

JOURNAL OF ACADEMIC ADVANCEMENT

June, 2023

Vol. 2 | Issue No. 01



**Kolkata Bidhannagar
Society for Academic Advancement**

A Registered Society under the Societies Registration Act (West Bengal Act XXVI) of 1961.

Visit our website: kbsaa.org/journal/



JOURNAL OF ACADEMIC ADVANCEMENT

(Bi-Annual Peer Reviewed Refereed and Indexed Journal)

ISSN (Online): 2583-5203 | Volume: 2 | No. 01 | June, 2023

EDITORIAL BOARD

Editor



Pema Lama

University of Calcutta, Kolkata, INDIA

Editorial Advisory / Reviewers Board



Shubhayan Basu
Ananda Mohan College
Kolkata, INDIA



Swati Chakraborty
Royal Thimphu College
Thimphu, BHUTAN



Maria Ochwat
University of Szczecin
Szczecin, POLAND



Sagarika Mishra
Deakin University
AUSTRALIA



Seema Shah Singha
Dibrugarh University
Assam, INDIA



Samyabrata Das
New Alipore College
Kolkata, INDIA



Pankaj Dhaundiyal
Christ (Deemed to be University)
NCR-Delhi, INDIA



Appel Mahmud
Begum Rokeya University
Rangpur, BANGLADESH



Rishi Bhargav Das
Nowgong College (Autonomous)
Assam, INDIA



Pradip Kumar Das
Sikkim University
Sikkim, INDIA



Sabat Kumar Digal
Rama Devi Women's University
Odisha, INDIA



M. Jegadeeshwaran
Bharathiar University
Tamil Nadu, INDIA



Anupam Ghosh
Birla Institute of Technology
Jharkhand, INDIA



Amarjeet Singh
SIMT
Uttarakhand, INDIA



V. A. Ragavendran
MTN College
Tamil Nadu, INDIA

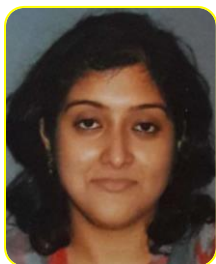


Rinki Das
Golaghat Commerce College
Assam, INDIA



Research Article: 11

Corporate Social Responsibility Practices - A Study on Select CPSEs



Dr. Srirupa Ray
Assistant Professor
Dept. of Commerce
Hiralal Bhakat College
Nalhati, Birbhum, INDIA
srirupa.ray@gmail.com

Abstract

The new "Companies Act, 2013" has introduced a novel era in the Indian corporate world through its most innovative mandatory provision u/s 135 about "Corporate Social Responsibility (CSR)", which requires "certain companies" to invest a "minimum two percent of its average net profits for immediately preceding three previous years on CSR initiatives" for overall societal growth and its wellbeing.

This study mainly aims to conduct an analysis of CSR practices and compliances and also accounting practices for such CSR practices by Maharatna, Navratna companies and Miniratna-II category of "Central Public Sector Enterprises (CPSEs)" in the pre-and post-Act 2013 era as per the mandate CSR provisions, as well as the revised Department of Public Enterprises (DPE), guiding principles through descriptive as well as empirical analysis.

The study is based on a review of 290 annual reports of 10 Maharatna Companies, 13 Navratna companies and 6 Miniratna-II companies over a period of 13 years from 2009-10 to 2021-22. Content Analysis and Cluster Analysis have been employed in the study, and two indices – Investment Index and Disclosure Index have been computed.

In the pre-Act era, it has been observed that only 10% of the select CPSEs were transparent in disclosing their CSR activities and investments in the pre-Act era. However, in the post-Act era, more transparency and consistency in CSR initiatives among the select corporates and more clarity in reporting those CSR practices have been observed.

Keywords: Corporate Social Responsibility, CPSEs, DPE guiding principles.

1. INTRODUCTION

In the present dynamic business and competitive environment, the realisation among corporates about the importance of getting involved in moral practices and good governance and the creation of an environment conducive to overall societal welfare and development has played a crucial role towards building the perception of CSR.

“Corporate Social Responsibility Voluntary Guidelines 2009” were formulated by the “Ministry of Corporate Affairs” that laid down how to formulate a policy about CSR and how to invest in different CSR initiatives with the approval of the Board. Though a few companies like ITC Limited, Birla Group, Tata Group, HSBC India, and Infosys--- have been voluntarily participating in CSR initiatives, however, a collective effort by all capable companies towards the holistic development and welfare of society as a whole was the need of the 21st century. Thus, Companies Bill 2012 was passed thereafter, enacting the Companies Act 2013 on 29th August 2013, introducing the mandate provision for CSR under Sec 135.

According to “Section 135 of the Act”, corporates with a particular “net worth or turnover or net profit” must expend “two percent of its average net profit for previous three years” towards specified CSR areas.

There are 4 categories of “Central Public Sector Enterprises (CPSEs)” – “Maharatna,

Navratna, Miniratna Category-I and Miniratna Category –II”. These CPSEs must abide by the “DPE guiding principles on CSR and Sustainability for CPSEs as published by the Ministry of Heavy Industries and Public Enterprises” as amended with effect from “1st April 2014”, as well as the Companies Act; however, if there is any disagreement between the two, viz. Act and the guidelines, then the former shall stand in each and every scenario.

2. REVIEW OF LITERATURES

Various works related to CSR have been studied, and a few are summarised below.

- **Kaufmann M. and Olaru M. (2012)**

The primary objective of the study: Whether CSR has any impact on business performance and whether that can be quantified or not.

Methodologies used: The study is based on the EFQM model and primary data.

Brief Findings: The CSR influence on business performance can be quantified through the measurement of changes in the degree of contentment on the part of stakeholders through investment in CSR initiatives.

- **Tilakasiri K. (2013)**

The primary objective of the study: Developing an appropriate index for measuring CSR initiatives in developing countries with special reference to Sri Lanka.

Methodologies used: A dichotomous approach has been followed in order to construct the Index through a review of annual and

sustainability reports of 50 companies over a five-year span from 2005-2009.

Brief Findings: A dichotomous “CSR index” has been developed on CSR-related items such as employees, community, education, health, customers and the environment.

- **Ioannou I. and Serafeim G. (2014)**

The primary objective of the study: Analysing analyst's” recommendation and investors towards corporates” future operating performance on the basis of their CSR ratings.

Methodologies used: A large number of publicly traded US firms over the periods from 1993 to 2007.

Brief Findings: It has been observed that there has been a shift in the recommendations of analysts from the early 1990s to 2007 from firms with low CSR ratings to firms with high CSR ratings i. e. firms with high CSR ratings were more preferred for investment proposals.

- **Allen M. and Craig C. (2016)**

The primary objective of the study: To examine whether climate change threats are redefining the concept of CSR from discretionary extravagance into a necessity.

Methodologies used: This analysis is on the basis of data obtained from secondary sources.

Brief Findings: It has been observed that responsiveness and initiatives of the

companies towards CSR and sustainability issues are being published through different reports, viz., CSR reports, sustainability reports, Global Reporting Initiative (GRI), etc.

- **Moratis L. and Egmond M. (2018)**

The primary objective of the study: To observe the association between the CSR performance level of corporates and the extent of earnings management which the companies are practising and the influence of industries with high and low environmental reverberations on the said relationship.

Methodologies used: Five thousand four hundred ninety-four companies over a period of 7 years from 2003 to 2009 have been considered.

Brief Findings: The study observes there is positive but statistically insignificant relation between earnings management and CSR and the firms having “high environmental impact”, though they may not seem to be involved in earning management to the extent as practised by firms with “low environmental impact”, are found to be spending a huge amount of money in CSR initiatives.

3. RESEARCH GAP

While going through the review of literature for the study, it has been observed that different studies have been made towards conceptual aspects of CSR, the different approaches to and factors behind the concept along with the challenges in the implementation of the concept, examining the relationship between the initiatives taken by the corporates and their financial impact, analysing the relationship between CSR and different perceptions like corporate governance, earnings management, investment recommendations; analysing different aspects of CSR -- anti-corruption practised as a CSR intervention by MNCs, protecting the environment, helping in green marketing, boosting in rural development, addressing challenges posed by climate change, studying whether the Companies Act, 2013 can be considered as a boon or a bane for the corporate, etc.

