ISSN: 2230-9764

MANAGEMENT TODAY

- for a better tomorrow

An International Journal of Management Studies

Volume : 3 No. : 2 April-June 2013 Quarterly

www.mgmt2day.griet.ac.in

Management Today *- for a better tomorrow*

(An International Journal of Management Studies)

Volume : 3 **No. : 2** **April-June 2013** **Quarterly**

Editorial
PUBLIC SECTOR ENTERPRISES

When India attained independence in 1947 agriculture was the mainstay of the economy, industrialization was at low ebb, capital was shy and labour was abundant. Industrialization was found imperative for economic development of the country. Since then the constitution, consecutive industrial policy resolutions, five year plans and developments all over the world guided the growth and development of the industries in the country.

To overcome the weakness of the private sector in providing the capital required for setting up of industries, to avoid concentration of economic power in a few private hands and to achieve the objective of socialistic pattern of society, the public sector was required to play an important role in the industrialization of the country. The Industrial Policy Resolution 1948 emphasized the need for continuous increase in production and its equitable distribution. The resolution also pointed out that the State must play progressively an active role in the development of Industries. It laid down that besides arms and ammunition, atomic energy and railway transport, which would be the monopoly of the Central Government, the State would be exclusively responsible for the establishment of new undertakings in six basic industries.

Next eight years had witnessed many important changes and developments in India. The constitution of India was enacted, guaranteeing certain Fundamental Rights and enunciating Directive Principles of State Policy. Parliament had accepted the socialist pattern of society as the objective of social and economic policy. Planning has proceeded on an organized basis. The planned economy, wedded to the achievement of an objective of economic growth and social justice, required active State participation in the process of industrialization. Second Five Year Plan was launched with an emphasis on industrialization. In April 1956, the Govt. of India announced its new industrial policy. The policy aimed at further expansion of the public sector to accelerate the growth-rate of the economy, to speed up industrialization and to reduce concentration of wealth and assets in a few private hands. The Industrial Policy had also emphasized the mutual co-existence of both the private and public sectors. It also emphasized the role of State in the development of private sector through provision of financial assistance and technical guidance.

In Industrial Policy Statement, 1977 the areas reserved for public sector were further extended. The Janata Dal Govt.'s 1990 Policy emphasized the growth of small scale and agro-based industries and at the same time, made an effort to permit blanket liberalization with a view to accelerate the growth of medium and large scale units. The basic objective of the new Industrial Policy, 1991 was to make the industrial economy free from the unnecessary bureaucratic controls, to introduce liberalization in order to integrate the Indian economy with the rest of the world, to remove restrictions on direct foreign investment and also to free the domestic industrialists from the restrictions of the MRTP Act. Further the Policy aimed at shedding the load of public enterprises which have shown a very low rate of return or were incurring losses over the years. It was decided to review the portfolio of the public sector in order to focus the public sector on strategic, high-tech and essential infrastructure. The number of industries resolved for public sector has been reduced from 17 to 8 and the private sector was allowed to expand. Similarly the public sector was also allowed to enter into areas which were previously not reserved for it. The public sector units, incurring losses continuously and were chronically sick were to be referred to the Board for Industrial and Financial Reconstruction for their revival and rehabilitation. In order to raise resources and to encourage wide public participation, the Policy intended to disinvest public sector equity in favour of financial institutions, mutual funds, employees and general public.

In spite of so many twists and turns public sector enterprises continue to play a vital role in the economy of the country. Keeping in view of the importance of public sector lot of research has been carried out by different people and institutions. Of the six articles selected for the purpose of publication in this issue two articles are on public sector enterprises. Rajanath and Suvedya in their article titled a “study on performance of public enterprises in a phase of economic liberalization - a holistic perspective” examined to what extent the public enterprises in India are successful in meeting the public and enterprise dimensions. It is a comparative study between pre and post liberalization periods. For the purpose various parameters have been used. Jothi and Mathiraj in their article tried to throw light on the relationship between corporate social responsibility and corporate financial performance in the public sector banks. The other four are on corporate governance, citizen relationship management, organizational citizenship behavior and marketing management.

Babujee Apparao Punaty

Chief Editor

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Management Today (An International Journal of Management Studies)

Published by

Gokaraju Rangaraju Institute of Engineering and Technology
Bachupally, Kukatpally, Hyderabad - 500 090.

Printed at
Rainbow Print Pack
Ameerpet, Hyderabad - 500 016.

Management Today
(International Journal of Management Studies)

Volume 3 | No. 2 | April-June 2013

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STUDY ON PERFORMANCE OF PUBLIC ENTERPRISES IN A PHASE OF ECONOMIC LIBERALIZATION - A HOLISTIC PERSPECTIVE

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Abstract: *Considering the post independent economic situation, and to speed up the country's economic growth, Government of India has adopted three policies viz., The Constitution of India,The Industrial Policy Resolutions (IPR) of 1948 and 1956, and the Five Year Plans, all of which have influenced the establishment of Public Enterprises (PEs). Central Public Enterprises (CPEs) and State Level Public Enterprises (SLPEs) are the two types of PEs which exist in Indian economy. The present article is considering the performance of CPEs. The composite term* ***"Public Enterprise"*** *reflects the diverse objectives. While the* ***"Public"*** *dimension emphasizes* ***Social Responsibility*** *and includes, among others, compliance with reservation policies and removal of regional imbalances, the* ***"Enterprise"*** *dimension includes physical and financial performance with an emphasis on "Return on Investment". These two objectives together to be achieved is no doubt a daunting task.In view of the above, a study on "Performance of public enterprises in a phase of economic liberalization – a holistic perspective" is taken up to examine to what extent the PEs have excelled in meeting enterprise dimension and public dimensions simultaneously. It is essentially a comparative study between pre and post liberalization periods of various parameters. The findings of the study indicate that the CPEs have excelled in financial performance in terms of increased Gross Profit, increased Net Profit, and increase in Internal Resource generation. In respect of Aggregate Turn Over, there is not much of difference in performance of CPEs between the two periods. In terms of Net worth, Current Ratio, CPEs have shown significant downward trend during post liberalization. Contribution to Central Exchequer from CPEs is found to be satisfactory during post liberalization. While the profit from profit making CPEs is increasing substantially, the losses from loss incurring CPEs has also been increasing during post liberalization period.With respect to Physical performance, CPEs have excelled in terms of inventory management. The inventory in no. of days of Cost of Production has been reduced from a level of 91 no. of days of Cost of Production during pre liberalization to 44 no. of days of Cost of Production during post liberalization. With regard to Capacity Utilization, Value Added, Export Earnings and investment on Research and Development, the performance of CPEs during post liberalization was found to be on par with that during pre liberalization.In terms of fulfilling Social Responsibility, while the performance of CPEs in respect of Employee Earnings during post liberalization is on par with that of pre liberalization, Socio Economic Welfare Costs, the performance is superior during post liberalization than that during pre liberalization. CPEs have reduced the regional imbalances substantially and continue to ensure the compliance with reservation policies in regard to employment for Scheduled Castes and Schedule Tribes on the same lines as applicable to Central Government Departments.*

Key words: *Public Dimension, Enterprise Dimension, Pre and Post Liberalization*

Introduction

The three policies of Government of India viz., The Constitution of India,The Industrial Policy Resolutions (IPR) of 1948, and The Five Year Plans have influenced the establishment of Public Enterprises (PEs) in India. the role of private enterprises was taken as complementing to the PEs.[2]

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ISSN : 2230 - 9764

- Article 38 and Article 39 of the Indian Constitution implied restrictions on vagaries of private enterprise's expansion and opened up opportunities for the public entrepreneurship and management as a check against the concentration of economic power in the private enterprise.[1]
- The Industrial Policy Resolution by Government of India (GOI), on 6th April 1948stressed that the "State" must play an active role in the development of industries. And accordingly, the role and course of PEs was pronounced in the IPR of 30 April 1956.

- The Planned Economic Development in India, introduced at the beginning of fifties, strengthened the role of PEs in the economic development of the country. The First Five-Year Plan (1951-56) explicitly favored the expansion of PEs and

The composite term "**Public Enterprise**" reflects diverse objectives. While the "**Public**" dimension emphasizes **Social Responsibility** and includes compliance with reservation policies and removal of regional imbalances, the "**Enterprise**" dimension emphasizes **Financial Performance** including physical performance and return on investment.

Public Enterprises in India are of two type's viz. Central Public Enterprises (CPEs) and State Level Public Enterprises (SLPEs). The CPEs, owned and governed by the central government, are mostly into manufacturing and service activities. The SLPEs are generally promotional and developmental in nature and owned by the respective State Governments.

The major objectives of CPEs are[3]:

i. To help rapid economic growth and industrialization of the country and create the necessary infrastructure for economic development,

ii. To earn return on investment and thus generate resources for development,

iii. To promote redistribution of income and wealth,

iv. To create employment opportunities,

v. To promote balanced regional development, and

vi. To promote import substitution and foreign exchange for the country

Up to the Fifth Five –Year Plan (1974-79) adequate provisions were made for theconcurrent development of CPEs both under Central and State governments. However, from the subsequent Sixth Five -Year Plan, (1980-85) onwards the Central government focused on evaluating the performance of CPEs. The reasons for adopting this measure are:

1. *First, from the Sixth Five - Year Plan, the CPEs have expanded their activities, particularly from heavy engineering sector to medium and light engineering and consumer goods, where market forces play an important role.*

2. *Second, while the Capital investment was high, the returns were very low. Department of Public Enterprise (DPE) Survey Reportsrevealthat by the end of Seventh Five - Year Plan, (1985-90), Rs. 84,437 crores was invested in 233 CPEs; the net profit generated by them is to the extent of Rs.3,781.73crores only. Except those in petroleum and power sector, other sectors accruing losses to the extent of neutralizing the positive returns from other groups.*

The year 1991 was the threshold year for the beginning of a new era in the Indian economy, particularly from view point of PEs that could not mobilize the resources up to the desired levels. The year, 1991-92, witnessed momentous changes in India. The year began with an economic crisis and marked the beginning of new era in planning. The Government of India announced a number of radical policies with a view to revitalize the sagging economy. The New Economic Policy (NEP) of India announced on 24 July 1991 also included statement on PE policy.

Among the host of amendments of NEP, the following are vital to PEs:

- PEs to focus on strategic and high – technology,
- Opening up private participation in to the activities hither to reserved for PEs,
- PEs to participate in to those activities which were hither to dominated by private enterprises,
- Making the boards of PEs more professional and function with greater autonomy,

The above detailed scenario reveals that the environment around CPEs is becoming more competitive. In the given circumstances, the CPEs are expected to excel in financial performance (Enterprise dimension), while they continue to fulfill the social responsibility (Public dimension).

In the past, several authors have published articles on performance of public enterprises. The articles are:

1. Arjun Sengupta Report[4]: The Journal of Institute of Public Enterprise, July – September 1986 Volume IX Number 3.
2. R. K. Mishra[5] – *Performance of Public enterprises in the era of Economic Liberalization*, The Journal of Institute of Public Enterprise, January – March, April – June 2006 Vol. 29, 1&2.
3. S. Venkitaramanan[6], "*The Future of Public Sector in India*", The Journal of Institute of Public Enterprise, January – March, April – June 1999, Vol. 22, 1&2, pp 1-8

All these studies were focused on the enterprise dimension only

The present article, "study on performance of public enterprises in a phase of economic liberalization - a holistic perspective" examines to what extent the PEs have excelled in meeting enterprise dimension and social dimension simultaneously, before and after liberalization.

Objectives of the Study

The major objective of the study was to assess the financial and physical performance under NEP and also an assessment in the extent of compliance with social responsibilities.

The objectives include:

(a) *Under Financial Performance*:

i. Study on Gross Profit to Capital Employed of CPEs

ii. Study on Net Profit to Capital Employed of CPEs

iii. Study on Net Worth to Capital Employed of CPEs

iv. Study on Current Ratio of CPEs

v. Study on Internal Resources generated by CPEs

vi. Study on Aggregate Turn Over by CPEs

vii. Study on Profit from Profit making CPEs

viii. Study on Loss from Loss incurring CPEs

ix. Study on Contribution to Central Exchequer by CPEs

(b) *Under Physical Performance*:

i. Study on Capacity Utilization of CPEs

ii. Study on Inventory Management in number of days of cost of production by CPEs

iii. Study on Value Added by CPEs

iv. Study on Export Earnings of CPEs

v. Study on Promotion of Research and Development by CPEs

(c) *Under Social Responsibility*:

i. Study on Average Annual Income or Percapita Income of CPEs

ii. Study on Compliance with Reservations of CPEs

iii. Study on Removal of Regional Imbalances by CPEs.

Source of Information

Major sources of information are Department of Public Enterprises Survey reports published by the Department of Public Enterprises (DPE), Government of India, Ministry of Heavy Industries and Public Enterprises. While Vol.I of DPE reports of several years were mostly referred, Vol. II and Vol. III of few years were also referred whenever specific details were required. Further, the sources such as Committee on Public Undertakings (COPU), Articles and Reports of Expert Committees, etc. were also considered.

Methodology

The entire period of study (23 years – 1987 – 2010) has been divided in to two phases – pre liberalization (five years - 1987 - 88 to 1991- 92) and post liberalization (18 years - 1992 - 93 to 2009-10).

The null hypothesis was that there is no difference in the performance of CPEs between pre and post liberalization periods.

The "Students t–test" was used wherever it is needed. In this study, two mean difference t-test is used to verify whether there is significant difference between pre liberalization and post liberalization periods. The level of significance was set at @ 5% for all the tests.

Financial Performance of CPEs

To study the financial performance, the data with regard to Gross Profit or Profit before Interest and Tax (PBIT), Net Profit, Net Worth, Current Assets and Current Liabilities, were collected and the data are presented in tables 1 and 2.

Table: 1
Year wise Capital Employed in CPEs (Rs. in Crores)
Pre- Liberalization

Year	No. of Enterprises	Capital Employed (CE)
1987 – 88	220	55617
1988 – 89	226	67629
1989 – 90	233	84760
1990 – 91	236	101702
1991 – 92	237	117991
	Post Liberalization	
1992 – 93	239	140110
1993 – 94	240	159836
1994 – 95	241	162451
1995 – 96	239	173948
1996 – 97	242	231178
1997 – 98	236	249855
1998 – 99	235	265093
1999 – 00	232	303411
2000 – 01	234	331401
2001 – 02	231	390162
2002 – 03	226	417931
2003 – 04	230	452250
2004 – 05	227	504407
2005 – 06	226	585484
2006 – 07	217	665124
2007 – 08	242	763815
2008 – 09	246	793240
2009 – 10	249	910120

Source: Various *Public Enterprises Survey Report,* Department of Public Enterprises, Ministry of Industries, New Delhi, Vol.1 ranging from 1987-88-2009-10.

Table: 2
Financial Indicators - Pre-Liberalization (in Rs. Crores)

Financial Indicators	87-88	88-89	89-90	90-91	91-92
Gross Profit	6940	8572	10622	11358	13676
Net Profit	2030	2994	3789	2368	2356
Net Worth	46966	57370	55611	61794	83691
Current Assets	50376	59101	48312	55031	106260
Current Liabilities	29815	34327	33128	40233	61243
Internal Rate of Growth	7022	8899	11372	11296	12943
Aggregate Turn Over	67060	80424	128196	143968	133906
Profit from Profit Making CPES	3775	4917	5751	5432	6079
Loss from Loss Making CPES	1745	1923	1962	3064	3723
Contribution to Central Exchequer	15132	16352	18264	19466	19951

Table: 2 (Contd.)

