CSR in the Public Realm: A Comparative Examination of Power and Steel, Chemical and Fertilizers PSUs

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Abstract

This study offers a comprehensive examination of the adherence to Corporate Social Responsibility (CSR) in the Power and Steel, Chemicals, and Fertilizers industries, with a specific emphasis on Public Sector Undertakings (PSUs). The research is qualitative and quantitative in nature for which the data from a span of eight years have been evaluated using t-tests and one-way ANOVA to examine the compliance of 12 distinct parameters related to CSR. It has been observed that with the exception of RECL and NFL, companies in both sectors have adhered to compulsory guidelines regarding CSR. However, there has been a notable disparity in the level of mandated CSR compliance among companies in the steel, chemicals, and fertilizers sector, whereas the outcomes have been inconsequential in the power sector.

Keywords: Corporate social responsibility, CSR compliance, Companies Act 2013, Public sector undertakings, Power sector, Steel, Chemicals and Fertilizers sector.

Introduction

Corporate Social Responsibility (CSR) has become an essential component of modern corporate governance. It plays a significant part in determining how a business interacts with the community in which it functions as well as the natural environment in which it does business (Ararat, 2008). The implementation of Section 135 of the Companies Act, 2013, in the Indian context has necessitated a substantial transformation in the manner in which corporations understand and discharge their social and environmental responsibilities (Sarkar & Sarkar, 2015; Dharmapala & Khanna, 2018; Vishwakarma, 2019).The implementation of this statutory mandate has inaugurated a paradigm shift wherein corporations are no longer solely motivated by financial gain but are also held responsible for its societal and environmental repercussions (Asavajaru et al. 2018; Liao, 2019). This study presents a detailed comparative examination of CSR compliance across public sector undertakings (PSUs) operating in two distinct industrial sectors: Power and Steel, Chemicals, and Fertilizers. The aim of this study is to evaluate the extent to which PSUs in various sectors have adopted and executed CSR activities as mandated by Section 135 of the Companies Act, 2013. Additionally, this research seeks to provide insights into the efficacy of these endeavors in advancing sustainable development.The selection of these particular industries is intentional, as they symbolize essential foundations of India's industrial framework, each presenting distinct obstacles and prospects regarding CSR adherence. The Power PSUs hold significant importance in meeting India's infrastructural and energy requirements. Similarly, Steel, Chemicals PSUs exert a substantial influence on promoting environmental sustainability. Additionally, the Fertilizers PSUs are indispensable to the agriculture sector, which plays a pivotal role in ensuring food security (Tripathi & Tripathi, 2000; Rathore & Panwar, 2007).PSUs operating in the power and steel, chemicals and fertilizers sector have achieved significant advancements in their CSR compliance. These organizations frequently possess significant financial assets, which empower them to engage in a wide range of corporate social responsibility initiatives. The efforts undertaken by the organization primarily focus on promoting environmental sustainability, fostering community development, and implementing skill upgrading programmes. The power sector, characterized by its high energy consumption, has demonstrated an increasing dedication to mitigating its environmental impact by implementing green energy initiatives and adopting resource efficiency strategies (Fox, Ward & Howard, 2002; Jaber, Badran& Abu-Shikhah, 2004; Olabi et al., 2022; Khalid et al., 2023).It is imperative to acknowledge that CSR compliance and the characteristics of projects may differ among PSUs, contingent upon elements such as financial stability, dedication of leadership, and sector-specific obstacles. While several PSUs demonstrate exceptional performance in CSR initiatives, there are still some PSUs that are in the process of developing and improving in this area. The implementation of regular reporting, disclosure, and impact assessment plays a crucial role in upholding transparency and accountability in CSR compliance (Baxi& Ray, 2012; Were, 2016; O'Keeffe et al., 2020). Hence, this study aims to determine the CSR compliance of the Power and Steel, Chemicals and Fertilizers PSUs in alignment with Section 135 of the Companies Act, 2013. Therefore, this study provides significant contributions to the understanding of CSR in the Indian public sector.