However, no recent studies have been found for the practices and compliances and also accounting practices for such CSR practices by Maharatna, Navratna companies and Miniratna-II category of CPSEs in light of the mandate provision of the said Act and DPE guiding principles.

4. PURPOSE OF THE STUDY

The purpose of the study is as follows-

- To analyse “CSR” practices, compliances and accounting practices by the “select companies” during “pre-and post- Act” era.
- To draw a comparative picture between the three categories of CPSEs with regard to CSR disclosures and compliances over the same time horizon.

5. RESEARCH METHODOLOGY

This is a descriptive as well as exploratory study conducted through a review of 190 annual reports (each containing 150-200 pages on average) of 29 companies - 10 Maharatna companies, 13 Navratna companies and 6 Miniratna - II companies over a period of 13 years from 2009-10 to 2021-22. With a view to analysing qualitative data quantitatively, Content Analysis and Cluster Analysis have been employed for the select companies over the aforesaid time span. Moreover, after studying various CSR dimensions included in internally recognised indices and matching with the “thrust areas” mentioned in “Schedule VII of the Act”, three basic parameters - *Environment, Community and Society* and *Human Capital Development* have been chosen to construct the CSR Investment Index so as observe the weightage of the surveyed companies in the selected parameters representing the CSR initiatives.

Also, after studying different kinds of

literature, CSR Disclosure Index has been constructed using a dichotomous approach to the disclosure of selected CSR parameters/sub-parameters by select companies.

▪ **Data Source**

The “secondary data” obtained from “various published sources like respective company’s websites and surveyed companies” annual reports”, CSR Reports and Sustainability Reports, websites of “Ministry of Corporate Affairs”, “Department of Public Enterprises”, books, journals, magazines, periodicals, etc. have been taken as a basis.

▪ **Period of Study**

The data is over a period of 10 years, from 2009-10 to 2021-22. The 5-year period before the Act, i. e. 2009-10 to 2013-14, has been considered as Pre-Act Era and the 8-year period thereafter as Post-Act Era.

• **The rationale behind sample selection**

The ‘Department of Public Enterprises’ has given CPSEs the status of ‘Maharatna, Navratna and Miniratna’ so as to provide greater sovereignty in competing in the global market. Besides being ‘a crucial role player’ in economic growth, how new CSR norms are being followed by three categories of CPSEs - to focus on this objective, the sample has been chosen for the present study.

6. ANALYSIS AND FINDINGS

6.1 Accounting for CSR Expenditure

In the pre-Act era, it has been observed that CSR expenditures were not accounted for in the case of 55% of the select companies, specifically in three years in the pre-Act era, viz. 2009-10, 2010-11 and 2011-12. Moreover, no guidelines have been provided in this aspect. Hence, no uniformity in accounting for CSR expenditures by the select companies has been found.

In the post-Act era, the “Institute of Chartered Accountants of India (ICAI)” has issued a “guidance note” on “accounting for expenditure” on CSR initiatives by companies in order to bring consistency in those practices and lucidity in CSR accounting among the companies. Since it was issued on “15th May 2015”, compliances are expected to be observed from 2015-16 onwards among the sample companies.

The accounting for CSR expenditures by the select companies in the post-Act era as well as compliance by the said companies with the guidance note issued by ICAI has been graphically summarised in Figures 1 and 2.

Figure 1: Accounting for CSR Expenditure by Select CPSEs in the Post-Act Era

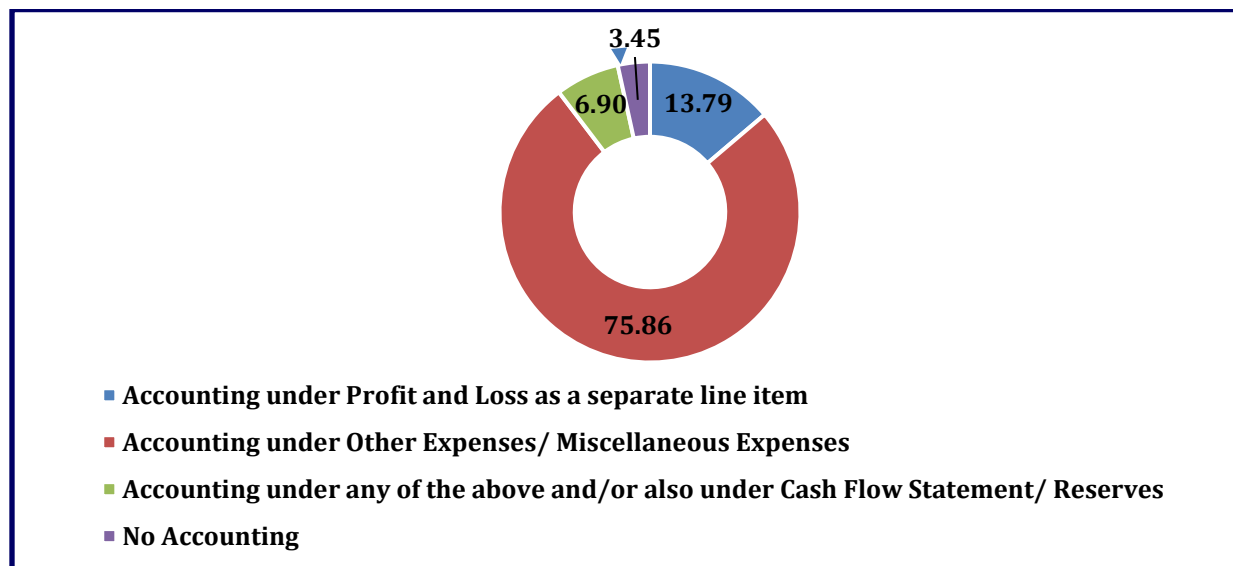
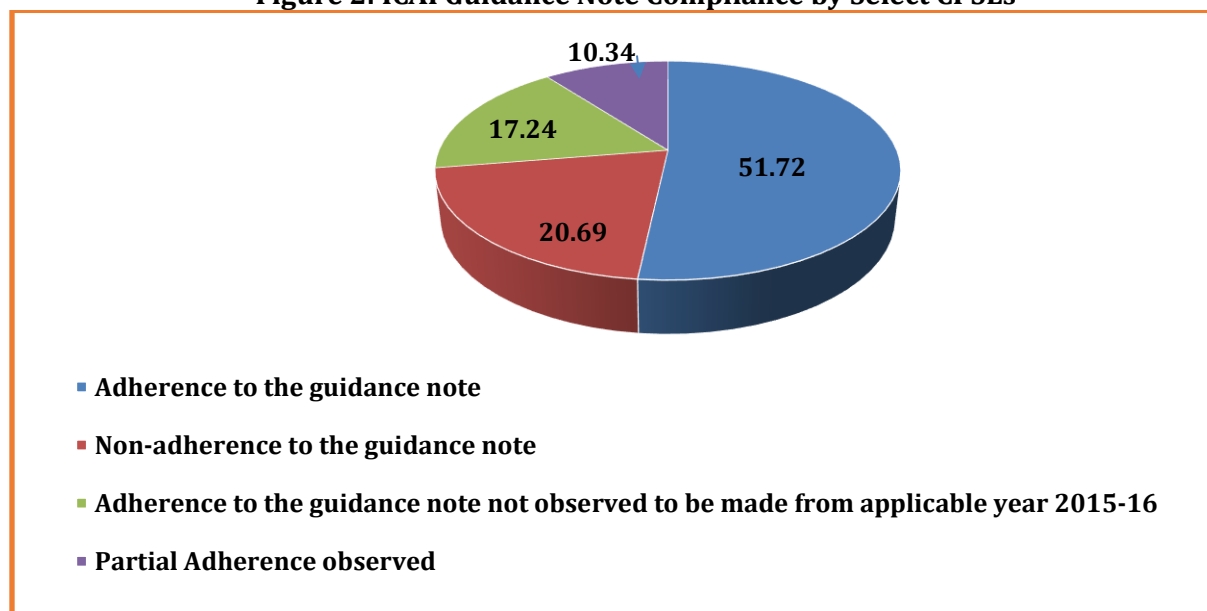