Financial Indicators - Post Liberalization (in Rs. Crores)

Financial Indicators	92-93	93-94	94-95	95-96	96-97	97-98
Gross Profit	15957	18556	22630	27587	30915	37206
Net Profit	3271	4545	7187	9574	10186	13582
Net Worth	95653	102359	114983	125677	173892	134443
Current Assets	126409	136802	148408	155218	185022	198449
Current Liabilities	66566	76000	78678	92298	92469	103475
Internal Rate of Growth	14792	16621	19920	24371	25585	31192
Aggregate Turn Over	147266	158049	187355	226919	260735	276002
Profit from Profit Making CPES	7384	9768	12070	14763	16125	20279
Loss from Loss Making CPES	4113	5223	4883	5188	5939	6697
Contribution to Central Exchequer	22449	22988	16472	32096	38538	42716

Table: 2 (contd.)

Post Liberalization (in Rs. Crores)

Financial Indicators	98-99	99-00	00-01	01-02	02-03	03-04
Gross Profit	39727	42422	48767	63190	73374	98875
Net Profit	13203	14331	15653	25978	32344	52985
Net Worth	148064	160674	171406	225472	241846	291828
Current Assets	221350	252795	274473	312944	326617	385709
Current Liabilities	120503	139423	145613	171469	179460	218045
Internal Rate of Growth	31301	35891	37811	52545	54273	75413
Aggregate Turn Over	310179	389199	458237	447529	543001	587052
Profit from Profit Making CPEs	22508	24633	28494	36432	43316	61606
Loss from Loss Making CPEs	9305	10302	12841	10454	10972	8522
Contribution to Central Exchequer	46822	56433	61038	62748	81919	89036

Table: 2 (contd.)
Post Liberalization (in Rs. Crores)

Financial Indicators	04-05	05-06	06 -07	07-08	08-09	09-10
Gross Profit	108420	114422	139102	195049	186836	211011
Net Profit	64964	69536	81550	81274	83867	92593
Net Worth	341595	397275	452995	520855	587286	660245
Current Assets	462949	547860	629603	718520	824148	949113
Current Liabilities	247547	271764	304091	371979	438503	517409
Internal Rate of Growth	83863	85587	96551	99873	109300	116818
Aggregate Turn Over	700862	837295	964410	1081925	1271529	1235060
Profit from Profit Making CPEs	74432	76382	89773	84707	81361	108435
Loss from Loss Making CPEs	9003	6845	8223	3732	2498	15842
Contribution to Central Exchequer	110603	125456	147728	165994	151543	139830

Source: Various *Public Enterprises Survey Reports,* Department of Public Enterprises, Min. of. Industry, New Delhi, Vol.1 ranging from 1987-88 to 2009-10, Public Enterprise Survey Report, 2009-10, Vol.I, box –2, pp.3 and Statements S – 1, Vol. I (Part II), Public Enterprise Survey Report 2009-10.

The results indicate that Gross Profit has increased thirty fold during the period of study from a level of Rs. 6,940 crores during 1987-88 to Rs 2,11,011crores during 2009-10. Net profit has increased forty six times during the period of study from a level of Rs. 2,030 crores during 1987-88 to Rs. 92,593crores during 2009-10. Net Worth has increased by fourteen times during the period of study from a level of Rs. 46,966 crores during 1987-88 to Rs. 6,60,245crores during 2009-10. Current Assets have increased more than nineteen times during the period of study from a level of Rs. 50,376 crores during 1987-88 to Rs. 9,49,113crores during 2009-10. Current Liabilities has also increased more than seventeen times during the period of study from a level of Rs. 29,815 crores during 1987-88 to Rs. 5,17,409crores during 2009-10.

Parameter-wise performance of CPEs is impressive. However, to establish the significance of the impact of liberalization, following ratios were calculated, and the data arepresented in table 3:

i. Gross Profit to Capital Employed

ii. Net Profit to Capital Employed

iii. Net Worth to Capital Employed

iv. Current Ratio

v. Internal Resources generated to capital Employed

vi. Aggregate Turn Over to Capital Employed

vii. Profits from CPEs per Enterprise

viii. Loss from CPEs per Enterprise

ix. Contribution to Central Exchequer to Capital Employed (CCE)

Table: 3
Financial Ratios Pre - Liberalization

Financial Ratios	**87-88**	**88-89**	**89-90**	**90-91**	**91-92**
Gross Profit /CE	.125	.127	.125	.112	.116
Net Profit /CE	.036	.044	.045	.023	.020
Net Worth /CE	.84	.85	.66	.61	.71
Current Ratio	1.69:1	1.72:1	1.46:1	1.37:1	1.73:1
Internal Rate of Growth /CE	1.00	1.05	1.063	0.88	0.87
Aggregate Turn Over /CE (%)	120.6	118.9	151.2	141.6	113.49
Profit from Profit Making CPES / Enterprise	33.1	42.0	43.9	43.8	45.7
Loss from Loss Making CPES / Enterprise	16.9	18.1	20.0	28.1	36.5
Contribution to Central Exchequer /CE	.27	.24	.22	.19	.17

Table: 3 (Contd.)
Financial Ratios - Post Liberalization

Financial Ratios	**92-93**	**93-94**	**94-95**	**95-96**	**96-97**	**97-98**
Gross Profit /CE	.112	.116	.139	.159	.134	.149
Net Profit /CE	.023	.028	.044	.055	.044	.054
Net Worth /CE	.68	.64	.71	.72	.75	.54
Current Ratio	1.90:1	1.80:1	1.89:1	1.68:1	2.00:1	1.92:1
Internal Rate of Growth /CE	1.00	0.99	1.16	1.42	1.04	1.18
Aggregate Turn Over /CE (%)	105.11	98.88	115.33	130.45	112.79	110.46
Profit from Profit Making CPEs Enterprise	56.4	80.7	92.8	111.8	125.0	151.3
Loss from Loss Making CPEs / Enterprise	39.0	45.0	44.8	51.0	57.1	66.97
Contribution to Central Exchequer /CE	.16	.14	.10	.18	.17	0.17

Table: 3 (Contd.)
Financial Ratios - Post Liberalization

Financial Ratios	**98-99**	**99-00**	**00-01**	**01-02**	**02-03**	**03-04**
Gross Profit /CE	.150	.140	.147	.162	.176	.218
Net Profit /CE	.050	.048	.047	.067	.077	.12
Net Worth /CE	.56	.53	.52	.58	.58	.64
Current Ratio	1.84:1	1.81:1	1.88:1	1.82:1	1.82:1	1.77:1
Internal Rate of Growth /CE	1.11	1.12	1.08	1.28	1.25	1.58
Aggregate Turn Over /CE (%)	117.01	128.27	138.27	114.70	129.93	129.81
Profit from Profit Making CPEs / Enterprise	178.6	196.9	231.7	308.7	365.1	443.2
Loss from Loss Making CPESs / Enterprise	87.0	98.1	116.7	95.9	104.5	95.8
Contribution to Central Exchequer /CE	0.18	0.19	0.18	0.16	0.20	0.20

Table: 3 (Contd.)
Financial Ratios - Post Liberalization

Financial Ratios	04-05	05-06	06 -07	07-08	08-09	09-10
Gross Profit /CE	.215	.195	.209	0.255	0.234	0.232
Net Profit /CE	.13	.12	.12	0.106	0.106	0.102
Net Worth /CE	.68	.68	.68	0.682	0.740	0.725
Current Ratio	1.87:1	2.01:1	2.07:1	1.93:1	1.88:1	1.83:1
Internal Rate of Growth /CE	1.57	1.38	1.39	0.131	0.138	0.128
Aggregate Turn Over /CE (%)	138.95	143.00	145.00	141.6	160.3	135.7
Profit from Profit Making CPEs / Enterprise	520.5	477.4	575.5	350.02	330.7	435.5
Loss from Loss Making CPESs / Enterprise	123.3	108.7	139.37	15.42	10.15	63.62
Contribution to Central Exchequer /CE	0.22	0.21	0.22	0.22	0.19	0.15

In general, high fluctuations were noticed for most of the ratios calculated and therefore, the "t-test" was applied. The "t – test" parameters were calculated respectively for Gross Profit to Capital Employed, Net Profit to Capital Employed, Net Worth to Capital Employed, Current Ratio,Ratio of Trend percentages of Internal Resources Generated to Capital Employed, Aggregate Turn Over to Capital Employed (percentage), Ratio of Trend percentages of Aggregate Turn Over to Capital Employed, Profit from profit making enterprises per enterprise, Loss from loss making enterprises per enterprise, Contribution to Central Exchequer to Capital Employed (CCE to CE) and the findings are presented at Table-4.

Table: 4
Financial Performance during Pre Lib and Post Lib

Parameter	CPEs					
	t cal	Ho	Average		Coefficient of Variation	
			Pre Lib	Post Lib	Pre Lib	Post Lib
Gross Profit	-2.706	Rejected	.12100	.17478	5.49	24.9
Net Profit	-2.490	Rejected	.03360	.07450	34.6	47.9
Net Worth	2.088	Rejected	.73400	.64650	14.63	11.75
Current Ratio	-4.988	Rejected	1.59400	1.87333	10.48	4.95
Internal Resources Generated to Capital Employed	-3.216	Rejected	.97260	1.23944	9.48	14.2
Aggregate Turn Over to Capital Employed	.199	Accepted	1.29158	1.27531E2	12.63	12.62
Profit from Profit making CPEs per enterprise	-3.166	Rejected	4.17000	2.79546E2	11.95	59.08
Loss from Loss incurring CPEs per enterprise	-3.030	Rejected	2.39200	7.56906E1	34.6	49.34
Contribution to Central Exchequer to Capital Employed	2.277	Rejected	.21800	.18000	18.18	17.36

The findings are that the Gross Profit to Capital Employed, Net profit to Capital Employed and Current Ratios, are found to be significant during the post liberalization implying that CPEs have excelled during this period. However, in terms of Net Worth to Capital Employed, CPEs have shown significant downward trend during post liberalization period, implying that they were subjected to the vagaries of liberalization policies.

With regard to Internal Resources Generated to Capital Employed, Aggregate Turn Over to Capital Employed, Contribution to Central Exchequer to Capital Employed, CPEs performance during post liberalization is found to be on par with that of during the pre liberalization, implying that CPEs could with stand the impact of liberalization policies.

With regard to the parameter, Profit from Profit making enterprises, CPEs have shown significant increase during post liberalization implying that profit making CPEs have excelled during this period. With regard to the parameter Loss from Loss incurring enterprises is also found to be significant. However, as is evident from the data given above on comparison of the averages of post lib to pre lib, the profits from profit making CPEs (261.04/ 41.7 = 6.26) are far higher than loss from loss incurring CPEs (84.88/23.92 = 3.55).

Table: 5
Physical Performance- Capacity Utilization - Pre- Liberalization

Parameter		**87-88**	**88-89**	**89-90**	**90-91**	**91-92**
Capacity Utilization in %		55	59	53	54	56
Physical Performance- Capacity Utilization - Post Liberalization						
Parameter	**92-93**	**93-94**	**94-95**	**95-96**	**96-97**	**97-98**
Capacity Utilization in %	54	52	55	56	59	55
Physical Performance- Capacity Utilization - Post Liberalization						
Parameter	**98-99**	**99-00**	**00-01**	**01-02**	**02-03**	**03-04**
Capacity Utilization in %	51	58	61	52	54	53
Physical Performance- Capacity Utilization - Post Liberalization						
Parameter	**04-05**	**05-06**	**06 -07**	**07-08**	**08-09**	**09-10**
Capacity Utilization in %	53	51	55	62	58	67

Source: *Department ofPublic Enterprises Survey Report*, Vol.1 ranging from 1987-88 to 2009-10 and Section 5.1.13, pp. 64, Public Enterprise Survey Report, 2009-10, Vol.I

Inventory Management

Inventory Managementplays an important role in improving the operational efficiency and profitability of an enterprise. Inventory is expressed in terms of number of days of Cost of Production/ Turnover.

Table: 6
Physical Performance- Inventory Management - Pre-Liberalization

Parameter	**87-88**	**88-89**	**89-90**	**90-91**	**91-92**
No. of Operating Enterprises	220	226	233	236	237
Inventory in no. of days Cost of Production	91	86	83	85	84

Physical Performance- Inventory Management -Post Liberalization

Parameter	**92-93**	**93-94**	**94-95**	**95-96**	**96-97**	**97-98**
No. of Operating Enterprises	239	240	241	239	236	236
Inventory in no. of days Cost of Production	90	87	77	70	69	69

Physical Performance- Inventory Management -Post Liberalization (Contd.)

Parameter	**98-99**	**99-00**	**00-01**	**01-02**	**02-03**	**03-04**
No. of Operating Enterprises	235	234	231	227	230	227
Inventory in no. of days Cost of Production	64	43	44	46	42	43

Physical Performance- Inventory Management -Post Liberalization (Contd.)

Parameter	**04-05**	**05-06**	**06 -07**	**07-08**	**08-09**	**09-10**
No. of Operating Enterprises	226	217	242	246	249	234
Inventory in no. of days Cost of Production	46	44	49	40	54	43

Source: *Department ofPublic Enterprises Survey Report*, Vol.1 ranging from 1987-88 to 2009-10 and Table – 5.2.1, pp.65, Public Enterprise Survey Report, 2009-10, Vol.I

CPEs by adopting proper inventory management techniques have brought down the levels of inventory from 91 days during 1987-88 to 43 days during 2009-10.

Value Added by CPEs

From the data collected from various DPE survey reports, the Value Added per Capital Employed was calculated and presented in table 7.

Table: 7
Physical Performance- Value Added by CPEs - Pre- Liberalization (in Rs. Crores)

Parameter	**87-88**	**88-89**	**89-90**	**90-91**	**91-92**
Value Added	19889	24973	28204	31757	35213
Value Added/CE	.36	.37	.33	.31	.30

Physical Performance- Value Added by CPEs - Post Liberalization (in Rs. Crores)

Parameter	**92-93**	**93-94**	**94-95**	**95-96**	**96-97**	**97-98**
Value Added	38509	41466	47986	57774	57176	72691
Value Added/CE	.27	.26	.30	.33	.25	.29

Physical Performance- Value Added by CPEs - Post Liberalization(in Rs. Crores) (Contd.)

Parameter	**98-99**	**99-00**	**00-01**	**01-02**	**02-03**	**03-04**
Value Added	78764	NA	105344	NA	137833	166743
Value Added/CE	.30	NA	.27	NA	.30	.33

Physical Performance- Value Added by CPEs - Post Liberalization(in Rs. Crores) (Contd.)

Parameter	**04-05**	**05-06**	**06 -07**	**07-08**	**08-09**	**09-10**
Value Added	259152	307860	342253	308535	350532	NA
Value Added/CE	.44	.46	.45	.39	.39	NA

Source: Various *Public Enterprises Survey Report,* Department of Public Enterprises, Min. of. Industry, New Delhi, Vol.1 ranging from 1987-88 to 2009-10 and Table – 1.9, pp. 12 Public Enterprise Survey Report, 2009-10, Vol.I.

Ratio wise, there is a jump in value addition between 1988 to 2009. However, the ratio of EE/CE does not present a systematic pattern of change and therefore, "t-test" was applied for its significance.

Export Earnings of CPEs to Capital Employed

The Export Earnings (EE) of CPEs includes export of merchandise, royalty, know-how, professional and consultancy fees etc. The data has been collected from various DPE survey reports and presented in table 8. From these data, the ratios of Export Earnings to Capital Employed (EE/CE) have been calculated for the purpose of analysis.

