1995), Berry and Parasuraman defined the zone of tolerance in terms of the customer's evaluation of in-process service performances. He further adds that "the zone of tolerance is a range of service performance that a customer considers satisfactory. A performance below the tolerance zone will engender customer frustration and decrease customer loyalty. A performance level above the tolerance zone will pleasantly surprise customers and strengthen their loyalty".

Results

Overall Sample: Parameter (Question) -Wise Zone of Tolerance : With the help of Means worked out Question-wise from the overall sample, Question-wise ZOT is constructed as shown in the Graph No1. From the Graph No1, it is seen that the Question No.1 (Modern looking equipment in Post Office) has ZOT band width more than any other parameter. This indicates that the customers' expectations are spread over and they are not very sensitive to this parameter. They are willing to allow a gap of 1.31 points (Perceptions – Minimum expectations of Q.No.1). For Question No.9 (Records, Receipts given by Postal employees are error-free: Reliability dimension), the ZOT interval is only 0.55 which means that the customers are less willing to relax their expectations nor they are willing to compromise on perceptions.

Overall Sample: ZOT of entire sample and Dimension-wise ZOT: The Overall Service Quality ZOT is depicted in the Graph No 2. The bridge interval between the minimum and maximum expectations is 0.79(7.09-6.3).The Minimum Expectations has scored at 6.3 mark and the Maximum Expectations were pegged at 7.09 with Perception marked at 6.72. The Measure of service Adequacy (MSA= Perception – Minimum expectation) is 0.42 (6.72-6.3) and the Measure of Service Superiority has a score (-) 0.37 (MSS= Perception – Maximum expectation). The result is that the Customer perceptions are little close to his/her the desired (maximum) expectations.

The Dimension-level ZOTs are plotted at Graph No 3.As seen from this High and Low Graph, the Tangibles has a band of 1.0 which is highest among all dimensions indicating the fact that the Customers are "not very serious" about this dimension in relation to other Dimensions. The ZOTs for other Dimensions are Reliability: 0.76; Responsiveness: 0.76; Assurance: 0.66 and for Empathy: 0.79. The Dimension Assurance has a low band width which implies that the Customer's tolerance of Minimum (adequate) and Maximum (desired) is within a narrow margin. Therefore, the Service Provider has to be very careful with the items relating to Assurance (Question No from 14 to 17).

Male-Female Dimension-Level Analysis : Graphs 5(1) and 5(2): On analyzing the Means, the lowest Mean is recorded in Tangible Dimension (Male: 6.6 Female: 6.64), both, in Male and Female category on perceptions component and the highest Mean was recorded for Assurance dimension (6.8) in Male category. In case of Female the Reliability dimension (6.94) scored more. Further, overall, the Female perceived more service as compared to Male. However, the desired and adequate expectations are lower than the Male category.

Zone of Tolerance- Gender wise: As seen from the ZOT of Male Category -Graph No 5(1), the Tangibles Dimension has got more interval(0.99) than any other Dimension. The Assurance Dimension has got less mean interval (0.69). The highest perception (6.80) was recorded in respect of Assurance Dimension and the lowest perception was recorded for Tangibles (6.60).

Similarly on examination of the ZOT relating to Female Category -Graph No 5(2), like Male category, the interval is more in case of Tangibles (1.18). Assurance dimension has scored relatively less ZOT interval (0.57) among all dimensions. The Reliability dimension has scored more perception score (6.94) and Tangibles dimension and Empathy dimension have scored relatively less perception score (6.64).

Age Group-wise and Dimension - Level Analysis: Graphs 4(1), 4(2) and 4(3): On analyzing Age-Wise dimension analysis of Perceptions, among the three groups, the perception was slightly less in case of age group between "36-45" years followed by "above 46 years" as compared to "below 35" years group whose mean was 6.76.

In the "below 35 years age group" {graph 4(1)}, the Tangibles dimension has scored less (Mean 6.75) followed by Empathy (Mean 6.76). The highest dimension that scored well is Reliability (mean 6.99). In case of age group "between 36 to 45 years" { graph 4(2)}, the lowest score (6.54) was observed for Tangibles Dimension and the highest one was Assurance with 6.71 mean. In the age group "above 46" {graph 4(3)}, again the Tangibles dimension has scored less (Mean 6.43) and the highest one was Assurance dimension. The respective Zones of Tolerance in respect of these three Age Groups are presented at Graph 4(1), 4(2) and 4(3).The ZOT scores for age group below 36 are: Tangibles: 1.04; Reliability: 0.83; Responsiveness: 0.94; Assurance: 0.89 and for Empathy: 1.0.

From the above, it can be inferred that the Customers below 36 years, are sensitive to Reliability parameters (Q. No from 5 to 9) and not very sensitive to Tangibles (Q. No 1 to 4).

Similarly the ZOT scores for age group between 36 and 45 are as follows:

Tangibles: 0.68; Reliability: 0.66; Responsiveness: 0.68; Assurance: 0.63 and for Empathy: 0.64. The scores shown balancing trend in terms of their minimum and maximum expectations. The lowest score was for Assurance Dimension (Q. No 14 to 17) and the highest was for Tangibles and Responsiveness.

The ZOT scores in case of age group above 46 years were as shown below:

Tangibles: 1.08; Reliability: 0.74; Responsiveness: 0.63; Assurance: 0.4 and for Empathy: 0.77. The Customers in the age group above 46 years are sensitive to assurance Dimension like the age group between 36 and 45 years. The Tangibles Dimension had once again emerged as non sensitive dimension. In all these age groups, the Customers have shown willingness to relax their expectations on account of Tangibles Dimension.

Analyzing MSA and MSS Scores : According to PZB, while dealing with the SERVQUAL three column format, they sought to explain the service quality in terms of Measure of Service Adequacy (MSA) and Measure of Service Superiority (MSS) which are calculated as follows:

MSA = Perceptions Mean – Minimum (Adequate) Expectations Mean

MSS = Perceptions Mean – Maximum (Desired) Expectations Mean.

The MSA score suggests the Minimum level of Service Adequateness; the customer is willing to accept. On the other hand, the MSS score reports the highest level of service delivery, the customer is looking for.

On analyzing the MSA and MSS scores it is seen that Question No.17 (Postal employees will have the required knowledge to answer questions: Assurance dimension) recorded score of 0.20 implying that the perceptions are more than the minimum expectations. On the other hand, for Question No. 1 (Modern looking equipment in Post Office: Tangibles dimension), the MSA score is 0.84 which is the highest in the entire battery of 22 items. It means that the perceptions are relatively less.

On examining the MSS scores, the desired expectations scored more in case of Question No. 6 (-0.53: Postal employees will show sincere interest in solving customer's problems: Reliability dimension) vis-a-vis question No. 9 (-0.16: Records, Receipts given by Postal Employees are error- free).

Conclusions and Recommendations

The Postal Life Insurance customers as analyzed above yielded meaningful action points to the Service Provider viz. India Post. There is significant difference in terms of perceptions in the Gender and as well as with Age Groups. As seen from the Zone of Tolerance Table constructed for Overall Sample, the Assurance Dimension has 'less interval' (0.66) as compared to other Dimensions and as well as the Overall ZOT interval of the sample which is 0.79. The other dimensions, viz.; Responsiveness (0.76) and Reliability (0.73) have smaller intervals than the overall ZOT limits. These dimensions also require attention. The Tangible Dimension which has a ZOT interval of 1.0 requires no immediate attention.

The Service Provider needs to periodically verify the perceptions, expectations of the clientele to know the tolerance. The ZOT is not a static band and it keeps changing. It has many influences. Of course, it would also keep changing based on what the competitor offers as the Customer Perceptions are relative and dynamic. Further, as the service level is upgraded so are the Customer expectations. The Service Provider should be sensitive to the requirements of various age groups and gender and modify the Service Delivery to suit their requirements.

Limitations

The present study has taken forward the Application of SERVQUAL three column format to Government Administered Life Insurance Scheme for the first time and also for Indian Postal department for the first time. The factor structure of this model was not analyzed. The future studies can take up this to know the dimensionality of postal life insurance service quality by applying Principle Component Analysis preferably using Varimax with Kaiser Normalization method. Also, the future research can go in to the details of items or parameters that cause significant variation in the Perceptions of Gender as well as different age groups. As this study was done in four revenue districts, the sample can be drawn from a bigger area and tested. It is hoped that future researchers may focus on comparative analysis on knowing perceptions and expectations among various insurance players

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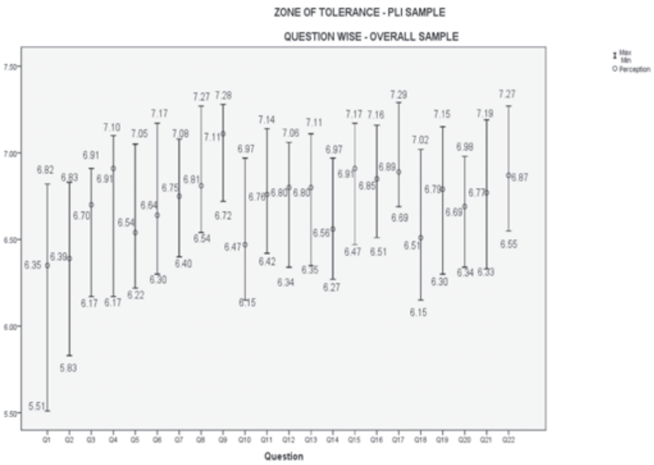
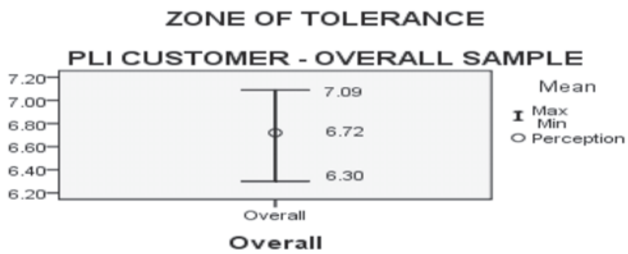
Annexure A

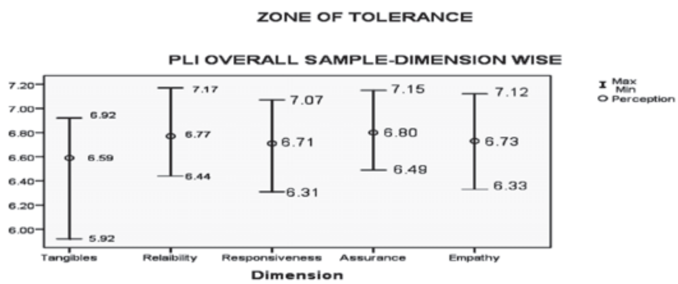
Graph No1



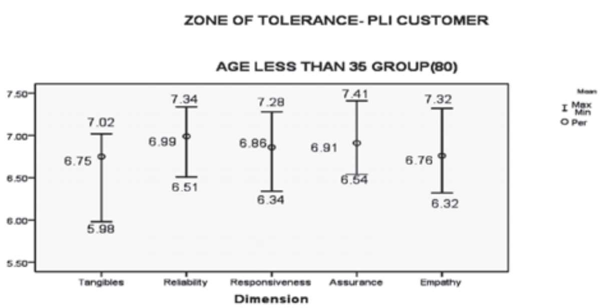
Graph No 2



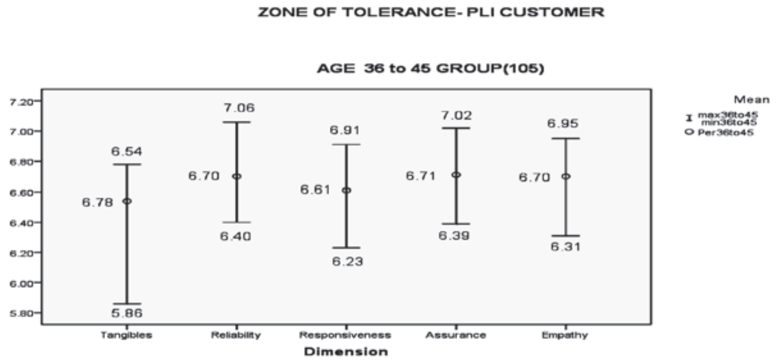
Graph No 3



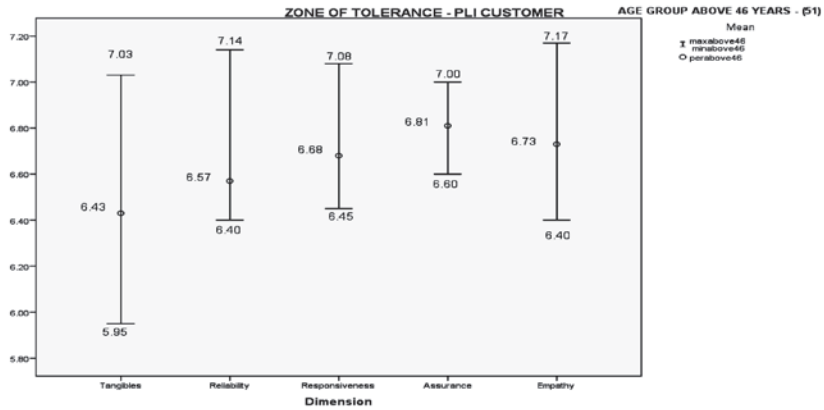
Graphs 4(1) (below 36 years)



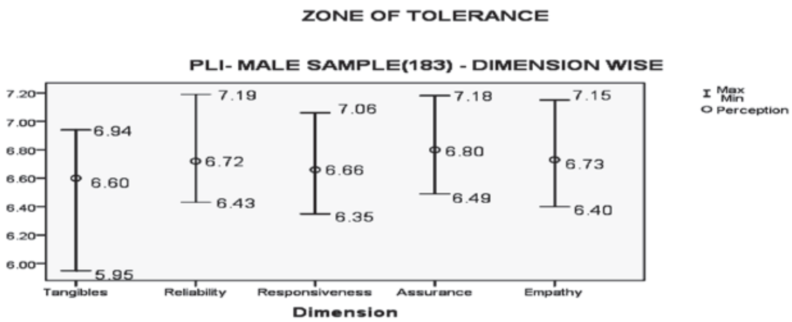
Graph No 4(2) (Between 36 and 45 years)



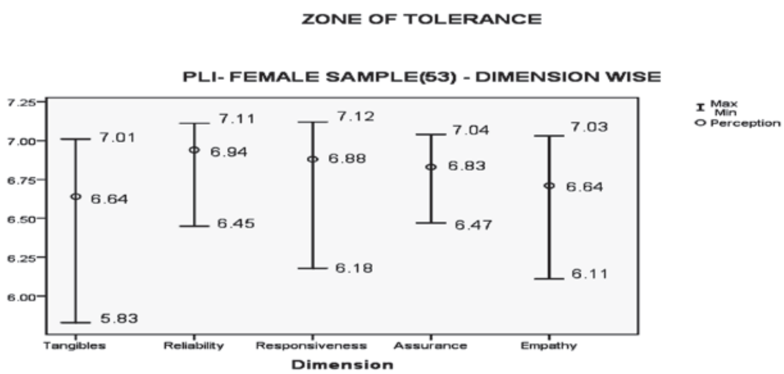
Graph No 4(3) (Above 46 years)



Graph No 5(1)



Graph No 5(2)



Stock Market and Economic Growth: An Empirical Analysis for India

Sivakiran Gupta.K * and Prabhakar Rao.R **

Abstract

Stock market development has been the subject of interest in several empirical studies. More recently the emphasis has increasingly shifted towards the effect of stock markets on economic development. This paper investigates the causal relationship between stock market development and economic growth for the Indian economy for the period 1996 to 2008. In Granger causality test, we test causal relationships between the real GDP and stock market development indicators such as Market capitalization, Turnover and Investments (FII) in Capital Markets. The results show that there exists a unidirectional relationship between FII, Market capitalization of BSE to GDP. Whereas bidirectional relationship exists between Market capitalizations of NSE, Turnover of both BSE&NSE indices to GDP. The multiple regression analysis was performed to identify the significant indicators of stock market on India's economic growth. The regression results revealed that the stock market indicators have significant influence on Economic growth.

Key words: Stock market development, economic growth, Market Capitalization, Turnover, Granger causality

Introduction

Over the last few decades, there has been a great deal of interest in the area of economic growth theory, emphasizing on the relationship between economic growth and financial development in general and stock market in particular. Several economists advocated their theories suggesting the importance of relationship between Economic growth and financial development in the history of modern economics. Keynes (1930) in his Treatise on Money argued for the importance of banking sector in economic growth. However, later Robinson (1952) contended that the financial development follows growth or perhaps the causation may be bi-directional. The financial liberalization literature developed in the 1970s and the 1980s (Mc Kinnon, and Shaw, 1973) stressed the costs of "financial repression", which restrained the growth of financial intermediaries and the real rate of economic growth. Later on these findings were buttressed by the emergence of endogenous growth studies (Pagano, 1993), stressed the importance of financial market development as a source of realizing higher economic growth. The financial system is divided into financial intermediaries (banks) and markets (stock markets). In the beginning more importance was given to bank based finance in promoting economic growth. But, in recent times, researchers recognized that the stock markets play a prominent role in financial development. The growing importance of stock markets around the world has recently opened up a new avenue of research into the relationship between financial development and economic growth.

Mainly two arguments exist regarding the significance of the stock market on economic growth and development. Some argue that by facilitating investments, stock markets enhance economic growth and development (Obstfeld (1994), Greenwood and Smith (1996)). On the other hand, some opined that stock markets may weaken investor's commitment; this in turn affects economic growth (Ted Azarmi, et al. (2005), O P Ardic, and H E Damar (2006)). This debate is continuing for years but there is no consensus view on this issue. However, many agree that the stock markets in some way or other indeed have an impact on economic growth and development of a country.

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According to Galbraith (1988), the stock market is but a mirror, which provides an image of the underlying or fundamental economic situation. It is said that the stock markets are expected to accelerate economic growth by increasing liquidity of financial assets; this may help the economic growth and development process in an economy through growth of savings, efficient allocation of investment resources, alluring portfolio investment.

An all encompassing volume of literature and empirical studies has emerged attempting to examine this relationship between stock market and economic growth. The possible directions of causality between financial sector development and economic growth were highlighted by Patric (1966) in his supply leading and demand leading hypotheses. The 'supply leading' hypotheses claims a causal relationship from financial development to economic growth by saying that intentional creation and development of financial institutions and markets would increase the supply of financial services and thus lead to economic growth while the demand leading hypothesis claims that it is the growth of the economy which causes increased demand for financial services which in turn leads to development of financial markets.

Ross Levine, Sara Zervos (1996, 1998) found a positive link between stock market and economic growth and the results suggest that financial sectors are an integral part of the growth process using the data on 49 countries. Mohsin S. Khan and Abdelhak S. Senhadji (2000) confirmed the strong positive and statistically significant relationship between financial depth and growth in the cross section analysis of 159 countries comprising both industrial and developing countries. The study conducted by Ardic O P and Damar H E (2006) has found the negative relationship between financial deepening and economic growth in Turkey.

Ross Levine (1997) showed that lowering of international investment barriers significantly enhances the liquidity of stock markets, with positive effects on economic growth. Duan Hongbin (2004) has found a positive and significant causal relationship going from stock market development to economic growth in long term in China. There have been findings which have showed the strongest link from economic growth to stock market than stock market to economic growth. Laura Obreja, Victor Dragota, Semenescu (2006) observed that the strongest link is from economic growth leading to development of stock market in Romania using VAR models. Suman Neupane and Uman Bahadur (2006) observed that in small capital markets such as Nepal real GDP is Granger caused by Market capitalization. Muhammad Shahbaz, Nadeem Ahmed (2008) investigated this relationship and observed that in long run, there is a bidirectional relationship between stock market development and economic growth whereas in short run, there exists unidirectional relationship in Pakistan. Baboo M Nowbustin, Odit (2009) examined the impact of stock market development on growth in Mauritius using ECM. They have found that the development variables like Market capitalization and volume of shares traded is positively affecting economic growth for both long and short run periods. The economies of developing countries are witnessing changes in the composition of capital flows because world equity markets are expanding rapidly. FDI and stock market boom are the indicators of the changing world economic order. Ake Boubakari, Dehuan Jin (2010) explored causality relationship between stock market and economic growth using stock market proxies through Market capitalization, total trade value, turnover ratio and economic growth (GDP&FDI) for 5 Euro next countries (Belgium, France, Portugal, Netherlands and UK). The results of the study suggested that a positive link exists between the stock market and economic growth for some countries for which the stock market is liquid and highly active. The main function of stock markets is to mobilize savings and provide liquidity.