Figure 2: ICAI Guidance Note Compliance by Select CPSEs



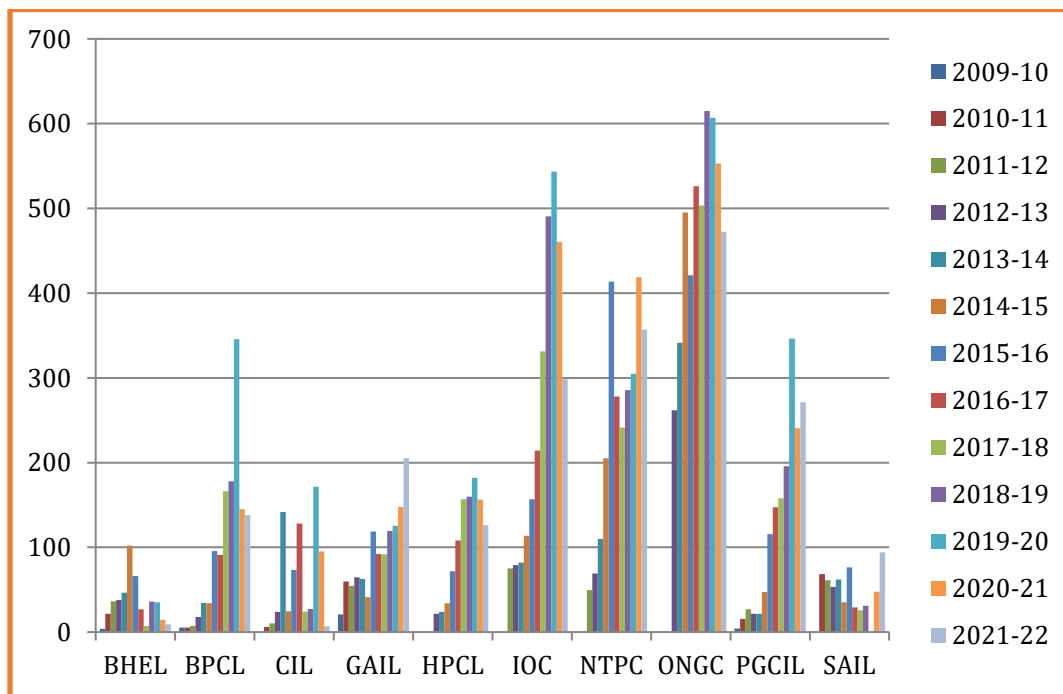
6.2. Analysis of the Select Companies in light of “Section 135 of Companies Act, 2013 relating to CSR, Schedule VII and Companies (Corporate Social Responsibility Policy) Rules”

6.2.1. CSR Investments of select CPSEs in Pre- and Post- Act Era

CSR investments (Rs. in crores) of the select companies over the study period have been graphically represented (Figures 3 and 4).

A. MAHARATNA COMPANIES

Figure 3: Total CSR Investment over the Study Period of 13 years (2009-10 to 2021-22)

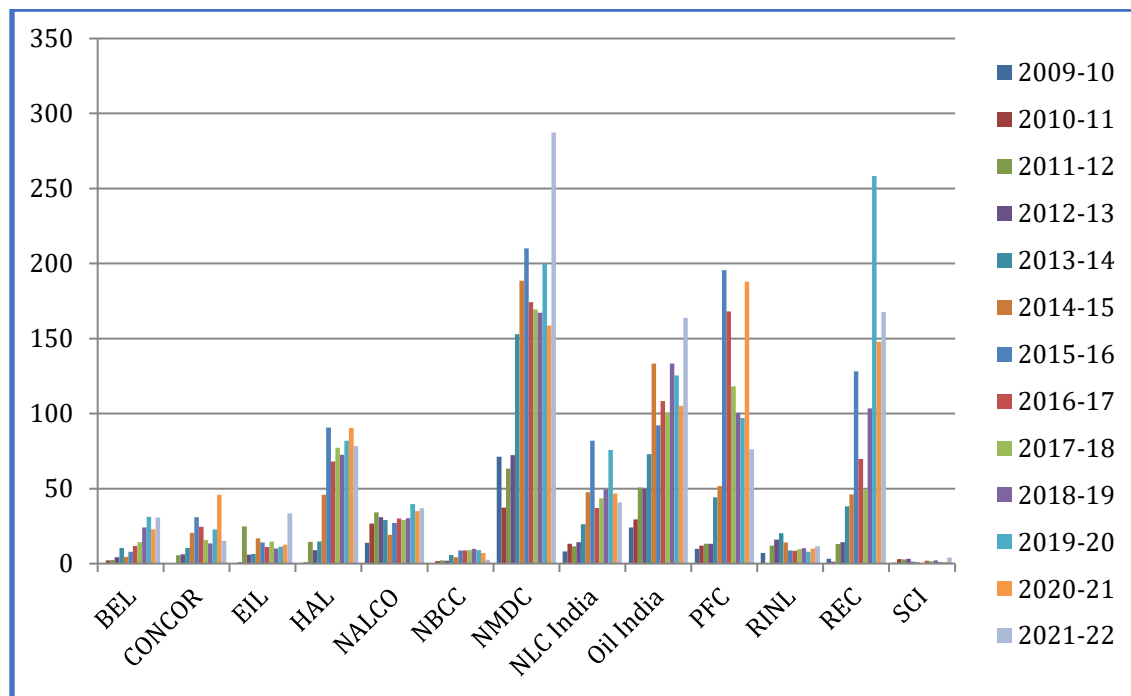


Source: MetaStock (2009-10 to 2021-22)

From the above representations, it can be observed that HPCL and IOC have shown a constant upward trend over the surveyed years from 2014-15 to 2019-20 in the Post-Act era, while other have shown a fluctuating trend. However, due to pandemic situations, there have been fluctuating trends in CSR interventions post-2019-20. Though the paucity of data has retarded in drawing a more accurate picture, it can be said that the CSR investment has significantly increased during the Post-Act era, i.e., 2014-15 onwards, specifically for BPCL, GAIL, HPCL, IOC, NTPC, ONGC, PGCIL i.e., 70% of the Maharatna companies. However, it is to be noted that CIL’s CSR expenditure in 2013-14 was the highest among the surveyed years due to its intervention in “disaster management”.

B. NAVRATNA COMPANIES

Figure 4: Total CSR Investment over the Study Period of 13 years (2009-10 to 2021-22)