Table: 8
Physical Performance- Export Earnings by CPEs - Pre- Liberalization (in Rs. Crores)

Parameter	87-88	88-89	89-90	90-91	91-92
No. of Operating Enterprises	220	226	233	236	237
Capital Employed	55617	67629	84760	101702	117991
Export Earnings	4449	4734	6365	7085	9439
EE/CE	.080	.070	.075	.070	.080

Table: 8 (Contd.)
Physical Performance- Export Earnings by CPEs - Post Liberalization (in Rs. Crores)

Parameter	92-93	93-94	94-95	95-96	96-97	97-98
No. of Operating Enterprises	239	240	241	239	236	236
Capital Employed	140110	159836	162451	173948	231178	249855
Export Earnings	10228	11872	13216	16269	16358	18147
EE/CE	.073	.074	.081	.094	.071	.073
Physical Performance- Export Earnings by CPEs - Post Liberalization					**(in Rs. Crores)**	
Parameter	**98-99**	**99-00**	**00-01**	**01-02**	**02-03**	**03-04**
No. of Operating Enterprises	235	234	231	227	230	227
Capital Employed	265093	303411	331401	390162	417931	452250
Export Earnings	18828	19737	24772	20886	26296	34893
EE/CE	.071	.065	.075	.054	.063	.077
Physical Performance- Export Earnings by CPEs - Post Liberalization					**(in Rs. Crores)**	
Parameter	**04-05**	**05-06**	**06 -07**	**07-08**	**08-09**	**09-10**
No. of Operating Enterprises	226	217	242	246	249	234
Capital Employed	504407	585484	665124	763815	793240	910120
Export Earnings	42264	45952	65619	74283	74206	77745
EE/CE	.084	.078	.099	.097	0.094	0.085

Source: "Various *Public Enterprises Survey Report,* Department of Public Enterprises, Min. of. Industry, New Delhi", Vol.1 ranging from 1987-88 to 2009-10 and S-156, Public Enterprise Survey Report, 2009-10, Vol.I (Part II).

In absolute terms the export earnings have increased from Rs. 4,449 crores during 1987-88 to Rs. 77, 745crores during 2009-10, an increase of about sixteen fold. However, the ratio of EE/CE does not present a systematic pattern of change and therefore, "t-test" is applied for its significance.

Research and Development to Capital Employed

Research and Development (R&D) contributes towards lower cost input and helps in achieving the indicators of efficiency. R&D also enables an enterprise to phase out products in view of "the product life cycle hypothesis" through the introduction of new designs, products and services.

The CPEs during the past several years have been focusing on different areas of research on developing of new products, processes and systems and doing research for quality up gradation and cost reduction. CPEs have invested on R&D over a period and the details are given in table 9. The R&D expenditure in crores of rupees to Capital Employed was also calculated and presented in the same table.

Table: 9

Physical Performance-R&D Expenditure to Capital Employed – Pre Liberalization

S.No.	Year	R&D Expenditure	R&D Exp/CE
01	1988	301	.005
02	1989	302	.004
03	1990	289	.003
04	1991	302	.003
05	1992	402	.003
Physical Performance-R&D Expenditure to Capital Employed – Post Liberalization			
06	1993	892	.006
07	1994	252	.002
08	1995	316	.002
09	1996	391	.002
10	1997	365	.002
11	1998	379	.002
12	1999	555	.002
13	2000	452	.001
14	2001	849	.003
15	2002	833	.002
16	2003	NA	NA
17	2004	1012	.002
18	2005	1007	.002
19	2006	2096	.004
20	2007	1222	.002
21	2008	1922	.0025
22	2009	2339	.0029
23	2010	2920	.0032

Source: "Various *Public Enterprises Survey Report,* Department of Public Enterprises, Min. of. Industry, New Delhi", Vol.1 from 1987-88 to 2009-10 and S – 141, Department of Public Enterprises Survey Report, 2009-10, Vol.I (Part II).

Since the ratio of R&D/CE did not present a systematic pattern, "t-test" was applied for its significance.

Summary of findings with regard to Physical performance of CPEs for the period 1987-88 to 2009-10 is in table 10.

Table: 10
Physical Performance during Pre Lib and Post Lib

S.No	Parameter	CPEs					
		t cal	Ho	Average		Coefficient of Variation	
				Pre Lib	Post Lib	Pre Lib	Post Lib
01	Capacity Utilization	+0.5540	Accepted	55.40	54.60	4.15	5.35
02	Inventory Mgt.	+3.43	Rejected	85.8	59.20	3.629	28.652
03	Value Added to CE	+0.349	Accepted	0.334	0.3230	9.101	21.14
04	Export Earnings to CE	-0.0914	Accepted	0.075	0.0755	1.33	14.66
05	R&D to CE	+1.997	Rejected	0.0036	0.0024	24.83	50.91

With regard to the physical performance in terms of Capacity Utilization, Value added to Capital Employed, Export Earnings to Capital Employed and expenditure on Research and Development to Capital Employed, the performance of CPEs during the post liberalization is same as that in the pre liberalization period. This indicates that introduction of liberalization policies did not impede the performance of CPEs.

With regard to the parameter, Inventory Management, the performance of CPEs during post liberalization is found to be significant. Since the inventory holding in number of days of cost of production has been lower in the post liberalization than that in the pre liberalization, it implies that in spite of liberalization policies, the CPEs have excelled as far as the Inventory Management is considered.

Fulfillment of Social Responsibility

Average Annual Income or Per Capita Income to Capital Employed:

Effective utilization of human resources is one of the most important policy objectives before an organization. It has special significance in the management of CPEs as they employ a large work force.

The Employment and Average Annual Emoluments of the CPEs data was collected from the various DPE, survey reports, Average Annual Emoluments per Capital employed (AAE/CE) was calculated for further analysis and the data have been presented in table 11.

Table: 11

Average Annual Emoluments to Capital Employed – Pre Liberalization

Details		**87-88**	**88-89**	**89-90**	**90-91**	**91-9*2**
Capital Employed		55617	67629	84760	101702	117991
Emoluments(Rs. in crores)		7193	8683	9742	10912	12311
No. of Employees (in lakhs)		22.14	22.09	22.36	22.19	21.79
Average Annual Emoluments (Rs)		32537	39415	43665	49179	56508
AAE/CE		0.59	0.58	0.52	0.48	0.48
Average Annual Emoluments to Capital Employed – Post Liberalization						
Details	**92-93**	**93-94**	**94-95**	**95-96**	**96-97**	**97-98**
Capital Employed	140110	159836	162451	173948	231178	249855
Emoluments (Rs. in crores)	13983	14913	17015	21931	22219	25685
No. of Employees (in lakhs)	21.52	20.70	20.62	20.52	20.08	19.59
Average Annual Emoluments (Rs)	64983	72043	82570	106876	110662	129582
AAE/CE	0.46	0.45	0.51	0.61	0.48	0.52
Average Annual Emoluments to Capital Employed – Post Liberalization (Contd.)						
Details	**98-99**	**99-00**	**00-01**	**01-02**	**02-03**	**03-04**
Capital Employed	265093	303411	331401	390162	417931	452250
Emoluments (Rs. in crores)	26254	30402	38223	38556	42169	43919
No. of Employees (in lakhs)	19.00	18.06	17.40	19.92	18.66	17.62
Average Annual Emoluments (Rs)	138179	168339	219672	193554	225986	248481
AAE/CE	0.52	0.55	0.66	0.50	0.54	0.55
Average Annual Emoluments to Capital Employed – Post Liberalization (Contd.)						
Details	**04-05**	**05-06**	**06-07**	**07-08**	**08-09**	**09-10**
Capital Employed	504407	585484	665124	724009	792232	908842
Emoluments (Rs. in crores)	48629	46852	52574	64511	83153	909236
No. of Employees (in lakhs)	17.00	16.49	16.14	15.70	15.35	14.91
Average Annual Emoluments (Rs)	286112	284057	325738	410898	541716	609816
AAE/CE	0.57	0.49	0.49	0.57	0.68	0.67

Source: Various "*Public Enterprises Survey Report",* Department of Public Enterprises, Min. of. Industry, New Delhi, and Various *Public Enterprises Survey Report,* Department of Public Enterprises, Min. of. Industry, New Delhi 2009-10, Vol.I,

The average annual emoluments (AAE) or per capita income hasincreased substantially in absolute terms from a level of Rs. 32,537 crores during 1987-88 to Rs. 6,09,816crores during 2009-10. However, when worked in terms of AAE/CE, the ratios are quite fluctuating and did not give a clear picture. Therefore, the "t-test" was applied.

Socio- Economic Welfare Measures to Total employees initiated by CPEs:

The Socio-Economic issues such as Welfare measures including Education, Medical expenditure, and Cultural activities were taken up by CPEs specifically for the weaker sections of the society. This has been one of the major Social Responsibilities taken up by CPEs. Year-wise Socio-Economic Over Head Cost (SEOHC) of these components is given in the table12. From the data, the ratio of SEOHC to total employees was calculated for further "t" test analysis.

Table: 12
Socio-Economic Overhead Cost and Employment – Pre Liberalization

Year	Socio – Economic Over Head Cost (Education, Medical, Cultural Activities) SEOHC	SEOHC/CE	Total Employees (TE) in Thousands	SEOHC/TE
1988	1041	.0188	2164	0.48
1989	1120	.0166	2204	0.51
1990	1358	.0160	2220	0.61
1991	1521	.0150	2249	0.68
1992	1816	.0150	2184	0.83
Socio-Economic OverheadCost and Employment - Post Liberalization				
1993	1859	.0133	2110	0.88
1994	2160	.0135	2102	1.03
1995	2219	.0136	2046	1.08
1996	2500	.0144	1997	1.25
1997	2740	.0119	2022	1.36
1998	3004	.0120	1964	1.53
1999	3323	.0125	1952	1.70
2000	3508	.0125	1829	1.92
2001	3797	.0115	1747	1.75
2002	3060	.0078	1658	1.85
2003	3147	.0075	1652	1.90
2004	2929	.0065	NA	NA
2005	3098	.0061	1243	2.49
2006	NA	N A	1254	NA
2007	2622	.0039	1272	2.06
2008	2355	.0032	1570	1.5
2009	1964	.0025	1437	1.37
2010	2646	.0029	1467	1.80

Source: Various "*Public Enterprises Survey Report,* Department of Public Enterprises, Min. of. Industry, New Delhi", Vol.1 ranging from 1987-88 to 2009-10 and S – 164, "*Public Enterprise Survey Reports"*, 2009-10, Vol.I, (Part-II)

Summary of findings of "t"–test for Average Annual Emoluments and Socio-Economic Welfare Measures to total employeeswith regard to Fulfillment of Social responsibility by CPEs for the period 1987-88 to 2009-10 is given intable 13.

Table: 13
Fulfillment of Social Responsibility during Pre Lib and Post Lib

S.No	Parameter	CPEs					
		t cal	Ho	Average		Coefficient of Variation	
				Pre Lib	Post Lib	Pre Lib	Post Lib
01	AAE	- .410	Accepted	0.53	0.54	98.11	10.76
02	SEOHC	-4.77	Rejected	0.622	1.61	22.66	29

In the case of CPEs, the fulfillment of social responsibilities is studied in terms of Average Annual Emoluments to Capital Employed and Socio Economic Welfare Cost to Capital Employed. The study indicates that while the performance of CPEs in terms of Average Annual Emoluments to Capital Employed remains undeterred during post liberalization, there is a significant difference in the parameter of Socio Economic Welfare Cost to Capital Employed. In fact, the investment in Socio Economic Welfare Cost is far higher during post liberalization than pre liberalization.

Employment under Reserved Categories

The management of respective CPEs formulates the Personnel and Recruitment Policies of CPEs. However, the Government of India issues policy guidelines to the enterprises, which are to be kept in view by the CPEs while framing their individual corporate policies. Formal Presidential directives issued to CPEs by the concerned administrative ministries to ensure reservation in regard to employment for Scheduled Castes and Schedule Tribes on the same lines as applicable to Central Government Departments as given at table 14.

Table: 14
Percentage of Reservations - CPEs

Sr. No.	Category	Percentage
01	Scheduled Castes	15
02	Scheduled Tribes	7.5
03	Other Backward Classes	27
04	Physically Handicapped Persons	3
05	Ex Servicemen	14.5

Table: 14 (Contd.)
Total SC & ST Employment and Percentage of Employment – Pre Liberalization

Year	Total Employees in Thousands	SC in Thousands	ST in Thousands	SC + ST in Thousands	Percentage of SC & ST to Total Employees
1988	2164	439	211	650	30
1989	2204	449	213	662	30
1990	2220	454	217	671	30
1991	2249	459	221	680	30
1992	2184	388	164	552	25
Total SC & ST Employment and Percentage of Employment Post Liberalization					
1993	2110	391	163	554	26
1994	2102	392	169	561	27
1995	2046	385	161	546	27
1996	1997	378	161	539	27
1997	2022	382	163	545	27
1998	1964	371	156	527	27
1999	1952	356	153	509	26
2000	1829	345	146	491	27
2001	1747	327	143	470	27
2002	1658	309	134	443	27
2003	1652	313	139	452	27
2004	NA	NA	NA	NA	NA
2005	1243	238	116	354	28
2006	1254	238	121	359	29
2007	1272	238	121	359	28
2008	1570	280	140	420	27
2009	1437	273	119	392	27
2010	1467	271	108	379	26

Source: "Department of *Public Enterprises Survey Reports"*, Vol.1 ranging from 1987-88 to 2009-10 and pp. 47/48, Public Enterprise Survey Report, 2009-10, Vol.I.

From the data collected and tabulated at table 14, it is observed that CPEs in general have complied with reservation guide lines issued by Government of India. While Government of India has set a target of 22.5% of SC and ST of the total strength of the employees in that year, the CPEs have been maintaining a figure of 25% and above.

Promotion of Balanced Regional Development

One of the objectives of setting up of CPEs was to promote balanced regional development. Industrial Policy Resolution, 1956 and subsequent resolutions/ statements emphasized the need for accelerated rate of economic growth and speedy industrialization for removal of imbalances in the levels of development between different regions/ areas.

In this context, the data collected on the investment by Govt. of India in terms of State-wise distribution of Gross Block is presented at table 15. The state-wise distribution of "gross block" shows a significant change over the years.

A comparison of percentage share of different states over the years shows that while the states Bihar, MP, West Bengal and Orissa claimed the largest share in investment until 1977, it is the states Maharashtra, UP; Andhra Pradesh, Tamil Nadu, and Gujarat led investment in CPEs in 2007. This implies that the Government of India through setting up of CPEs across the Nation in different periods has reduced the regional imbalances.

Table: 15
State-wise Distribution of Gross Block

S.No.	State/ UT	Gross Block in Rs. Crores				Percentage Share of Gross Block			
		1977	**1987**	**1997**	**2007**	**1977**	**1987**	**1997**	**2007**
01	Andhra Pradesh	391	6762	19486	50462	3.41	9.94	6.85	6.44
02	Arunachal Pradesh	-	-	1489	4048	0.0	0.0	0.52	0.52
03	Assam	313	3809	12449	37183	2.73	5.60	4.38	4.75
04	Bihar	2509	6969	19983	18081	21.91	10.24	7.03	2.31
05	Chhattisgarh	-	-	-	24043	-	-	-	3.07
06	Delhi	401	1928	15015	26456	3.50	2.83	5.28	3.38
07	Goa	3.3	35.27	145	512	0.03	0.05	0.05	0.07
08	Gujarat	523	3198	20093	48842	4.57	4.70	7.07	6.24
09	Haryana	143	650	4352	21597	1.25	0.95	1.53	2.76
10	Himachal Pradesh	12.0	527	4721	20393	0.10	0.78	1.66	2.60
11	J&K	6.0	118	6413	12859	0.05	0.17	2.26	1.64
12	Jharkhand	-	-	-	22871	-	-	-	2.92
13	Karnataka	268	1722	5439	32726	2.34	2.53	2.26	4.18
14	Kerala	274	1074	3992	19144	2.39	1.58	1.40	2.44
15	Madhya Pradesh	1493	8572	21503	35882	13.04	12.60	7.56	4.58
16	Maharashtra	630	10905	54854	134036	5.50	16.02	19.29	17.12
17	Manipur	-	140	148	1021	0.00	0.21	0.05	0.13
18	Meghalaya	-	4.0	53.0	212	0.00	0.01	0.02	0.03
19	Mizoram	-	-	30.0	-	-	-	0.01	-
20	Nagaland	-	78.0	465	955	0.00	0.11	0.16	0.12
21	Orissa	647	4538	17101	36693	5.65	6.81	6.01	4.69

S.No.	State/ UT	Gross Block in Rs. Crores				Percentage Share of Gross Block			
		1977	**1987**	**1997**	**2007**	**1977**	**1987**	**1997**	**2007**
22	Punjab	198	641	2078	10741	1.73	0.94	0.73	1.37
23	Rajasthan	227	781	6066	18706	1.98	1.15	2.13	2.39
24	Sikkim	-	0.55	241	2967	0.00	0.00	0.08	0.38
25	Tamil Nadu	467	3019	13539	49091	4.08	4.44	4.76	6.27
26	Tripura	-	161	831	1258	0.00	0.24	0.29	0.16
27	Uttar Pradesh	378	3914	20768	53253	3.29	5.75	7.30	6.80
28	Uttaranchal	-	-	-	14998	-	-	-	1.92
29	West Bengal	768	4525	18677	36450	6.71	6.65	6.57	4.66
30	Andaman & Nicobar islands	-	10	27	223	0.00	0.01	0.01	0.03
31	Chandigarh	-	4	289	110	0.00	0.01	0.1	0.01
32	Pondicherry	-	9	30	275	0.00	0.01	0.01	0.04
33	Others Un allocated	1803	3860	13082	46906	16.0	6.0	5.0	6.0
	Total	11454.3	67953.8	283359	782994	100.26	100.33	100.37	100.02

Source: Table 2.9 State wise Distribution of Gross Block "Department of *Public Enterprises Survey Reports* 2006-07 Vol. I, pp. 29.