Objectives of the Study

- To assess the extent to which the sampled public sector firms in India comply with CSR requirements outlined in Section 135 of the Companies Act, 2013.
- To make an intra-company and inter-sector comparison of selected PSUs for a period of the study.

Review of Literature

The state has a significant role to fulfill in the context of CSR and development. This role involves clearly articulating development priorities and offering guidance on the strategies to be employed in order to achieve these objectives(Barkemeyer, 2009).The obligation to meet standards has compelled the aforementioned organizations to prioritize the adoption of quantifiable benchmarks over the socially-rooted requirements and preferences of its employees. As a result, certain projects inadvertently undermined pre-existing social value rather than contributing to its enhancement (Sinkovics, Hoque &Sinkovics, 2016). The notion of capacity building should be regarded as a supplementary measure, rather than a substitute for CSR compliance. The aforementioned circumstance bestows a significant obligation upon the purchasers to provide assistance to the suppliers in order to facilitate the successful completion of their tasks (Hyder, Chowdhury & Sundstrom, 2017). India holds the distinction of being the pioneer in enacting legislation that mandates specific corporations to incorporate CSR initiatives. While certain corporations had previously undertaken diverse sustainability and social outreach efforts, the imposition of statutory requirements has compelled other firms to allocate resources towards CSR for the first time (Pandey &Pattnaik, 2017). However, a significant number of businesses use a strategy known as "tick-box compliance," which may be a signal that they are skirting the law in order to further their own self-interests. Government-owned enterprises mostly engage in CSR initiatives as a direct response to directives issued by national and state governments (Jumde, 2020). For CSR legislation to achieve its intended outcomes, it is imperative to impose sanctions in instances where non-compliance occurs. After a period of five years since its establishment, this meticulously formulated legislation appears to be influencing the attainment of Indian CSR expenditure objectives. However, it is premature to assess its actual societal ramifications (Jain, Kansal& Joshi, 2020).Indian companies adopt accounting conservatism as a strategy to reduce their profitability and so minimize the costs associated with CSR compliance. In essence, it can be observed that although policy makers may have initially aimed to promote CSR endeavors among Indian enterprises through legislation, firms intentionally employ accounting policies and negative accruals as a means to reduce their CSR expenditure (Shaw et al., 2021; Gangopadhyay&Homroy, 2023). It is imperative for policymakers to possess a comprehensive understanding of the potential risks and costs associated with both non-compliant and compliant operations in the realm of CSR prior to evaluating corporations' strategies for CSR compliance. Firms also must remain diligent following the implementation of CSR-compliant operations to ensure the improvement of their performance. Policy makers may also offer incentives in order to encourage corporations to adopt operations that are compatible with CSR standards (Bian et al., 2021). Under the influence of coercive institutional pressures, state-owned enterprises (CPSEs) face excessive reporting obligations that have a substantial adverse effect on their financial and human resources, as well as the quality of their CSR activities and reports. CPSEs encounter challenges in accurately evaluating the tangible effects of their CSR initiatives, primarily because to the presence of overlapping operations with those undertaken by the government or other institutions (Taneja et al., 2022). The implementation of legislation should include a provision mandating that corporations undertake thorough pre-project surveys to evaluate the actual places that truly demand corporate investments and the specific sectors of development. These strategies have the potential to guarantee sufficient allocation of funds towards underdeveloped regions situated in geographically isolated areas within the nation (Jumde& Kumar, 2022). However, the Indian corporate sector's average expenditure on CSR falls below the stipulated statutory threshold. A majority of corporations fail to adhere to the CSR rules established by the country. Even the organizations deemed as the "Most Profitable" exhibit a failure to meet the minimum required contribution towards social activities, similar to their counterparts in the "Less" and "Least" profitable categories (Bhatia & Dhawan, 2023).There has been a significant rise in CSR spending subsequent to the implementation of mandated requirements. While it is true that all the sample organizations have provided disclosures about CSR regulations, it should be noted that several corporations have failed to meet the obligatory CSR expenditure requirements as outlined in Section 135. Corporate companies demonstrate awareness of the rules pertaining to CSR, and their adherence to these regulations is commendable (Arora, 2023). In this alignment, companies are spending more money on CSR initiatives on an annual basis across all points of time. Furthermore, Indian corporations have willingly made significant contributions towards COVID-19 relief that surpass the obligatory statutory thresholds (Bhatia & Dhawan, 2023).Government authorities should promote CSR among firms by acknowledging the value of CSR initiatives, rather than solely focusing on the financial investment made. It is recommended that companies be encouraged to participate in CSR initiatives in order to enhance both social and economic value, as well as to enhance the overall well-being of the general population (Altaf, 2023).