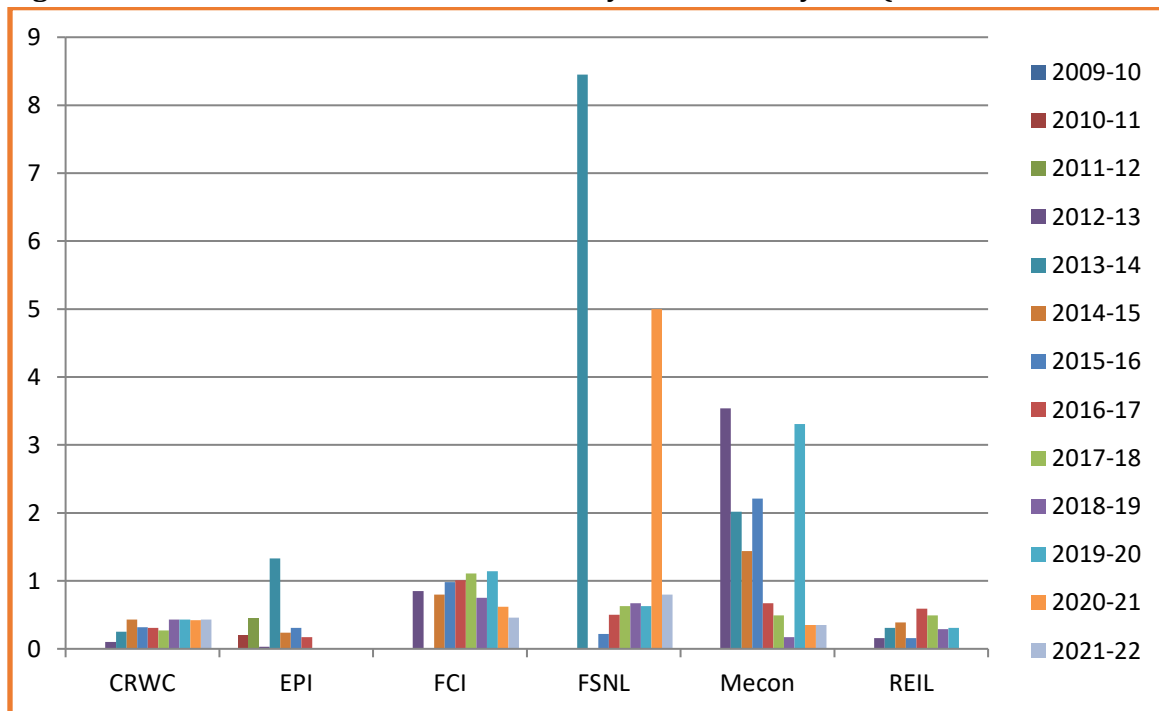


Source: Annual Reports (2009-10 to 2021-22)

From the above representations, it can be observed that BEL and NBCC have shown a constant upward trend during the post-Act era, while others have shown a fluctuating trend. Though the paucity of data has retarded in drawing a more accurate picture, it can be said that the CSR investment has significantly increased during the post-Act era, i.e., 2014-15 onwards, specifically for BEL, HAL, NBCC, NMDC, NLC India, OIL India, PFC, REC, i.e., more than 60% of the Navratna companies.

C. MINIRATNA-II COMPANIES

Figure 5: Total CSR Investment over the Study Period of 13 years (2009-10 to 2021-22)



Source: Annual Reports (2009-10 to 2021-22)

It has been observed that the Miniratna-II companies have shown a fluctuating trend in CSR expenditure over the select years though a comparative picture cannot be drawn between the two eras due to the paucity of information.

6.2.2. CSR Disclosures in Pre- and Post-Act Era

In the pre-Act era, CSR disclosures regarding CSR budget, actual expenditure on CSR and CSR practices have been made at a very minimal level. According to the DPE guidelines, CPSEs need to prepare a CSR budget on the basis of net profit or profit after tax of the previous year. Since there is no transparent reporting by CPSEs regarding the CSR budget being fixed every year, it is not possible to determine the actual CSR budget.

In accordance with the DPE guidelines of 2010 and 2013, details regarding CSR disclosure for a 4-year period (2010-2014) of the pre-Act era have been shown in **Table 1** for Miniratna-II companies. The year 2009-10 has not been shown in the following tables as the DPE guidelines 2010 were not prevalent during that period, and as a result, all the relevant data are not available.

Table 1: CSR Disclosures by Miniratna-II Companies in Pre-Act Era

Miniratna - II Companies	Years in Pre-Act Era	Net Profit/ PAT of Previous Year (Rs. in Crores)	CSR Budget as per DPE guidelines	Amount spent (Rs. in Crores) [% of Net Profit/ PAT]
CRWC	2013-14	16.47	3% - 5% (since the Net profit / PAT of the previous year is less than Rs.100 Crore)	0.25 [1.51]
	2012-13	13.31		0.1 [0.75]
	2011-12	Data not Available		
	2010-11			
EPI	2013-14	21.46	3% - 5% (since the Net profit / PAT of the previous year is less than Rs.100 Crore)	1.33 [6.2]
	2012-13	24.47		0.03 [0.12]
	2011-12	15.05		0.45 [3]
	2010-11	40.01		0.2 [0.5]
FCI	2013-14	Data not Available		
	2012-13	27.07	3% - 5% (since the Net profit / PAT of the previous year is less than Rs.100 Crore)	0.85 [3.14]
	2011-12	Data not Available		
	2010-11			
FSNL	2013-14	196.06	2% - 3% (since PAT of the previous year is between Rs.100 Crore to Rs. 500 Crore)	8.45 [4.31]
	2012-13	Data not Available		
	2011-12			
	2010-11			
Mecon	2013-14	101.02	2% - 3%	2.02 [2]
	2012-13	136.36	2% - 3%	3.54 [2.6]
	2011-12	93.68	3% - 5% (since the Net profit of the previous year is less than Rs.100 Crore)	2.81 [3]
	2010-11	Data not Available		
REIL	2013-14	26.37	3% - 5% (since PAT/ Net profit of previous year is less than Rs.100 Crore)	0.31 [1.17]
	2012-13	18.62		0.16 [0.86]
	2011-12	5.03		0.1 [1.99]
	2010-11	Data not Available		

Source: Annual Reports

Table 2 show that CSR disclosure practices during the post-Act era have changed in order to comply with the new norms.

Table 2: CSR Disclosures by Miniratna - II Companies in Post-Act Era

Miniratna - II Companies	Years	"Average Net Profit for last 3 Years" (Rs. in Crores)	"CSR" to be spent as "2% of Average" (Rs. in Crores)	Amount spent (Rs. in Crores) [% of "Average Net Profit"]	Amount Unspent (Rs. in Crores)
CRWC	2021-22	20.8	0.42	0.43[2.07]	-
	2020-21	20.75	0.42	0.42[2]	-
	2019-20	20.71	0.41	0.43[2.07]	-
	2018-19	21.45	0.43	0.43[2]	-
	2017-18	12.56	0.25	0.27 [2.15]	-
	2016-17	14.21	0.28	0.31 [2.18]	-
	2015-16	15.99	0.32	0.32 [2]	-
	2014-15	15.81	0.31	0.43 [2.69]	-
EPI	2021-22	Nil	Not Applicable	Nil	-
	2020-21	Nil	-	0.01	-
	2019-20	Nil	-	Nil	-
	2018-19	Nil	-	Nil	-
	2017-18	Nil	-	0.004	-
	2016-17	1.65	0.03	0.03 [2]	-
	2015-16	7.37	0.15	0.03[0.41]	0.11
	2014-15	21.97	0.44	0.16 [0.73]	0.28
FCI	2021-22	Nil	-	0.46	-
	2020-21	Nil	-	0.62	-
	2019-20	Nil	-	1.14	-
	2018-19	49.63	0.99	0.75 [1.51]	-
	2017-18	53.95	1.08	1.11 [2.06]	0.24
	2016-17	50.55	1.01	1.01 [2]	-
	2015-16	47.36	0.95	0.98 [2.07]	-
	2014-15	38.78	0.78	0.8 [2.06]	-
FSNL	2021-22	39.72	0.8	0.8 [2]	-
	2020-21	33.38	0.67	5[14.98]	-
	2019-20	30.11	0.61	0.63[2.09]	-
	2018-19	27.26	0.55	0.57 [2.09]	-
	2017-18	31.33	0.627	0.634 [2.02]	-
	2016-17	23.4	0.47	0.5 [2.14]	-
	2015-16	13.4	0.27	Nil	0.27
	2014-15	3.92	0.08	Nil	0.08
Mecon	2021-22	Nil	-	0.35	-
	2020-21	Nil	-	0.35	-
	2019-20	Nil	-	3.31	-
	2018-19	Nil	-	0.17	-
	2017-18	Nil	-	0.49	-
	2016-17	Nil	-	0.67	-
	2015-16	83.88	1.68	0.67 [0.8]	1.01
	2014-15	140.05	2.8	0.39 [0.28]	2.41
REIL	2021-22	Nil	-	Nil	-
	2020-21	Nil	-	Nil	-
	2019-20	12.65	0.25	0.31	-
	2018-19	13.79	0.28	0.23 [1.67]	0.05
	2017-18	18.7	0.37	0.31 [1.66]	0.06
	2016-17	19.54	0.39	0.39[2]	-
	2015-16	26.71	0.53	0.16 [0.59]	0.37
	2014-15	19.52	0.39	0.39 [2]	-

Source: Annual Reports

It can be stated that though FCI, MECON is not required to spend 2% provision for CSR due to reporting of “average net loss” made during the “three immediately preceding financial years” concerned, still they have spent on CSR initiatives as a responsible corporate citizen. For other select categories of CPSEs, notable observations in this regard are:

- CIL has incurred their CSR expenditure much above the mandated amount during all the years
- ONGC has spent 20.67% of the 2% required average net profit in CSR activities in 2017-18, which is much above the mandated amount.
- Though no amount is mandated to be spent for CSR for the years 2016-17 onwards due to reporting of “average net loss” made during the “three immediately preceding financial years” concerned, SAIL and RINL, along with SCI as responsible corporate citizens, have continued their endeavour in serving the society through spending in social initiatives.