Conclusions

The CPEs have excelled in financial performance in terms of increased Gross profit, increased Net profit, increased internal resources. In respect of Aggregate turn over, there is not much of difference in performance of CPEs between the two periods. In terms of Net worth, Current Ratio, CPEs did show significant downward trend during post liberalization. Contribution to Central Exchequer from CPEs is found to be satisfactory during post liberalization. While the profit from profit making CPEs is increasing substantially, the losses from loss incurring CPEs has also been increasing during post liberalization period.

With respect to Physical performance, CPEs have excelled in terms of inventory management. The inventory in no. of days of Cost of Production has been reduced from a level of 91 no. of days of Cost of Production during pre liberalization to 43no. of days of Cost of Production during post liberalization. With regard to Capacity Utilization, Value Added, Export Earnings and investment on Research and Development, the performance of CPEs during post liberalization was found to be on par with that during pre liberalization.

In terms of fulfilling Social Responsibility, while the performance of CPEs in respect of Employee Earnings during post liberalization is on par with that of pre liberalization, Socio Economic Welfare Costs, the CPEs performance is superior during post liberalization than that during pre liberalization. To a large extent CPEs have reduced the regional imbalances and continue to ensure the compliance with reservation policies in regard to employment for Scheduled Castes and Schedule Tribes on the same lines as applicable to Central Government Departments.

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DOES BOARD COMPOSITION AFFECT FIRMS PERFORMANCE? - AN EMPIRICAL STUDY ON SELECTED INDIAN MANUFACTURING COMPANIES

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***Abstract**: One of most important part of corporate governance is size and composition of board and many researchers show their interest to find the relationship between board size and composition on firm performance, in developed countries. But the study of this relationship is fairly neglected in emerging economies like India. The present study investigates empirically whether the corporate board size and composition affect the performances of selected Indian manufacturing companies during the period April 2006 to March 2011. Here Board Composition is represented by Number of Executive Directors, Board Independence and Chairman's Identity. For measuring corporate performance we have considered Net Sales, Net Profit, Return on Capital Employed, Earning per Share and Tobin's Q. The empirical results indicate that board size has a positive impact on corporate performance where as the independence of the board and presence of non-executive chairman in the board has negative impact. No significant relationship is found between the proportion of executive directors in the board and performance of the company. So from the study we can conclude that the board compositions have a significant effect on corporate performance. In some cases the explanatory variables are able to explain the variation of corporate performance up to 27 percent and the joint effect of these variables is also statistically significant.*

Key Words: *Corporate Performance, Board Size, Board Composition.*

An Overview

In today's global business environment the board of directors is highly criticized theoretically as well as practically. From practical point of view we can argue that failure of high profile Corporation like Enron, Global Crossing, Parmalat, Worldcom etc give a large question mark on the performance and responsibilities of members of corporate boards. The effectiveness of corporate governance for protecting stakeholders' interests has become more important day by day. Board size and composition are important elements of corporate governance. On the other hand from theoretical point of view we also found many theories of corporate governance have tried to find out the relationship between the various characteristics of corporate boards and corporate performance. Agency theory recommend that higher proportion of non-executive and independent directors is the precondition to better performance, on the other hand Stewardship theory claims that managers are basically trust-worthy individuals and to get superior performance majority of inside directors is mandatory (Donaldson and Davis[10], 1991).

Regarding the size of the board agency theory claims that larger board means more people for reviewing managerial actions, similarly the resource dependence theory argued that a larger board brings greater opportunities, more links to external environment and hence enhanced better access of resources. Again from the concept of insider trading we can say that if the number of directors is increases, the scope of insider trading will also increases which actually negatively affect the interest of the share holders. The insiders are well informed and they get information before the other stakeholders. Therefore, on the basis of that information they might take some action which might fulfill their personal interest but it might be harmful for the company as well as the overall financial system as a whole. So from the above, the questions may arise in the mind of researchers, academicians and policy makers, whether the board composition affects the corporate performance? If board composition does matter

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ISSN : 2230 - 9764

the performance of the firms then what should be the proportion between the outside directors and the inside directors. In this backdrop, our study tries to investigate empirically whether the corporate board compositions affect the performances of selected Indian manufacturing companies. The rest of the paper is organized into four sections- section 2 consists of review of some related literature to find out research gaps; section 3 discusses the data and methodology used in the study; while section 4 contains the analysis and interpretation of the results and finally, section 5 summarizes and concludes the study.

Review of Literatures and Research Gap

(a) Study of Related Literature

We found that, mainly in developed countries, many researchers try to find out a relation between board size and composition with corporate performance, from an empirical perspective. Their opinion regarding this relationship is not similar in nature.

Kiel and Nicholson[15] (2003) tried to find out the relationship between board composition and corporate performance on 348 listed Australian companies. They used Return on Assets and Tobin's Q for measuring the corporate performance. They conclude that the firm size, board size and proportion of inside directors are positively correlated with firm performance. Connelly and Limpaphayom[9] (2004) investigated the relationship between board characteristics and firm performance among life insurance companies in Thailand. They measure two aspects of firm performance: profitability (measured by ROA, ROE and ROI) and risk (measured by standard deviation of the benefits paid ratio). They found a positive relation between board composition (number of directors and independence of the board) and profitability and a negative relation with the risk-taking behavior of life insurance firms. Abidin and Kamal[1] (2009) analysed 75 listed Malaysian companies and in conformity with the earlier studies done by Kiel and Nicholson[15] (2003) and Connelly and Limpaphayom[9] (2004) they have concluded that the board size has a positive impact on the value added efficiency of firm. Peng[23] (2004) examined outside directors and firm performs in the context of China by taking 405 public listed firms as sample. He found that, the outside directors are able to make a difference in firm performance and there has a bandwagon effect behind the diffusion of the practice of appointing outsiders to corporate boards. As per Mura[18] (2005), who analyzed the relationship of firm performances with ownership structure and board composition by taking 1100 listed non-financial companies of UK, there has a cubic relation between performance and ownership by executive directors. The proportion of non-executives in the board, but not their proportional ownership, is positively related to firm performance. He also concludes that firm performance is negatively associated with institutional ownership. A similar view is advocated by Choi, Park and Yoo[8] (2006) who state that the outside directors have a significant and positive effect on firm performance. They have concluded that institutional equity ownership especially by foreign investors enhances board and firm performance.

The inverse relationship between board size and corporate performance has been reported by Postma, Ees and Sterken[24] (2001) after analyzing 94 Dutch listed non-financial firms. They concluded that the performance of a company is negatively affected by its corporate board size and number of outside directors. By using OLS and Random Effects Models Garg[12] (2007) tried to answer the question that does the board size and independence really matter the firm's performance? After analyzing 164 companies out of the companies in BSE 200, he suggested that there is an inverse relation between board size and firm performance. He also suggested that the different proportions of board independence have dissimilar impact on firm performance, and the impact of board independence on firm performance is more when the board independence is between 50 to 60 per cent, and smaller boards are more efficient than the larger one, where the board size limit of six is suggested as the ideal. In the line of the above studies Saat, Karbhari, and Nassir[26] (2011) examined the effect on firm value where the majority of directors are independent in the board. After analyzing 221 Malaysian listed companies they opine that there exists a significant negative relationship.

Further Bhagat and Black[6] (1999) opined that there is no convincing evidence that greater board independence correlated with greater firm profitability. At the same time Lawrence and Stapledon[17] (1999) investigated the impact of board composition on corporate performance and executive remuneration in large Australian companies and found corporate board composition does not affect the performance of the company and there has no link between the proportion of independent directors in the board and the level of remuneration of the CEO. Schwizer, Soana and Cucinelli[28] (2011) also concluded that foreign directors have no impact on firm performance but a significant impact on firm risk and there has no statistically significant relationship between presence of female directors and firm performance and risk. Again Topak[29] (2011) examined the relationship between the corporate board size and the financial performance of 122 Turkish firms and they don't found any relationship between them.

(b) Research Gap

So from the earlier studies we have observed that the affect of board composition and board size on firm's performance is an important issue in the literature of finance theory but very few studies have been conducted in India on this area. Most of the study have been conducted in developed countries and has produced mixed results. The result of those researches is also debatable in the context of an emerging economy like India because of the difference in economic conditions, political conditions and the infrastructure of the country. In many cases the sample size and the study period were too short. Moreover, the results of the previous studies were also varied according to the change of the sample size, the research methodology employed and the countries examined.

(c) Objectives of the Study

In this backdrop, our present study attempts to investigate empirically whether the corporate board composition affects corporate performance of selected manufacturing companies in India or not.

Research Design

(a) Data

We have studied 52 Indian manufacturing companies listed in Bombay Stock Exchange (BSE) for the period starting from 1st April 2006 to 31st March 2011. These 52 manufacturing companies have been selected from 11 different industries, on an average, five from each on the basis of firms with highest net sales within the industry and the availability of full 5 years data. The above mentioned 11 industries include Automobile Industry, Cement Industry, Chemicals Industry, Electric Industry, Electricity Industry, Engineering Industry, Pharmaceutical Industry, Fertilizer Industry, Paper Industry, Textile Industry and Tyre Industry. The data sources were the Annual Reports of the companies. Most of the raw data have been collected from the financial data base package 'Capitaline', manufactured, maintained and marketed by Capital Market Publishers Pvt. Ltd., Mumbai.

Board Composition is represented by Board Size (BS), Number of Executive Directors (ED), Board Independence i.e., Number of Independent Directors (ID) and Chairman's Identity (CI). As the identity of the chairman is a qualitative attribute, for our study, we have used dummy variable which equals '1' where the chairman is non-executive director. The profitability measurement variables as well as the market performance measurement variables are considered as the representatives of corporate performance. Net Sales (NS), Net Profit (NP), Return on Capital Employed (ROCE) and Earnings per Share (EPS) are considered as corporate profitability measurement variables and Tobin's Q (TQ) is considered as market performance measurement variable. In the present study variables BS, ED, ID and CI which are used as the proxy of the board composition are considered as the independent variables and the corporate performance measurement variables are used as dependent variables.

In this study Tobin's Q is computed by dividing market value of shares by the book value of shares. Book value is obtained by dividing net asset value of the company by the total number of outstanding shares. Tobin's Q is a market-based measure of profitability widely used in corporate governance studies as a proxy for firm performance.

(b) Methodology

Econometrical and Statistical Tests used in the Study

For the purpose of investigation we employ several statistical and econometrical tests. To identify the multicollinearity problem we employ the test of Correlation matrix and Variance Inflation Factor (VIF). For the test of Autocorrelation Problem Durbin-Watson (D-W) test has been used.

For statistical analysis multiple regression models have been used and to fit the regression equation we use Ordinary Least Square (OLS) model. To test the different hypothesis F test and t test have been applied. Besides these tests we calculate the descriptive statistics like mean, standard deviation, skewness and kurtosis of all the variables to get an idea about the nature of variables.

Scheme of Investigation

At first we arrange a panel data set according to our requirement and then we exclude the outlier data from the data set. A data is treated as outlier when the value of the data lies beyond- $x \pm 3\sigma$. After the exclusion of the outlier, we calculate the correlation matrix and VIF value for all the independent variable to test the existence of multicollinearity problem and exclude the variables those who have VIF value is greater than 5 and those have partial correlation is very high (greater than 0.8). Then we employ Durbin-Watson (D-W) test to detect the Autocorrelation Problem. After making all these tests we calculate the descriptive statistics of the independent and dependent variables. Finally, we run the multiple regressions taking the dependent variables one by one. The OLS method is followed to fit the regression equations on such panel data.

Findings of the Study

4.1. Findings from the Econometrical Tests

To test the reliability of the data, we first studied the data properties from an econometrical perspective and found the following results:

Collinearity means that two or more of the explanatory variables in a regression have a linear relationship. This causes a problem in the interpretation of the regression results. If the variables have a close linear relationship, then the estimated regression coefficients and t-statistics may not be able to properly isolate the unique effect of each variable and the confidence with which we can presume these effects to be true. From the correlation matrix and value of Variance Inflation Factor (VIF) (Table-1) we can conclude that the data are free from multicollinearity problem as the VIF value is less than 5 and the value of partial correlation is not very high. Again the problem of Autocorrelation has been tested by Durbin-Watson (D-W) test. As in all cases the D-W test statistic value ranged between 1.5 and 2, thus, we can say that there was no Autocorrelation problem in our collected data.

4.2. Findings from Descriptive Statistics

A) Increasing Trend of Sales

From the descriptive statistics (Table-2) we found that the net sales gradually increased during the study period.

B) Moderate Profitability

In most of the cases we found that Indian manufacturing industries are able to earn moderate profits though the rates of profitability are not so high.

C) Satisfactory Market Performance

For this study we consider Tobin's Q as an indicator of market performance. From Tobin's Q we found a satisfactory market performance except in the year 2009. That may be due to the global economic crisis during that period.

D) Increasing Trend in Numbers of Directors

From Table-2 it has been found that the number of directors increased year after year and the variation regarding the number of directors in different companies is reasonably high.

E) Fixed Number of Executive Directors in the Board

It has been found that the Indian manufacturing firms are maintaining a fixed number of executive directors in the board and the portion of executive directors is less than the non-executive directors for most of the firms.

F) Slow Movement towards Independence of the Board

If we concentrate on the mean value of board independence, we notice an increasing trend of the average value of the number of independent directors in the board, which indicates a slow movement towards independence of corporate board.

G) Equal Preference Regarding the Chairman's Identity

Here the identity implies that whether the chairman is executive or non-executive. It has been noticed that the companies has no preference regarding the chairman's identity in the process of chairman selection.

4.3. Findings from the Study

From Table-3, it has been found that the variables of board size and composition have a significant effect on corporate performance. In some cases the variables of board size and composition are able to explain in the variation of corporate performance up to 27 percent and the joint effect of the explanatory variables (Board Size, Composition of Executive Directors, Chairman's Identity and Number of Independent Directors) is also statistically significant at 1 percent significance level. The individual effects of different explanatory variables on corporate performance are as follows:

A) Board Size and Corporate Performance

The board size is positively associated with the performance of the company. This result supports the earlier studies of Kiel and Nicholson[15] (2003), Connelly and Limpaphayom[9] (2004) and Abidin and Kamal[1] (2009) but contradicts the findings of Postma, Ees and Sterken[24] (2001), Garg[12] (2007). From the result we notice that the number of directors has a positive relation with all the explanatory variables and relation with Net Sales, Net Profit, ROCE is statistically significant. It implies that if the numbers of directors increases performance of the firm also increases.