In accordance with the review of the previous published literature, there is still a dearth of academic research in a variety of aspects. Although PSUs have a substantial impact on society and the environment, there is a lack of thorough research primarily focused on the CSR compliance of PSUs, with a concentration on the power and steel, chemicals, and fertilizers sectors. CSR is a topic that has been researched in many different ways, but the majority of the literature that is now available focuses on private enterprises or global CSR, which means that there is not an abundance of academic study that looks at how Indian public corporations participate in CSR. Moreover, nothing is known on the variations in CSR compliance between Indian PSU sectors and companies. Furthermore, since its inception to this day, no study on the subject of CSR compliance by public sector businesses with a focus on a specific industry has been done. This is a longitudinal research that considers the most recent annual reports from the companies over a period of time. In order to cover this research gap, this study looks at the CSR compliance of Indian PSUs with an emphasis on the power and steel, chemicals, and fertilizers sectors. This study extends the body of information concerning CSR in India by examining the CSR compliance of Indian public firms in detail. Thus, this study aims to determine the CSR compliance of PSUs in accordance with the act and to make an intra-company and inter-sector comparison of selected PSUs for a period of the study.

Research Methodology

Sample Design and Data Collection

In accordance with the stated objectives, a total of ten PSUs from the Power and Steel, Chemicals, and Fertilizers sector have been chosen. The data pertaining to compliance on twelve established parameters which have been determined on the basis of Section 135 of the Companies Act, 2013 and the amendment acts thereonhave been collected for a span of eight years, ranging from 2014-15 to 2021-22, leading to cumulative total of 960 observations for firm-years. The collected data comprised of compliance checklist as per Section 135 of Companies Act 2013 in the form of "Yes" or "No". This compliance checklist has been converted into percentage of disclosures made out of total items applicable. The percentage calculation for Section 135 compliance has not considered the count of "NA" i.e. Not Applicable clauses. This means if out of 12 compliance parameters, 6 are not applicable, and out of rest 6, 5 are complied with, the percentage has been calculated as: 5/6*100= 83.33%.

Hypotheses and Analysis

In order to achieve the goals of the study, the corresponding hypotheses have been formulated as follows-

H_0: The companies are non-compliant with the obligatory regulations outlined in Section 135 of the Companies Act, 2013.

Intra-Sector Comparison

H_0: There is a lack of discernible disparity in the CSR adherence of a specific public-sector enterprise throughout successive years.

Inter-Sector Comparison

H_0: There is a lack of discernible disparity in CSR adherence between PSUs operating in the Power and steel, chemicals, and fertilizers sectors.

The hypotheses have been evaluated using a t-test to assess compliance, and a one-way ANOVA has been conducted to compare intra-company and inter-sector differences. The statistical software SPSS 21 has been utilized for these analyses. The resulting findings and their corresponding interpretations have been reported.