As per “Section 135 of the Companies Act 2013”, in case the “mandate CSR amount” remains unspent, the Board of the defaulting company need to report the reasons behind such. The *major reasons* stated by the select companies are - i) Multi-year projects related to infrastructure, sanitation, education, health, and rural development are time-consuming ones, ii) Procedural delays, administrative glitches, operational constraints and other obstacles in the implementation of CSR projects, iii) Payments are linked to the achievement of different progress levels in carrying out each CSR initiative.

Two Navratna companies, BEL and REC, in the year 2014-15 and one Miniratna-II category of CPSE - FSNL, both in 2014-15 and 2015-16, have been non-compliant in not stating the reasons as required by the Companies Act 2013.

6.2.3 CSR Initiatives in Pre-and Post-Act Era

In a pre-Act era, disclosure of investment in different CSR initiatives or thrust areas has been observed to be made by 9% of the sample companies in 2013 - 14 and by 7% in 2012 - 13. Moreover, there has been non-uniformity in reporting out of investment in CSR initiatives by the select companies in this era.

Table 3: In the Post - Act Era, Observations of Investments in Different Thrust Areas

CSR Thrust Areas	Observations
Livelihood Enhancement, Healthcare and Sanitation	Maharatna company NTPC has invested the most among the select CPSEs showing fluctuating trends over the surveyed years.
Education and Skills Development	About 24% of the surveyed companies have shown a constant upward trend in this thrust area. IOC has invested the most among them.
Other Community Development Issues (including contribution to PM CARES Fund towards providing relief in COVID-19 situations 2019-20 onwards)	About 75% of the select CPSEs have invested herein.
Environmental-related Issues	ONGC has emphasised the most among the surveyed companies. IOC and FCI have shown a constant upward trend in investing in this thrust area. However, 10% of companies under study have not invested at all in this thrust area.
"Promotion of Sports, Arts and Culture and protection of heritage"	20% of the select CPSEs have not invested in the concerned thrust area. IOC has invested the most among the select companies showing fluctuating trends over the sample years.
Beneficial Relief to Armed Veterans	Around 30% of the Maharatna category has invested, wherein PGCIL have invested the most. On the other hand, 38% of the Navratna companies have invested herein, where NBCC is in the same position as PGCIL. No investment has been observed in this thrust area by Miniratna-II companies.
Enhancement of the "technology incubators situated within academic institutions approved by the Central Government."	This thrust area has not been explored by any of the Maharatna companies and Miniratna-II companies. However, 15% of the Navratna companies have explored this thrust area
Rural Development	About 18% of the select companies have not at all emphasised investing in this thrust area. Only NBCC among the select CPSEs has shown a constant upward trend over the sample years.

Moreover, ONGC among the select companies has given in "**ONGC Foundation**", which can also be considered as "CSR expenditure as per General Circular No. 21/2014 of Ministry of Corporate Affairs (MCA) dated 18th June 2014". Its respective contributions to the said fund over 2015-16 and 2016-17 are 9.9 Cr. and 0.40 Cr.

7. EMPIRICAL SURVEY AND FINDINGS

- ***“Content Analysis”***

“Content Analysis” is a broadly used qualitative research technique through the interpretation and coding of textual facts to formulate replicable and suitable conclusions. Among various methods, summative content analysis has been applied in the study, which involves counting and comparing keywords or content, along with the elucidation of latent perspective.

In order to conduct content analysis, the following 31 sub-parameters have been selected according to each and every thrust area as specified in Schedule VII which are: “Socio/Social, Hunger, Poverty, Malnutrition, Livelihood, Health, Sanitation, Safe Drinking Water /Drinking Water, Education, Skill, Employment, Children/ Day care, Women, Orphans/ orphanages, Under-privileged/ Disabilities/ Differently abled, Old-Age/ Elderly, Gender Equality, Community /Communities, Slum, Environment, Ecological Balance, Flora & Fauna, Animal Welfare, Agroforestry, Natural Resources, Heritage, Art & / and Culture, Sports, Technology Incubators, Army veterans/armed forces, Rural”.

- ***Cluster Analysis***

“Cluster analysis or clustering is a method in which a collection of items is congregated in such a manner that items in the same group (called a cluster) are more alike to each other than to those in other groups (clusters).” Among various clustering models, Connectivity Models have been adopted for the purpose of the said analysis. For the purpose of “cluster analysis”, 31 sub-parameters or sub-nodes in the content analysis have been clubbed into the following 11 broad parameters or nodes as chosen as per thrust areas mentioned in “Schedule VII of the Act”:

- The "Socio/al" sub-parameter was taken under the “Social” parameter
- The sub-parameters “hunger”, “poverty”, “malnutrition”, and “livelihood” clubbed into the parameter “Basic Livelihood.”
- “Health”, “Sanitation”, and “Safe Drinking water/Drinking Water” clubbed into “Healthcare”
- “Education”, “Skill”, and “Employment” clubbed into “Education and Skill Development.”
- “Children/ Daycare”, “Women”, “Orphans/ orphanages”, “Under-privileged/ Disabilities/ Differently abled”, “Old-Age/ Elderly”, “Gender Equality”, “Community /Communities”, “Slum”- all these sub-parameters taken under “Other Community Development Issues”
- “Environment”, “Ecological Balance”, “Flora & Fauna”, “Animal Welfare”, “Agroforestry”, and “Natural Resources” are clubbed under “Environment Sustainability.”
- “Heritage” is taken under the parameter “Restoration of Heritage.”
- “Art &/and Culture” and “Sports” are clubbed under “Promotion of sports, arts and culture.”
- “Technology Incubators” taken under “Contribution to Technology Incubators”

- “Army veterans/armed forces” clubbed under “Benefit to Army veterans/armed forces.”
- “Rural” under the parameter “Rural Development.”

Comparative analysis in respect of the “Social” parameter for the post- and pre-Act era is graphically shown below.

A. Maharatna Companies

Figure 6
Cluster Analysis in Post-Act Era

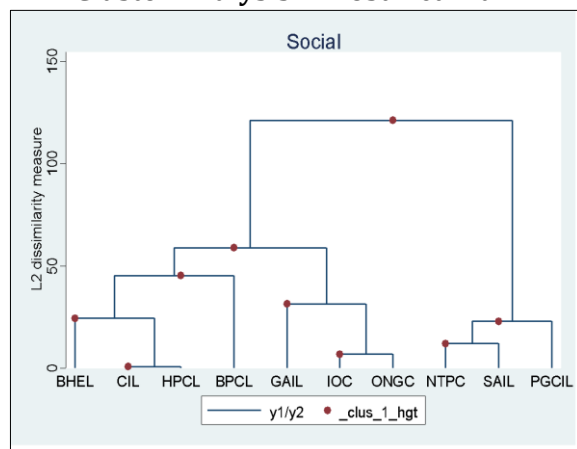
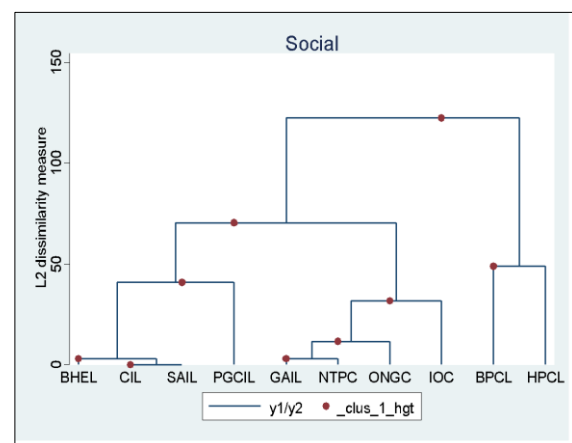


Figure 7
Cluster Analysis in Pre-Act Era



From the above, it can be stated that in the post-Act era, on the one hand, through employing single-linkage criterion, CIL and HPCL, IOC and ONGC, NTPC and SAIL have been clustered together, whereas on the other, in the pre-Act era, GAIL and NTPC, CIL and SAIL, BPCL and HPCL have been found to have formed the clusters. The remaining clusters and overall linkage have been formed through average linkage criterion in both the pre- and post-Act era.