B) Executive Directors and Corporate Performance

From the empirical result (Table-3), we have found that the number of executive directors in the corporate board have no significant impact on the performance of the Indian manufacturing firms.

C) Chairman's Identity and Corporate Performance

In the line of the earlier findings made by Saat, Karbhari and Nassir[26] (2011) the present study shows a negative relationship between non-executive chairman in the board and the performance of the company. That is if the chairman is a non-executive director performance of the company decreases and vice versa. We found a significant negative relationship between the existence of non-executive chairman and the performance of the company, specially, when we consider Net sales, Net Profit and EPS as performance measurement indicator. It implies that if the chairman of an Indian manufacturing firm is non-executive, then the performance of the firm will be poor, though the result is different from the earlier studies made by Peng[23] (2004), Mura[18] (2005) etc.

D) Independence of the Board and Corporate Performance

Independence of the board is negatively related with corporate performance. It indicates that if the number of independent directors in a board increases then the corporate performance decreases and vice versa. We find the relationship is significant in case of Net Sales and Tobin's Q. Though our findings is supported by the earlier studies made by Postma, Ees and Sterken[24] (2001), Garg[12] (2007) but the studies of Bhagat and Black[6] (1999), Lawrence and Stapledon[17] (1999), Connelly and Limpaphayom[9] (2004), Choi, Park and Yoo[8] (2006) etc found the opposite result.

Summary and Conclusion

5.1. Summary of Findings and Interpretations

In first part of our study, descriptive statistics of selected variables are extracted. In this regard it is found that manufacturing industries of India are generally characterized by moderate profitability and satisfactory market performance. This result also shows an increasing trend of the total number of directors in the corporate board and the corporate board gradually moves towards independence. We also found that both the executive and non-executive chairmen are equally preferable in case of Indian manufacturing firms.

The second part of the study analyzed the impacts of board size and composition on corporate performance. It is found that, there is a significant positive relationship between corporate performance and corporate board size. That is if the number of directors increases in the board performance of the company will improves and vice-versa. This might be due to proper observation, increase in the controlling capacity and perfection in decision making capacity generated by increased number of directors. According to Haleblian and Finkelstein[13] (1993) a large board has greater problem solving capability. On the other hand there is no significant relationship between proportion of executive directors in the board and performance of the firm. While we consider the independence of the board then we found a negative relationship with all the corporate performance indicators and in case of Tobin's Q, Net Sales and Net Profit the relationship is statistically significant. This might be due to, the independent directors play an advisory role in strategic planning but they do not participate in day-to-day decision making process of the organization. They may not have the practical knowledge about the current condition of the firm. Their lack of experience and expertise regarding the company's objectives create problems for implementation of the plan by the middle and lower level managers. Therefore, if the size of the independent directors increases in a board they may mislead the decision making process. Another important question is that, how much they are really independent in the context of Indian business environment, because sometimes they are pressurized by the other directors, executives and the politicians. In many cases Independent directors are trained out to be a lapdogs rather than watchdogs. According to Bhagat and Black[5] (1998), over the last decade most of the motor industry transform their board in such a way, where most of the directors are independent but no improvement is found in their performance. In case of non-executive chairman we found a significant negative impact on firm performance. From organization portfolio theory we can say that non-executives generally try to avoid risk and want to keep their investment safe. By doing this they restrict the use of capital in a risky venture, although it may earn high return. So this type of decisions do not help to perform in a better way and finally leads to negative performance of a firm.

5.2. Conclusion

Finally it can be said that the board size and composition board have a significant effect on corporate performance. In some cases the variables of board composition are able to explain in the variation of corporate performance up to 27 percent (Shown in Table-3). The joint effect of the independent variables (Board Size, Composition of Executive Directors, Chairman's Identity and Number of Independent Directors) is also statistically significant at 99 percent confidence level.

5.3. Limitation of the Study

a) The study considered only the quantitative factors of the corporate board but the corporate performance might be affected by the qualitative attributes like gender diversity in the board, education level of directors etc. which is not considered in this study.

b) The selected variables for the study could have increased because there are so many other factors which are also important in determining corporate performance. But to avoid complexity and lack of time it was not possible for us to consider the things.

c) In our study we concentrate only profitability and market performance as a proxy of performance of a firm. But the other performance indicators like, liquidity, solvency etc. are not considered.

d) This study concentrates on traditional tools to measure performance of the firms and avoid the modern performance indicators like EVA and MVA etc.

e) The study period covered only 5 years (from 2006-07 to 2010-11). The study period could have been increased to get better results.

f) The companies were selected on the basis of highest net sales in the past years and the availability of full 5 years data. Those companies which do not have full 5 years data were avoided from the selection.

g) Finally, the sample size represents only 52 companies selected from eleven manufacturing industries. The size of sample could have been increased to get better results.

5.4. Scope for Further Study

In this study we considered only 5 years as a study period. Actually the period is too short to analyze the corporate performance accurately. The period can be increased to get better results. The corporate performance actually does not depend only on the factors which we have taken in our study. Companies' performance depend on several other board characteristics like, gender diversity in the board, education level of directors, presence of foreign directors etc. Here we consider a very little set of independent variables which is quantitative in nature but the corporate performance may depend to a large extent on the qualitative attributes, which may try to incorporate in the further studies to get the better result. Again the corporate performance is not measured from the view points of the performance of working capital management, management of long term solvency, capacity of fixed assets management etc., which can be considered in further studies. Moreover for determining the association between board composition and corporate performance we employ simply the multiple regression technique. To get more purified result we might apply the other relevant modern performance indicator tools, sophisticated statistical and econometrical techniques.

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TABLES

Table - 1: Correlation Matrix and VIF values of Independents Variables

Variables	Particulars	BS	ED	CI	ID
BS	Pearson Correlation	1	0.610**	0.129*	0.679**
	Sig. (2-tailed)		0.000	0.037	0.000
ED	Pearson Correlation	0.610**	1	-0.196**	0.220**
	Sig. (2-tailed)	0.000		0.002	0.000
CI	Pearson Correlation	0.129*	-0.196**	1	-0.019
	Sig. (2-tailed)	0.037	0.002		0.761
ID	Pearson Correlation	0.679**	0.220**	-0.019	1
	Sig. (2-tailed)	0.000	0.000	0.761	
Variance Inflation Factor (VIF)		4.168	2.185	2.417	1.333

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

Table – 2: Descriptive Statistics

Dependent Variable :					Net Sales (NS)		
Year	**Minimum**	**Maximum**	**Mean**	**5% Trimmed Mean**	**S.D.**	**Skewness**	**Kurtosis**
2011	56.020	55216.690	6517.226	4482.758	12268.18	3.047	8.464
2010	51.160	46623.580	5311.449	3657.520	9898.234	3.111	9.057
2009	70.990	42196.800	4706.543	3252.361	8455.831	3.202	10.250
2008	67.260	37302.400	4064.413	2782.980	7337.794	3.260	10.749
2007	55.920	32817.300	3525.301	2402.652	6409.140	3.341	11.555
2011	2.110	9102.590	724.311	430.645	1565.226	4.059	18.223
2010	-22.390	8728.200	684.131	425.292	1448.878	4.133	19.622
2009	-1044.800	8201.300	510.336	300.346	1305.253	4.531	24.424
2008	-83.650	7414.800	531.262	345.140	1157.815	4.546	24.944
2007	-37.490	6864.700	449.184	277.306	1049.506	4.860	28.035
Dependent Variable :					**Net Sales (NS)**		
2011	3.210	61.680	19.587	18.506	12.428	1.570	2.542
2010	0.000	60.850	20.913	19.944	13.401	1.200	1.340
2009	-18.880	56.260	17.386	16.614	15.242	0.772	0.869
2008	-10.240	53.490	19.967	19.518	13.253	0.681	0.491
2007	-13.700	60.680	19.121	18.698	13.233	0.755	1.332

Dependent Variable :				**Earnings per Share (EPS)**			
2011	0.420	826.560	42.375	25.505	113.684	6.689	46.762
2010	0.000	592.520	43.469	30.128	85.376	5.513	34.774
2009	0.000	337.550	31.626	23.016	53.759	4.116	20.958
2008	0.000	401.750	30.633	22.798	56.969	5.636	36.594
2007	0.000	185.660	25.316	21.214	31.575	2.973	12.405
Dependent Variable :				**Tobin's Q (TQ)**			
2011	0.180	12.820	2.914	2.674	2.530	1.637	3.385
2010	-1.740	11.080	2.811	2.596	2.583	1.332	1.710
2009	-0.120	5.690	1.349	1.217	1.340	1.453	1.618
2008	-0.040	11.350	3.1123	2.833	3.010	1.415	1.165
2007	-0.040	12.040	3.1206	2.850	2.807	1.387	1.579

Table – 2: Descriptive Statistics (Contd….)

Year	Minimum	Maximum	Mean	5% Trimmed Mean	S.D.	Skewness	Kurtosis
Independent Variable :					**Board Size (BS)**		
2011	4.000	20.000	10.673	10.628	2.942	0.267	1.386
2010	4.000	17.000	10.615	10.628	2.918	0.023	0.283
2009	4.000	17.000	10.538	10.564	3.122	0.054	-0.180
2008	4.000	20.000	10.153	10.098	3.096	0.403	1.239
2007	4.000	16.000	10.192	10.235	2.730	-0.114	-0.163
Independent Variable :				**Executive Directors (ED)**			
2011	1.000	9.000	3.134	3.029	1.749	0.792	0.895
2010	1.000	7.000	3.192	3.115	1.692	0.519	-0.452
2009	1.000	7.000	3.057	2.987	1.808	0.428	-0.705
2008	1.000	7.000	2.923	2.837	1.631	0.777	-0.038
2007	1.000	7.000	3.115	3.029	1.640	0.556	-0.083
Independent Variable :				**Chairman's Identity (CI)**			
2011	0.000	1.000	0.519	0.521	0.505	-0.079	-2.075
2010	0.000	1.000	0.500	0.500	0.504	0.000	-2.082
2009	0.000	1.000	0.500	0.500	0.505	0.000	-2.082
2008	0.000	1.000	0.481	0.479	0.504	0.079	-2.075
2007	0.000	1.000	0.500	0.500	0.505	0.000	-2.082

Independent Variable :				Independent Directors (ID)			
2011	2.000	9.000	5.769	5.799	1.541	-0.264	-0.400
2010	3.000	9.000	5.884	5.871	1.592	-0.016	-0.350
2009	3.000	9.000	5.711	5.679	1.588	0.191	-0.303
2008	2.000	12.000	5.192	5.115	1.771	1.127	3.044
2007	2.000	9.000	5.096	5.051	1.524	0.557	0.014

Table 3: Multiple Regression of all Manufacturing Industries

Independent Variables Dependent Variables	BS	ED	ID	CI	
	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	R^2 (F-value)
NS	2069.727*** (6.395)	-318.131 (-.750)	-1076.326** (-2.379)	-3541.773*** (-3.235)	0.270*** (23.631)
NP	270.721*** (5.806)	-5.726 (-0.094)	-138.551** (-2.126)	-646.543*** (-4.100)	0.273*** 23.904)
ROCE	0.907* (1.763)	-.04.427 (-.061)	-1.156 (-1.489)	0.615 (0.327)	0.022 (1.445)
EPS	1.757 (.580)	-0.373 (-.094)	-1.058E-02 (-.003)	-24.312** (-2.375)	0.028 (1.836)
TQ	0.162 (1.538)	0.136 (0.990)	-0.255* (-1.737)	0.473 (1.332)	0.057*** (3.449)

***significant at 0.01 level **significant at 0.05 level *significant at 0.10 level

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THE RELATIONSHIP BETWEEN SOCIAL PERFORMANCE (SP) AND FINANCIAL PERFORMANCE (FP) OF PUBLIC SECTOR BANKS

(A STUDY BASED ON SELECT COMMERCIAL BANKS IN INDIA)

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***Abstract**: The study aimed to shed light on the relationship between Corporate Social Responsibility and Corporate Financial Performance in the public sector banks in India, which is based on a case study of State Bank of India since it is a giant among the public sector banks in India. The required financial data for this study have been retrieved from the website of SBI and the data relating to the CSR activities have been retrieved from the website of NGO – karmayok. Further the link between social performance and financial performance of the public sector banks have been analysed based on the simple statistical as well as management techniques of Trend Analysis, Percentage Analysis, Net Profit Ratio and Turnover Ratio. This study has revealed that how the CSR activities of public sector banks are relevant to their financial performance.*

Key Words: *Corporate Social Performance, Corporate Social Responsibility, Corporate Financial Performance and CSR Ratings*

Introduction

Corporate Social Responsibility (CSR) also known as Corporate Social Performance is neither the responsibility of business organisations nor the obligations of the stakeholders, indeed it is a sustainable strategy to be incorporated in the business agenda for the issues threatening in the present day scenario. As progressives confront the problems of the twenty-first century, be they global poverty and increasing income inequality, the scourge of HIV and other diseases, educational disparities, or climate change, an increasingly popular strategy is to enlist corporations in the effort (Aaron K.Chatterji and Barak D. Richman). The growing popularity of CSR is premised on the belief that modern corporations have the financial resources, human capital, and global influence to advance progressive causes. The Reserve Bank of India (RBI) has asked the banks to pay special attention towards integration of social and environmental concerns in their business operations. Stressing the need for CSR, RBI pointed out that these initiatives by the banks are vital for sustainable development. Issues such as global warming and climate change pose a great risk to the environment and can be quite damaging to the business models of companies. Only a scenario in which the quality of environment and social systems synergize with business models, can lead to sustainable development. Many of the newly formed private and foreign banks are aware of the importance of such a step and therefore are having an active corporate social responsibility department. RBI has asked the banks to start non-financial reporting, which will be used to audit their initiatives towards the corporate social responsibility (CSR). Such a reporting will cover the work done by the banks towards the social, economic and environmental betterment of society.

Responsibility of Contents of this paper rests upon the authors and not upon GRIET publications.

ISSN : 2230 - 9764

Review of Literature

CSR is generally agreed to be as a voluntary action on the part of the large corporations to take stock of social, economic and environmental impact of their operations. The European Commission defined CSR as – *"A concept whereby companies integrate social and environmental concerns in their business* *operations and in their interactions with their stakeholders on a voluntary basis."* (European Multistakeholder Forum on CSR, 2004: 3) The World Business Council for Sustainable Development defines Corporate Social Responsibility as, "Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." Assocham's Eco Pulse Study on CSR, released in June 2009, says some 300 corporate houses, on an aggregate, have identified 26 different themes for their CSR initiatives. Of these 26 schemes, community welfare tops the list, followed by education, the environment, health as well as rural development. Empirical research confirms the lack of evidence showing that good CSR deeds lead to good profits (Aaron K. Chatterji, 2007). Even studies that demonstrate a correlation between socially responsible corporate behavior and superior financial performance cannot always realistically illustrate which way the causal arrow points because financially successful companies simply have more money to dispense for social initiatives and larger marketing budgets to publicize their CSR programs (Thomas P. Lyon & John W. Maxwell, 2006), While some studies reveal a positive relation between the two constructs - Corporate Social Performance and firms performance (Graves and Waddock, 1994; Griffin and Mahon, 1997; McGuire et al., 1998 ; Waddock and Graves, 19977), some others indicate a negative relation between these two constructs (Bromiley and Marcus, 1989; Wright and Ferris, 1997), and still others (Aupperle et al.,1985; Teoh et al., 1999) establish no relation between these two constructs. Though a positive relation between CSR and firm performance has prevailed in many studies (Margolis and Walsh, 2003; Orlitzky et al., 2003), results still remain inconclusive (Margolis and Walsh, 2003; Vogel, 2005). Such inconclusiveness creates ground for further investigation. Therefore, a new attempt has been made to study the relationship between Social Performance and Financial Performance of Public Sector Banks in India.