Reforms in the stock market were accelerated after opening of Indian economy in 1991 and it led to an impressive growth in Indian stock markets. This can be seen from the increase in BSE Sensex Index 1879 in 1991 to 21000 points in 2010. Similarly Nifty Index has increased from 556 in 1991 to 6000 points in 2010. The Indian stock market is one of the growing and largest markets with Market capitalization at 8th and 9th position of BSE and NSE respectively in the world markets.

Empirical investigations of the link between economic growth and stock market development have been relatively limited in India. Ted Azarmi, Daniel Lazar, and Joseph Jeyapual (2005) have found that this relation is significant in Pre-liberalization period however, insignificant for post liberalization period in India. They also described the stock market as mere casinos as they have nothing to do with economic growth. Soumya Guha Deb and Jaydeep Mukharjee (2008) found a bidirectional relationship between market capitalization and economic growth and unidirectional causality from both stock market activity and volatility to real GDP in Indian economy.

This paper aims to explore the relationship between stock market indicators and economic growth from the perspective of evaluation of the financial liberalization, due to the differences in the results obtained by previous studies in India.

The remainder of the paper is organized as follows: section two deals with data, variables and methodology used in this study. In section three we provided the empirical results of this study. The summary and conclusions of this study were given in section four.

Data & Methodology:

In this section we described the variables used in the study and briefly present the methodology used for analysis.

Data and Variables

In this study the quarterly time series data used are from the first quarter of 1996 to the fourth quarter of 2008 causing 52 observations. The choice of this sample period is based on the availability of the data and obtained from RBI Handbook of statistics on the Indian Economy. Here we used Real GDP at constant prices in the base year 1999-00 as the proxy of economic growth and the development indicators of stock exchange are Market capitalization (MC) for the size of the stock markets, Turnover (TURN) for liquidity and FII investments in capital markets. Here Market capitalization of BSE & NSE is abbreviated as MCBSE & MCNSE and TURNOVER as TURNBSE &TURNNSE respectively.

Methodology

Here we briefly explain the econometric methodologies used in this study.

Stationarity Tests: As the stationarity condition is a prerequisite for any time series analysis, here we used Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests to assess the order of integration in this study.

The ADF test consists of estimating the following regression equation with trend and intercept.

$$\Delta y_t = \mu + \delta y_{t-1} + \sum_{i=1}^{p} \alpha_i \Delta y_{t-i} + \gamma_t + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots (2.1)$$

The null hypothesis in the above equation is that $H_0 : \delta = 0$; i.e. there is units root in the time series i.e. not stationary.

Since the possibility of the presence of structural breaks makes the ADF test unreliable for testing stationarity, we also use the PP test to test the unit roots.

The regression equation for the PP test is given by

$$\Delta y_t = \alpha + \beta y_{t-1} + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (2.2)$$

This test usually gives the same conclusion as the ADF test, and the conclusion of the test statistic is complex.

Granger Causality test: Traditionally Granger (1969) causality is employed to test for the causal relationship between two variables. This test states that, if past values of a variable *y* significantly contribute to forecast the future value of another variable *x* then *y* is said to Granger cause *x*. Conversely, if past values of *x* statistically improve the prediction of *y*, then we can conclude that *x* Granger cause *y*. The test is based on the following regressions:

$$y_t = \beta_0 + \sum_{k=1}^{M} \beta_k y_{t-k} + \sum_{l=1}^{N} \alpha_1 x_{t-1} + u_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2.3)$$

$$x_t = \gamma_0 + \sum_{k=1}^{M} \delta_k y_{t-k} + \sum_{l=1}^{N} \gamma_l x_{t-l} + v_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2.4)$$

Where y_t and x_t are the two variables, u_t and v_t are mutually uncorrelated error terms, *t* denotes the time period and *k* and *l* are the number of lags. The null hypothesis is α_l=0 for all *l*'s and δ_k=0 for all *k*'s versus the alternative hypothesis that α_l ≠0 and δ_k ≠0 for at least some *l*'s and *k*'s. If the coefficient α_l's are statistically significant but δ_k's are not, then *x* cause *y*. in the reverse case, *y* causes *x*. But if both α_l' and δ_k are significant, then causality runs both ways.

Regression analysis: In accordance with the objective of this study, we estimate the relationship between stock market development and economic growth in India, by using the multiple regression analysis of the form

$$Y_t = \beta_1 + \beta_2 X_{2t} + \beta_3 X_{3t} + \cdots \ldots\ldots\ldots\ldots + \beta_k X_{kt} + u_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots (2.5)$$

Where, Y_t is the dependent variable, X_2 , X_3,……,X_k are the explanatory variables, u_t is the stochastic disturbance term. We can easily estimate the regression parameter $\beta_1, \beta_2, \ldots, \beta_k$ by using ordinary least squares (OLS) method.

Results and Discussion

In this section we present the empirical results of this study.

Summary statistics: Various descriptive statistics are calculated of the variables under study in order to describe the basic characteristics of these variables and given in Table 1:

Table 1: Summary of Statistics of the variables

	GDP	FII	MCBSE	MCNSE	TURNBSE	TURNNSE
Mean	557684.7	1410.393	16252.56	15355.22	53992.86	105425.6
Median	522263.0	640.9950	727768.5	790980.7	44573.17	89461.67
Maximum	902924.0	10954.12	6629184.	4881768.	177742.7	412131.3
Minimum	328425.0	-4620.320	437262.0	396442.3	7340.000	18635.33
Std. Dev.	152303.6	2813.752	1581858.	1334749.	37241.88	84921.98
Skewness	0.600390	0.705190	1.480004	1.015474	1.047408	1.525376
Kurtosis	2.359838	4.555652	4.229150	2.473340	3.908626	5.350989
Jarque-Bera	4.011970	9.553325	22.25700	9.537935	11.29669	32.14084
Probability	0.134528	0.008424	0.000015	0.008489	0.003523	0.000000

From Table 1 we can see that the mean value of MC is 1625256 in BSE whereas 153522 in NSE during the study period. The minimum value of FII -4620.320 indicates the outflow of FIIs. All the variables are positively skewed. The variable GDP is normally distributed where as all other variables are non normal.

Table 2: Correlation Matrix of Variables:

Variables	GDP	FII	MCBSE	MCNSE	TURNBSE	TURNNSE
GDP	1.000000					
FII	0.137652	1.000000				
MCBSE	0.865265	0.175944	1.000000			
MCNSE	0.478607	-0.118562	0.362365	1.000000		
TURNBSE	0.738353	0.202210	0.859980	0.353914	1.000000	
TURNNSE	0.851420	0.159383	0.955876	0.384581	0.949038	1.000000

To know the linear relationship among the variables considered in the study we calculated the simple correlations provided in Table 2. From Table 2 we can see that there is a positive relation between GDP and all other variables. A negative relation is observed between FII, MCNSE, but it statistically insignificant.

Results of Unit root tests:

In order to verify the order of integration of these variables we performed Unit Root tests by employing ADF as well as PP tests and the results are provided in Table 3.

Table 3: Results of Unit Root Tests

	BSE				NSE			
	ADF		PP		ADF		PP	
Variables	Level	First Diff.	Level	First Diff.	Level	First Diff.	Level	First Diff.
GDP	-4.0045**	___	-4.6848**	____	-4.0045**	____	-4.6848**	____
FII	-3.48861	-8.1223*	-3.4907	-14.1639*	-3.48861	-8.1223*	-3.4907	-14.1639*
MC	-1.7640	-5.6240*	-2.1037	-5.6884*	-7.4343*	____	-10.6703*	____
TURN	-2.4497	-7.1442*	-2.5291	-7.1439*	-2.5645	-6.5753*	-2.7017	-6.5763

(* and ** are significant at 1% and 5% levels respectively)

These results show that the GDP and MCNSE are level stationary i.e. I(0). Whereas the remaining variables are stationary at first difference i.e. I (1) by both ADF and PP test with trend and intercept.

Results of Granger causality Tests

Though, correlations may indicate the relationship between the variables. They may not imply meaningful causation. To know the direction of causality we performed the Granger Causality test at lag 4. The results are given in Table 4:

Table 4: Results of Granger Causality Test in BSE &NSE

NULL HYPOTHESIS	Obs.	F-STATISTICS	PROBABILITY
FII does not Granger Cause GDP	48	5.67878	0.00106
GDP does not Granger Cause FII	48	1.27483	0.29639
MCBSE does not Granger Cause GDP	48	4.54121	0.00416
GDP does not Granger Cause MPBSE	48	1.97846	0.11689
MCNSE does not Granger Cause GDP	48	6.35430	0.00049
GDP does not Granger Cause MPNSE	48	4.13006	0.00694
TURNBSE does not Granger Cause GDP	48	3.99695	0.00822
GDP does not Granger Cause TURNBSE	48	3.23225	0.02202
TURNNSE does not Granger Cause GDP	48	4.88859	0.00272
GDP does not Granger Cause TURNNSE	48	4.30813	0.00555

The results of Granger Causality test indicate that there exists a relationship between GDP and stock market indicators of both BSE&NSE. However, we can observe from the Table 4 that unidirectional relationship between FII, MCBSE to GDP and other variables show bidirectional relationship with GDP. So we can conclude that there is a relationship between stock market development and economic growth in India. In particular, after the liberalization the result is not consistent with the result of Ted Azarmi (2005) and is consistent with Soumya Guha Deb (2008). We conclude that the results are in line with the supply leading hypothesis i.e. stock market development leads to economic growth.

Regression analysis

Regression analysis has been chosen because this method has the ability to capture the various factors' influence on GDP. Since Granger causality test indicates the unidirectional causality from FII, MCBSE to GDP, we estimated regression results by taking GDP as dependent variable for both BSE and NSE which are given in the equation 3.1 and 3.2 respectively.

D (GDP) = 10860.45 + 5.8286*D (FII (-1)) + 0.0237*D (D (MCBSE (-4)))

(1.57) (2.25) (1.65)

+0.73771*D (D (TURNBSE (-5)))……………………………………………………………(3.1)

(2.40)

R^2 0.24 Adj. R^2 0.18 D-W Stat 2.02

D(GDP) = 10564.96 + 4.890*D(FII(-1)) + 0.01095567*D(MCNSE)

(1.74) (1.91) (3.32)

+ 0.323358*D(D(TURNNSE(-1)))…………………………………………………………………(3.2)

(2.43)

R^2 0.34 Adj.R^2 0.30 D-W Stat 2.37

(The figures in the parenthesis are t-values)

In both equations the lag selections were made by using Akaike-Information Criterion (AIC).

In BSE, the variables FII and TURN are statistically significant. The FII is positively correlated with GDP. But transmission of this influence is produced with a time lag of one quarter. The TURN is also found to be an influential variable with a lag effect of five quarters with a positive correlation. The value of R^2 indicates cumulatively these variables are moderately explaining the variations in GDP.

In NSE all the three stock market variables considered in this study FII, TURN and MC are influencing the GDP. Here also the FII is positively correlated with lag effect of one quarter. The MC is having a statistically significant positive relationship with GDP. The TURN has significant relationship with GDP with a time of lag of one quarter. However, only 30% of the variations in GDP is explained by these variables.

Thus, these results indicate that there is a causal relationship between GDP and market development variables. The regression results indicate that there are other variables than stock market also influencing the GDP. This is in consistent with our formal knowledge. Because, GDP represents the entire economic activity whereas here we are examining only with financial or stock market indicators. So we can conclude that there is a contribution of stock market towards the economic growth of India.

Summary and Conclusions

This paper makes an attempt to explore the causal relationship between stock market development and economic growth in the Indian economy for the period 1996:Q1-2008:Q4.We observed that there is a significant correlation among the variables considered in this study. The results of the study indicate the unidirectional causality from FII and MCBSE to GDP, whereas bidirectional causality relationship between MCNSE, TURNBSE, TURNNSE and GDP. The results of the study are in tune with supply leading hypothesis of stock market development leads to economic growth for this study period. The regression results also show that the stock market development indicators have positive influence with GDP. So we can conclude that stock market development is contributing towards the growth of economy.

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Impact of Acquisitions on Tata's Performance: A Study of Tata Steel and Corus & Tata Motors and JLR Deal

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Abstract

Acquisitions are an inorganic route of expansion and of late became popular means for companies to gain competitive advantage. Tata has capitalized on this strategy to leverage their existing resources and achieve quick growth. The aim of this research is to study two costly cross border acquisitions of Tata's - Corus with Tata steel and Jaguar-Land Rover with Tata Motors, the synergies involved in the deals and the financial performance pre and post acquisition. Ratio analysis and free cash flow techniques are used to understand whether the acquiring firms are able to generate synergy. The study also analyses whether these cross border acquisitions worth billions of dollars did pay off for Tata's and their positive impact on the group's profitability in the form of higher cash flow and increase in business.

Keywords: Acquisitions, Tata Corus, Tata Jaguar Land Rover, Ratio Analysis, Free Cash Flow

Introduction - Growth of Tata's through Acquisitions

Tata's have acquired many companies since inception to name a few Tetley, Daewoo, Ritz Hotels, British Salt, Hind Lever Chemicals and many more. The two most important cross border acquisitions in the recent past that laid the foundations for Tata's global foothold are the acquisition of Corus one of the World's largest steel maker and Jaguar Land Rover, a US premium brand in automobile segment from Ford Motors.

Tata Steel acquired Corus on 2nd April 2007 for a price of US$ 12 billion. Corus was four times larger than Tata Steel in terms of size and the largest steel producer in the U.K. The deal process had started in the year 2005 and completed during the year 2007. In 2005, when the deal started the price per share agreed was 455 pence. In 2007, at the time of acquisition the price per share rose to 608 pence, which was 33.6% higher than the first offer. The main reason for paying such high price was due to competition from rival firm Companhia Siderurgica Nacional (CSN) Brazil based steel company which also was in the bid to acquire Corus. Many analysts felt that the Tata's paid an exorbitant price for acquiring Corus. A 49% premium over the closing market share price of Corus as on 4th October, 2006 and a premium of over 68% over the average closing market share price over the last twelve months period. It was an all cash deal which resulted in a cash outflow of £1.84 billion for Tata Steel.

The Tata's paid US$ 4 billion from its internal sources and the rest US$ 8 billion are borrowings from various banks. The synergies expected from the deal are access to new markets and customers, superior technology, integrate backwards and to get control of resources and sharing of best practices adopted worldwide. Companies attempt to create and use synergies primarily in the field of costs (Gaughan, 1999). The expectation of acquisition of Tata Corus gives Tata's the ability to leverage the advantages of combining low cost upstream production in India with the downstream processing facilities in Europe. The Tata's expected EBITDA margins to increase to 25% by 2012. The biggest challenge for Tata Steel was to successfully handle cultural issue and able to bring people from the two countries together. A 1996 British Institute of Management survey found that merging two cultures is a major obstacle to a Merger & Acquisition (Galpin and Herndon, 2000).

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On June 2nd, 2008, Tata Motors completed the acquisition of Jaguar Land Rover from Ford Motors for a consideration of US$ 2.3 billion. The Jaguar Land Rover acquisition was routed through the Company's 100% subsidiary, Jaguar Land Rover Limited, U.K., which had availed a short term bridge loan facility of US$ 3 billion from a syndication of banks. The synergies expected from the Tata Motors Jaguar Land Rover acquisition deal is to enter new markets, access to superior technology, component outsourcing, low cost engineering and services and marketing synergies.

Review of Literature

Financial Performance can be measured in various ways but the most popular measurement technique is the Ratio Analysis. Over the years there is an increase in the number of companies which are going in for acquisition. According to research done by Cosh et al (1998) the acquiring firms recorded positive synergies with respect to net earnings, return on assets, return on capital employed after acquiring target companies. There is a significant jump in these ratios indicating the positive impact the firms have after acquisitions. With the increase in earnings, research proved that companies showed huge variability in their earnings in the pre scenario than the post acquisition scenario (Agundu and Karibo, 1999). It was identified that operating expenses as percentage of total assets decreased by 0.5 percent which indicates that operating efficiencies do increase after acquisition, but these affects take time to materialize (Murthy, 2005). A study by Mohan and Suganthi, (2001) proved that only 17 percent of financial service firms that acquired other firms in the years 1999-2000, globally could manage to generate good returns for their shareholders. Many acquisitions have failed miserably in the past. The reasons being inefficient management, high employee turnover and escalating costs (Buono, 2003).

Objectives & Methodology of the study

The objective of any M&A is to increase their presence either locally or globally, access to newer technologies thereby reducing the risks associated with the development of a new product or service, maximize efficiency through economies of scale and gain competitive advantage over competitors. Tata's acquired Jaguar-Land Rover & Corus amidst lot of skepticism among the market, shareholders and critics. This research is an effort to study the two very costly cross border acquisitions by Tata's - Corus and Tata steel and Jaguar-Land Rover and Tata Motors, the synergies involved and the financial performance pre and post acquisition. Ratio analysis and free cash flow techniques are used to analyze the profitability of the cross border acquisitions. The data pertaining to 2002 - 2010 for Tata Steel and 2005-2010 for Tata Motors was taken from Annual Reports of the company to calculate the Liquidity ratios, Solvency ratios, Profitability Ratios, Turnover Ratios and Market Performance. The analysis of cash flows gives us an understanding of the inflow and outflow of cash and attempts to find out the relationship between free cash flow and operating cash flow for a period 2005 - 2010. The free cash flow shows the amount of capital expenditure incurred by the firm in comparison to the operating cash flows. In other words, it is the difference between Cash from Operating activities and Cash from Investing activities. The measures considered are Profit after tax (PAT), CFO (Cash from Operations), Free Cash Flow (FCF1) which is measured as the difference between CFO and Total Capital Expenditure. Intra Corporate Investment (FCF2) is calculated as the difference between CFO and Total Investment in Fixed assets within the firm and Inter Corporate investment (FCF3) is calculated as the difference between CFO and Total Inter Corporate investments including the investments in subsidiaries.

Empirical Evidence

Table 1: Analysis of Ratios of Tata Steel & Corus

Figures in percentages

Liquidity Ratios									
Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
Current Ratio	1.48	1.33	1.02	0.94	1.45	3.02	1.75	1.77	1.59
Quick Ratio	1.53	1.35	1.08	1.07	1.52	3.14	1.85	1.72	1.51
Profitability Ratios									
Gross Profit Ratio	0.18	0.26	0.32	0.38	0.32	0.30	0.13	0.11	0.08
Net Profit Ratio	0.03	0.11	0.16	0.22	0.18	0.17	0.09	0.03	-0.02
Solvency Ratios									
Interest coverage Ratio	1.64	5.14	22.76	29.21	43.08	37.01	9.44	7.35	5.78
Debt Equity Ratio	1.41	1.30	0.74	0.45	0.32	1.65	1.53	2.09	2.24
Debt Ratio	0.59	0.56	0.43	0.31	0.25	0.62	0.61	0.68	0.69
Fixed Assets to Net worth	2.61	1.86	1.42	1.10	1.02	1.50	2.10	2.10	2.08
Turnover Ratios									
Fixed Asset Turnover Ratio	0.95	1.19	1.39	1.65	1.88	1.77	3.13	3.25	2.24
Inventory Turnover Ratio	7.49	8.01	8.04	6.41	6.45	13.24	9.27	6.30	5.17
Total Asset Turnover Ratio	0.81	1.05	1.35	1.57	1.64	1.00	1.48	3.25	1.38
Working Capital Turnover Ratio	5.38	8.45	55.81	32.21	13.14	2.31	4.59	6.23	7.37
Debtors Turnover Ratio	5.75	8.63	14.72	12.08	16.61	14.95	7.03	11.30	8.81
Average Debt Collection Period	62.56	41.71	24.46	29.79	21.67	24.08	51.17	31.84	40.87
Market Performance									
EPS	5.17	28	48.6	65.27	67.62	64.66	162.96	60.09	-24.92

Liquidity Ratios: Current Ratio represents the ability of Tata Steel to meet its short term obligation. In 2007 the ratio has increased to 3.02 which shows that for every Rs.1 of short term liability the company owns Rs.3.02 of current assets. In 2008, due to the acquisition of Tata Corus there was a huge outflow of funds which resulted in decline of current ratio to 1.74. In 2009 and 2010 the company was able to maintain a stable liquidity position irrespective of the adverse economic conditions. Quick Ratio represents the ability of the company to meet very short term liabilities. In 2002-06 the quick ratio was greater than 1 and increased to 3.14 in 2007 which shows that for every Rs.1 of short term liability the company owns Rs.3.14 of very liquid assets. In 2008, after the acquisition the quick ratio declined to 1.84 and the company maintained a stable liquidity position in 2009-10.