In respect of the other select categories of CPSEs and parameters, similar observations have been noted for the select CPSEs with one notable inference that though similar patterns of clusters have been observed among Maharatna companies and Navratna companies both in pre- and post-Act era, a new type of clusters have been observed in case of Miniratna-II companies in post Act era due to inclusion of more companies in the CSR framework post the implementation of the Act.

Construction of CSR Index

While constructing an index for CSR, two perspectives have been looked into Investment perspective and Disclosure perspective. Since CSR Investment Index is based on a pecuniary aspect, objectivity has been maintained in constructing such Index, whereas the CSR disclosure index is based on subjective analysis of selecting CSR disclosure items and scoring them on a dichotomous scale.

CSR Investment Index

Considering the CSR dimensions of various globally acceptable indices – “The MSCI KLD 400 Social Index, Fortune Most Admirable Index, Vigeo Index, Dow Jones Sustainability Index (DJSI)” and matching those with “Section VII of the Companies Act 2013”, three basic CSR parameters- Environment, Community and Society and Human Capital Development have been chosen to construct the following CSR Investment Index for select CPSEs. Since investments in different CSR thrust areas cannot be obtained for the pre-Act era, investments in the post-Act era have been considered while constructing the CSR Investment Index.

The investments in the "Education and Skill Development" thrust area during the post-Act era have been incorporated in the "Human Capital Development" parameter, investments in the "Environmental related Issues" thrust area have been clubbed in the "Environment" parameter, and investments in other thrust areas have been considered for “Community and Society” parameter.

CSR Investment Index has been constructed using the following formula:

$$(Investment\ in\ each\ basic\ parameter \div Total\ investment\ in\ all\ the\ parameters) \times 100$$

Accordingly, For Navratna companies, investment in each basic parameter for the study period concerning the post-Act era has been shown in **Table 4**.

Table 4: Investment in the Post-Act Era (Rs. in Cr.)

Navratna Companies	Environment	Community and Society	Human Capital Development
BEL	0.47	36.25	108.01
CONCOR	38.25	128.06	29.37
EIL	5.06	81.11	38.19
HAL	90.9	253.52	253.82
NALCO	14.03	107.75	123.06
NBCC	4.44	50.25	3.53
NMDC	64.08	1100.88	389.08
NLC India	30.81	283.69	108.6
Oil India	14.89	662.79	398.05
PFC	111.76	737.92	130.55
RINL	3.8	37.26	43.62
REC	159.32	602.13	171.13

Table 5: CSR Investment Indices

Navratna Companies	Environment	Community and Society	Human Capital Development
BEL	0.324743	25.04664	74.62862
CONCOR	19.54722	65.44358	15.0092
EIL	4.068832	65.22194	30.70923
HAL	15.19457	42.37764	42.42779
NALCO	5.730273	44.00833	50.2614
NBCC	7.626245	86.31055	6.063209
NMDC	4.123446	70.83988	25.03668
NLC India	7.281966	67.05034	25.66769
Oil India	1.384176	61.61304	37.00278
PFC	11.40141	75.28029	13.3183
RINL	4.487482	44.00094	51.51157
REC	17.08379	64.56604	18.35017

From the above analysis, it can be observed that BEL, NALCO, and RINL have invested mostly in the "Human Capital Development" parameter, whereas other Navratna companies have been emphasising the most on the "Community and Society" parameter.

Similarly, CSR Investment Indices have been determined for other select CPSEs, viz. Maharatna and Miniratna-II companies. However, it has been observed that none has emphasised much on the "Environment" parameter except REIL.

CSR Disclosure Index

A disclosure index represents a form of quantification of disclosure level in annual reports of companies (Martin R. et al., 2018). According to Botosan (1997), this Index serves as a fine substitute for the level of disclosure given by a firm for all disclosure items. While constructing the CSR disclosure index, the method adopted for scoring items has been dichotomous in nature (Tilakasiri, 2013). Herein, a score of one (1) has been given to a parameter that has been found to be reported in the study period and a score of zero (0) to that parameter that has been not at all reported during the period (Table 10). Therefore, the total score (T) for a particular company after assigning scores to disclosed and non-disclosed items or parameters/sub-parameters will be:

$$T = \sum_{t_1}^n di$$

Where, T → Total Score; n → maximum number of items; t_1 → total of a company for all parameters/sub-parameters; di → disclosure score of i th item

No weights have been assigned to the disclosure scores assuming that each chosen parameter/sub-parameter/item is equally significant for all the companies under study. The CSR indices for each category of CPSEs have been calculated accordingly by summing up all the scores of disclosed items/ CSR sub-parameters and dividing the same by the required sum of scores of all the items. It has been found that a total of 22 items have been disclosed out of 31 items by BHEL. Therefore, the CSR index for BHEL has been calculated as 22/31 or 0.709677.

Table 6: CSR Disclosure Indices

CSR Sub-Parameters / Navratna Companies	BEL	CONCOR	EIL	HAL	NALCO	NBCC	NMDC	NLC	OIL	PFC	RINL	REC	SCI
Socio/Social	1	1	1	1	1	1	1	1	1	1	1	1	1
Hunger	0	0	1	0	0	1	1	0	0	0	0	1	1
Poverty	1	0	1	1	1	1	1	1	1	1	1	1	1
Malnutrition	0	0	0	0	0	1	1	1	0	0	0	1	1
Livelihood	1	1	1	1	1	1	1	1	1	0	1	1	0
Health	1	1	1	1	1	1	1	1	1	1	1	1	1
Sanitation	1	1	1	1	1	1	1	1	1	1	1	1	1
Drinking Water	1	1	1	1	1	1	1	1	1	1	1	1	0
Education	1	1	1	1	1	1	1	1	1	1	1	1	1
Skill	1	1	1	1	1	1	1	1	1	1	1	1	1
Employment	1	1	1	1	1	1	1	1	1	1	1	1	1
Children/Day Care	1	1	1	1	1	1	1	1	1	1	1	1	1
Women	1	1	1	1	1	1	1	1	1	1	1	1	1
Orphan/ Orphanages	0	0	1	1	1	1	1	0	1	0	1	1	0
Under-privileged/ Disabilities/ Differently-abled	1	1	1	1	1	1	1	1	1	1	1	1	1
Old-Age/ Elderly	0	1	1	1	1	1	1	1	1	0	1	1	0
Gender Equality	0	0	1	0	1	1	1	1	0	0	1	1	1
Community/ Communities	1	1	1	1	1	1	1	1	1	1	1	1	1
Slum Area Development	0	1	1	0	0	1	1	0	0	0	1	1	1
Environment	1	1	1	1	1	1	1	1	1	1	1	1	1
Ecological Balance	1	0	0	1	1	1	1	1	1	1	0	1	0
Flora & Fauna	1	0	1	1	0	1	1	0	1	0	0	1	0
Animal Welfare	0	1	0	1	1	1	1	1	0	0	0	1	0