Statement of the Problem

Corporate social responsibility is playing a vital role in the present day business scenario. It is perceived as a new fashionable concept as well as a new management tool to have sustainable development. There are number of dilemma about the concept of corporate social responsibilities, especially in the developing country like India, where such concepts need legal enforcement. However, a number of Indian banks have taken initiatives to implement the concept of corporate social responsibilities. The present research focuses on the initiatives taken by the public sector banks in India and resulting impact on its overall financial performance. Against this background it is worthwhile to analyse the concept of corporate social responsibility under the title of "the relationship between Social Performance (Cp) and financial Performance (Fp) of Public Sector Banks in India".

Objectives of the Study

The study has the following objectives

- To analyse the various Corporate Social Responsibility initiatives of Public Sector banks in India
- To Study the relationship between Social Performance (Sp) and Financial Performance (Fp) of Public Sector Banks in India

Methodology

This study is explorative in nature and based on the secondary data. The required data has been collected from annual reports of concerned banks and CSR ratings from the Karmayok NGO. The Karmayok NGO has classified the CSR ratings into six levels starts from level zero to level 5, level zero implies the lowest or no CSR initiatives and level 5 implies highest CSR initiatives. The link between social performance and financial performance of the public sector banks have been analysed based on the simple statistical as well as management techniques of Trend Analysis, Percentage analysis, Net Profit Ratio and Turnover Ratio.

Sampling

The study involved the convenient sampling method. State Bank of India has been selected as a sample to study the relationship between Corporate Social Performance and Corporate Financial Performance of Public Sector Banks in India, since it is a largest bank in public sector, No 1 bank in turnover, the origin of banking industry in India is relating to SBI and it is a giant in the banking industry in India, therefore, the sample is justifiable in respect these aspects.

Analysis of CSR Initiatives of State Bank of India

State Bank of India as a giant in the banking industry, it has been playing a significant role in CSR practices among the public sector banks in India, the Executive Committee of the Central Board has approved in 2011 a comprehensive policy for CSR – "*In SBI, we believe that we owe a solemn duty to the less fortunate and underprivileged members of the society to make a sustainable social change in their development*". The SBI has focused on Education, Healthcare, Supporting gild children & child development, assistance to poor & underprivileged, environment protection, clean energy, entrepreneur development programme and help in national calamities. The CSR initiatives of SBI have been divided into internal and external as provided in the following Figure No. 1

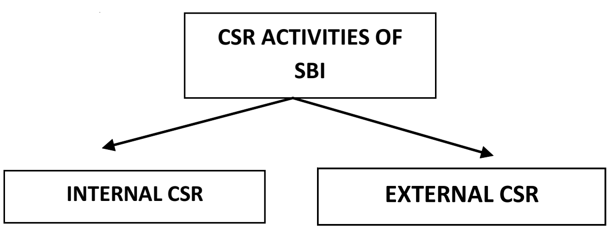

Figure 1 Types of CSR Initiatives of SBI

External CSR Activities

Supporting Education

To support school education and to bring happiness to millions of school children specially the underprivileged children, Bank provided 1, 20,000 electric fans to 12,000 schools across India. During the financial year 2011-12, the bank also provided large number of buses/vans to needy schools.

Girl Child Adoption

It has adopted girl children from underprivileged class and assists them financially for their education. The bank

Assistance for Natural Calamities

The bank has always been at forefront to help the States affected by natural calamities. During the year 2011-12, the Bank has lent its helping hand to the states – Odisha for Flood, Puducherry for cyclone, Sikkim for Earthquake, Tamilnadu for Cyclone and West Bangal for Earthquake, with donations of Rs. 5.50 Crores to the Chief Minister's Relief Fund of the respective states to provide help to the people affected by natural calamities.

Supporting Healthcare

The focus of the Bank has been to help provide the basic infrastructure support to ameliorate the condition of the common man. Ambulances, medical vans to enable medical camps in remote areas and mobile blood collection vans and host of other medical equipments were donated to needy organizations/hospitals. The Bank has donated 95 such vehicles with an expenditure of 7.40 crores during the year 2011-12. Medical equipments costing '6.10 crores were donated to needy hospitals/healthcare institutions.

Healthcare to Children

Providing safe drinking water has always been a challenge for schools. Recently the bank took up the project, and installed 13,600 water purifiers in as many schools, ensuring clean & safe drinking water to millions of children in schools.

Green Banking

In green banking system, it has playing key role in the following aspects

- It has effectively propagated and implemented sustainable usage of resources including renewable energy.
- It has adopted energy efficient measures.
- It is the largest deployer of solar ATMs in the World. Saving more than 2000 tons of CO2 per year.

- It has introduced Paperless Banking transaction- Green Channel Banking.
- The Bank has installed windmills with capacity of 15 MW in three states for internal energy needs.
- The Bank extends project loans on concessionary interest rates to encourage customers to reduce
- Green House gases by adopting efficient manufacturing practices.

SBI Children's Welfare Fund

It has constituted SBI Children's Welfare Fund as a Trust in 1983. The Corpus of the Fund is made up of contributions by staff members and matching contribution provided by the Bank. Grants are extended to institutions engaged in the welfare of underprivileged/downtrodden children like orphans, destitute, challenged and deprived, etc. During the FY 2011-12, 8 projects were assisted with 7.26 lacs.

SBI Youth for India

SBI Youth for India Fellowship- Bank has granted fellowship to educated youth and deployed them to rural areas to undertake innovative projects to address local problems of rural poor. This scheme has touched upon many projects like Rural Employment Guarantee Schemes, IVRS helpline for farmers & fishermen, career guidance, enhancing marketability of farm produce, education of rural youth through ICT, environment protection, and many others.

Internal CSR Activities

The internal CSR activities of SBI include an equal opportunity to employees, providing facility and healthcare to the employees, motivational incentives, extensive in-house training facilities, motivational incentives, freedom of association and so on.

Analysis and Interpretations

Table: 1
CSR Ratings of Public Sector Banks in India

Level of CSR Ratings	2007 – 08		2008-09		2009-10	
	No. of Companies	%	No. of Companies	%	No. of Companies	%
Level 5 (highest)	0	0	0	0	0	0
Level 4	0	0	1	3	0	0
Level 3	6	15	11	31	12	32
Level 2	9	23	15	42	14	38
Level 1	8	20	6	17	10	27
Level 0 (lowest)	17	43	3	8	1	3
Total	40	100	36	100	37	100

Source: Karmayok NGO

Table No.1 reveals that the corporate social responsibility ratings of public sector banks in India from the financial year 2007-08 to 2009-10. It is observed that 43 percent of public sector banks involved in zero level of CSR initiatives in the year 2007-08, 8 percent in 2008-09 and just 3 percent in 2009-10. Similarly the level 3 is highest CSR initiatives by the public sector banks in India and it has been recorded as 15 percent of banks belong to level 3 in the year 2007-08, 31 percent in 2008-09 and 32 percent in the year 2009-10. It is remarked that highest level (level 3) of CSR initiatives of public sector banks in India has been increased from 15 percentage in 2007-08 to 32 percentage in 2009-10 while the lowest level (zero level) has been decreased from 43 percentage in the year 2007-08 to just 3 percentage in the 2009-10. Therefore, the CSR activities of public sector banks in India are growing well irrespective of their overall performance including financial performance in the industry.

Table:2

Comparison of Actual CSR Performance with its Standard of State Bank of India from the FY 2007-08 to 2011-12

Year	Turnover	Net Profit	CSR Standard		ACTUA Lamount spent on CSR activities	Major CSR Activities
			0.2% on Turnover as per karmayok NGO	2 % on Net Profit As per Companies Amendment Bill 2011 (proposed)		
2007-08	57645.24	10438.90	115	208.77	*	
2008-09	76479.22	14180.66	153	283.61	*	
2009-10	85962.07	13926.08	172	278.52	19.72	
2010-11	97218.96	14954.23	194	299.08	24.44	
2011-12	120739.97	18483.31	241	369.67	71.18	

Source: Annual Reports of SBI and CSR Reports of Karmayok NGO

*Not Available

Table No.2 reveals that the comparison of actual CSR performance with its standard of State Bank of India from the financial year 2007-08 to 2011-12. The benchmark for CSR activities as per the Karmayok NGO is 0.2% on turnover and the same has been recorded as Rs.115, 153, 172, 194, 241 crore in the year 2007-08, 2008-09, 2009-10, 2010-11, and 2011-12 respectively similarly the benchmark for CSR activities of companies as per the Companies Amendment Bill 2011 is 2 % on Net Profit and the same has been recorded in rupees as 208.77, 283.61, 278.52, 299.08, and 369.67 for the year 2007-08, 2008-09, 2009-10, 2010-11, and 2011-12 respectively. The actual investment on CSR activities of the bank has been recorded as Rs.19.72 in 2009-10, Rs.24.44 in 2010-11 and 71.18 in 2011.12. It is concluded that the bank has failed to achieve its benchmark for CSR activities either in respect of Karmayok NGO or the proposed Companies Amendment Bill 2011.

Table: 3

Trend Analysis Between Turnover and CSR Investment of State Bank of India from the FY 2007-08 to 2011-12

Year	Turnover Rs. In Cr.	Trend	CSR Investment	Trend
2007-08	57645.24	100%	*	*
2008-09	76479.22	133%	*	*
2009-10	85962.07	149%	19.72	100%
2010-11	97218.96	169%	24.44	124%
2011-12	120739.97	209%	71.18	361%

Source: Annual Reports of SBI and CSR Reports of karmayok NGO

* Not available

Table No. 3 reveals that the trend analysis between Turnover and CSR Investment of State Bank of India from the financial year 2007-08 to 2001-12. The turnover has been increased from 100% in 2007-08 to 209% in 2011-12 whereas the CSR investment has been increased from 100% in 2009-10 to 361% in 2011-12. It is concluded that investment in CSR activities by the bank has been increased at noticeable level compare to its business turnover in the same period.

Table: 4

Trend Analysis between Net Profit and CSR Investment of State Bank of India from the FY 2007-08 to 2011-12

Year	Turnover Rs. In Cr.	Trend	CSR Investment	Trend	Major CSR Activities
2007-08	57645.24	100%	*	*	
2008-09	76479.22	133%	*	*	
2009-10	85962.07	149%	19.72	100%	
2010-11	97218.96	169%	24.44	124%	
2011-12	120739.97	209%	71.18	361%	

Source: Annual Reports of SBI and CSR Reports of Karmayok NGO

*Not available

Table No. 4 reveals that the trend analysis between Net Profit and CSR Investment of State Bank of India from the financial year 2007-08 to 2011-12. The profit rate has been increased from 100% in 2007-08 to 177% in 2011-12, that is profit rate has increased by 77% during the study period. The CSR investment of the bank has increased from 100% in 2009-10 to 361% in 2011-12, that means it has increased by 261% during the study period. It is concluded that investment in CSR activities by the bank has increased to noticeable level compared to its profit rate in the same period.

Table: 5

Comparison of NP Ratio and CSR Ratings of SBI from the FY 2007-08 to 2011-12

Year	Turnover	Net Profit	NP Ratio	CSR Ratings	CSR Activity
2007-08	57645.24	10438.90	18.10%	2	
2008-09	76479.22	14180.66	18.54%	3	
2009-10	85962.07	13926.08	16.20%	3	
2010-11	97218.96	14954.23	15.38%	*	
2011-12	120739.97	18483.31	15.30%	*	

Source: Source: Annual Reports of SBI and CSR Reports of Karmayok NGO

*Not Available

Table No. 5 reveals that the comparison of Net Profit Ratio and CSR Ratings of State Bank of India from the financial year 2007-08 to 2001-12. The Net Profit ratio has been declined gradually from 18.10% in 2007-08 to 15.30% in 2011-12 while the CSR rating has increased rapidly from 2 in the year 2007-08 to 3 in the year 2009-10. It is significant to state that the CSR initiatives of the bank has increased even with the declining trend of profit, further it is perceived that financial performance has no significance with respect of CSR initiatives of the bank.

Conclusion and Implications

The present study relating to Corporate Social Performance and Corporate financial performance of public sector banks in India has revealed the following results.

- The CSR activities of public sector banks in India are growing well irrespective of their overall performance including financial performance in the industry.
- The public sector banks (PSBs) have failed to achieve its benchmark for CSR activities either in respect of Karmayok NGO (.2% on turnover) or the proposed Companies Amendment Bill 2011 (2% on Net Profit).
- The investments in CSR activities by the PSBs have increased at noticeable level when compared to its business turnover in the study period.
- The investments in CSR activities by the PSBs have increased at noticeable level when compared to its profit rate in the study period.
- It is significant to state the CSR initiatives of the PSBs have been increased even with the declining trend of profit, further it is perceived that financial performance has no significant effect with respect of CSR initiatives of the bank.

The relations between corporate social performance CSR and corporate financial performance are mostly inconclusive, but positive relations between the two have been reported in most of the studies (Margolis and Walsh, 2003), the significant level of value additions in bank's performance is possible by building a strong stakeholder relations. Management theorists argue that by improving CSR towards stakeholders, firm performance is augmented (Waddock and Graves, 1997). Therefore CSR neither a responsibility nor an obligation, it is a technique to improve the financial performance of public sector banks in India and it is suggested that the alignment of the social goal with the business goal is inevitable where CSR is considered as a strategic tool to promote the economic objective of the firm.

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CAPACITY BUILDING IN E-GOVERNMENT THROUGH CITIZEN RELATIONSHIP MANAGEMENT

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***Abstract**: Following the path of various developed nations, India is also going in a big way on e-governance. Over the past few years, there has been a tremendous upsurge in the e-governance initiatives, which has brought upon major managerial and technological challenges in terms of capacity building across key areas. Sound planning of capacity is foundation of building capacity in terms of infrastructure requirements, human resource skills and number required processes etc. Planning depends upon resource requirements which in turn depend upon ever changing citizen requirements/needs and wants. The paper with the help of a case study proposes the role of Citizen Relationship Management in capturing citizens' requirements so that an effective demand driven capacity could be built around.*

***Key Words:** Capacity Building; Capacity Planning, Citizen Relationship Management, Structure; interaction; e-government; India*

1. Introduction

The nature and scale of e-governance initiatives planned within all the three tiers of Indian federal structure namely– the Union, state and local bodies/authorities has brought with it various challenges, with capacity building being one of the most crucial among them. Keeping in view the enormous task of driving NeGP (national e-Governance plan) in line with the overall spirit of service orientation most states and local bodies are inadequately equipped. There is a requirement of comprehensive capacity building across major areas. Since all these initiatives have to compete for resources that are limited, there is a need to manage all initiatives with optimal resource planning. A realistic demand driven resource planning rests upon sound judgment of ever changing citizens' needs and demand. Mere development of service delivery strategy would help smooth delivery of available services; however it doesn't ensure the availability of services required. Citizen Relationship Management- a concept taken from CRM concept of private sector and suitably modified for government sector could be used here to create trust among citizens, thereby capturing knowledge about them on a continuing basis which could be translated to resource requirement and planning and later in effective capacity building.

ISSN : 2230 - 9764

The paper is structured as follows-section 2 discusses meaning and importance of capacity building in e-governance context along with the challenges followed by section 3; describing citizen relationship management. Next section describes how C*i*RM can be of use in capacity building and is followed by a real life case study and lastly the lessons learnt and conclusion.

2. Capacity Building

Various authors and government organizations have defined capacity building. Capacity building in context of e-Governance is defined as the "process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in the fast-changing world." [1] Specifically, capacity building encompasses the country's human, scientific, technological, organizational, institutional and resource capabilities. A fundamental goal of capacity building is to enhance the ability to evaluate and address the crucial questions related to policy choices and modes of implementation among development options, based on an understanding of environment potentials and limits and of needs perceived by the people of the country concerned"

[2]. UNDP recognizes that capacity building is a long-term, continuing process, in which all stakeholders participate.