Profitability Ratio: Gross Profit ratio shows the efficiency of the company to convert each rupee of sale into gross profit. Tata Steel maintained a stable gross profit ratio from 2003-07. The average gross profit ratio of the firm during that period was around 25%. In 2008 after the acquisition the ratio has drastically declined and reached 13.5% and to 12% in 2009. The main reason for this decline was recessionary trend in the global market and increased manufacturing cost in global operations. The gross profit ratio in 2010 showed the least in ten years which is 8%. In 2003-07 the company was able to maintain an average net profit ratio of 15%. In 2008, after the acquisition of Corus, the net profit ratio declined to 9%. This is due to the increased manufacturing and promotional expenses. The unforeseen recession in the developed markets further affected the company's earning capacity and the relative contribution towards net profit from sales declined to 3% in 2009. The recession affected the demand for steel and the major markets such as U.K and European countries did not respond with enough demand for Tata Steel.

Solvency Ratios: For Tata Steel the Interest Coverage Ratio in 2008, declined to 9% due to very high borrowings for the acquisition. In 2009 and 2010 the ratio has shown a declining trend due to decline in the EBIT of the company. Debt Equity ratio for Tata Steel during 2004- 2006, was less than 1 which shows higher contribution from the part of equity shareholders. In 2007, this ratio increased to 1.65. The increase in the debt equity ratio shows an increasing debt burden of the company with progression of time accompanied by high interest obligations. Interest is generally considered as a non-productive expenditure which does not add any operational capability to the company. The debtor's margin during 2009 period was 67.63% increasing to 69.13% during 2010 which is an indication that the capital structure cannot accommodate any more debt. During 2009, fixed assets to net worth ratio increased to above 2 because of the increase in the total debt of the company. The raise in debtors' contribution reduced the equity holders' share in the total fixed assets.

Turnover Ratio: Turnover ratios are the indication of efficiency and productivity. Fixed assets turnover ratio indicates how many times the value of fixed assets is generated into sales. The sales of Tata Steel did not increase with a corresponding increase in fixed assets in 2008 - 2010. The total assets turnover ratio for Tata Steel improved continuously from 2007- 2010. It also shows efficiency and asset utilisation after the acquisition of Corus. The improved asset utilisation is a promising factor of efficiency for a company, because it shows Tata Steel's potential for greater earning capability and capacity utilisation. Before the acquisition of Corus, Tata Steel showed an average total assets turnover ratio of 1.3 and post acquisition, the ratio became 3.1. For Tata Steel, the working capital turnover improved continuously from 2007. The improvement in turnover ratio may be due to two reasons. Firstly because of improvement in sales and faster debt collections and secondly because of reduced working capital. An analysis into the debtors' conversion period explains this point. During 2008-09, the increase in sales is at a faster rate than that of working capital. But in 2010 sales declined drastically. The reason for an improved working capital turnover is due to the reduction in working capital for Tata Steel. Debt collection period is the indicator of time taken by a firm to collect the receivables. The debt collection period for Tata Steel increased after the acquisition of Corus. It is because of the broad customer base and the geographical diversification. In 2008, the collection period was 51 days brought down to 31 days in 2009. But in 2010, again the ratio went up to 42 because of global recessionary trend in which Tata Steel had difficulty in debt collection.

Table 2: Free Cash Flows of Tata Steel (2005-10)

s. in crore

Year	2005	2006	2007	2008	2009	2010
Profit After Tax (PAT)	3571	3721	4166	12322	4849	-2121
Cash From Operations (CFO)	3175	3736	5503	13394	15696	10471
FCF1(Total Free Cash Flow)	1174	1235	-10785	-32805	4874	5775
FCF2(Total Intra Corporate Investment)	1142	1852	2571	5400	7335	3521
FCF3(Total Inter Corporate Investment)	2945	2890	-8375	-25371	12825	12224

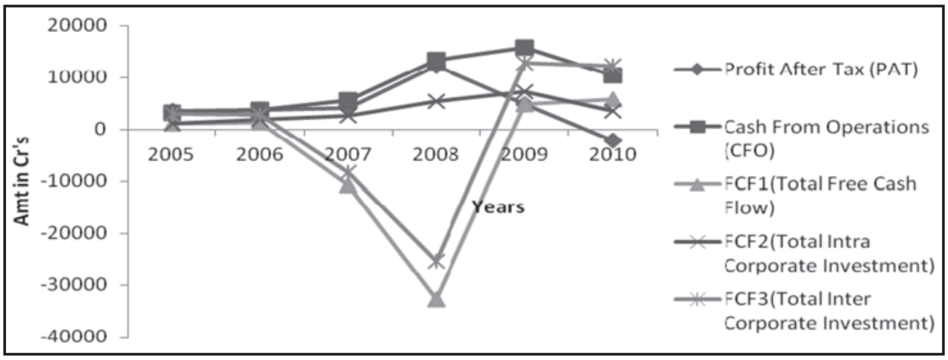

Chart 1: Free cash flow of Tata Steel (2005 -10)

Tata Steel Free cash Flow Analysis shows a different picture when the aggregate cash flows is considered. In the case of Tata Steel the Cash Flow from Operations is always positive irrespective of negative Profit after Tax in 2010. The Cash Flow from Operations in 2005 and 2006 are almost equal, but in 2007 onwards CFO is higher than PAT. Higher depreciation and amortization charges increased the Cash Flow from Operations from 2007- 2010. After the acquisition of Corus in 2007- 08, the Operating cash flows increased, but the PAT decreased after 2009. In 2010, PAT became negative but Tata maintained the positive Operating Cash flow.

The Free cash flow shows that during the years 2005 and 2006 Tata Steel had limited investments. During 2006-07, the aggregate Free Cash Flow as well as the Inter Corporate Investment (FCF3) went negative. Tata Steel aggressively started making investments in other companies in the form of securities as well as started creating subsidiaries all round the world. In 2008, when Tata Corus was acquired, the FCF went to lowest levels due to the cash outflow in the form of capital expenditure due to the acquisition of Corus. Intra corporate investments were positive and were showing an upward trend due to sale of assets. Tata reduced the investments in other companies and sold out the investments in subsidiaries like Telecom. In 2010, due to recessionary trend, PAT was negative but all the other cash flows were positive. This is because Tata Steel sold out their investments during this period. The sold out investments were mainly in the form of securities in other companies.

Table 3: Analysis of Ratios of Tata Motors and JLR

Figures in percentages

Liquidity Ratios						
Year	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Current Ratio	1.14	1.41	1.78	1.41	1.02	1.02
Quick Ratio	0.85	1.10	1.43	1.17	0.68	0.75
Profitability Ratios						
Gross Profit Ratio	0.13	0.14	0.13	0.12	0.04	0.11
Net Profit Ratio	0.07	0.07	0.07	0.06	-0.03	0.03
Solvency Ratios						
Interest coverage Ratio	8.00	6.95	5.43	2.13	-1.03	1.12
Debt Equity Ratio	0.61	0.54	0.92	1.26	5.51	4.18
Debt Ratio	0.35	0.33	0.45	0.53	0.83	0.78
Fixed Assets to Net worth	1.03	0.86	0.94	1.40	5.63	4.57
Turnover Ratios						
Fixed Asset Turnover Ratio	2.52	2.29	2.02	1.64	1.68	2.04
Inventory Turnover Ratio	9.81	9.31	10.28	10.02	10.90	7.95
Total Asset Turnover Ratio	1.80	1.70	1.38	1.28	1.52	1.86
Working Capital Turnover Ratio	19.41	7.34	4.67	6.34	125.38	114.39
Debtors Turnover Ratio	15.84	17.55	19.05	17.31	14.79	12.87
Average Debt Collection Period	22.72	20.51	18.90	20.80	24.33	27.98
Market Performance						
EPS	36.07	43.15	53.54	56.24	-56.88	44.65

Liquidity Ratios: The current assets of Tata Motors increased from Rs.19243.82 crore in 2008 to Rs. 31727.56 crore in the year 2009. There was a corresponding increase in current liabilities of Tata Motors due to the acquisition of JLR. It led to a more than proportional decrease in current ratio. The current assets increased by 64.8%. The increase in total current liability was around 128%. It led to a lower working capital and declined current ratio in 2009. The liquidity position of the company was badly affected by the increased current liabilities. The company had to undertake short term obligations. Tata Motors as a brand was in low demand in the automobile market in 2009 which resulted in many outstanding credit obligations. During 2006-08 the company's short term obligations were comparatively lesser and the cash rich resources helped Tata Motors to keep enough current assets to meet the short term liabilities. In 2006-08, average current ratio of the company was 1.43 which shows that for every Rs.1 of short term liability the company owns Rs.1.4 of current assets. Due to the massive fund outflow in 2009, the current liabilities of the company increased and the ratio came down to 1.02 resulting in tremendous decrease in the ability of the company to meet its short term obligations. Current assets increased by around 63% during 2008-09 but the current liabilities increased by 120%. So, the working capital available for the company reduced drastically. In 2006-08 Tata Motors quick ratio is more than 1 due to the increase in current liabilities from Rs. 13621.03 crore in 2008 to Rs. 32120.18 crore in 2009. The liquidity position of Tata Motors came down to 0.68 but in 2010, the quick ratio has shown an improvement and increased to 0.75. The effect of acquisition must be measured taking into account the global recessionary trend which prevailed during that period. The recession in 2008-09 resulted in very low demand for the automobiles reducing the sales.

Profitability Ratios: Automobile sector was one amongst the worst-hit sectors during recession. The reasons are increase in fuel prices, increased competition and slump in demand for the automobiles especially passenger car and utility vehicle segment. In 2009, the demand for the commercial vehicles declined by 33%. Many automobile manufacturing companies suffered losses and some of them filed bankruptcy during this period. In 2009, the profit of standalone Indian operations of Tata Motors declined by 51%. The gross profit ratio of Tata Motors was affected by global recession and low demand and Acquisition of JLR. The optimists considered the reduced profit as a result of the recessionary trends and pessimists quoted it as a burden from the JLR business. The total sales of Tata Motors have almost doubled but did not contribute to the gross profit of the concern. This is because Tata Motors was forced to reduce the margin from sales in order to boost up the demand –the resultant of increased competition.

Tata Motors gross profit ratio was 0.13 on an average during the pre-acquisition period, it means for every Rs.1 of sale Rs.0.13 is contributed towards gross profit. In 2009, the gross profit ratio declined to 4% because of decrease in Earnings before Interest Depreciation Tax and Amortization from Rs. 4157.6 crore in 2008 to Rs. 2996.36 crore in 2009 and the increase in sales from Rs. 35660.07 crore in 2008 to Rs. 70938.85 crore in 2009. The Gross Profit increased to 11% due to increase in EBITDA. In 2009, the net profit ratio was negative Rs. (-2465) crore and the reason for it being heavy interest obligation. Tata Motors posted record consolidated net revenues and profits of Rs. 92,519 crore and Rs. 2,571 crore in 2010. In 2008, the interest obligation was Rs. 1049.59 cr. which increased to Rs. 2386.68 crore in 2009. The borrowings increased by 150%. Though Tata Motors showed a positive net profit, the profit margin was only 0.03, which is very less compared to 2006-07 or 2007-08. But the positive net profit resulted in an increase in the share price. Tata Motors JLR synergy started paying off in the form of enhanced profitability of JLR resulting in the growth of the company's intrinsic value. Investor confidence increased and has unlocked the ability to generate cash flow. During the 2nd and 3rd quarters of 2010, Jaguar and Land Rover showed positive sales in almost all the markets except in UK. In 2010 in a survey conducted by Economic Times, Tata Motors was selected as the most valuable brand in India and the brand valued at Rs. 6500 core.

Solvency Ratios: Interest Coverage Ratio shows the extent to which the net profit is sufficient to cover the interest obligations. The interest obligations of Tata Motors doubled in 2009 from Rs. 1049.59 crore to Rs. 2386.68 crore. This is due to the raise of huge amount of loans both secured and unsecured for financing the acquisition. The huge debt burden accompanied with interest obligations was another reason for negative Profit after Tax (Rs. -2465 crore). The debt obligation made Tata Motors a highly leveraged company. The ability of the company to repay the interest charges by earning adequate profit was also diminishing. The interest coverage ratio in 2006-07 which was 5.43 came down to (-1.03) in 2008-09. The market and investors were skeptical about Tata Motors and JLR deal. The Interest Coverage Ratio declined to 2.12% due to the very high borrowings for the JLR acquisition.

The debt equity ratio of Tata Motors from 2005- 2007 was less than 1 which increased to 1.26 in the year 2008. Due to the increase in the short term and long term debt liability of Tata Motors from Rs. 11584.87 crore to Rs. 34973.85 crore and decrease in equity from Rs. 9165.52 crore to Rs.6343.64 crore in 2009, the debt had become 5.5 times the equity. The decrease in the equity is due to the decrease in the reserves of the company which are high signs of insolvency position of the company. The debtors' margin was as low as 19.12% which indicates the high debt intensity in the capital structure. Before 2008, the debtors' contribution towards the capital structure was less than 50%. In 2008, it came up to 53% and in 2009, the ratio was at 82.7%. In 2010, Tata Motors was also able to clear its debt burden by $977 million.

The loss of investor confidence was reflected in the falling share price of Tata Motors. In 2007, the average stock price of Tata Motors was Rs.850 which came down to Rs.130 in 2008 which was one of the highest falls of share price in the history of Tata Motors. This fall in share price hit the credit rating of Tata Motors and created panic among the investors. Many analysts opinioned that Tata JLR deal was overvalued and felt that Tata Motors was buying the debt burden from Ford. Due to increase in demand and sales and paying of the synergies Tata Motors showed profits in 2010.

Turnover Ratios: Tata Motors turnover declined by 13.6% in 2009 but Tata Motors remained one of the India's largest automobile manufacturers in terms of revenue. Jaguar Land Rover sales for 2009-10 grew to almost 1, 94,000 units and customers responded positively to its newly launched luxury sedans.

Table 4: Evidence of Inefficiencies – Tata Motors

Figures in percentages

Year	2005	2006	2007	2008	2009	2010
Manufacturing cost/sale	0.88	0.87	0.87	0.88	0.96	0.9
Investments/sale	0.04	0.01	0.07	0.15	0.26	0.08
Interest/sale	0.01	0.01	0.01	0.02	0.03	0.02

Inventory Turnover Ratio shows how many times the inventories are converted into sales through the operations. In 2005-10, the inventory turnover ratio declined from 9.81 to 7.95. This shows decline in the demand for vehicles and piling up of stock or inventory from Rs. 17367.94 crore in 2005 to Rs. 11131.315 crore in 2010. Total assets turnover ratio shows a similar trend to fixed assets turnover ratio. The working capital of Tata Motors declined from Rs.5622.79 crore in 2008 to Rs. 565.79 crore in 2009. The debt collection period of Tata Motors increased to 28 days from 20 days in 2008.

Market Performance: In 2009, Tata Motors EPS was negative (-56.88) because of negative net profit. The poor performance of JLR, the inefficient operations of Tata Motors and low demand due to the adverse economic conditions were the reasons for the poor performance of EPS. Year 2010, has shown a positive EPS of Rs. 44.65. The share price of Tata Motors was Rs. 700 in 2007 which dipped to an all time low of Rs. 130. The share price reached an all time high of Rs. 1300 in December 2010. Tata Motors reduced its costs and improved its operating efficiencies.

Table 5: Free Cash Flows of Tata Motors (2005-10)

Rs. In crore

Year	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Profit After Tax (PAT)	1357	1709	2205	2235	-2465	2517
Cash From Operations (CFO)	1405	110	-875	5596	750	9327
FCF1(Total Free Cash Flow)	465	-337	-3282	198	-18067	1794
FCF2(Total Intra Corporate Investment)	561	-1133	-3535	362	-9146	874
FCF3(Total Inter Corporate Investment)	790	994	-688	4303	-8320	10562

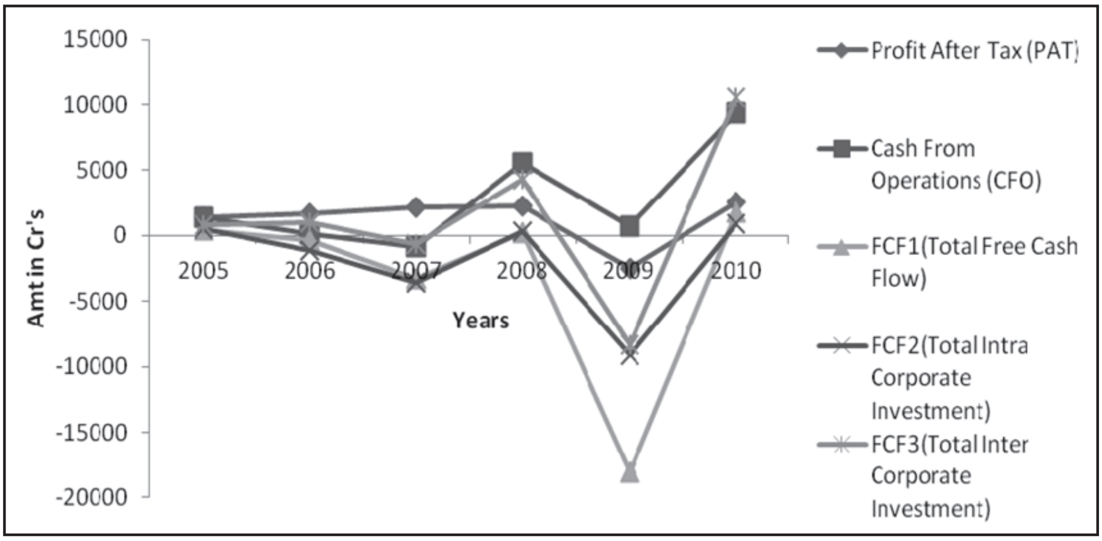

Chart 2: Free Cash Flows of Tata Motors (2005-10)

The Cash Flow from Operations (CFO) of the company was almost equal to the Profit after Tax (PAT) in 2005. In 2006, CFO declined and was lower than PAT because of the higher working capital requirement compared to 2005. The higher outflow in the form of working capital also decreased the CFO in 2006. In 2007-08 Tata Motors managed to increase the CFO above Rs.5000 crore which is higher than PAT due to higher depreciation and other cash inflow. In 2008-09 (the period of acquisition of JLR) PAT was negative and CFO declined. The impact of recession and higher capital expenditures without much cash inflows into the firm created troubles for Tata Motors during this period. In 2010, Tata Motors successfully recovered from the downturn and posted a higher CFO and PAT. The CFO was highest during 2010 due to very high depreciation charges and lesser working capital requirements. The company had limited investments in fixed assets as well as in other subsidiaries in 2005. It means that the Cash from Operations was sufficient enough to meet the total capital expenditure. But in 2006, Intra Corporate Investment was negative and lower than Inter Corporate Investment. The reason for this is company purchased more fixed assets during 2006. But when it comes to Inter Corporate Investments, it is greater than CFO as well as Intra Corporate Investments. In 2008-09 the Free Cash Flow reduced due to aggressive investments. It is during this period, Tata acquired JLR and it resulted in the dip of aggregate free cash flow. The 2009-2010 is the period of recovery for Tata. PAT and CFO increased due to high amortization and depreciation charges. During this period, Tata liquidated inter corporate investments which resulted in very high Inter Corporate Investment.

Conclusion

The acquisition of Jaguar – Land Rover by Tata Motors and Corus by Tata Steel has given these companies a global footprint. The synergies achieved by both Tata Motors and Tata Steel which is reflected in the financial performance have been analysed. Tata Steel is yet to achieve the synergies w.r.t cost and revenues but Tata Motors has done well after the acquisition of JLR. Immediately after the acquisition, Tata Steel-Corus was the fifth largest steel producer in the world and Tata Motors was the tenth largest automobile manufacturer in the world. In 2010, Tata Steel-Corus is in tenth position and Tata Motors-JLR is in the fifth position. Tata Motors and Tata Steel have increased their revenues by a significant amount and have also been able to capture new markets.