Agroforestry	0	0	0	0	0	1	1	0	0	0	1	1	0
Natural Resources	1	1	1	1	1	1	1	1	1	1	0	1	0
Heritage	1	1	1	1	1	1	1	1	1	1	1	1	1
Art &/and Culture	0	1	1	1	1	1	1	1	1	1	1	1	1
Sports	1	1	1	1	1	1	1	1	1	1	1	1	1
Technology Incubators	1	1	0	0	0	1	0	1	0	1	0	0	0
Army veterans/ armed forces	1	1	0	0	0	1	1	1	0	0	0	0	0
Rural	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Disclosure Score (T)	22	23	25	24	24	31	30	26	23	20	23	29	20
Required Score (R)	31	31	31	31	31	31	31	31	31	31	31	31	31
CSR Disclosure Index (T/R)	0.709677	0.741935	0.806452	0.774193	0.774193	1	0.967419	0.83871	0.741935	0.645161	0.741935	0.934839	0.645161
Disclosure Index (%)	70.96774	74.19355	80.64516	77.41935	77.41935	100	96.77419	83.87097	74.19355	64.51613	74.19355	93.54839	64.51613

The closer the final score to 1, the CSR disclosure is significantly higher (Martin et al.,2018). In the Index, number 1 is considered to be equivalent to 100 per cent; so, in that manner, the disclosure index has been converted into a percentage. Thereafter, the ranking of each category of CPSEs has been done as below:

- Companies with CSR Disclosure Index lower than 50% have been ranked as Companies in the "Low Disclosure" category.
- Companies with CSR Disclosure Index within 50% to 75% have been ranked as Companies in the "Moderate Disclosure" category.
- Companies with CSR Disclosure Index above 75% have been ranked as Companies in the "High Disclosure" category

Table 6 reveals that 7 Navratna companies, viz. EIL, HAL, NALCO, NBCC, NMDC, NLC, and REC (54%) belong to the "High Disclosure" category, whereas others fall in the "Moderate Disclosure" category.

Similarly, CSR indices for Maharatna and Miniratna-II companies have been calculated, and it has been observed that most of the Maharatna companies (80%), viz. BHEL, BPCL, CIL, HPCL, NTPC, ONGC, PGCIL, and SAIL belong to the "High Disclosure" category, and only 20% viz. GAIL and IOC fall in the "Moderate Disclosure" category. On the other hand, only 1 Miniratna-II company (MECON) fall in the "High Disclosure" category, 3 companies, viz. EPI, FSNL and REIL belong to the "Moderate Disclosure" category and CRWC and FCI, i.e., 2 companies, fall in the "Low Disclosure" category.

CONCLUSION

The new Companies Act 2013 has undoubtedly been a new dimension towards CSR reporting in the annual reports by the corporate. It has been observed that only 10% of the select CPSEs have been disclosing their CSR activities and investments in the pre-Act era. Unlike the pre-Act era, uniformity in disclosure of "CSR practices" and precision in "accounting for CSR" interventions" have been observed in the post-Act era among 52% of the select CPSEs due to compliance with the new "provisions of the Act" and "guidance note" framed by "ICAI" on "accounting for expenditure" on CSR initiatives by corporates. It has been observed that during the post-Act era, i.e. 2014-15 onwards, 70% of Maharatna, 60% of Navratna and 33% of Miniratna-II category of CPSEs have shown a significant

increase in their CSR investment. Moreover, it has been found that regulations /guidelines with respect to CSR spending have been complied with by 60% of Maharatna companies in the pre-Act era, whereas that percentage has increased in the post-Act era by 10%. In the case of Navratna companies and Miniratna-II companies, such compliance has been observed to have increased by 8% and 17%, respectively, when compared between pre- and post-Act compliance scenarios. In the post-Act era, it has been found that the two thrust areas, "Enhancement of the technology incubators situated within academic institutions approved by the Central Government" and "Beneficial Relief to Armed Veterans" as per "Schedule VII of the Act" are least emphasising ones in which only 3% and 24% of select CPSEs have invested wherein Miniratna-II companies have not explored at all.

The CSR Investment Index shows that 65% of the select CPSEs have emphasised investing in CSR thrust areas of "Livelihood Enhancement, Healthcare and Sanitation", "Other Community Development Issues", "Promotion of Sports, Arts, Culture and protection of heritage", and "Rural Development". On the other hand, 21% have emphasised on CSR thrust area of "Education and Skills Development," and the remaining 14% of the select CPSEs have invested the most in "Environmental-related Issues."

Moreover, the Index also shows that Miniratna-II companies have put the least emphasis on their investment in CSR thrust areas of "Education and Skills Development" and "Environmental-related Issues."

CSR Disclosure Index shows that 80% of Maharatna companies and 54% of Navratna companies have given utmost importance to disclosing CSR practices as compared to 16% of Miniratna-II companies.

Therefore, it can be concluded from the aforesaid analysis that Maharatna and Navratna companies have performed much better than Miniratna-II companies in respect of disclosure and compliance aspects with regards to CSR and therefore recommendation can be made that Miniratna-II companies should follow the steps of Maharatna and Navratna companies in becoming more socially responsible corporate citizens.

LIMITATIONS OF THE STUDY

The present study has focused on three categories of CPSEs with secondary data as a basis. Moreover, the impact of CSR expenditure towards the fulfilment of social objectives through the primary survey cannot be made.

SCOPE FOR FUTURE STUDY

The impact of CSR spending may be an important study to explore to what extent the mandatory provisions have been effective in

the fulfilment of social objectives. Moreover, a comparative study involving both CPSEs and Private Sector companies (Industry-wise/sector-wise analysis) could be made.

REFERENCES

❖ Books

- Adeyeye A. (2012), Corporate Social Responsibility of Multinational Corporations in Developing Countries – Perspectives on Anti-Corruption (1st ed.), Cambridge University Press.
- Carroll A. & Buchholtz (2008). Business & Society: Ethics and Stakeholder Management (5th ed.). Cengage Learning.
- Ray S. (2017). A Study of Corporate Social Responsibility and Maharatna Companies in Light of the Companies Act, 2013 and 2014 Guidelines issued by the Department of Public Enterprises. In I. Saha, K. Gandhi & D. Nandy (Eds.), Current Perspectives in Finance (pp. 291-310). Law point Publications.

❖ Journals

- Allen M. and Craig C. (2016). Rethinking corporate social responsibility in the age of climate change: a communication perspective, *International Journal of Corporate Social Responsibility*, 1(1).
- Carroll A.B. (1979). A three-dimensional conceptual model of corporate social performance. *Academy of Management Review*, 4(4), 497-505.

- Kaufmann M. & Olaru M.(2012).The Impact of Corporate Social Responsibility on Business Performance - Can it be measured, and if so, how? The Berlin International
- Moratis L. and Egmond M.(2018). Concealing Social Responsibility? Investigating the relationship between CSR, earnings management and the effect of the industry through quantitative analysis, *International Journal of Corporate Social Responsibility*, 3(1).
- Ray S. (2017). Corporate Social Responsibility Compliances in India – A Study on Select Companies, *International Journal of Science, Technology and Management*, 6(7), 05-17.
- Ray S. (2017). Research Perspectives on Corporate Social Responsibility – A Review of Literature, *Business Spectrum*, 7(1), 76-88.
- Ray S. and Dandapat D. (2021). Corporate Social Responsibility - A Study on Indian Maharatna Companies, *Indian Accounting Review*, 25(1), 20-42.
- Tilakasiri K. (2013).Construct an Index for Measuring Corporate Social Responsibility Activities for Developing World: Evidence from Sri Lanka, *International Journal of Science and Research*, 4(7),608-612.
- Votaw D. (1973). Corporate Social Reform: An Educator's Viewpoint, *California Management Review*, 15(4), 67-73.