Capacity building is crucial to provide the right services to the right customers from the right sources with the right tools at the right time. It could be seen from two perspectives- one, building an internal capacity for the government and as per the guidelines for capacity building and institutional framework for e-governance under NeGP 2005, [3] includes-

1. Developing Vision
2. Steering the program/project
3. Making strategic decisions
4. Choosing between options
5. Monitoring
6. Leverage External capacity/agencies for-
    a) Professional handling of tasks
    b) Continuity
    c) Detailing out the broad directions
    d) Performance against specific goals

Broadly it includes Leadership, Organisational innovation, Skills and competencies, Flexible working, and Knowledge management and organisational learning [4].

Another perspective to view capacity building is building an external capacity and includes building capacity in terms of availability of services as per the citizen-requirements. This is based on the premise that a framework to deliver services could be useful only if there are services available. Capacity building depends mainly upon the availability of finance, which acts as a means of budget allocation and not on capacity requirements. In earlier review of e-governance projects it was found that more on technical design of e-governance initiatives and building of technical capacity and that they are supply driven rather than demand driven.[5]. However e-Government is more about government than about "e"! Therefore there is a need to stress more on building capacity based on the realistic users/ citizens needs to deal with the scalability issue of services to be delivered.

3. Citizen Relationship Management (C*i*RM)

Citizen Relationship Management is a modified version of one of the most popular phenomenon of private sector-Customer Relationship Management (CRM) for e-governance. CRM originated as private sector concept to serve the customers in more efficient manner through building relationships with them. However now citizens and businesses (together referred as constituents) are demanding more and more that their governments treat them as 'customers', and that services be provisioned to them more and more interactively, timely and customized [6]. A global study conducted by Deloitte research has concluded that successful e-government will focus on citizens as customers to build long term relationship [7]. However an important point of departure from traditional CRM is that the 'customer-government' relationship is not voluntary but mandatory; citizens (and their businesses) have to deal with government; terminating a relationship is not either an issue or even possible [8][9]. Therefore public institutions should consider the use of CRM to strategize the value of each customer relation while retaining merits of service modernization [10]. There are two major components which are relevant for citizen relationship management namely Structure and Interaction.

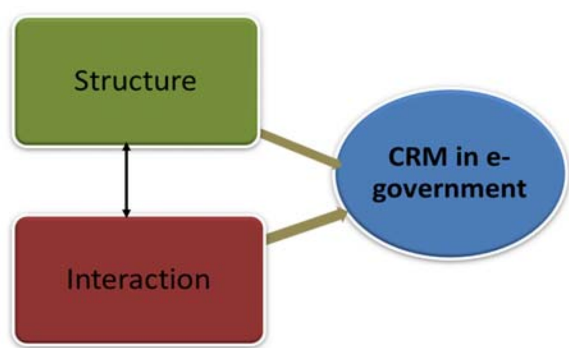

Fig. 1 : CiRM Framework in e-government (adapted from [6])

Structure is defined as the rules, policies, procedures, processes, hierarchy of reporting relationships, incentive systems, and departmental boundaries that organize tasks within the firm [11]. The greatest CRM benefits come from creating a pervasive new culture focused around citizen service and delivering increasing value to citizens. It is true for e-government also. Such transformation ultimately requires major organizational structure changes redefining roles and responsibilities, rethinking services and access, eliminating redundant functions, re-skilling staff, redesigning processes, working collaboratively with other stakeholders to deliver services that cross existing organizational boundaries, and transferring non-core processes to third parties such as outsourcers [12] ICT are often overlaid on an existing organizational structure without any thought how those structures can be improved. Therefore, a well defined structure for the effective relationship is a must, both at front and back end level, with proper integration.

Interaction is another important component of relationships. An interaction refers to any instance in which two active parties, which have the ability to exert influence upon each other, engage in the exchange of values.[13][14][15]16] Capturing all the interactions with citizens at various access points help build a customer database which is essential for identifying their needs in a pragmatic manner. Interactions could be captured in terms of direct data-collected, or in the form of capturing usage of various types of services and its frequency. Accenture in its study identified that governments worldwide are not very effective at optimizing the use of citizen data to improve service delivery [17]. However it also identified following possible benefits of capturing all the interactions-

1. Grouping citizens on the basis of their wants/ needs
2. To help combat crime
3. To forecast future needs
4. To tailor services to individual needs
5. To develop citizen understanding/insights
6. Using insights to offer services through preferred channel, and
7. To bundle services

4. C*i*RM for Capacity Building

In Indian context where a large proportion of population is in villages, either illiterate or very limited literate and surrounded with various social taboos, generally does not willingly divulge the information. Here C*i*RM can play a crucial role. Citizen Relationships help build trust between the citizens and authorities, which is pre-requisite for identifying their requirements. When there is a sense of trust on the authorities and in their intentions, citizens readily reveal true information about them. This information could be translated into identifying their needs and wants in terms of requirement of various services, which in turn would be used to identify resources required to provide the same and in the light of scarcity of resources could be used in optimal manner to build capacity effectively. Following figure (1) explains the linkages of Citizen Relationship Management with effective Capacity Building.

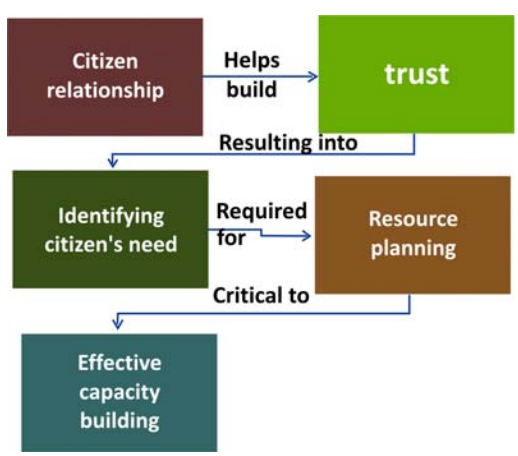

Fig. 2 : Effective Capacity Building through Citizen Relationship Management

Following is the real life case study of Child Record Information system (ChRIS), an e-governance project at Jabalpur division in Madhya Pradesh India. It is one of the e-government initiatives which describe the level of existing planning and the extent of usage of capacity.

5. Child Record Information System (ChRIS): a C*i*RM Case Study

Child Record Information System ChRIS is a success story of building and maintaining citizen relationship management for effective capacity planning. It is a joint effort of various departments related to women and child development, health, welfare, planning, education and rural development. Its objective is to capture every marriage, pregnancy, child birth, their growth, vaccination, education and other information about citizens necessary for welfare services and to monitor proper delivery of services to beneficiaries in the rural and under-developed area of Jabalpur.

Jabalpur Division comprises of 8 districts (20% area of MP) with 17% of state's population; and consists of 10692 villages. It is a very under developed area.

Situation before the initiative: Before implementation of ChRIS, situation was far from satisfactory, with

- Non availability of accurate information about recipients of specific services like, immunization, inoculation, vaccination, supplementary nutrition etc.
- Incorrect/fudged data leading to faulty policies and planning.
- Poor quality of human resource, high Maternal Mortality Rate (MMR), high Infant Mortality Rate (IMR), low immunization and vaccination, highly skewed sex ratio in 0-5 age group in rural areas, extremely low literacy rates, and large number of non school going children. Clearly suggesting the dismal state of affairs in social welfare, health, school education and women & child development sectors.
- Lack of any monitoring system at higher levels to monitor the delivery of services in villages.
- Manual record keeping and data maintenance were prone to errors and accurate details regarding delivery of services at field/village level were never available.

In such a socially and economically backward area it was really difficult to gather the data pertaining to pregnancy, vaccination etc. People themselves were reluctant and hesitant to divulge the information due to lack of knowledge and intentions of the authorities.

Strategy Adopted: Need based software was developed in local language and the field level functionaries at village and block level were trained on it. A village level functionary of the Women & Child Development Department (Anganwadi Worker) acts as front-end of the structure and is given the responsibility of data collection. These Anganwadi Workers are local people-one among citizens and therefore they are able to create a relationship and a sense of trust with the citizens, which enable them to capture correct information about the citizens' requirements. They locate new marriages; all pregnancies and register them. These village-wise data are collated regularly to provide a district level database with the help of back-end integration of the structure. This database is used by various concerned departments for effective capacity planning and generating services (capacity) around them like guidance on family planning methods, health check-up, vaccination, immunization, transportation for institutional delivery, financial assistance for medicines/ nutrition, supplementary nutrition, educational institutes requirements, scholarships, mid-day meal etc. At a broader level it could also be used by planning and statistics department to plan for infrastructure requirements.

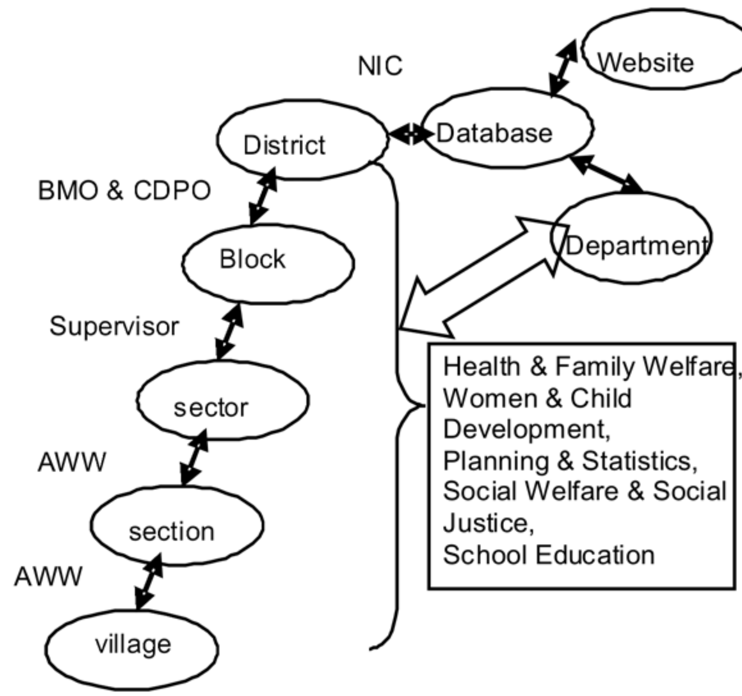

Fig. 3 : A diagrammatic presentation of the structure and information flow at ChRIS

Benefits Achieved and Potential: With the availability of latest figures on marriages, pregnancies and other health related issues government is in a better position to plan for the future. This initiative has resulted into remarkable improvement in health services and visible growth in service delivery. The interactions converted into database are used across various departments. This database can be used to provide citizen card as well as for various other purposes like generating Ration cards, Citizen/Voter ID Cards etc. This continuing updation of data could also replace census survey which is a tedious exercise with obsolete database. Effective monitoring and fixing accountability has helped garner a sense of trust of citizens towards e-government initiatives.

6. Lessons Learnt and Conclusion

From the benefits already achieved as well as further potential it can be concluded that it is a case of successful use of CiRM for capacity planning and capacity building. Successful implementation of ChRIS shows the way to following lessons that could be learnt from this initiative and can be replicated across country. There is a need to create citizen database across various socio-economic parameters which needs to be tracked as stage model. A well defined and integrated organization structure with fixed accountability helps create the base for relationship. Also all the interactions should be captured in order to identify citizens' present requirements as well as to forecast future requirements, and as such, citizen relationship management can play a crucial role in external capacity building.

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EMPLOYEE EMPOWERMENT AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR: A STUDY OF MANUFACTURING INDUSTRY

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***Abstract**: Empowerment means allowing a person to run the show by himself. Empowered people become self-directed and self-controlled. On the other hand Organizational Citizenship Behavior (OCB) is the willingness of the employees to go beyond the formal requirements of his positions. It has been recognized as an essential component of an effective organization. Employee Empowerment and OCB are interconnected. The present study in designed to find out the impact of dominant variable Employee Empowerment on OCB.It develops a measure to evaluate organizational citizenship behavior and measures the effect of Employee Empowerment and OCB.*

***Key Words:** Employee Empowerment, Organisational Citizenship Behaviour, Effective organization, Cronbach's Alpha*

Introduction

Employee Empowerment

Empowerment may be defined as providing employees at all levels the authority and responsibility to make decisions on their own. It occurs when power goes to employees who then experience a sense of ownership and control over their job. Empowered individuals believe that they have a say in how their jobs should be done. Simply stated, empowerment means allowing a person to run the show by himself. Empowered employees become 'self-directed' and 'self-controlled'. This is possible only when there is mutual trust between the superior and his subordinates. The superior has full faith that his subordinates will not do anything, which is detrimental to the organization. Similarly, the subordinate has confidence in his superior that he will support his decisions and actions. An empowering manager treats his employees with respect and dignity. He puts authority, responsibility and resources at the most appropriate level for each job. One of the most successful strategies is employee empowerment As a HR strategy; it indicates the tremendous faith reposed by the organization in the abilities of an employee to deliver the value chain. Recognition and respect for the individual's potential is the very essence of empowerment. Business can skillfully exploit this wonderful and powerful human motivational tool to their advantage and at the same time, offer a deep sense of satisfaction to the employees.

The benefits of employee empowerment are enormous .It facilitates a participative work culture and unleashes the untapped potential of employees' creativity and motivation to solve business problems .In order to create a business climate conducive to upward flow of creative ideas from employees, business leaders must change their management style to meet the demands of the changing workplace and workforce. For the 21st century organizations, empowerment is a kind of investment currency. The challenge is to capture its value, deploy its power and multiply its benefits throughout the organization.

Elements of Empowerment

The main elements of empowerment are as follows:

1. Sense of Personal control over one's

ISSN : 2230 - 9764

immediate work situation.

2. Self- sufficiency or competence. It means the feeling that one is capable of successfully performing a particular task.
3. Meaningfulness.
4. Impact.

Organizational Citizenship Behavior (OCB)

Organ (1988), originally coined the term Organizational Citizenship Behavior (OCB) and defined it as the "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate, promotes the effective functioning of the organization."Organizational Citizenship Behaviors (OCBs) are a special type of work behavior that are defined as individual behaviors that are beneficial to the organization and are discretionary, not directly or explicitly recognized by the formal reward system. These behaviors are rather a matter of personal choice, such that their omissions are not generally understood as punishable. OCBs are thought to have an important impact on the effectiveness and efficiency of work teams and organizations, therefore contributing to the overall productivity of the organization.

Also the willingness of participants to go beyond the formal requirements of their positions has been recognized as an essential component of an effective organization. Thus, Organizational Citizenship Behaviors can be said to "lubricate the social machinery of the organization." It's covering both personality and attitudes are the prosaically / organizational citizenship behaviors, simply known as Organizational Citizenship Behaviors. This now very popular construct in organization behavior was first introduced about 20 years ago with both a dispositional personality and job attitudes theoretical foundation. Organ defines OCB as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization." More important to Organizational Citizenship Behaviors, however, is that employees must perceive that they are being treated fairly, that the procedures and outcomes are fair. A number of studies have found a strong relationship between justice and Organizational Citizenship Behaviors.

Review of Literature

Daniel Ashish and AbhinayaC (2005), said that creating the empowered in the real sense requires a relentless pursuit of the transfer of power and authority with missionary zeal and sacrificial intent, faith to trust the respective empowered individual. Empowerment, like love, thrives on freedom. **SireeshaMamidenna (2005),** contributes that Employee empowerment has become a buzzword in today's business. But empowerment means different things to different people. It is a process that has to be initiated and supported all through by the top management, for achieving visible results. **SVVS Vara Prasad (2004),**In today's competitive business environment, the differentiator for any successful organization is its empowered workforce. Employee empowerment allows individuals to identify and use their potential in helping the organization achieve its goals. This article reveals through examples, how companies with stand competition, grow continuously, and achieve excellence in the present global context by implementing employee empowerment. **Ron Cacioppe (1998),** suggested that, in recent years, organizations have identified the benefits of employee empowerment programs: empowered employees are able to solve customer and organizational problems promptly and professionally. Management acknowledged that achieving an empowered workplace was a long-term initiative requiring continued management commitment. Their approach was based on management theory and practice, yet remained flexible to the needs of the hotel's employees and customers. **JosephS.L.Yip (2000),** states that in recent years, businesses have had to improve to suit the daily dynamic of global environment. The key is to encourage employees to take the initiative and become more involved in the success, or failure, of the enterprise. The process for securing that involvement and creating change is empowerment. **Scott, W. Lester(2001),** states that this article draws on social exchange theory and the theory of other orientation to examine how job satisfaction and individual differences are related to organizational citizenship behavior.Previous research specifying a direct effect for individual differences on OCB has yielded disappointing results. In contrast, this study examines the moderating role of individual differences in the relationship between job satisfaction and OCB.