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Consumer Preferences in Buying Non-Alcoholic Beverages: A Study on Coca Cola and Pepsi

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Abstract

The non-alcoholic beverage market has been in a state of flux since the past decade, with a paradigm shift in consumer preferences for non-alcoholic beverages. While beverage manufacturers need to fine-tune their offerings to align with the changing trends in consumer preferences for different non-alcoholic beverages, marketers also need to tailor their messages based on changes in consumer habits and needs. In this report, I looked at consumer trends influencing the changes in the non-alcoholic beverage market that have generally emerged. In this report, stakeholders in the non-alcoholic beverage market can expect to find insights related to the following:

* Analysis of evidence suggesting changes in consumer non-alcoholic beverage drinking habits.

* Analysis of drinking habit changes by different demographic groups.

* How health and wellness factors influence changes in consumer non-alcoholic beverage preferences.

* Analysis of consumer price sensitivity toward non-alcoholic beverages.

* How consumer non-alcoholic beverage preferences are related to the recession.

* Which market factors influence consumer beverage sustainability trends?

* How consumer loyalty trends affect their relationship to their favorite brands and their attitudes toward exchanging those brands with private label variants.

* How the convenience trends has shaped consumer drinking habits with respect to purchasing beverages for both immediate consumption and at-home consumption.

Introduction

Most of the world's consumers have certain things in common; their values and attitudes, as well as behavior often differ. As a result, it is vital that international marketers understand these differences and adapt their marketing strategies accordingly. Failure to do so could result in disaster for a company's international products and marketing programs. As today's economies are becoming more entwined than ever, any possible method that can be used in supporting the building of global brands is appealing. One of the primary objectives that international marketers have is to create an image that is familiar worldwide, but at the same time associated with explicit meanings (Fahy *et al.* 2004).

Objectives of the Study

The overall purpose of this paper is to gain a deeper understanding of different international and local factors affecting consumer preferences on a local market. Specifically, I want to explore the effect of international well-recognized advertising campaigns have on consumers' buying process. I also want to study whether or not there is a relationship between the above-mentioned factors' influence on the choice of homogenous products. I have limited my research to the cola drink industry, rather than the entire soft-drink industry. Although I examined consumer perceptions on international brands' marketing strategies, the focus of the investigation

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will be on Coca-Cola's and Pepsi's advertisement and sponsorship as well as their brands. Moreover, the study encompasses three specific target groups in India that have been divided in accordance to age, and thus I do not look at the entire consumer population and as a result, generalization is not obtained. Finally, I have concentrated on age segmentation, and thus other demographic variables are not observed.

Hypotheses

In the 1980s, consumers were tested on whether they preferred the Pepsi product over that of Coca-Cola's, and the results proved that the majority did indeed choose Pepsi. Yet, interestingly enough, Coca-Cola was and still is today the leader within the cola drink market. Based on these results, I assumed the following:

H1: Consumers explicitly prefer one brand but actually favor the taste of another. Coca-Cola's and Pepsi's marketing strategies differ widely, specifically in that of their advertisements, where Coca-Cola depends heavily on tradition, while Pepsi relies more on the appeal of celebrities and young people (www.geocities.com). As a result, I suggested the following:

H2: Seeing as Coca-Cola and Pepsi seem to target different consumers through their advertisements and sponsorships, I believed that depending on a person's age, the choice of cola product differs, as well as their taste preference. More specifically, that the youngest age group particularly have a more positive attitude towards Pepsi on the whole, whereas the oldest age group are more positive towards Coca-Cola.

According to theory, teenagers have a high need for belonging, independence and approval to name a few, but more importantly they need to feel accepted, particularly by their peers (Solomon *et al.* 2001). Consequently, they switch brand preference often and are easy targets for marketers. Thus advertisement is primarily targeted at them, as they are vulnerable to consumerism and media (Blackwell *et al.* 2001). As a result, I propose the following:

H3: People aged eighteen and younger have the highest level of knowledge of brand advertisement, hence they are more influenced by it in their choice of products than any other age group.

Methodology of the Study: I began my research with describing different concepts, such as consumer preference, advertisement and sponsorship, and thereafter moved towards concrete empirical evidence, that involved studying the extent in which different international and local factors influence local consumer preferences. Finally, I analyzed the findings in relation to theory. Given that I did not want to generalize my findings to the entire local consumer market, but rather observe a specific group of consumers on the Indian market.

Data Collection: I decided to use a questionnaire as my main source of data collection (primary data), as my aim was to measure consumers' understanding and experience of global advertising campaigns.

Questionnaire: The questionnaire allowed me to gather specific information on how different consumers perceive international advertising campaigns, as well as the different factors that influence consumer preference. The questionnaire was divided into structured and unstructured questions accordingly. A ratio scale was also used which allowed the respondents to classify or rank order the objects, i.e. 1 – 5, where 5 represents "very good" and 1 indicates "very bad". Finally, in combination with the structured questions, unstructured questions were asked, where the respondents were able to clarify and express in detail their responses and opinions (Neuman, 2003). One of the main objectives of a questionnaire is to *"uplift, motivate, and encourage the respondent to become involved in the interview, to cooperate, and to complete the interview"* (Malhotra 2004, p. 281). This was achieved through asking interesting questions in combination with visual images to help clarify the questions. More specifically, the respondents were asked to perform blind taste tests at the end of the questionnaire, which captivated their motivation in wanting to participate in the study. Moreover, three variables were used in the test: X, Y and Z, where X represented the Indian Diet cola, Y represented Coca-Cola, and Z Pepsi.

Sample Selection: The population I chose to investigate in order to reach our purpose was the chosen local market; Indian consumers, and thus I decided upon a combination of quota sampling and convenience sampling from this population. Quota sampling implies that a researcher can choose to have a specified proportion of the investigated elements in the study. The quotas that were chosen for this study were divided into three different age groups in accordance to Blackwell *et al.* (2001): $\leq$ 18, 19-34, and $\geq$ 35. The chosen groups represented a diverse set of people, who are at different stages in their lives, and thus I believed their perception of international advertising campaigns and sponsorship activities, as well as international brands would vary. Consequently, I wanted to study whether age impacts the way in which consumers are open-minded to advertisement and whether there was a significant difference between the groups.

Fifty respondents were chosen from each age group:

- $\leq$ 18: The majority were seventh to ninth graders from North Indian region, and the remaining were students from the upper secondary school SANGHA MITHRA, Nizampet Road, Hyderabad.
- 19-34: Students from Dr. Ambedkar Open University, Hyderabad.
- $\geq$ 35: Family, friends, and office colleagues from Hyderabad and Secunderabad.

These respondents were chosen as a result of easy access, as the majority were either friends or family. Although I did not have a personal relationship with the majority of the youngest age group, I still found it to be convenient and had easy access to them seeing as University is nearby, as well as being the easiest and most reluctant group to participate in the study.

Operational Measures of Theoretical Framework: The questions in the questionnaire were based upon our theoretical framework, and thus the questions can be divided into the following groups: consumer preferences, brand, advertisement, sponsorship, and finally others.

Consumer preferences: The questionnaire initiated with an introduction to the consumption of the cola drink and hence the questions were designed in such a way to give an overall view of the respondents' relationship to cola as a soft drink.

Brand*:* Questions 7 to 10 encompass the respondents' viewpoints on Coca-Cola and Pepsi as a brand respectively, as well as the associations that go with them. These questions were of great relevance since it illustrated whether the respondents held favorable or non-favorable attitudes towards the brands, and thus it could be depicted whether brand equity, such as brand awareness and brand loyalty exist. Questions 11 and 12 were specifically about the two brand's logos and slogans, indicating once again which of the two brands were preferred over the other. These questions were especially relevant concerning theory about brand positioning, seeing as we wanted to find out the different perceptions of a brand to that of a competitor's. Overall, the questions supplied me with information about the way in which the respondents perceive the two specific brands.

Advertisement: Questions 13 to 15 are linked to the advertisement theory, and provided me with knowledge about respondents' attitudes towards advertisement in general, and the extent in which advertisement influences consumers in their choice of products. Moreover, the questions provided me with insight into how familiar and open the respondents were of Coca-Cola's and Pepsi's advertising campaigns. By finding out the way in which the respondents viewed the brands' advertisement and if it affects their perception of the brands, I could detect if advertising campaigns are an effective marketing tool, moreover, if it persuades the consumption of products.

Sponsorship*:* Questions 16 to 28 are in accordance to the theory regarding sponsorship. These questions provided me with knowledge about the relationship between sponsorship and brand image, and whether it is successful to sponsor different events. Moreover, I wanted to gain more knowledge about whether or not sponsorship affects one's attitude towards the product in question, and if this differs from that of the brand.

Others: Finally, the respondents were asked to fill in their age and preferred activity as I wanted to gain information about the respondents. More specifically, I wanted to see whether the theory about age correlates to the different age groups' responses. The blind taste test was used as I wanted to observe if consumers actually prefer the taste of their favored brand in comparison to other brands.

Value of Study

Validity: In order to gain as high validity as possible, multiple sources of evidence were used in collecting the data, consisting of academic articles, textbooks, and web pages. Internal validity suggests that the study examines what it is suppose to examine, whereas external validity is the possibility to generalize the study results in other populations (Hollensen, 2001). I sought to conduct the questions in the questionnaire in such a way that I was provided with the most relevant information so as to answer my research question. The design of the questions was that of a simple structure with a clear and easy language in order to make them as understandable as possible and thus decreasing any misunderstandings. Furthermore, the questionnaire was standardized, which implies that the same questionnaire was presented to all chosen respondents for the study. However, seeing as I limited my sample groups to fifty people from each quota, the external validity of this study could be questioned, and thus generalization was not obtained.

Reliability: I conducted the questionnaire on a test group consisting of five respondents. This test group was asked to inform me how they interpreted the questions and any adjustments necessary where made before it was tested on yet another group of people. After the modified version was tested, the questionnaire felt complete and all possible misunderstandings had been eliminated, it was carried out on my sample subjects. Furthermore, I was present at all times during the answering of the questionnaires and accordingly, any uncertainties were solved on the spot. Finally, in order to ensure reliability, scientific literature was used for my theoretical framework.

Revision of the Chosen Methodology: I found that the youngest group of respondents, d” 18, was easily influenced by one another, in that they discussed the questions among each other. Thus, the credibility of some of the answers can be questioned. Finally, I found the oldest group of respondents, d” 35, to be most difficult to cooperate with, as they were very skeptical and reluctant to participate in the study. As a result, one could question the sincerity of their answers, and whether they rushed through the questionnaire and therefore did not answer the question as wholeheartedly as I would have hoped.

Empirical Data: *The empirical data collected through the questionnaires with the 150 respondents. However, some of the questions will not be presented as their aim was to introduce the subject to the respondents, and thus are not relevant to describe.*

1. Do you drink cola soft drinks?

2. How many glasses of cola do you drink per week?

According to our empirical findings, 92 percent of the respondents drank cola soft drinks. Out of this total, the majority (61.3 percent) drank a maximum of three glasses per week, whereas only 18.6 percent drank seven or more glasses per week.

3. Which cola brand do you prefer?

78.7 percent (118 respondents) favored Coca-Cola, while merely 19.3 percent (29 respondents) favored Pepsi, and two percent of the respondents favored neither of the two brands. Thus it was evident that Coca-Cola clearly dominated the respondents' choice of brand.

4. *Why do you prefer this product?*

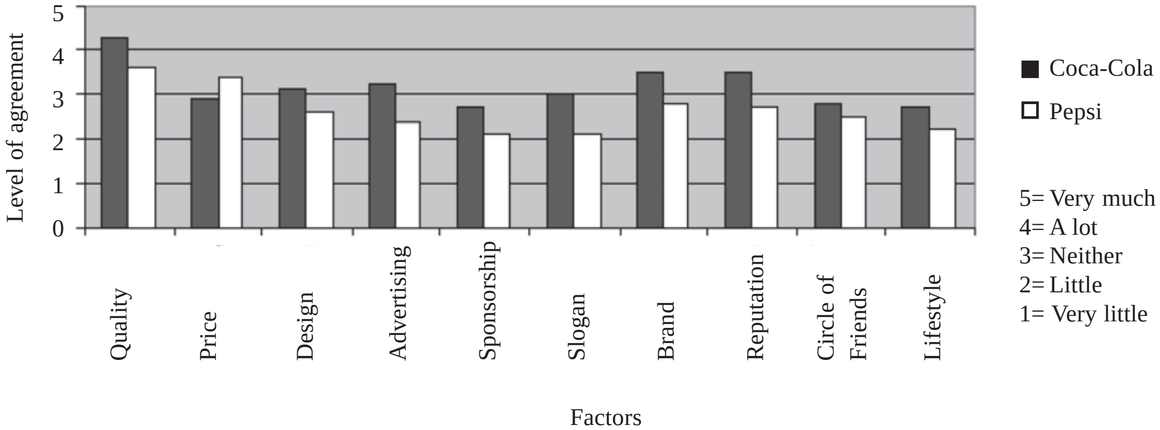

Figure-1: Factors affecting Choice of brand

Figure 1 above, illustrates the factors that affected the respondents' choice of brand, and the three factors that affected their choice of Coca-Cola the most in that they were graded with the most fours and fives, were "quality" (85.6 percent), "brand" (58.5 percent), and "reputation" (50.8 percent). The factors that were ranked the highest for Pepsi were "quality" (58.6 percent), "price" (27.6 percent), and "brand" (34.5 percent).

5. *What is your view on Coca-Cola as a brand?*

6. *What is your view on Pepsi as a brand?*

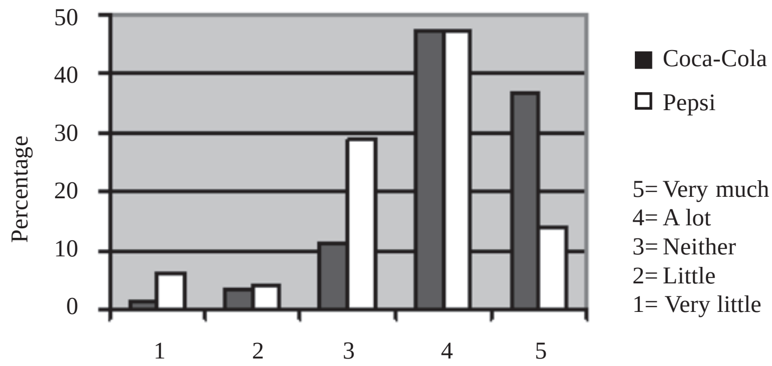

Figure-2: Views on Brands

When investigating the respondents' views on the two brands, Coca-Cola was overall viewed as being a better brand than that of Pepsi, with an average grade of 4.15, whereas Pepsi scored an average grade of 3.59. 84 percent of the respondents viewed Coca-Cola as either "good" or "very good", while 61.3 percent had a positive view on Pepsi as a brand, as can be seen in figure 2.

7. *What do you associate the brand Coca-Cola with?*

8. *What do you associate the brand Pepsi with?*

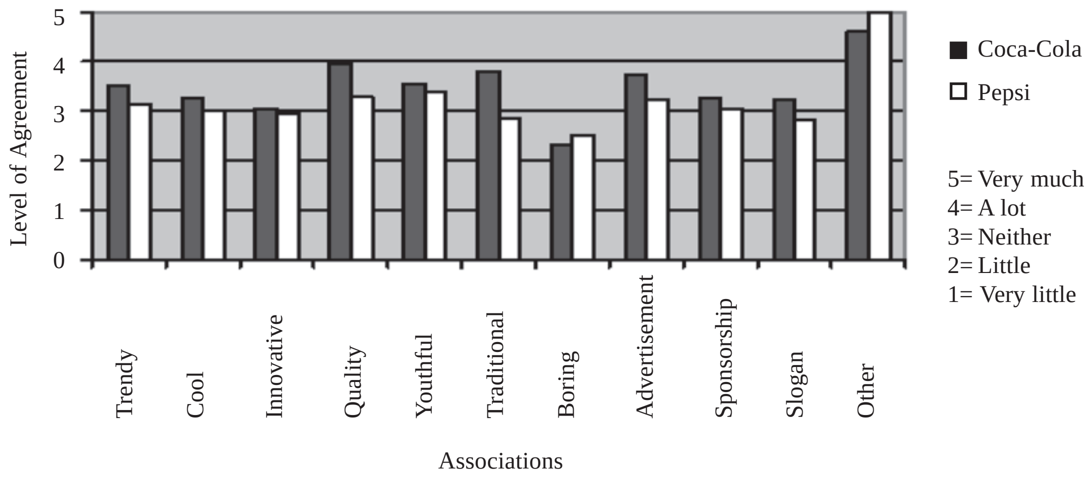

Figure-3: Brand Associations

Here, the respondents were asked to grade, on a scale from one to five, which associations they link the two brands with. The majority, 74.7 percent, associated Coca-Cola first and foremost with high “quality”, implying that they preferred its taste, but also associated it with being “traditional” (65.3 percent), and with its “advertisement” (64 percent). Pepsi, on the other hand, was primarily associated with being “youthful” (45.4 percent), but its “advertisement” (44.7 percent) and “quality” (44 percent) were also highly linked to Pepsi. Nevertheless, the association that was ranked the highest for both Coca-Cola and Pepsi was “other”, where both brands were associated with America and money. However, seeing as only seven (five of which preferred Coca-Cola) out of the total number of respondents chose this alternative and grading it a four or five, the mean for this was much higher than the rest of the associations (see figure 3).

9. *Which logo do you prefer?*

10. *Which slogan appeals the most to you?*

There was a substantial difference between the way in which the respondents preferred one logo over the other, with as much as 77.3 percent preferred Coca-Cola’s and only 18 percent preferred Pepsi’s. When asked which slogan the respondents favored the most, the difference was not as evident with only a 2.7 percent deviation, where 44.7 percent preferred Coca- Cola’s and 42 percent preferred Pepsi’s (see figure 4.6). Those who did prefer Coca-Cola’s logo did so because it is, for example, *“more known”, “traditional”, “classical”, “genuine and better looking with more details”, “more tasteful with the red color”*, and finally because it is *“the original cola”*. In contrast, Pepsi’s logo was described as *“clumsy and out of date”*. However, those that did prefer Pepsi’s logo did so because it is *“classy”, “retro”*, and *“youthful”*. Interestingly enough, both slogans were rather unknown to the respondents, due to the fact that they have not yet been extensively used and thus are not the most familiar slogans in the companies’ history. Although they were both overall described as being *“cool and easy”*, Coca-Cola’s was referred to as being funnier and Pepsi’s being clearer and more concise.

11. *Do you know what Coca-Cola advertises?*

12. *Do you know what Pepsi advertises?*

Coca-Cola’s advertising campaigns were more well-known than Pepsi’s, and were familiar to as much as 54 percent of the respondents, from which the majority associated it with its Christmas advertisement. Those who knew of Pepsi’s campaign (39.3 percent) associated it for the most part with the David Beckham commercials.

13. *How much influence does the advertisement have on your choice of cola-product?*

According to the respondents 28.7 percent responded that the brands' advertisement did have an influence on their choice of cola product. Nonetheless as much as 40.7 percent was of the opinion that it had "little" or "very little" effect on their product choice.

14. *What do you think about the fact that Coca-Cola and Pepsi have advertisement in English?*

15. *Would you have preferred the advertisement in Swedish instead?*

When asked if the respondents would have preferred the language of the advertisements to be in Swedish rather than in English, as much as 41.6 percent answered no, with the motivations that Coca-Cola and Pepsi are world-renown brands and thus would loose their international status, as well as their catchy tones and thus become duller. Those that did wish to have the ads in Swedish (19.5 percent) had the motivation that the content of the ad would be easier to understand.

16. *What do you think about the fact that companies use celebrities in their advertising campaigns?*

17. *Would an advertisement with your idol affect your choice of Cola-product?*

The respondents' attitudes towards celebrity endorsement were also explored, and the results showed that there was an overall positive attitude towards it, where as much as 38 percent believed it was "good", while 20 percent thought it was "very good". However, 21.3 percent did not have an opinion on the use of celebrity endorsement at all. When asked if the use of celebrities in advertising affects their choice of cola product, 73.8 percent was of the opinion that it did not influence it, with the explanation that there is an extensive overload of celebrity endorsers and thus one becomes unaffected by them. Those who did feel that their consumption was affected commented it as following; as long as the employed celebrity is liked it gives the brand a more positive image - *"There is something to associate the brand with and it makes it more interesting and makes you want to buy the brand"*. Moreover, some responded that one wishes to be like their idol and thus take after the celebrity endorser.