❖ Web Links

- http://dpe.nic.in/important_links/dpe_guidelines/CSRandSustainability (Accessed on 10th July 2016).
- <http://ebook.mca.gov.in/Actpagedisplay.aspx?PAGENAME=17923> (Accessed on 10th December 2020).
- <http://epi.gov.in/content/innerpage/financial.php>
- http://fsnl.nic.in/annual_report.html
- http://fsnl.nic.in/pdf/annual_reports_2021.pdf
- http://fsnl.nic.in/pdf/Annual_Reports_2021_22.pdf
- <http://mtnl.in/reports.html>
- http://ngobox.org/company/csr_doc/1430595405Bharat%20Petroleum%20CSR%20Policy%202014%202015.pdf
- <http://recindia.nic.in/images/pdf/files/ar2010-11.pdf>
- <http://www.bel-india.com/?q=annual-reports>
- <http://www.bel-india.in/Documentviews.aspx?fileName=Annual-Report-2018-19.pdf>
- <http://www.bseindia.com/bseplus/AnnualReport/500547/5005470314.pdf>
- http://www.concorindia.com/annual_report.aspx
- http://www.culturaldiplomacy.org/academy/content/pdf/participant-papers/2012-03-biec/The_Impact_of_Corporate_Social_Responsibility_on_Business_Performance_-_Malte_Kaufmann.pdf (Accessed on 23rd February 2016).
- http://www.engineeringprojects.com/english_anuual_report_12-13.pdf
- http://www.engineeringprojects.com/english_anuual_report_13-14.pdf
- <http://www.engineeringprojects.com/financials.asp>

- <http://www.engineersindia.com/reports-and-results/m-149>
- <http://www.fsnl.co.in/annual-report.php>
- http://www.halindia.com/Financial%20Highlights/M_22
- <http://www.hindustanpetroleum.com/financial>
- <http://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf> (Accessed on 12th December 2020).
- <http://www.mca.gov.in/SearchableActs/Schedule7.htm> (Accessed on 8th April, 2017).
- http://www.meconlimited.co.in/activities_carried_out.aspx
- http://www.meconlimited.co.in/annual_report.aspx
- http://www.meconlimited.co.in/csr_activities_planned.aspx
- <http://www.moneycontrol.com/annual-report/ruralelectrificationcorporation/REC02/2016>
- <http://www.moneycontrol.com/annual-report/ruralelectrificationcorporation/REC02/2015>
- <http://www.moneycontrol.com/annual-report/ruralelectrificationcorporation/REC02/2014>
- <http://www.moneycontrol.com/annual-report/ruralelectrificationcorporation/REC02/2013>
- <http://www.moneycontrol.com/annual-report/ruralelectrificationcorporation/REC02/2012>
- http://www.moneycontrol.com/bse_annualreports/5005470312.pdf
- http://www.moneycontrol.com/bse_annualreports/5005470313.pdf
- http://www.moneycontrol.com/bse_annualreports/5321780310.pdf
- http://www.moneycontrol.com/bse_annualreports/5321780311.pdf
- <http://www.nalcoindia.com/invdefault.aspx>
- <http://www.nbccindia.com/nbccindia/nroot/njsp/AnnualReports.jsp>
- <http://www.nbccindia.com/nbccindia/nroot/njsp/Csr.jsp>
- <http://www.nhdc.org.in/AnnualAccount.aspx>
- <http://www.oil-india.com/ARreports.aspx>http://www.oil-india.com/Document/Financial/Final_OIL_India_Annual_Report_17_18.pdf
- <http://www.pfcindia.com/Home/Vs/72>
- http://www.powergridindia.com/administrator/Lists/Menu/Attachments/172/CSR_Policy_2015.pdf
- <http://www.recindia.nic.in/annual-report-2016-17>
- <http://www.recindia.nic.in/annual-report-2017-18>
- <http://www.shipindia.com/investor-relations/performance/annual-reports.aspx>
- https://concorindia.co.in/annual_report.aspx
- https://dash.harvard.edu/bitstream/handle/1/12534952/ioannou,serafeim_the-impact-of-csr-on-investment-recommendations.pdf?Sequence=1 (Accessed on 27th October, 2016).
- <https://dpe.gov.in/about-us/divisions/list-maharatna-navratna-and-miniratna-cpses> (Accessed on 10th October, 2020).
- https://engineersindia.com/storage/2019/08/EIL_Annual_Report-FY_2018-19.pdf
- <https://fci.gov.in/finances.php?view=5>
- https://hal-india.co.in/Annual-Reports/M_369
- <https://iocl.com/pages/financial-performance-overview>
- <https://nalcoindia.com/investor-services/annual-reports/>

- <https://nbccindia.in/webEnglish/annualReport>
- <https://ongcindia.com/web/eng/investors/annual-reports>
- <https://recindia.nic.in/annual-reports>
- <https://sail.co.in/en/investors-relation/annual-reports>
- <https://trendlyne.com/fundamentals/documents-annual-reports/279/CONCOR/container-corporation-of-india-ltd/>
- <https://www.bharatpetroleum.com/bharat-petroleum-for/investors/shareholders-information/annual-reports.aspx>
- <https://www.bharatpetroleum.com/bharat-petroleum-for/investors/shareholders-information/annual-reports.aspx>
- <https://www.bharatpetroleum.com/sustainability/sustainability-reports.aspx>
- <https://www.bharatpetroleum.in/bharat-petroleum-for/investors/shareholders-information/Annual-Reports.aspx>
- <https://www.bhel.com/annual-reports>
- <https://www.coalindia.in/performance/financial/>
- <https://www.crowc.in/CRWC/csrsd>
- <https://www.crowc.in/en/finance/annual-reports>
- <https://www.gailonline.com/IZAnnualReports.html>
- <https://www.hindustanpetroleum.com/annual-reports>
- https://www.mstcindia.co.in/MSTC_Static_Pages/frontpage/FSNLAR/Annual%20Report%202019-20%20-FSNL.pdf
- <https://www.nbccindia.com/webEnglish/annualReport>
- https://www.nlcindia.com/csr/CSR_Policy_NLC_2016.pdf
- https://www.nlcindia.com/new_website/finance.php?page=fin-3-annualreports
- https://www.nlcindia.com/new_website/index.htm
- https://www.nlcindia.in/new_website/finance.php?page=fin-3-annualreports
- <https://www.nmdc.co.in/Financial%20Information/Default.aspx>
- <https://www.nmdc.co.in/Investor%20News/Handlers/DownloadFile.ashx?ID=1a4c4f03-2c30-46dd-a356-5386798ad77d>
- <https://www.nmdc.co.in/investors/financial-details/annual-reports>
- <https://www.nmdc.com/site/textData/investors/19>
- <https://www.ntpc.co.in/investors/annual-reports/>
- <https://www.oil-india.com/4Financial-results>
- <https://www.oil-india.com/Document/financial/Final-OIL-India-annual-report-2018-19-compressed.pdf>
- https://www.pfcindia.com/DocumentRepository/ckfinder/files/Investors/Annual_Reports/PFC%20AR%202018-19%20final.pdf
- <https://www.pfcindia.com/Home/VS/72>
- <https://www.pfcindia.com/Home/VS/72>
- <https://www.powergrid.in/annual-reports>
- <https://www.powergridindia.com/annual-reports>
- <https://www.powergridindia.com/sustainability-report>
- <https://www.recindia.nic.in/annual-report-2018-19>
- <https://www.reiljp.com/annual.aspx>
- <https://www.scribd.com/document/56822626/Annual-Report-2009-10-English-4>
- <https://www.shipindia.com/investors/quarterlyresults/2>
- <https://www.vizagsteel.com/insiderinl/financialperformance.asp>



Kolkata Bidhannagar Society for Academic Advancement

KOLKATA BIDHANNAGAR SOCIETY FOR ACADEMIC ADVANCEMENT (hereinafter referred to as the 'KBSAA') established in the year 2022 as a registered Society under the West Bengal Societies Registration Act (West Bengal Act XXVI) of 1961 bearing registration No. S0025851 of 2021-2022.

KBSAA is a Non-Profit seeking Society for Promotion and Advancement of Learning and Research in the field of Social Sciences and other allied areas.

The main objectives of the KBSAA are as follows –

1. To promote and develop the Academic Advancement of Learning in the field of Research and Academics.
2. To publish Research Journals, Books, Newsletters, Periodicals, Magazines, Brochure etc. with an objective of furthering academic research, information and knowledge.
3. To organize and participate in Conferences, Seminars, Webinars and Workshops in collaboration with other Societies, Corporates and other Organizations / Associations / Foundations etc. for the promotion and development of research in the field of Social Sciences and other allied areas.

Visit our website: kbsaa.org/journal/



Published by Pema Lama , Secretary and Editor on behalf of
Kolkata Bidhannagar Society for Academic Advancement, West Bengal, INDIA