Objectives

1. To develop and standardize a measure to evaluate employee empowerment.
2. To develop and standardize a measure to evaluate organizational citizenship behavior.
3. To measure the effect of employee empowerment on organizational citizenship behavior.
4. To open new vistas for further research.

Research Methodology

The research is based on primary data. Data were collected through a self-designed questionnaire, administered to the teams of employees in manufacturing industry of Gwalior Region to generate views on employee empowerment and its effect on organizational citizenship behavior. The questionnaires on 7-point (Likert) scale were prepared to evaluate employee empowerment and organizational citizenship behavior consisting 22 and 20 items respectively. In this study, Judgment (non probability) sampling technique was used. A sample of 108 team members was selected for the purpose of this study but responses were received from 100 respondents, which included both male and female respondents.

In this study, statistical tools such as Item to total correlation to check consistency of variables, Cronbach's alpha to check reliability and Regression Analysis to find out the effect of managerial aptitude (independent variable) on team effectiveness (dependent variable) were applied.

Results and Discussion

Employee Empowerment: Consistency of all the items in the questionnaire was checked through item to total correlation. Under this correlation of every item with total was measured and the computed value was compared with standard value 0.1942 (Table 1). Reliability of the measure was tested using SPSS software and the Cronbach's Alpha value was found to be 0.903 and the Split half value was found to be 0.832. The face validity was checked and found to be high.

Organisational Citizenship Behavior: Consistency of all the items in the questionnaire is checked through item to total correlation. Under this correlation of every item with total is measured and the computed value is compared with standard value (i.e. 0.1942) than whole factor / statement has been dropped and termed as inconsistent (Table2). Reliability test using SPSS software and the Cronbatch alpha reliability was found to be 0.879 and split half reliability was evaluated to be 0.740. The face validity was checked and was found to be high.

Table: 1

Showing the Regression Coefficient Values

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	43.283	9.391		4.609	.000
VAR00001	.536	.080	.560	6.685.	000

a. Dependent Variable: VAR00001

Y = a + bx

Y=43.283+ 6.685x - where X stands for Employee Empowerment (independent variables) and Y stands for Organizational Citizenship Behavior (dependent variable)

The Linear regression was applied between Employee Empowerment (independent variable) and Organizational Citizenship Behavior (dependent variable). The results of regression indicate that independent (Employee Empowerment) has relationship with dependent variable (Organizational Citizenship Behavior) signified by the coefficient of Beta factor of 6.685 indicating significant relationship between the independent and the dependent variables and we can say that Employee Empowerment has an impact on Organizational Citizenship Behavior.

It is believed that the people havemore power correlates well with the organization.This helps the individual in performing well in the organization using his full creativity and knowledge.This shows empowered employees have good organizational citizenship behaviour.

Conclusion

This study examined the effect of Employee Empowermenton Organizational Citizenship Behaviorin the manufacturing industry of Gwalior region. Questionnaires were filled by the employees of manufacturing organizations like Cadbury, SRF, and Godrej and by applying test like item to total correlation, validity, reliability, factor analysis, regression etc. the data received from the respondents were analyzed and tested. This study reflects that correlation exists between Employee Empowerment (independent variable) and Organizational Citizenship Behavior (dependent variable) in manufacturing industry.

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Table: 2
Financial Indicators - Pre-Liberalization(in Rs. Crores)

S.No.	Item	Computed Correlation Value	Consistency	Accepted/ Dropped
1	I feel enthusiastic about my work	0.5559	Consistent	Accepted
2	I am satisfied with the work I do	0.6159	Consistent	Accepted
3	I work well	0.5344	Consistent	Accepted
4	My opinion asked before changes made	0.6119	Consistent	Accepted
5	Can directly talk to management	0.7078	Consistent	Accepted
6	What my job requires from me	0.6941	Consistent	Accepted
7	My work motivates me.	0.5802	Consistent	Accepted
8	take initiative at work	0.6906	Consistent	Accepted
9	Think before act	0.2559	Consistent	Accepted
10	Develop strategic alternatives	0.7147	Consistent	Accepted
11	Acts in light of facts rather than guesses	0.5842	Consistent	Accepted
12	Update technical and professional skills	0.5039	Consistent	Accepted
13	Converts efforts into results	0.5620	Consistent	Accepted
14	Leadership skills	0.7265	Consistent	Accepted
15	Make effective use of staff	0.6484	Consistent	Accepted
16	Take decisions under risk	0.5775	Consistent	Accepted
17	Overcome resistance to change	0.2035	Consistent	Accepted
18	Perform the duty of an instructor	0.5851	Consistent	Accepted
19	Cordinate	0.5454	Consistent	Accepted
20	Manage conflict	0.6789	Consistent	Accepted
21	Knows what I have to do in work	0.7346	Inconsistent	Dropped
22	Take corrective action	0.5937	Consistent	Accepted

Table: 3

Showing Results of Item to Correlation for Organization Citizenship Behavior

S.No.	Item	Correlation Value	Consistency	Sentence
1	Decisions made are good	0.3574	Consistent	Accepted
2	Spent a worthwhile day	0.3630	Consistent	Accepted
3	Felt serene and calm	0.4293	Consistent	Accepted
4	Looks forward for things	0.4103	Consistent	Accepted
5	An open exchange of views	0.2116	Consistent	Accepted
6	Satisfied by the support of management	0.5107	Consistent	Accepted
7	Participation is actively encouraged	0.6276	Consistent	Accepted
8	Work is interesting	0.7267	Consistent	Accepted
9	Decisions are valued	0. 6612	Consistent	Accepted
10	Reviews of performance against objectives	0. 6289	Consistent	Accepted
11	Participation is actively encouraged	0. 5865	Consistent	Accepted
12	Training opportunities	0.5341	Consistent	Accepted
13	Individuals trust each other	0.5416	Consistent	Accepted
14	Comfortable with co-workers	0. 6712	Consistent	Accepted
15	Empathy and understanding are prevalent	0.5701	Consistent	Accepted
16	Work is interesing	0. 7713	Consistent	Accepted
17	Job is fully secured	0.7157	Consistent	Accepted
18	Fulfill high demand for performance	0.4992	Consistent	Accepted
19	Clairty of roles and responsibilities	0.7225	Consistent	Accepted
20	Satisfied with the work	0.6525	Consistent	Accepted

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'PERCEPTION' AS ONE OF THE 'P' IN SERVICES MARKETING MIX: AN IMPROVISATION OF JULIAN YUDELSON WORK

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Abstract: *In the era of fierce competition where all the corporations are trying their best to satisfy customers to maintain their existence profitably in the market especially, in services, it is mandatory that the customers bear a positive perception in their mind about the service offered. However, it is very difficult to create such perception among customers because of gap in understanding and perception of employees who are delivering the service and the organization or employer who is developing it. Though, the study of such type of gap is not new but, a scientific method of bridging such gap can yet prove its worth. The present study is a noble attempt to further improvise the work of Julian Yudelson and propose 'Perception' as one of the 'P' in addition to product, place, price, promotion, people, process and physical evidence of services marketing mix.*

Key Words: *Perception, Services, Mix, Gap, Marketing*

Introduction

Marketing mix has been a very interesting area for work among management authors and researchers all across the world. The study of traditional 4 P's (Product, Place, Price and Promotion) of marketing mix has always been a part of any management program. However, in the post globalised era, especially in Asia and other developing continents, the service sector contribution to Gross Domestic Product (GDP) of the countries increased at a very fast pace like American and European nations. This shift in agriculture and manufacturing based economies to services based economies encouraged and prompted researchers to focus in service sector and thereby, increasing the rate of research and innovations in the area of services. In addition to 4 P's of marketing another 3 P's (People, Process and Physical evidence) were developed for services and refereed by the term 7 P's of services marketing mix.

Marketing mix is not a scientific theory, but merely a conceptual framework that identifies the Principal decision making managers make in configuring their offerings to suit consumers' needs. The tools can be used to develop both long-term strategies and short-term tactical programs (Palmer, 2004)[1].

According to Gronroos (1994)[2], the marketing mix paradigm has dominated marketing thought, research and practice which is very much evident from the numerous research and studies in this area. The main reasons the marketing mix is a powerful concept are It makes marketing seem easy to handle, allows the separation of marketing from other activities of the firm and the delegation of marketing tasks to specialists; and the components of the marketing mix can change a firm's competitive position.

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ISSN : 2230 - 9764

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Objective of the Study

In the era of fierce competition where all the corporations are trying their best to satisfy customers to maintain their existence profitably in the market especially, in services, it is mandatory that the customers bear a positive perception in their mind about the service offered. However, it is very difficult to create such perception among customers because of gap in understanding and perception of employees who are delivering the service and the organization or employer who is developing it. Though, the study of such type of gap is not new but, a scientific method of bridging such gap can yet prove its worth. The present study is a noble attempt to further improvise the work of Julian Yudelson and propose 'Perception' as one of the 'P' in addition to product, place, price, promotion, people, process and physical evidence of services marketing mix.

Background of the Study

Frey (1961)[3] suggested that the marketing mix variables should be divided into two parts, a part named 'the offering' which includes variables namely, product, packaging, brand, price and service and another part named 'the methods and tools' which includes distribution channel, personnel selling, advertising, sales promotion and publicity.

Popularly, it was McCarthy (1964)[4] who regrouped the twelve elements of Borden into four main elements (Product, price, place and promotion) which became integral part of management study eventually.

Borden (1965)[5] was the first to have used the term 'marketing mix elements'. According to him, there were twelve elements in marketing mix namely, product planning; pricing; branding; channels of distribution; personal selling; advertising; promotions; packaging; display; servicing; physical handling; and fact finding and analysis.

The development in services marketing mix came up with the research work of Booms and Bitner (1980) who added three new P's to the traditional marketing P's namely, people, process and physical evidence to make it more appropriate for the services. These meaningful and appropriate elements gave new dimensions to the study of elements of marketing mix.

Kotler (1986)[6] proposed political power and public opinion formation to be the part of Ps concept.

MaGrath (1986)[7] suggested the addition of 3 Ps namely, personnel, physical facilities and process management in the marketing mix elements.

Yudelson (1999)[88] Yudelson, J. (1999). Adapting McCarthy's Four P's for the Twenty-First Century. *Journal of Marketing Education*, 21(1), 60.**Author's Biography**The author, Mrinmoy Bhattacharjee (B.Sc., MBA, Ph.D. (submitted)) has more than nine years of teaching and three years of industry experience. Currently the author is heading the management department of ICFAI University, Mizoram and concurrently handling the duties of Controller of Examinations of the University as in- charge. The author has already published seven research papers in national and international journals like *Indian Journal of Marketing, Pacific Business Review, Marketing Mastermind, The strategist, Banijya, Journal of*

Higher Education etc. The author is actively interested in areas such as services marketing, social cause marketing and so on. proposed that the 4Ps are not the proper basis of the 21st century marketing. The Marketing developments of the last 40 years require a new flexible Platform while the simplicity of the old model remains an attractive facto. He translated McCarthy's 4Ps in the following manner: Product- Performance, Price- Penalty, Promotion- Communication or Perception and Place- Process.

Yudelson pointed out some very vital and significant developments in marketing thought since 1960. He highlighted that the first 'P', *Product* proposed by McCarthy considers only tangible of physical products. In 21st century, the concept of physical product does not work out any more with varied service offerings and hence, he proposed to replace *Product* with *Performance* as the later is delivered by majority of the service organizations.

He translated the second 'P', *Price* into *Penalty*, as customers not only pay a price to obtain a benefit but, also gives away some valuable things like time, effort etc. to receive the performance. He also associated *Penalty* with the concept of loss that the seller incurs due to poor performance.

Further, he argued that the third 'P' *Promotion* does not hold enough meaning when it comes to 21st century marketing. Promotion should necessarily include all forms of conveyed information that is required to complete a transaction between the buyer and the seller. The exchange which puts both the parties in mutually adventitious position should rather be termed as *Communication* or *Perception*.

In the age of digital communication, the entire world has transformed into a market place. So, the definition given by McCarthy and Perreault about the fourth 'P' *Place*, as putting the right quantity of goods and services to the right location where the customers want them, also seems to be falling short, as put forward by Yudelson. He rather advocated to use the term *Process* in place of the former, because, it is the process which makes the goods or services finally available to the customers.

Logical representation of 'Perception' as one of the 'P' in services marketing mix

The role of 'perception' in marketing especially, in services marketing is undeniable and non-debatable. It is one of the most important factors that governs the demand of a service. Services being intangible in nature are more complicated to be perceived.

In order to match customer expectation of a particular service, it has to be exactly perceived in the same way by the employees who are delivering the service and the organization or the employer who develops the service. The matching of perception can be calculated by developing a 5-point rating scale where '5' represents 'excellent' service, '4' represents 'very good' service, '3' represents 'good' service, '2' represents 'average' service and '1' represents 'poor' service. All the customers (or sample of customers), employees and employers may be asked to rate their service according to the quality they perceive. This can further be calculated in the following way:

$$\sum_{i=1}^{n} Pc_i / n = \text{Mean of customers' perception}$$

$$\sum_{i=1}^{n} Pem_i / n = \text{Mean of employees perception}$$

$$\sum_{i=1}^{n} Per_i / n = \text{Mean of employer's/ Management's perception}$$

Where, Pc_i = Perception of customers' about the standard of service on a 5 point rating scale.

Pem_i = Perception of employees about the standard of service on a 5 point rating scale.

Per_i = Perception of employer/Management about the standard of service on a 5 point rating scale.

n= Number of customers/employees/ organizational members or employers

Further, in order to ensure that the service quality or standard is perceived by the employees and the Management or employer in the same way the customers' perceive, the mean of the individual perceptions (Customers', Employees and Management/Employer) should be equal to each other as follows:

$Pc_i / n = Pem_i / n = Per_i / n$

Any difference among the mean perception of customers', employees and management will indicate the gap in understanding and will call for detailed analysis and enquiry on where the difference lies.

There may be various factors suggested by many authors from time to time to rate the standard or quality of service or the best way of deciding about the factors which are to be considered in rating the service can be developed through consultation with customers and employees by the management or employer.

An overall mean between 4 to 5 will indicate that the service is designed, delivered and perceived in a very good way whereas, lower means will indicate the scope in improvement in service quality and delivery.

Julian Yudelson in his work has proposed 4 new P's for the 21^{st} century where one of the 'P' proposed by McCarthy which is 'Promotion' is translated into 'Perception' by him.

The present study considers 'Perception' to be of utmost importance in services marketing mix and proposes to be the one of the 'P' in services marketing mix along with 'product', 'Price', 'Place', 'Promotion', 'People', 'Physical evidence' and 'Process'.

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Author's Biography

The author, Mrinmoy Bhattacharjee (B.Sc., MBA, Ph.D. (submitted)) has more than nine years of teaching and three years of industry experience. Currently the author is heading the management department of ICFAI University, Mizoram and concurrently handling the duties of Controller of Examinations of the University as in- charge. The author has already published seven research papers in national and international journals like Indian Journal of Marketing, Pacific Business Review, Marketing Mastermind, The strategist, Banijya, Journal of Higher Education etc. The author is actively interested in areas such as services marketing, social cause marketing and so on.

ISSN:2230-9764

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