18. *What do you think about the fact that Pepsi, for instance, uses David Beckham in its advertising campaign?*

Approximately every other respondent (53.3 percent) had no opinion about Pepsi's endorsement of David Beckham in its advertisement. However, as much as 34 percent did find it to be positive. Interestingly enough, only 8.7 percent believed it to influence their consumption of Pepsi, on account of him being *"sexy"*, *"cool"* and *"well-known soccer player that a lot of people look up to"*.

19. *What do you think about the fact that companies sponsor different sports- and music events?*

20. *How does a brand's sponsorship affect your attitude towards the product?*

When investigating the respondents' attitude towards companies' use of different music- and sports events sponsorships, the outcome was similarly to that of the attitudes toward celebrity endorsement. 34.7 percent of the respondents believed that it was "good" to sponsor different events in order to market oneself, and 23.3 percent believed it to be "very good". Yet, as much as 28 percent of the respondents did not have an opinion whatsoever about the sponsoring of different sports- and music events. On the other hand, as much as 25.3 percent of the respondents agreed upon the fact that sponsoring of different sports and music events did indeed affect their attitude towards the product in a "good" or "very good" way.

21. *Do you know what Coca-Cola sponsors?*

22. *Do you know what Pepsi sponsors?*

Coca-Cola's sponsorship activities were somewhat more known than Pepsi's, but with merely a 11.3 percent difference, and were familiar to 29.3 percent of the respondents, from which the majority associated it with various sport events, such as the World Cup in soccer and the Olympic Games. Those who knew of Pepsi's sponsorship activities (18 percent) associated it with sport teams and celebrities.

23. What do you think about the fact that Coca-Cola for instance sponsored The Olympic Games in Turin 2006? Does this affect your consumption of Coca-Cola?

Although 55.3 percent of the respondents thought it was positive that Coca-Cola sponsored the Winter Olympics in Turin 2006, as much as 84 percent claimed that it did not affect or had very little effect on their consumption of Coca-Cola. Interestingly enough only 10 percent had a negative attitude towards the sponsorship. The 16 percent that did in fact believe that the sponsoring of the Olympic Games in Turin affected their consumption of Coca-Cola did so because *"Coca-Cola is more exposed around the time for the Games"* and thus the consumers felt an even greater desire to drink more Coca-Cola. Those whose consumption was not affected by the sponsorship claimed that the soda tastes the same in spite of any sponsorship activity.

24. Which cola drink do you prefer?

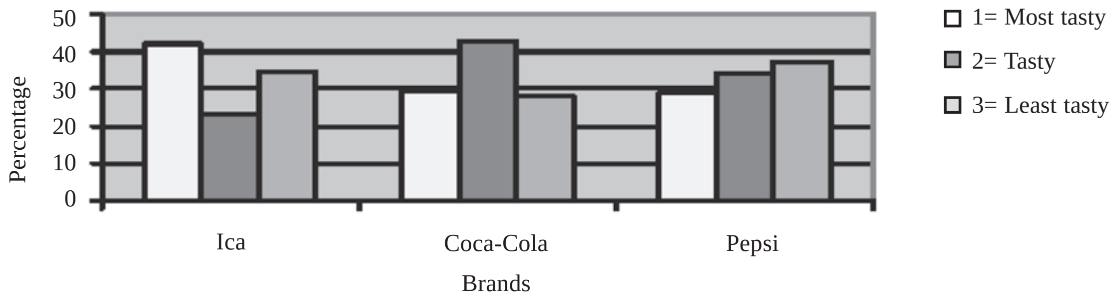

Figure-4: Blind Taste test

The questionnaire ended with a blind taste test of three different cola brands (X = Ica, Y = Coca-Cola, Z = Pepsi), where the respondents were asked to rank the different brands in accordance to their taste, where 3 represented the best taste and 1 the least favorable taste. As can be seen in figure 4.15, 42 percent of the respondents found Ica's cola to be "least tasty", while 34.7 percent found it to be "most tasty". Coca-Cola was divided as following: 28 percent favored it the most and 29.3 percent ranked it the lowest. Finally, 37.3 percent found Pepsi to be the tastiest, whereas 28.7 found it to be the "least tasty".

ANALYSIS: I *analyzed the empirical data in accordance to the chosen theory. The structure is in accordance to the analysis model, and finally the hypotheses included, where a summarization of the tested hypotheses has presented at the end of the chapter.*

As indicated earlier from our empirical findings, 78.7 percent preferred Coca-Cola and 19.3 favored Pepsi, and consequently one can assume that the taste of the product plays a large role in the choice of brand, particular in the case of Coca-Cola. When comparing brand preference to the blind taste test, more specifically, comparing the results of the highest ranked drink, we found, interestingly enough, that of those that preferred Coca-Cola, 33.1 percent ranked Coca-Cola as being second tasty of the three brands, whereas 36.4 percent chose Pepsi as having the best taste. When looking at the Pepsi group, both Ica and Pepsi were rated the same, "much tasty", with as much as 44.8 percent respectively, while only 10.3 percent thought Coca-Cola was the tastiest (see figure 10). Thus, it raises a number of questions of why the respondents prefer one brand over another, although in taste they choose a different one. As a result, the aim of this analysis is to explore the factors behind consumer preference in the buying process.

International Advertising:

	Knowledge of Coca-Cola's advertisement	Knowledge of Pepsi's advertisement	Advertisement's influence on Choice of product
Respondents associating Coca-Cola with advertisement	61.5%	39.6%	32.3%
Respondents associating Pepsi with advertisement	64.2%	53.7%	32.8%

Figure-5: The Relationship between various Advertisement factors

Brand association can either be linked directly or indirectly with a consumer's thought about a brand as stated by theory. When comparing those respondents who associated Coca-Cola and Pepsi with "a lot" or "very much" advertisement, a direct association to the brands was detected. Among the respondents who associated Pepsi with advertisement, approximately half of them knew of Pepsi's advertisement, whereas as much as 64.2 percent knew of Coca- Cola's. Yet again, it was evident that Coca-Cola's advertisement was more known than Pepsi's among those associating Coca-Cola with advertisement (figure 5). Seeing as Coca-Cola's advertisement was overall more known than Pepsi's, one can assume that Coca- Cola has managed to inform and persuade consumers better than Pepsi, in that they have managed to build a stronger company image and brand preference, which correlates to Kotler *et al's.* (2005) theory concerning "possible advertising objectives". Moreover, it was clearly shown from our empirical findings that the majority of all of the 150 respondents associated Coca-Cola's advertisement with its Christmas theme ads. This illustrates that Coca-Cola has succeeded in reminding consumers of their brand through their advertisement, even during the advertisement's "off-season" period. Again, this is in accordance to the "possible advertising objectives" model found in the advertisement theory, which emphasizes Coca-Cola's success in reaching its target consumers.

Interestingly enough, although Pepsi might in fact have a strong and efficient advertising campaign, one can question Pepsi's advertisement objectives, seeing as so many more knew of Coca-Cola's advertisement. When comparing those respondents who associated the two brands with "a lot" and "very much" advertisement to advertisement's influence on choice of product, we found that one third of the respondents respectively believed that advertisement did indeed influence their choice of product. This correlates to MacKenzie's (2004) theoretical frame which states that advertising aims to persuade consumers to buy the product in question. However, seeing as the majority claimed that advertisement did not have a significant influence on their choice of product, one can question the effectiveness of these two brand's advertisements as they have failed to consciously affect consumers' decision to buy their product. However, as stated by Armstrong *et al*. (2005, p. 143), *"ninety-five percent of the thought, emotion and learning [that drive our purchases] occur in the unconscious mind –that is without our awareness"*. This implies that consumers do not truly know what affects their purchases, and thus the remaining respondents (two-thirds) who did not think that they were necessarily influenced by advertisement, are in fact to some degree affected, but are so unconsciously.

Advertisement's influence on choice of product

	Yes	No
Yes	23.3%	44.2%
No	16.4%	49.2%

Figure-6: Prefer advertisement in Swedish

When looking at those respondents who answered that advertisement had an insignificant influence their choice of product in relation to whether or not they would prefer the advertisement in Swedish, we found that 16.4 percent would have liked the advertisement to be in Swedish rather than English. Moreover, 23.3 percent of those who did in fact believe that advertisement influenced their choice of product, also preferred to have the advertisement in Swedish. According to theory, many countries worldwide regard English as their first foreign language and thus a translation of English to a local language is not always required. However, the majority of those that wished to have advertisement in Swedish did so as a result of not understanding the message in English. Thus, one can question whether or not advertisement in Swedish would have a larger impact on those respondents who claimed they were not noticeably affected by advertisement, and whether an adapted advertising campaign would be more favorable. Of those that responded that advertisement did affect their product choice, 44.2 percent did not wish to have the advertisement in Swedish, and their primary motivation for this was that the two brands in question would loose their international status. This corresponds to Pae *et al.* (2002) who claim that if an international brand is well known, it is more likely to be successful with a standardized approach, seeing as advertisements of these brands are made more to remind and strengthen than to communicate product benefits. Furthermore, by using standardized advertising campaigns, the companies can build and sustain more homogenous brand images, which have resulted in overall global brand equity. As a result, had Coca-Cola's and Pepsi's advertisement been in Swedish, would fewer consumers of this group been as affected as they are today?

International Sponsorship

	Knowledge of Coca-Cola's sponsorship	Knowledge of Pepsi's sponsorship	Sponsorship's influence on attitude towards the product
Respondents associating Coca-Cola with sponsorship	40.3%	29%	35.5%
Respondents associating Pepsi with sponsorship	37%	28.3%	23.9%

Figure 7: The relationship between various Sponsorship factors

When comparing those respondents who associated Coca-Cola and Pepsi with "a lot" or "very much" sponsorship, we found that among those who associated Pepsi with sponsorship, 28.3 percent knew of Pepsi's advertisement, whereas 37 percent knew of Coca-Cola's. For those who associated Coca-Cola with sponsorship, 40.3 percent knew of its sponsorship, while 29 percent knew of Pepsi's. Yet again, it was apparent that Coca-Cola's sponsorship was more known than Pepsi's among those associating the two brands with sponsorship. Seeing as Coca-Cola's sponsorship was generally more recognized than Pepsi's, it can be assumed that Coca-Cola has through their sponsorship managed to build and strengthen brand awareness, brand image, and corporate image as stated by theory. This implies that they have succeeded in their sponsorship activities in that they have increased brand recognition among the respondents, which is in accordance to Cornwell *et al*. (2001), who claim that sponsorship activities are designed to expose the sponsoring brand to as many potential customers as possible, and as can be seen from our empirical findings, seventeen more respondents knew of Coca-Cola's sponsoring events.

When comparing those respondents who associated sponsorship "a lot" and "very much" with the two brands to sponsorship's influence on their attitude towards the products, we found that 35.5 percent of the Coca-Cola respondents claimed that sponsorship did affect their attitude towards the sponsored product. Yet, whether this influence on attitude is positive or negative is not noticeable. Moreover, the Pepsi respondents who stated that their attitude towards the product was in actual fact affected by Pepsi's sponsorship activities amounted to 23.9 percent. According to theory, a sponsored event's image can be transferred to the sponsored product through association, and accordingly strongly influences an individual's attitude towards the product, which can be applied to these findings. Thus it can be assumed that Coca-Cola's sponsorship activities go more hand-in-hand with its product than Pepsi's, which results in more overall positive associations to the product and hence have a larger impact on the respondents' attitude (figure 7).

Fluence Consumption Coca-Cola		Good	Bad
	Yes	26.5%	6.7%
	No	73.5%	93.3%

Figure 8: Opinions about coca-cola's sponsorship of the olympic games

According to the empirical findings, among those who had a positive attitude towards Coca-Cola's sponsorship of the Olympic Games in Turin 2006, merely 26.5 percent agreed upon the fact that this sponsorship did in fact influence their consumption of Coca-Cola. This implies that as much as 73.5 percent of the respondents were of the opinion that their consumption was not affected by this sponsoring event whatsoever. However, as stated by Armstrong *et al*. (2005), 95 percent of the purchase process takes place in the consumer's unconscious mind, which suggests that although the majority in this case believe one thing they might in fact act obliviously differently. Out of the total number of respondents (150), 102 confirmed that they were positive to the idea of sponsoring different events, and as much as 83 of the total respondents were positive to Coca-Cola's sponsorship of the Olympics. Although a sponsorship activity may in fact entail different images for different people as stated by theory, Coca-Cola has managed to appeal to a diverse group of people. Moreover, the Olympic Games can very well transcend languages and national boundaries and thus Coca-Cola has succeeded in sponsoring an international well known sports event that appeals to local markets as well. More specifically, as theory states, sports sponsorship will continue to be a popular and growing form of marketing and thus we applaud Coca-Cola's achievement of sponsoring many global sports events such as the FIFA World Cup in Germany 2006 (figure 8).

Fluence Consumption of Pepsi		Good	Bad
	Yes	21.6%	10.5%
	No	78.4%	89.5%

Figure 9: Opinions about Pepsi's sponsorship of David Beckham

Among those who had a positive attitude towards Pepsi's sponsorship of David Beckham in its advertising campaigns, only 21.6 percent responded that it did in fact influence their consumption of Pepsi. This suggests that although 78.4 percent of the respondents had a positive attitude towards the sponsorship they still were of the opinion that their consumption was barely affected by it. Yet again, we question whether or not it does actually have an unconscious effect on the consumption of Pepsi, and thus it is difficult to measure. According to Erdogen (1999), celebrities are used in advertising campaigns with the aim of delivering a company's advertising message and to convince consumers to purchase the sponsoring brands, since they have substantial influence on consumers' attitudes and purchase intentions. Thus it can be said that Pepsi's use of David Beckham has failed to influence a large number of the respondents' consumption of Pepsi. This could be explained by the fact that it is possible that David Beckham does not appeal to all of the respondents, and thus can affect their perception of Pepsi's brand, seeing as a celebrity's image often transmits itself to the endorsed brand, and accordingly the brand's image transmits itself to the endorser. Moreover, as Pepsi attempts to create a uniformed brand image across markets as well as enhancing global brand equity, a standardized advertising with David Beckham is used. Yet, an adapted campaign, i.e. using a local celebrity, might have been more favorable seeing as Beckham did not appeal to the majority of the respondents. However, out of the total respondents, 58 percent thought that celebrity endorsement in general is a good marketing tool, and 34 percent were positive towards Pepsi's use of David Beckham. This entails that Pepsi has managed to communicate their advertising message to a number of the respondents on the local market through the use of an international celebrity. This confirms the theory which affirms that celebrity endorsers have the capacity to enter overseas markets, and thus go beyond cultural borders, which is particularly true for those celebrities with universal popularity and recognition i.e. David Beckham.

International Brand: The figure below illustrates that those who associated Coca-Cola with having high quality, actually chose Pepsi (38.4 percent) in the blind taste test. Shortly after was Ica's Cola with 33.9 percent and finally Coca-Cola with 27.7 percent. The respondents who associated high quality with Pepsi, on the other hand, ranked Ica's cola the highest (40.9 percent), followed by Pepsi with 33.4 percent. Yet again, Coca-Cola was ranked "least tasty" among the Pepsi respondents. Interestingly enough, none of the two groups of respondents who associated the two products with quality ended up ranking these products the highest.

This corresponds to Aaker's (1991) theory about perceived quality, which is a consumer's overall perception of the quality of a product which derives from a number of factors such as past experiences with the product in question. Moreover, perceived quality is differentiated from the actual quality and thus is something intangible, like for instance a feeling. This can explain why many of the respondents associated one product with high quality but ended up choosing another product's quality in the test. Other factors that could have affected the results are associations that are either developed from direct experience with the product, from the information communicated from the company through for example their advertising campaigns or from previous associations held about the company (Martinez *et al.* 2003).

When looking at various brand factors, the respondents that preferred Coca-Cola did indeed also favor Coca-Cola's logo over that of Pepsi's with as much as a 84 percent difference. Furthermore, the slogan was chosen above that of Pepsi's, but with merely a 10 percent difference. The sponsorship of the Winter Olympics in Turin 2006 was also more appreciated by the Coca-Cola's respondents than Pepsi's use of David Beckham. Thus it can be assumed that the respondents preferring Coca-Cola liked the brand on the whole more than that of Pepsi. Consequently, it can be concluded that Coca-Cola has a strong brand image which indicates that the associations held in the mind of consumers are conveyed onto a consumer's perception about a brand. These associations for Coca-Cola can very well be its logo, slogan, and sponsorship activities. Furthermore, it is evident that Coca-Cola has managed to position themselves clearly in the minds of the respondents seeing as positioning refers to "*consumers' perception of a brand as compared with that of competitors' brands, that is, the mental image that a brand, or the company as a whole, evokes*" (Czinkota *et al.* 2001, p. 313). Interestingly enough, the Pepsi respondents favored Coca-Cola's logo (55.6 percent) over that of Pepsi's, as well as Coca-Cola's sponsorship of the Winter Olympics with a 13.8 percent deviation. Subsequently, it can be deduced that the Coca-Cola respondents were more positive to Pepsi's use of David Beckham than the Pepsi respondents. Two areas within the brand theory that can be applied here; brand loyalty and brand awareness. Although the Pepsi respondents preferred Coca-Cola's logo and sponsoring activities, they still predominately favored Pepsi as a brand. An explanation for this could be that the respondents have an emotional attachment towards the Pepsi brand, which generates a positive attitude towards the brand and could in fact result in repeated buying, something in which Solomon *et al.* (2001) refer to as brand loyalty. On the other hand, brand awareness involves that recognition is communicated onto a brand and can affect a consumer's buying decision through a sense of familiarity. However, seeing as the Pepsi-preferring respondents clearly do not identify with all of Pepsi's associations as portrayed in the diagram below, high brand awareness is not obtained.

Local Target Group: In the following section, a chi-square test was conducted on age versus the questionnaire questions in order to see whether distinct variations between the groups existed. A summarized table of the test results is presented in Appendix 6, where those questions that showed a significant difference scored 0.05 or less will be analyzed below.

When comparing whether there was a difference between the way in which the three different age groups consume cola soft drinks per week, we found that there was a significant deviation between the three. Interestingly enough, the majority of those aged d" 18 and e" 35 drank one to three glasses of cola per week, while the majority of those aged between 19-34 drank less than one glass per week. Another observation that can be made is that the greatest number of respondents that drank ten glasses or more per week was those aged d" 18, whereas those aged between 19-34 did not drank ten or more glasses at all. This difference in the consumption pattern between the three groups could be explained by Armstrong *et al.'s* (2005) "personal factors", which state that depending on which stage in life a person is in, his/her demands for products shift.

Another significant difference found between the groups was age versus reasons for preferences, where the only preference that did not differ was that of the brand. These differences are depicted in figure 19, which illustrate that the youngest age group ranked the different factors higher than the other two groups. This could be explained by the fact that teenagers put more time into shopping and thus spend more time on evaluating products, and since they tend to switch brands often, they also have higher requirements for products. The 19-34 group ranked "quality" (16 percent deviation), "slogan" (16 percent deviation) and "reputation" (8 percent deviation) as more important factors when preferring the product in question than the 35 and older age group. A reason for this difference between the two groups could be due to the fact that the young adults evaluate products in a very sophisticated manner, as a result of being involved in most of the family shopping (Solomon *et al.* 2001), and thus are more conscious about product attributes, and thus classify them higher.

The highest ranked association for Coca-Cola also varied among the different age groups as can be seen in figure 20 above. 62 percent of the teenagers associated the brand with being "youthful", while the second and third age groups associated Coca-Cola first and foremost with being "traditional" (64 percent and 78 percent respectively). The associations for Pepsi also varied among the age groups, where 48 percent of the youngest group associated it with "quality". Yet again, the two eldest groups ranked the same association the highest, namely that of being "youthful" with 56 and 40 percent respectively. The brand image of both brands differs among the age cohorts, and these associations can either be a result of direct experience with the brand, from the information communicated by the company, or from past experiences with the brand.

The age group that was the most positive towards advertisement in English was the young adults (60 percent), which imply that they did not wish to have the ads in Swedish. Out of those who preferred to have the ads in Swedish, the majority were those aged 18 and younger. Another interesting fact that can be depicted is that more than half (57.1 percent) of the baby boomers did not have an opinion about whether or not the advertisement should be in Swedish. A significant difference was also detected on advertisements' influence on the respondents' choice of cola product, where as much as 50 percent of the teenagers stated that they were influenced. Advertisement, on the other hand, had a very low influence on the young adults' choice of product, where merely 10 percent claimed that they were influenced. Finally, advertisement influenced 26 percent of the baby boomers in their choice of product. The fact that advertisement has such big influence on teenagers can be explained by the fact that marketers primarily target this age group in their ads, and thus the ads are more appealing to teenagers. The explanation to the findings that the second age group was least influenced could be that *"they see advertising as a form of entertainment but are turned of by over commercialization"* (Solomon *et al.* 2001, p. 413), and perhaps this is how Coca-Cola's and Pepsi's ads are perceived. Moreover, the oldest age group was also less influenced than the teenagers. Thus the companies' advertisement could in fact be more image-oriented than information intensive, which makes this group less susceptible towards this type of advertisement (Harmon *et al.* 1999).

Age	Coca-Cola	Pepsi
≤ 18	92%	70%
19-34	84%	68%
≥ 35	76%	46%

Figure 10: Age vs Positive view on Brands

When comparing age to the way in which the respondents view the two different brands, Coca-Cola and Pepsi, we found that the youngest age group had the largest majority of respondents who had an overall positive view on the two brands. Generally speaking, Coca- Cola was better perceived than Pepsi which could imply that Coca-Cola has succeeded in positioning themselves in the minds of the consumers as can be seen in figure 22. Seeing as positioning refers to *"consumers' perception of a brand as compared with that of competitors' brands, that is, the mental image that a brand, or the company as a whole, evokes"* (Czinkota *et al.* 2001, p. 313). As a result, one can assume that Coca-Cola, in this case, has gained competitive advantage over Pepsi.

Age	Coca-Cola's Ad	Pepsi's Ad
≤ 18	50%	44%
19-34	68%	58%
≥ 35	44%	16%

Figure 11: Age vs. Knowledge of brands' advertisement

In the diagram above (figure 11), the distribution among the age groups in relation to the respondents' knowledge of Coca-Cola's and Pepsi's advertisements, illustrates that the 19-34 age group predominately had the largest knowledge of the two brands' advertisements. Interestingly enough, only 16 percent of those aged 35 and older knew of Pepsi's advertisement, where as much as 44 percent knew of Coca-Cola's advertisement. What is interesting here is that although the second age group has grown up in an era of media and technology, they evaluate advertisement in a very sophisticated manner. Yet, whether their evaluation of the two brands' advertisement is positive or negative, is not portrayed. Moreover, one would have assumed that the age group that would have had the most knowledge about the brands' advertisement would in fact be the youngest age group, seeing as the theory states explicitly that marketers target ads primarily at teenagers (Blackwell *et al.* 2001). Hence one can question the aim of Coca-Cola's and Pepsi's advertisement. Another significant difference between the age groups was whether or not idols influence their choice of product. The age group that was most affected by idols was the d" 18 group, where as much as 50 percent responded that their choice of product was affected by an idol. Within the other two age groups, only 17 percent (19-34 group) and 12 percent (e" 35 group) were influenced by idols. One motivation to why so many of the teenagers were influenced by idols, could be due to the fact that they are more affected by groups in their environment, such as aspirational groups, i.e. a person's admiration of an idol.

Moreover, they have a stronger need for belonging and approval, and as can be seen from our empirical data, a number of the respondents stated that they wish to be like their idol, which implies that a celebrity endorser would undeniably affect their choice of product. Moreover, the age groups differed in their opinions about David Beckham's appearance in Pepsi's advertisement, where the youngest, once again was the largest group of respondents that were positive towards it (48 percent; young adults: 38 percent; baby boomers: 16 percent). Whether or not David Beckham influenced their consumption of Pepsi, also illustrated a significant difference between the age cohorts. As much as 96 percent of those aged 35 and older claimed he hardly affected their consumption, whereas 22 percent of those aged 18 and younger responded that he did in fact have a large impact on their Pepsi consumption. Lastly, the entire 19-34 age group responded that David Beckham did not, whatsoever, have a noticeable influence their consumption of Pepsi.

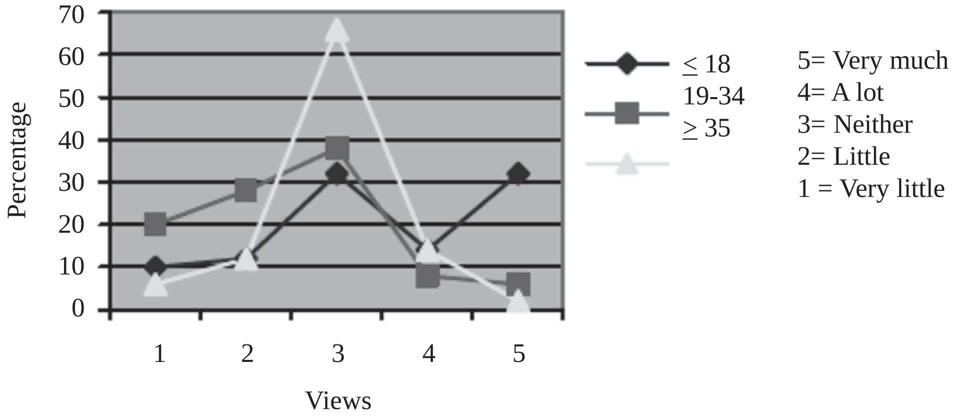

Figure 12: Age vs Sponsorship's influence on product choice

The age group that claimed that their choice of product was the least affected by sponsorship was those aged 19-34 (48 percent). The age group which was influenced the most was the teenagers, where as much as 46 percent claimed that their product choice was "a lot" and "very much" affected by sponsorship activities (figure 12). Overall, merely 38 of the total 150 respondents claimed that their choice of product was affected by sponsorship activities. As a result, one can question how efficient it is for companies to implement sponsorship in their marketing strategy, as one of the aims of sponsorship is to encourage product sales. However, given that only five percent of the purchasing process is conscious to the consumers; these results might not be accurate. Another significant difference among the age groups was their knowledge of Coca-Cola's sponsorship activities. Within the two youngest groups, 34 percent and 20 percent respectively knew of it. Seeing as most sponsorship activities aim at increasing brand recognition and exposing the brand to as many potential customers as possible, Coca-Cola has not fully succeeded in reaching the majority of the respondents within each age group.

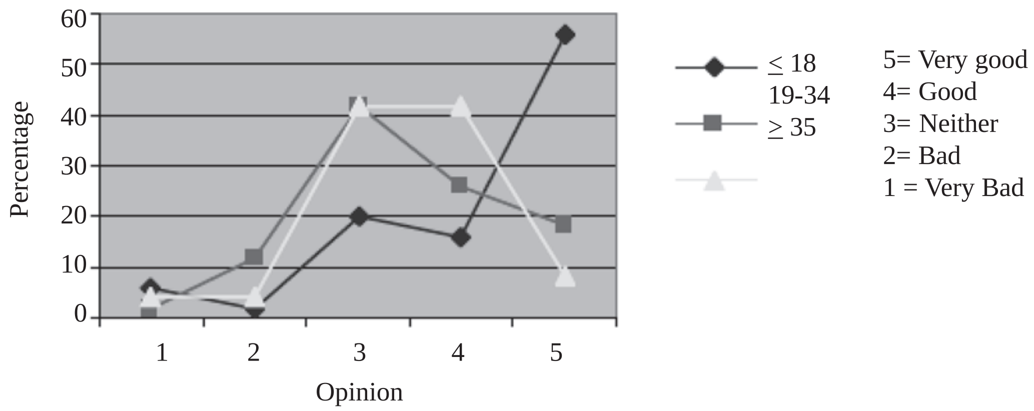

Figure 13: Age vs Coca-cola's sponsorship of the Olympic games 2006

72 percent of the teenagers had a positive opinion about Coca-Cola's sponsorship of the Winter Olympics in Turin, whereas 44 and 50 percent of the oldest groups were positive towards the sponsorship. Moreover, the group that had the most negative opinions were the young adults. Reasons for this deviation in attitude could be due to the fact that an event may entail different images for different people, as well as a person's history with a certain event could influence one's attitude towards the event, as stated by Gwinner (1997). Interestingly enough, as much as 42 percent of the teenagers stated that their consumption was influenced by the sponsorship, while merely four percent of the young adults' and two percent of the baby boomers' consumption were influenced. A reason for this deviation between the age groups could be due to the fact that their life experiences

and situations as well as income, education, and occupation vary among the groups, as a result affecting their buying behavior (figure 13).

	Drink Y	Drink Z
≤ 18	48%	30%
19-34	14%	52%
≥ 35	22%	30%

Figure 14: Age vs Blind taste test

Finally, it was detected that the youngest age group preferred the taste of drink Y (Coca- Cola), whereas the other two groups preferred the taste of drink Z (Pepsi) as can be seen in the diagram above. Moreover, there was no significant difference in the way the age cohorts rated drink X (Ica). In conclusion, there was a significant difference in the age cohorts' answers to most of the questionnaire questions. Thus we can assume that a reason for this deviation is due to the fact that they are at different stages in their lives, and hence have different demands for products. This strengthens the consumer preferences theory that each consumer is unique and differs from one another in that of taste, preference, and wants.

Hypotheses:

H1: Consumers explicitly prefer one brand but actually favour the taste of another. This hypostudy was confirmed to some extent, in that the majority of those that preferred Coca-Cola actually chose Pepsi's taste. However, of those that preferred Pepsi, the majority rated Ica's cola and Pepsi's the same, which in this case, does not strengthen the hypostudy.

H2: Seeing as Coca-Cola and Pepsi seem to target different consumers through their advertisements and sponsorships, we believe that depending on a person's age, the choice of cola product differs, as well as their taste preference. More specifically, that the youngest age group particularly have a more positive attitude towards Pepsi on the whole, whereas the oldest age group are more positive towards Coca-Cola. This hypostudy proved to be partly incorrect; as the chi-square test clearly illustrated that there was no significant difference between the age groups' preference of brand. However, the results of the blind taste test showed that the teenagers actually preferred the taste of Coca- Cola, while the baby boomers preferred Pepsi. Finally, all of the age groups were more positive towards Coca-Cola than Pepsi, which confirms the hypostudy to a certain extent, in that the baby boomers preferred Coca-Cola on the whole.

H3: People aged eighteen and younger have the highest level of knowledge of brand advertisement, hence they are more influenced by it in their choice of products than any other age group.

This hypostudy was unconfirmed in that the eighteen and younger age group did not have the highest level of knowledge of the brands' advertisements. Moreover, the results indicated that advertisement's role in consumers' choice of product did not vary among the age groups and thus the hypostudy is not supported.

Conclusion

Research Question: In this section, I intend to answer my research question:

- To what extent do advertising, sponsorship, brand, and age affect consumer preferences?

On basis of our analysis, we have drawn the following conclusion that advertising, sponsorship, brand and age all affect consumer preferences to some extent, as will be explained in the text below.

International advertising: I found that some consumers, who associate a brand with advertisement as well as having actual knowledge about the brand's ads, do indeed feel that their choice of product is to a large degree influenced by brand advertisement. The use of a local market's language in an international campaign, on the other hand, has little effect on consumers' choice of product; whereas it was found that an English campaign has a greater influence on consumer preferences. In addition, strong international brands that are often associated and recognized for their extensive advertising campaigns, do not always imply that consumers actually know of their campaigns. From this, I can conclude that it is not as apparent as whether or not advertising alone influences the buying process, as one would have assumed.

International sponsorship: Regarding international sponsorship, it can be concluded that of those who associate a brand with sponsorship and at the same time know of what the brand sponsors, only a small proportion of the consumers' attitudes towards the sponsored product is influenced. However, it can not be depicted whether it affects their attitude in a positive or negative way, and thus it is difficult to define a clear relationship between the influenced attitude and consumer preferences. Out of those consumers who have a positive opinion about a specific sponsored event, only a few claim that their consumption of the sponsored brand is affected. Finally, it can be deduced that celebrity endorsement only influences some consumers' buying behavior. However, it cannot be revealed from this whether it has a positive or negative effect in the end.

International Brand: When associating a brand with high quality, in this case the taste factor, it can be established that consumers essentially prefer the taste of a completely different product. Consumers, who prefer one international brand over another, that of homogenous products, do not necessarily view the preferred brand's different factors, such as logo, slogan, and sponsorship activities, better than the competitors'. This implies that a consumer's preference is built upon a number of different factors, some of which have not been considered in this study, such as brand name and country-of-origin, and thus the overall attitude towards the brand is positive, creating an emotional attachment which results in brand loyalty. In conclusion, international brands impact consumer preferences on the whole, in that the assembly of many different factors together influence consumers, but alone a factor may not be strong enough in affecting consumer preferences.

Local target group: The importance of the studied factors that affect consumers' choice of product varies among different age groups, more specifically; teenagers tend to view these factors higher than other age groups. Moreover, teenagers' preferences are on the whole more influenced and built upon a number of elements, such as advertisement, celebrity endorsers, and sponsorship activities. Interestingly enough, advertising campaigns' influence on consumers' choice of product does not vary among different age groups, likewise opinions about celebrity endorsement and sponsorship events. Lastly, it can be concluded that depending on what stage in life a person is in, their preferences for brands and products differ.

Modified analysis model: A relationship between the studied factors can be depicted as following; international advertising and international sponsorship respectively influence the local target group in different ways as depicted above, but they also affect international brand in that they have an impact on brand image and brand equity. Moreover, the local target group, i.e. the age factor, views brands differently and thus have an effect on international brand alone, but also in combination with international advertisement and international sponsorship. Finally, these factors together influence the way in which a brand is perceived, and consequently influence consumer preferences, which is illustrated in the diagram below.

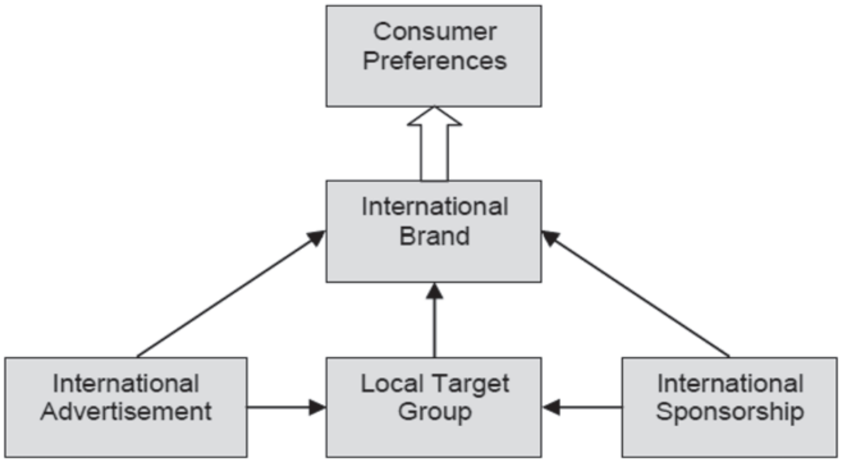

Figure 15: Modified analysis model

From this study, it can be concluded that in order for international companies to be successful and gain competitive advantage on the local market, it is vital that they implement a combination of the studied factors in their marketing strategy so to best reach target groups. More specifically, the strategies should be tailored in accordance to the target groups' age, seeing as consumer preferences vary depending on a person's age. Lastly, although advertising campaigns are still efficient in reminding and persuading consumers of brands and products, companies must differentiate themselves in their messages and techniques, etc. as advertisement clutter is at a rise.

Reflections: When I began working with this study I believed that consumers choose products on the basis of quality, i.e. the taste. This turned out to be quite the opposite in that the majority of the respondents did not choose their preferred brand in the blind taste test. Furthermore, I had preconceived opinions about the effect of Coca-Cola's and Pepsi's advertisements alone had on consumers' choice of product, and also that their advertising campaigns were more known on the local market. However, my study not only proved that advertisement is much more efficient in combination with other marketing factors, but it also demonstrated that the majority of the consumers on the local market did not specifically know of the two companies' advertising campaigns.

Proposed Future Research:

- Investigating the chosen subject from a company perspective.
- Study the relationship between the studied factors and other demographic variables, such as gender, and how they together influence consumer preferences.
- Seeing as little research has been done within the area of age and advertisement, an interesting future study would be on how marketers can best tailor an advertising campaign for different age groups. More specifically, which features appeal to each age group the most?

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Service Tax Revenue in India- A Diagnostic Study

D.Srijanani * and M.Usha **

Abstract

The service sector is now occupying a center stage of economies all over the globe. In the contemporary world, development of service sector has become synonymous with the advancement of the economy and India is no exception to this phenomenon. Services represent the fastest growing sector of the global economy and account for 60 per cent of global output, 30 per cent of global employment and nearly 20 per cent of global trade.

In fact service sector in India showed a continuous growth during the last decade outpacing the growth of the other two sectors. However, in spite of its continuous growth and its significant contribution to the GDP it remained totally out of the tax net till the year 1994. While in many developed and developing countries goods and services went almost hand in hand as far as taxation was concerned. There was no reason why India could not do the same.

In this context Dr.Raja Chelliah committee recommended the imposition of tax on few specified services in view of the significant contribution of the service sector to GDP in India. Since the inception of Service tax levy in 1994, it has been attracting the attention of not only policy makers and administrators but also the service taxpayers, due to its multi-dimensional implications. The objective of the present paper is to analyze the service tax collected across the24 zones and 77 commissionerates of India and to find, if the increased number of taxable services in India added to increased service tax revenue or not. In the process services that are contributing significantly to the service tax revenue and those which are not contributing significantly have been identified.

Service tax is envisaged as the tax of the future. Well-synchronized taxation on manufacturing, trade (domestic and international) and services without cascading effect on taxation, would be an idea worth pursuing in the immediate future.

Introduction

Service sector since 1990’s is occupying a center stage of economies all over the globe representing the fastest growing sector of the global economy. It accounts for 60 per cent of global output, 30 per cent of global employment and nearly 20 per cent of global trade.

In the contemporary world, development of service sector has become synonymous with the advancement of the economy. India is no exception to this phenomenon. For the year 2002-03, the annual average growth of service sector in India stands at 8.2 per cent, which is much higher than that of agriculture (4.4 per cent) and that of industry (3.5 per cent). However, in spite of its continuous growth and its significant contribution to the GDP of the country it remained totally out of the tax net till the year 1994. While in many developed and developing countries goods and services went almost hand in hand as far as taxation was concerned. There was no reason why India could not do the same.

Keeping this in view, Raja Chelliah committee recommended the imposition of tax on few specified services. Accordingly, service tax was introduced in India, for the first time in 1994-95 on a very modest basis covering only three services viz., telephones, stockbrokers and insurance at a flat rate of 5 per cent. Subsequently,

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several services were brought into the service tax net and the exercise is still going on. Presently, 119 services are taxed at a rate of 10% + 2% (of service tax) education Cess + 1% (of service tax) Secondary Higher Education Cess (aggregating to 10.30%). Thus service tax in India has come to stay.

The present paper analyses the service tax revenue generated at the all India level. Presently, there are 24 zones and 77 commissionerates created for the levy and collection of service tax in India.

The study is based on the presumptions that in view of the increased number of services, increased number of assessees and the increased service tax rate the revenue from service tax should also increase.

The global experience as well as Indian experience with reference to other taxes reveals that as tax rates increase tax compliance reduced. Laffer (an economist)(1974) also demonstrated using a simple curve, based on the principle of diminishing marginal utility the illogical behaviour of high taxes. He proved that as tax rates increase and reach the peak, the incentive to earn would be lost and hence the tax revenues declines. In other words, higher the taxes, lower the tax collection, has been the past experience of several countries.

However, service tax being in its infancy laffers curve is not yet applicable. Having modestly started with 3 services at 5% tax rate and year after year more services are identified and included in the tax net. It will take some time for the service tax to follow the laffers curve principle.

Objective of the study

With this background, the present paper focuses on the following objectives.

- To analyze the service tax revenue collected across the zones and commissionerates.
- To identify services whose contribution to revenue is significant and the services, which are not significantly contributing to the service tax revenue kit of the government.

(For this purpose service-wise revenue since 1994 to 2010 has been considered).

Scope of the study

All the 24 zones and 77 commissionerates at the all India level and the 119 taxable services for which data is available have been covered.

Sources of Data & Period of the study

The data covers the fifteen year period i.e., since the introduction of service tax in India to date (1994 – 2010).

Methodology used

To begin with, an overview of service tax revenue at the all India level has been made. Compound annual growth rates (CAGR) have been computed for finding out the growth in revenue, assesses and revenue per assessee over a ten-year period using the following formula.

CAGR = ((y/x)^(1/n))-1

Where y = value in the final period covered

x = value in the first year

^ = Power of

n = number of years

Next, all the services have been divided into four ranges A, B, C and D respectively, taking Service Tax as the basis. This analysis clearly revealed all those services with high tax potential and vice-versa. The contribution of each service to the total service tax revenue in India for two years has been made.

Plan of the study

The paper is organized as follows: After introduction an overview of the service tax revenue at the all India level is presented in *Section II*. Inter -zone and inter commissionerate analysis of the service tax revenue generated in India is made in Section III. Service wise tax revenue analysis is attempted in *Section IV*. Finally, concluding remarks are made.

An Overview of service tax in India

Widening of the tax base has been one of the focus areas of tax reforms in India. This has two important dimensions viz., introduction of new taxes and roping more number of assesses into the tax net. The introduction of the one by six economic criteria and Service Tax aimed at this. Year wise service tax revenue and the number of service taxpayers for the country as a whole are shown in Table 1 The fifteen year data shows a rising trend in the revenue as well as assessees. The CAGR captures the growth over a fourteen-year period, which shows 42.89 per cent for revenue and 50.58 per cent for assessees. The CAGR of revenue per assessee shows a negative growth of (-) 5.04 per cent. This shows that the growth rate in assessees is much higher than the growth in revenue, which is clearly reflected in the low CAGR of revenue per assessee. It implies that the administration should concentrate more on increasing service tax revenue collections. Three major factors that affect any tax collection are: the tax base, the tax rate and the tax compliance. While there is no defined measure of tax compliance, it depends on the effectiveness of tax administration as reflected in mode of assessment, collection mechanism for arrears and attracting new taxpayers. Hence, administrative reforms are urgently called for even in the case of Service Tax in view of the low CAGR of revenue per assesee.

Table 1: An Overview of Service Tax in India (1994- 2009)

Financial year	Revenue Rs. in Crores	No. of Assessees	Revenue Per Assessee Rs. in Crores	No. of Services Taxed	% Growth in Revenue	% Growth in Assessees	% Growth in Revenue per Assessee
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1994-95	410	3943	0.10	3	Base Year	Base Year	Base Year
1995-96	846	4866	0.17	6	106.34	23.41	4.54
1996-97	1022	13982	0.07	6	20.8	187.34	0.11
1997-98	1515	45991	0.03	18	48.24	228.93	0.21
1998-99	1787	107479	0.02	26	17.95	133.7	0.13
1999-00	2072	115495	0.02	26	15.95	7.46	2.14
2000-01	2540	122326	0.02	26	22.59	5.91	3.82
2001-02	3305	187577	0.02	41	30.12	53.34	0.56
2002-03	4125	232048	0.02	52	24.81	23.71	1.05
2003-04	7890	403856	0.02	62	91.27	74.04	1.23
2004-05	14196	774988	0.02	75	79.92	91.9	0.87
2005-06	23053	846155	0.03	84	62.39	9.18	6.80
2006-07	37482	940641	0.04	99	62.59	11.17	5.60
2007-08	51133	1073075	0.05	100	36.42	14.08	2.59
2008-09	60702	1204570	0.05	106	18.71	12.25	1.53
CAGR	42.89%	50.48%	(-)5.04%				

Service Tax Revenue - An inter zone and inter commissionerate analysis

Table 2: Zone Wise Service Tax Collection

S. No	Zones/ Regions	REV. 2008-09 Rs.in Cr	NO. OF Assessees	REV_Per_ Assessee Rs.	REV.2009-10 Rs. in Cr	NO. OF Assessees	REV_Per_ Assessee Rs.
1	North	14827.56	344956.00	42983.92	14065.62	383252.00	36700.71
2	East	3841.76	29204.00	131549.10	1083.89	32289.00	33568.40
3	West	27623.00	396448.00	69676.48	23445.94	424813.00	55191.20
4	South	12730.44	318816.00	39930.37	11640.95	337001.00	125460.31
Grand Total		59022.76	1089424.00	284139.87	50236.40	1177355.00	250920.62

Source: [redacted]es) (Revenue in crores)

There are 24 zones and 77 commissionerates at the all India level created for the purpose of service tax levy. Presently there are 67 Central Excise Commissionerates and 7 Service tax Commissionerates within the jurisdiction of 23 Central Excise Zones. The 7 Service Tax Commissionerates have been established in Mumbai (2 Commissionerates), Delhi, Kolkata, Chennai, Ahmedabad & Bangalore. Also, there are 5 Large Taxpayer Units (LTUs) located at Mumbai, Bangalore, Delhi, Kolkata and Chennai. For the purpose of analysis the 24 zones have been grouped under four regions viz., North, East, West and South.. Table 2 shows zone-wise contribution. The major contribution is from the west followed by north, south, and finally east regions. Annexure I present the zone-wise service tax collections for the years 2008-09 and 2009-10 respectively while Annexure II presents commissionerate-wise service tax revenue and number of assesses for the year 2008-09 and 2009-10. It shows that the metros and the cities like Mumbai, Delhi ,Bangalore and Chennai have been the major contributors of the service tax. In fact, on this basis the Directorate General Of Service Tax (DGST) created Six exclusive service tax commissionerates at Delhi, Bombay, Calcutta, Chennai, Ahmedabad and Bangalore. The commissionerate wise analysis shows that the top ten commissionerates on the basis of performance are the Service Tax Commissionerates of Mumbai, Delhi, Bangalore, Chennai, Kolkata, Ahmedabad, LTU Chennai, LTU [Large Tax Paying Units] Bangalore and the Central Excise Commissionerates of Pune III, Hyderabad.

Service Wise Analysis

ABCD Analysis: Taking the contribution of each service to the total service tax revenue, across the 23 zones for two years , ABCD Analysis has been made [Table 3]. All the services have been divided into four ranges A (> 10%), B (1%-10%), C (0.5% - 1%) and D (<0.5%) respectively, taking Service Tax as the basis. This analysis clearly revealed all those services with high tax potential and vice-versa. The contribution of each service to the total service tax revenue in India for two years has been made.

Table 3: ABCD Analysis

For the whole of India	A> 10%	B1% - 10%	C0.5% - 1%	D<0.5%
(1)	(2)	(3)	(4)	(5)
2007-08	1	22	14	71
2008-09	0	25	13	70

To identify the tax potential of different services the contribution of each service as a percentage of the total tax has been computed. Based on these values, services have been arranged in ascending order and classified into four ranges as A, B, C & D. [Annexure III & IV]. The services which are contributing more than ten per cent of the total tax revenue have been categorized as ‘A’, one per cent to ten per cent as ‘B’, 0.5 per cent to one per cent as ‘C’ and below 0.5 per cent as ‘D’. These results are consistent with those of the quadrant analysis by and large. Table 4 provides some more insights into the nature of services falling in the ranges as shown above.

Going by the nature of the services as shown in Table 4 it is interesting to note the following facts. Tax on Telephone Bills is the only service falling under range ‘A’ and contributing 11.06% to the total service tax revenue in the year 2007-08. While in the year 2008-09, no services fall in the range 'A'.

Table 4: Nature of Services and their Contribution to Service Tax Revenue.

A (> 10%)		B (1% - 10%)	
2007-08 (1 Service) Tax on Telephone Bills [11.06%] 11.06%[1]	2008-09 (0 Services)	2007-08 (22 Services) Advertising Port Services Courier Business Support 69.19% Services And others	2008-09 (25 Services) Banking auxiliary Services Port Services 81.8% Broadcasting And others
C (0.5% - 1%)		D (<0.5 %)	
2007-08 (14 Services) Chartered Accountant Architect services Airport 9.38% Insurance auxiliary Services	2008-09 (13 Services) Chartered Accountant Scientificand 8.7% Technical Airport Services Courier	2007-08 (71 Services) Cable operators Telegraph Cost Accountants 10.38% Company Secretary Asset Management Credit Rating Agency	2008-09 (70 Services) Cost Accountants Tour Operators Event Mgt. 9.49% Manpower Agency Photography

[1] In chart 4.2 the percentage given after the braces is the percentage contribution made by all the

The twenty five services, which fall in the range 'B' of the 2008-09 viz., Banking auxiliary, Port Services, Broadcasting etc., together contribute 81.8% to the total service tax revenue. While in the 2007-84, the twenty two services viz., Advertising, Port Services, Business Support Services, Courier etc., etc together contribute 69.19% of the total service tax revenue.

The fifteen services which fall in the range 'C' of 2008-09 viz., Airport, Scientific & Technical, Chartered Accountant Services etc., are contributing 8.7% to the total service tax revenue. However, in the 2007-08 there are seven services in range 'C' contributing nine per cent. The remaining 70 services of the 2008-09 fall in the range 'D'. Together they contribute 9.49%. The services which fall in the 'D' range at 2007-08 are 71 with a meager contribution of 10.38% to the total service tax revenue.

The services contributing the least and falling under the Range D should be considered for more focus and the department should seriously work towards improving the performance of these services either by registering more service providers into the assesee list or by improving and increasing the tax collection.

Conclusion

Service sector has witnessed a phenomenal growth through the 1990's and currently accounts for around 52 per cent of GDP while the service tax accounts for barely four per cent of total indirect taxes in India. Since the introduction of Service Tax in 1994, the share of service tax in total indirect taxes has increased from less than one percent to around four per cent in 2002-03. With the limited possibility of additional taxation on goods, both the center and states are looking towards a greater share from service tax.

According to the information given by the service tax officials of both the zones, the assessee base could be increased by 80 to 90 per cent and tax revenue by 50 per cent against the targets of 125 per cent and 80 per cent respectively up to January 2005. In order to cope up with the targets fixed, the department has taken up the task of recovering service tax arrears more rigorously. The consistent growth in the number of service tax assessees as well as service tax revenue as presented in the earlier sections indicates that the concentration of the service tax administration should be more on increasing the revenue per assessee. Service tax is envisaged as the tax of the future. Well-synchronized taxation on manufacturing, trade (domestic and international) and services without cascading effect on taxation, would be an idea worth pursuing in the immediate future.

Continued growth in GDP accompanied by higher rate of growth in service sector promises new & wider avenues of taxation to the Government. If the tax on services reduces the degree of intensity of taxation on manufacturing and trade without forcing the Government to compromise on the revenue needs, then one of the basic objectives of taxing the service sector would be achieved.

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Annexure – I

Service Tax Revenue - An inter zone and inter Commissionerate analysis

Zone Wise Service Tax Collection For F.Y. 2008-09 & 2009-10

(Revenue in crores)

SR. NO.	NAME OF THE ZONE	REV. 2008-09	NO. OF ASSESSEES	REV. 2009-10	NO. OF ASSESSEES
1	AHMEDABAD	2017.58	62636	1975.44	64419
2	BANGALORE	3455.56	71836	3175.00	77489
3	BHOPAL	1148.91	49396	1046.25	53346
4	BHUBANESHWAR	817.23	16805	784.50	18986
5	CHANDIGARH	948.23	43540	680.96	45464
6	CHENNAI	3620.48	69191	3335.02	70475
7	KERALA	1009.78	23386	907.12	24158
8	COIMBATORE	932.91	61743	765.95	64286
9	DELHI	10178.93	144699	9895.07	156811
10	SHILLONG	279.92	12399	299.39	13303
11	HYDERABAD	2190.72	40947	2039.34	45578
12	JAIPUR	914.59	53303	817.14	56370
13	KOLKATA	2744.61	51966	2712.79	64996
14	LUCKNOW	769.49	46490	704.90	54438
15	MYSORE	661.51	24059	604.49	23636
16	MEERUT	1145.74	36439	1082.45	45890
17	MUMBAI-I	20205.11	178328	18440.84	188843
18	MUMBAI-II	350.13	3810	315.80	4375
19	NAGPUR	761.88	48511	725.04	52340
20	PUNE	2393.24	73920	2184.01	83075
21	RANCHI	636.26	24392	655.99	27303
22	VADODARA	980.57	38576	963.11	39810
23	VISHAKHAPATNAM	859.48	27654	814.03	31379
24	LTU	1935.58	544	3202.84	516
	GRAND TOTAL	60958.44	1204570	58127.47	1307286

Source: reports received from Commissionerates /Zones

Annexure II

COMMISSIONERATE WISE SERVICE TAX COLLECTION FOR

F. Y. 2008-09 & 2009-10

(Source : Reports received from the Commissionerates /Zones)

Sr. No.	Commissionerate	Revenue 2008-09 (Rs. In crores)	No. of Assessees	Revenue 2009-10 (Rs. In crores)	No. of Assessees
1.	AHMEDABAD SERVICE TAX	999.31	25959	919.37	26222
2.	AHMEDABAD-III	204.01	7614	198.12	8225
3.	RAJKOT	703.30	18982	762.15	19544
4.	BHAVNAGAR	110.96	10081	95.80	10428

5.	BANGALORE SERVICE TAX	3455.56	71836	3175.00	77489
6.	BHOPAL	354.91	16438	352.41	15748
7.	INDORE	459.78	20770	330.99	24086
8.	RAIPUR	334.22	12188	362.85	13512
9.	BHUBANESHWAR-I	452.16	12049	458.42	14870
10.	BHUBANESHWAR-II	365.07	4756	326.08	4116
11.	CHANDIGARH	635.85	18066	408.91	16931
12.	JALANDHAR	122.32	8764	98.79	9140
13.	LUDHIANA	190.06	16710	173.26	19393
14.	CHENNAI-SERVICE TAX	3367.86	56082	3071.90	57008
15.	CHENNAI-III	126.14	7956	115.61	8537
16.	PONDICHERRY	126.48	5153	147.51	4930
17.	COCHIN (KERAL)	507.26	9739	456.07	10220
18.	CALICUT	208.82	7058	203.69	7312
19.	THIRUVANANTHAPURAM	293.70	6589	247.36	6626
20.	COIMBATORE	317.72	22163	249.32	22163
21.	MADURAI	115.60	9737	92.26	10211
22.	SALEM	115.37	10904	118.93	11631
23.	THIRUNELVELI	136.59	10000	126.44	10574
24.	THIRUCHIRAPALI	247.63	8939	179.00	9707
25.	DELHI-SERVICE TAX	9906.05	129137	9662.15	142645
26.	ROHTAK	160.49	7834	120.07	8843
27.	PUNCHKULA	112.39	7728	112.85	5323
28.	SHILLONG	165.38	2987	98.69	3277
29.	DIBRUGARH	62.14	2724	71.62	2731
30.	GUWAHATI	52.40	6688	129.08	7295
31.	HYDERABAD-I	68.70	3610	56.83	3919
32.	HYDERABAD-II	1646.47	23821	1527.46	26043
33.	HYDERABAD-III	205.87	8242	185.16	9311
34.	HYDERABAD-IV	269.68	5274	269.89	6305
35.	JAIPUR-I	647.61	35451	596.83	37644
36.	JAIPUR-II	266.98	17852	220.31	18726
37.	KOLKATA-SERVICE TAX	2437.24	38952	2421.43	51899
38.	BOLPUR	145.64	5841	153.36	6161
39.	HALDIA	124.47	2823	97.29	2782
40.	SILIGURI	37.26	4350	40.71	4154
41.	LUCKNOW	419.91	13193	327.60	18841
42.	ALLAHABAD	104.59	11437	128.60	12381
43.	KANPUR	244.99	21860	248.70	23216
44.	MANGALORE	256.16	5695	238.49	5843
45.	BELGAUM	320.42	12417	283.71	11865
46.	MYSORE	84.93	5947	82.29	5928
47.	MEERUT-I	230.67	14385	270.29	16938
48.	MEERUT-II	131.01	9205	102.41	10396
49.	NOIDA	652.81	5897	574.54	11745

50.	GHAZIABAD	131.25	6952	135.21	6811
51.	MUMBAI-SERVICE TAX	20205.11	178328	18440.84	188843
52.	RAIGAD	350.13	3810	315.80	4375
53.	NAGPUR	321.75	18763	359.81	20624
54.	NASIK	210.09	14971	166.65	15866
55.	AURANGABAD	230.04	14777	198.58	15850
56.	PUNE-I	347.34	11549	364.82	15701
57.	PUNE-II (Kolhapur)	180.42	11742	160.36	12047
58.	PUNE-III	1648.70	41979	1450.69	45761
59.	GOA	216.78	8650	208.14	9566
60.	RANCHI	201.36	8064	286.38	9128
61.	JAMSHEDPUR	232.60	6008	198.93	6526
62.	PATNA	202.30	10320	170.68	11649
63.	VADODARA-I	260.58	8344	246.95	8672
64.	VADODARA-II	255.14	10476	183.71	10422
65.	SURAT-I	298.59	9102	329.74	9303
66.	SURAT-II	46.44	2721	58.50	3033
67.	DAMAN	74.46	5447	99.35	5794
68.	VAPI	45.36	2486	44.86	2586
69.	GUNTUR	226.52	10947	262.84	13886
70.	VISHAKHAPATNAM -I	292.99	5144	318.42	5548
71.	VISHAKHAPATNAM-II	250.93	5040	163.56	5081
72.	THIRUPATI	89.04	6523	69.21	6864
73.	LTU BANGLORE	770.20	147	896.00	161
74.	LTU CHENNAI	771.07	258	804.24	298
75.	LTU DELHI	115.12	14	843.94	20
76.	LTU KOLKATA	0	0	0	0
77.	LTU MUMBAI	279.19	125	658.66	37
	GRAND TOTAL	60958.44	1204570	58127.47	1307286

Annexure – III

Service wise Revenue as a Percentage Of Total Service Tax Revenue -India (2008-09)

S.No	Service	2008-09 STx Rev Rs. in Cr	STx Rev_%_ Tot_Rev
	Range D		
16	Radio Paging Services	..	0.0000
30	Leased Circuit Services	..	0.0000
31	Telegraphic Services	..	0.0000
32	Telex Services	..	0.0000
33	Facsimile Services	..	0.0000
97	Other Services since withdrawn (Arrear Payments)	..	0.0000
98	Telecommunication Services	..	0.0000
108	Services introduced in 2009-10	_	0.0000
81	Mechanised Slaughter House Services	1	0.0016

95	Transport of persons by cruise ship	1	0.0016
103	Asset management including portfolio management and all forms of fund management services	1	0.0016
64	opinion Poll Services	2	0.0033
82	Service provided by a Registrar to an Issue	4	0.0066
46	Rail travel agents	5	0.0082
49	Fashion designers	5	0.0082
79	Mailing list compilation and mailing	5	0.0082
91	Auctioneers service, other than auction of properly under directions or orders of a court of law or auction by the Central government	8	0.0132
51	Dry cleaning services	9	0.0148
25	Cost Accountant Services	11	0.0181
69	Travel Agents	12	0.0198
85	Service provided by a Recovery Agent	12	0.0198
36	Sound Recording Services	13	0.0214
26	Company Secretary Services	14	0.0231
57	Internet café	14	0.0231
24	Underwriter Services	15	0.0247
92	Public Relation Services	15	0.0247
78	Packaging services	22	0.0362
102	Development and supply of content for use in telecom services advertising agency services and on line information and database assess or retrieval services	26	0.0428
104	Design services	27	0.0445
29	Convention Services	30	0.0494
87	Sponsorship services provided to any body corporate or film, other than sponsorship of sports events	31	0.0511
66	Forward contract services	36	0.0593
83	Service porovided by a Share Transfer Agent	40	0.0659
22	Credit Rating Agency Services	41	0.0675
94	Internet Telephony Services	45	0.0741
50	Cable operators	52	0.0856
75	Survey and map making other than by Government Departments	52	0.0856
70	Pandal or Shamiana services	55	0.0906
48	Beauty parlors	57	0.0939
84	Automated Teller Machine Operations, Maintenance or Mgt.	59	0.0972
106	Receipt awaiting transfer to other heads	59	0.0972
28	Photographic Services	66	0.1087
35	Video Tape Production Services	71	0.1169
93	Ship Management Services	71	0.1169
47	Health Club & Fitness Centers	82	0.1351
23	Interior Decoration/ Designer Services	93	0.1532
62	Transport of goods by air	94	0.1548
89	Transport of goods in containers by rail by any person, other than Government railway	113	0.1861

18	Market Research Agency Services	114	0.1878
15	Steamer Agent Services	115	0.1894
67	TV or radio Programme services	123	0.2026
58	Franchise service	132	0.2174
86	Sale of space or time for Advt., other than in Print Media	134	0.2207
59	Business exhibition services	135	0.2224
71	Outdoor Catering	155	0.2553
77	Membership of clubs or associations	163	0.2685
21	Tour Operator Services	171	0.2816
7	Air Travel Agent Services	178	0.2932
45	Event Management	184	0.3031
74	Dredging services of rivers, ports harbours, backwaters and estuaries	213	0.3508
63	Survey & Exploration of Minerals	215	0.3541
76	Cleaning services other than in relation to agriculture, horticulture, animal husbandry or dairying	224	0.3689
12	Mandap Keeper Services	229	0.3772
42	Insurance Auxiliary Service relating to life insurance	247	0.4068
11	Custom House Agent Services	260	0.4282
20	Rent A Cab Scheme Operator Services	261	0.4299
73	Site preparation and clearance, excavation, earth moving and demolition services, other than those provided to agriculture, irrigation and watershed development	271	0.4463
41	Service or repair produce by authorized service station for motor car & two wheeled motor vehicle	282	0.4645
19	Real Estate Agent/ Consultant Services	294	0.4842
72	Transport of goods through pipeline or other conduit	297	0.4892
Range C			
44	Storage and warehousing services (except for agriculture produce and cold storage)	320	0.5271
14	Architect Services	324	0.5336
34	Online Information & Database access Service and/ or retrieval service	354	0.5831
88	Transport of passengers embarking international journey by air, other than economy class passengers	364	0.5995
27	Scientific & Technical Consultancy Services	365	0.6012
80	Construction of residential complexes having more than twelve residential houses or apartments together with common areas and other appurtenances	369	0.6078
9	Clearing and Forwarding Agent Services	374	0.6160
53	Technical testing & analysis; technical inspection and certification	405	0.6671
61	Airport Services	443	0.7296
43	Cargo handling (only inland cargo)	445	0.7329
52	Commercial training or coaching	482	0.7939

13	Chartered Accountant Services	516	0.8499
6	Courier Services	527	0.8680
Range B			
96	Credit Card, Debit Card change card or other payment card related services	717	1.1809
65	Intellectual property Services other than copyright	745	1.2270
3	Tax on Stock brokerage commission	795	1.3094
4	Advertising Services	822	1.3539
99	Mining of mineral, oil or gas Services	823	1.3555
10	Security/ Detective Agency Services	830	1.3670
37	Broadcasting Service	920	1.5153
40	Port Service	1068	1.7590
101	Execution of a works contract Services	1306	2.1510
107	Services introduced in 2008-09	1448	2.3849
55	Commissioning and installation	1546	2.5463
90	Business support services	1603	2.6402
105	Cess on Education	1761	2.9004
8	Management Consultant Services	1801	2.9663
68	Construction services in respect of commercial Industrial Buildings or civil Structures	1808	2.9778
38	Insurance Auxiliary Service	2086	3.4357
17	Man Power Recruitment Services	2096	3.4522
5	Consulting Engineer Services	2257	3.7174
54	Maintenance or repair	2276	3.7487
100	Renting of immovable property for use in course or furtherence of business or commerce Services	2574	4.2395
60	Transport of goods by road	3208	5.2837
2	Tax on General Insurance Premium	3279	5.4006
39	Banking and other Financial Service	3918	6.4531
56	Business auxiliary Service	4125	6.7940
1	Tax on telephone billing	5853	9.6401
	Total (all services)	60715	100.0000

Annexure IV

Service wise Revenue as a Percentage Of Total Service Tax Revenue –India (2007-08)

S.No	Service	2007-08	STx_Rev_%_Tot Rev
	Range D		
31	Telegraphic Services	..	0
32	Telex Services	..	0
33	Facsimile Services	..	0
81	Mechanised Slaughter House Services	0	0
97	Other Services since withdrawn (Arrear Payments)	..	0
98	Telecommunication Services	..	0
103	Asset management including portfolio management and all forms of fund management services	0	0

107	Services introduced in 2008-09	_	0
108	Services introduced in 2009-10	_	0
64	Opinion Poll Services	1	0.001949
16	Radio Paging Services	3	0.005848
49	Fashion designers	3	0.005848
95	Transport of persons by cruise ship	4	0.007797
104	Design services	4	0.007797
46	Rail travel agents	5	0.009746
85	Service provided by a Recovery Agent	6	0.011696
92	Public Relation Services	6	0.011696
25	Cost Accountant Services	7	0.013645
94	Internet Telephony Services	7	0.013645
102	Development and supply of content for use in telecom services advertising agency services and on line information and database assess or retrieval services	7	0.013645
82	Service provided by a Registrar to an Issue	8	0.015594
91	Auctioneers service, other than auction of properly under directions or orders of a court of law or auction by the Central government	8	0.015594
24	Underwriter Services	9	0.017544
26	Company Secretary Services	11	0.021442
51	Dry cleaning services	11	0.021442
69	Travel Agents	12	0.023391
57	Internet café	15	0.029239
79	Mailing list compilation and mailing	15	0.029239
36	Sound Recording Services	16	0.031188
83	Service urthera by a Share Transfer Agent	18	0.035087
78	Packaging services	21	0.040935
75	Survey and map making other than by Government Departments	22	0.042884
29	Convention Services	28	0.05458
84	Automated Teller Machine Operations, Maintenance or Mgt.	31	0.060428
22	Credit Rating Agency Services	33	0.064326
87	Sponsorship services provided to any body corporate or film, other than sponsorship of sports events	34	0.066276
66	Forward contract services	38	0.074073
93	Ship Management Services	39	0.076022
48	Beauty parlors	51	0.099413
50	Cable operators	53	0.103312
35	Video Tape Production Services	56	0.10916
70	Pandal or Shamiana services	58	0.113058
47	Health Club & Fitness Centers	59	0.115008
28	Photographic Services	64	0.124754
23	Interior Decoration/ Designer Services	80	0.155942
58	Franchise service	80	0.155942

67	TV or radio Programme services	80	0.155942
86	Sale of space or time for Advt., other than in Print Media	85	0.165689
89	Transport of goods in containers by rail by any person, other than Government railway	97	0.18908
59	Business exhibition services	103	0.200776
62	Transport of goods by air	105	0.204674
15	Steamer Agent Services	108	0.210522
18	Market Research Agency Services	110	0.214421
71	Outdoor Catering	126	0.245609
63	Survey & Exploration of Minerals	135	0.263153
30	Leased Circuit Services	140	0.272899
45	Event Management	145	0.282646
77	Membership of clubs or associations	147	0.286544
21	Tour Operator Services	151	0.294341
76	Cleaning services other than in relation to agriculture, horticulture, animal husbandry or dairying	158	0.307986
74	Dredging services of rivers, ports harbours, backwaters and estuaries	189	0.368414
12	Mandap Keeper Services	218	0.424943
20	Rent A Cab Scheme Operator Services	218	0.424943
7	Air Travel Agent Services	220	0.428842
72	Transport of goods through pipeline or other conduit	221	0.430791
11	Custom House Agent Services	224	0.436639
99	Mining of mineral, oil or gas Services	225	0.438588
101	Execution of a works contract Services	226	0.440537
73	Site preparation and clearance, excavation, earth moving and demolition services, other than those provided to agriculture, irrigation and watershed development	232	0.452233
44	Storage and warehousing services (except for agriculture produce and cold storage)	236	0.46003
41	Service or repair produce by authorized service station for motor car & two wheeled motor vehicle	242	0.471726
19	Real Estate Agent/ Consultant Services	255	0.497066
	Range C		
27	Scientific & Technical Consultancy Services	269	0.524356
42	Insurance Auxiliary Service relating to life insurance	294	0.573088
53	Technical testing & analysis; technical inspection and certification	304	0.592581
9	Clearing and Forwarding Agent Services	327	0.637414
14	Architect Services	342	0.666654
34	Online Information & Database access Service and/ or retrieval service	343	0.668603
43	Cargo handling (only inland cargo)	379	0.738777
88	Transport of passengers embarking international journey by air, other than economy class passengers	386	0.752422
65	Intellectual property Services other than copyright	410	0.799205

80	Construction of residential complexes having more than twelve residential houses or apartments together with common areas and other appurtenances	414	0.807002
52	Commercial training or coaching	415	0.808951
13	Chartered Accountant Services	441	0.859632
61	Airport Services	487	0.949299
	Range B		
6	Courier Services	539	1.050662
10	Security/ Detective Agency Services	625	1.2183
96	Credit Card, Debit Card change card or other payment card related services	654	1.274829
106	Receipt awaiting transfer to other heads	732	1.426873
4	Advertising Services	757	1.475605
37	Broadcasting Service	807	1.573069
100	Renting of immovable property for use in course or urtherance of business or commerce Services	935	1.822577
40	Port Service	966	1.883004
105	Cess on Education	1258	2.452194
55	Commissioning and installation	1282	2.498977
8	Management Consultant Services	1303	2.539912
3	Tax on Stock brokerage commission	1555	3.03113
17	Man Power Recruitment Services	1567	3.054521
5	Consulting Engineer Services	1646	3.208514
38	Insurance Auxiliary Service	1758	3.426834
54	Maintenance or repair	1774	3.458022
68	Construction services in respect of commercial Industrial Buildings or civil Structures	1997	3.892712
90	Business support services	2222	4.3313
2	Tax on General Insurance Premium	2798	5.454085
60	Transport of goods by road	2834	5.524259
39	Banking and other Financial Service	3695	7.202589
56	Business auxiliary Service	3796	7.399466
	Range A		
1	Tax on telephone billing	5675	11.06216
	Total (all services)	51301	100

Abstract of Doctoral Dissertation

Talent Management Strategies and challenges in the Competitive Era: A Study of Select Software & BPO Companies in India

M. Sukanya*

Introduction

[illegible] of talent management originated in the middle ages. However, talent management did not become very popular until 1990s. Since 1990 talent management has attracted the attention of researchers, academicians, policy makers, economists and consultants across the world. In today's challenging business environment of going global and competition becoming intense, organizations have mounting pressure to perform better than before. Over the years, creation and preservation of knowledge has become a key tool in accelerating competitiveness and enhancing organizational capabilities to respond to market changes (Bryan, 2004), wherein employees' skills and personalities are appropriately deployed to optimize performance, is a critical and difficult task.

Review of Literature

Various studies in talent management literature that explore topics such as talent management strategies and challenges in various studies, its impact on work-life balance, performance management, retention management and culture, etc. Various studies that are reviewed are categorized into different types depending upon the focus of these studies. The literature review has been based on a variety of studies ranging from phenomenal studies to articles focused on the aspect of Talent management and related attributes identified for the study i.e. Culture, Performance Management, Work-life Balance and Retention Management. They explore various aspects of Talent Engagement Process, Talent Retention Management Strategies and Performance Management System; Contains reviews of studies, the Impact of culture and work-life balance on Talent Management Strategies. They explore various aspects of Mentoring, Attitude tests, and how Spirituality helps in nurturing talent; and A detailed survey of the concerned literature has been carried out based on various reference books, text books, national and international journals, reviews, concerned magazines, internet, newsletters, and newspapers and concerned Ph.D. thesis, and presented hereunder.

Need for the present Research

In an organization, there is nothing more crucial than fitting the right employee in the right position, or else you would be trying to fit a square peg in a round hole. When people do jobs that just don't suit their liking, inclination or temperament, the results, or rather the lack of them will be obviously serious. Low productivity, dissatisfaction, low morale, absenteeism and other negative behaviors will become typical till the employee is shown the door. Otherwise, there is another option – Talent Management, which is "a conscious, deliberate approach undertaken to attract, develop and retain people with the aptitude and abilities to meet current and future organizational needs". Organizations need to have a vision and a well defined strategy on hiring for the

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1 The Thesis was submitted to Jawaharlal Nehru Technological University (JNTU), Hyderabad, Andhra Pradesh, in December 2009, for the award of Ph D Degree, awarded in October 2010, under the supervision of Prof.A.Ramachndra Aryasri, Director, School of Management studies, JNTU, Hyderabad, and Dr.Jibitesh Rath, Dy.GM, NMDC, Baladila, Chattesgarh, .India.

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future. India has become the outsourcing capital of the world and this has created its own set of HR challenges. India's biggest problem is that potentially qualified engineering graduates are becoming scarce.

Objectives of the Study

The study aims at exploring, in detail, four major aspects, (i)To Study the Organization Culture & Climate that helps in Managing Employee Talent of Software & BPO Companies; (ii) To critically identify the various Performance Management Systems that help Talent Management Practices;(iii)To study the Work-Life Balance of the employees and nurture employee talent; and(iv)To study the causes of attrition and understand Retention Management of Employees based on employee satisfaction levels in the Talent Engagement Process in relation to Talent Management Strategies and Challenges.

Hypotheses of the Study

The following hypotheses are postulated for testing in the present study:

H1 the success of Talent management efforts in an organization is dependent upon the employee's awareness about how to achieve better level performance.

H2 the performance work culture has a considerable impact on the talent management practices in Organizations.

H3 the commitment of top management ensures to Work-life Balance among employees promote the Talent Management in the organization.

H4 There is a relationship between Talent Engagement and Employee's retention.

H5 Increase in monetary benefits significantly reduces the employee attrition.

Research Design

The present study is conducted to find out the awareness among executive employees about the talent management strategies and challenges in IT and BPO sectors. Primary data for the study was collected from the employees of IT and BPO sectors in India. Two BPOs and Two Software companies have been selected from Hyderabad by using a Stratified Random Sampling method. Respondents considered for the Study were employees from the HR Managers and Executive cadres of the organizations. Researcher took great care to ensure that the samples were suitably random and representative as possible by selecting the respondents from different departments and divisions within each stratum.

The Researcher aimed at exploring the contribution of four Talent Management Attributes, viz., 'organization culture and climate', 'performance management', 'work-life balance' and 'retention management' will contribute to talent management practices. The questions covered participants' perceptions on strategic talent management contents, process and context and their evaluation in terms of talent management program and its impact on organizational activities and performance. Sampling Design consists of Sampling Universe, sampling frame and sampling method. This tells about the sample population. All the Software & BPO Companies in India are considered as sample population. Sampling frame which tells about type of the companies are taken for sample to study i.e., all the software & BPO Companies in India, which are having the high and low attrition rates. By using a Stratified Random Sampling method, two (2) BPOs and two (2) Software companies have been selected in the first stage. The second stage consists of selecting the Corporate HR professional and Executive level Employees from the select companies, and finally on a random basis 30% of the respondents are selected from the above companies of BPO & IT. For analyzing the primary data, statistical tools have been used in the Research Study, they are simple averages, Chi-square test; and. Factor analysis, The SPSS software package 10.1 versions has been used for the purpose of analysis.

Discussion of results: (a) Impact of Talent Management strategies on selected companies: Talent management process and strategies of the companies is assessed by getting the opinions of all employees of the 4 companies, on each alternatives describing talent engagement process for this purpose, 7 Alternatives were designed and the opinions of the employees on each Alternatives were obtained with the (help of a questionnaire) The composite score given by the employees to all the Alternatives reveals their opinion about the talent management strategies in the organization, overall scores for partial Alternative is 37% which is greater than scores on Fully Alternative and to full extent Alternative, It is understood that all employees of the 4 companies observed that Talent management strategies is over all satisfactory for the data collected and there is a considerable scope for improvement of the same. The chi-square test score given by the employees to all the Alternatives reveals their opinion about the talent engagement process in the organization. 19 out of 21 alternatives is showing significant, i.e. they have different opinions on the Alternatives given, except on two Alternatives, i.e. (1) Aspects that help in analytical and creative thinking; and (2) Strategy to manage talent of the organization is not significant. That means all respondents of different companies have no difference of opinion on the Alternatives. Out of 21 Alternatives, the chi-square values of 19 Alternatives are less than the table value at significant level 0.05. Therefore, Null hypothesis is accepted.

(b) Influence of performance culture on Talent Management of the company is assessed by getting the opinions of all employees of the 4 companies, on Alternatives describing performance management helps in talent management for this purpose, 10 Alternatives were designed and the opinions of the employees on each statement were obtained with the (help of a questionnaire). The respondents were asked to rate each Alternative on a 5 point likert scale as 1. Strongly disagree, 2. Disagree, 3. Neither disagrees nor agrees, 4. Agree, 5. Strongly agree. The composite score given by the employees to all the Alternatives reveals their opinion about the talent management in the organization, overall scores for agree Alternative and strongly agree Alternative are greater than the other scores It is understood that all employees of the 4 companies observed that performance culture has considerable impact on Talent management.

(c) Analysis of work-life balance and quality work-life practices to manage talent effectively it is evident that the impact of talent management practices on employee work-life balance of the companies are assessed by getting the opinions of all employees of the 4 companies. The composite score given by the employees to all the Alternatives reveals their opinion about the work-life balance that has an impact on talent management in the organization. Overall scores for the 11 alternatives out of 12 alternatives show that it is significant as the employees of the 4 companies differed in their opinion about the alternatives. These alternatives are less than the table value at significant level 0.05. Therefore, null hypothesis is accepted. One alternative which is opinion on health, safety and welfare measures is not significant, i.e. all companies have no different opinion on that alternative.

(d) Causes of Attrition and Retention management of employees based on employee satisfaction levels in the Talent Engagement process. The composite score given by the employees to all the Alternatives reveal their opinion about the causes of attrition and retention management which has an impact on talent management in the organization. Overall scores for the 14 Alternatives out of 17 Alternatives show it is significant as the employees of the 4 companies differed in their opinion about the alternatives.

But, in the following alternatives, the companies have no significant effect. They are:

Frequency of absenteeism is common in the all four organizations, when it is studied.., Performance monitoring is also very common methodology in the evaluation of an employee.., and the companies have no significant effect on the level of satisfaction in working hours. Out of 17 alternatives 14 alternatives values are less than significant level 0.05. Therefore, null hypothesis is accepted.

Concluding Remarks: Thus, the four attributes of the study are analyzed with the help of Chi-square Test and Factor Analysis. From the analysis it is found that the four attributes, viz., Awareness of Talent Management Strategies, Performance Culture, Work-Life Balance, and Retention Management seem to give a good representation as successful measures for good Talent Management practices in the four companies selected for the research study.

Findings of the Study

The study on the specific attributes of research, i.e., Organization Culture, Performance Management System, Work-life balance and Retention management, was conducted in organizations chosen for research, viz., M/s Genpact Ltd, M/s Serwizol Ltd., M/s Sitel Nipuna Ltd., and M/s Cognizent Technologies Ltd., in India, and the data collected and analyzed there upon, the following under mentioned findings and conclusions are drawn:

37.5% of the respondents articulated that the talent management strategies and practices in their respective companies are very good and excellent. Whereas, 47% of them expressed that they are having good Talent management strategies. This can be concluded as a good indication to the high rise of Talent Management Practices amongst Software and BPO companies in India.

62% of the respondents voiced that the quality of various components of Talent management which include Talent Acquisition, extent of Introspection, Reflection on the image of the Organization, deliberations made by companies and developing core competencies of their employees are fully organized.

Concluding from the review of literature, it can be mentioned that there is no consensus in the business community about “Talent Management”, which most of them feel is a poorly defined concept and there is a confusion amongst many about “Who owns it?” and “Who executes it?”. Whereas, the data collected from the study reveals that 47% of respondents feel that it is well defined in their Organization.

Amongst the respondents, 39% strongly agree and 20% agree to the statement that “Training and development and Mentoring help their Organizations to carry on the talent management practices”.

The factor analysis pertinent to the above mentioned companies reveals that, most of the respondents feel it is important to have a clearly defined Vision, Mission and direction as regards to framing the Talent Management Strategies.

More than 60% of the respondents in the select organizations view Organizational Culture as the sole driving force for developing new talent and also to nurture the existing talent contained within them.

Almost 72% of the respondents collectively rated their companies’ ability to manage talent as good and excellent. This concludes that Managing Talent is linked with better employee performance.

Amongst the respondents in select organizations of the study disclosed that, the most highly rated strategies for improving talent management are:-

- Improving communication and culture across all levels in the Organization
- Decentralizing and empowering Strategic decision making at all levels
- Smart problem solving
- Developing the competencies of the employees

Conclusion

A Good system to manage talent helps in bringing about a sea change in the talent management practices across organizations. This in turn, will result in nurturing/developing a better employee retention management system. The factor analysis shows that Work-Life Balance is an important factor which accelerates Talent Management and if the top management of the chosen organizations is more empathetically involved with the concept of talent management, this concept will become more influential in the years to come. At the end of the study, researcher conclude that it is very clear that many companies still have a long way to go before truly and sincerely adopting in managing talent of their employees, both from within and the incoming (expected) incumbents.

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