Analysis and Interpretation

CSR Compliance of Power Sector

The percentages of CSR compliance over the eight years for the five sampled companies of Power sector have been shown in Table 1:

Table 1: CSR Compliance of the Companies in Power Sector as per Section 135

Year/Co.	NHPC	NTPC	PGCIL	RECL	SJVN
2014-15	100.00	85.71	85.71	85.71	85.71
2015-16	100.00	100.00	85.71	100.00	85.71
2016-17	100.00	100.00	100.00	85.71	100.00
2017-18	85.71	100.00	100.00	85.71	100.00
2018-19	85.71	100.00	100.00	85.71	100.00
2019-20	100.00	100.00	100.00	100.00	100.00
2020-21	100.00	100.00	100.00	100.00	100.00
2021-22	100.00	100.00	100.00	100.00	100.00

Source: Authors' Calculation

It has been found that NHPC and RECL have been volatile in complying with CSR over the years with NHPC complying with 100% parameters in initial three years and declining to 85.71% compliance in next two years while again complying 100% with CSR mandatory parameters from 2019-20 to 2021-22. While, RECL complied with 85.71% compliances in 2014-15 and from 2016-17 to 2018-19, however complied with 100% compliance parameters in rest of the years. NTPC, PGCIL and SJVN reflected an increasing trend over the years in CSR compliance where they started with 85.71% compliances in first two years except NTPC as it has complied that much only in 2014-15, subsequently leading to 100% compliances in all the years from 2016-17 to 2021-22. Hence, from 2019-20 to 2021-22, all the companies have met with 100% compliance rate in terms of CSR in the sampled period. The reason for non-compliance by companies has been marked with not meeting the guideline of spending minimum 2% of their three years of average profits in the corresponding year.

CSR Compliance of Steel, Chemicals and Fertilizers Sector

The percentages of CSR compliance over the eight years for the five sampled companies of Steel, Chemicals and Fertilizers sector have been shown in Table 2:

Table 2: CSR Compliance of the Companies in Steel, Chemicals and Fertilizers Sector as per Section 135

Year/Co.	MECON	RINL	SAIL	NFL	RCFL
2014-15	85.71	85.71	85.71	100.00	100.00
2015-16	100.00	100.00	100.00	100.00	100.00
2016-17	100.00	100.00	100.00	100.00	100.00
2017-18	100.00	100.00	100.00	85.71	100.00
2018-19	100.00	100.00	100.00	85.71	100.00
2019-20	100.00	100.00	100.00	85.71	100.00
2020-21	88.89	100.00	100.00	77.78	100.00
2021-22	90.00	100.00	100.00	90.00	100.00

Source: Authors' Calculation

It has been found that RCFL is the only company who has complied 100% in the complete sampled period. While, RINL and SAIL have been similar and reflected an increasing trend of compliance with 85.71% in 2014-15 and increasing its compliance rate to 100% in rest of the years of the sampled period. However, MECON and NFL have been volatile in its compliance where MECON complied 85.71% in 2014-15, increasing to 100% compliance rate from 2015-16 to 2019-20 and again declining to 88.89% and 90% in 2020-21 and 2021-22 respectively. Similarly, NFL started with 100% compliance till 2016-17, gradually declining to 85.71% till 2019-20 and 77.78% in 2020-21 and 90% in 2021-22. Hence, 2015-16 and 2016-17 are the only years where all the companies have complied with required CSR parameters completely. The reason for non-compliance by companies has been marked with not meeting the guideline of spending minimum 2% of their three years of average profits in the corresponding year and not transferring the unspent amount to specified fund when failed to spend in defined period of three years by NFL in 2020-21.

Testing the Significance of Difference of Compliance of Power Sector Public Sector Undertakings

In order to test the significance of difference compliance rate of the companies from mandatory compliance parameters as mentioned in Section 135, one sample t-test has been applied. The results have been shown in Table3. According to Section 135, it is mandated to achieve full compliance, hence the population mean was set at 100.

Table3: Descriptive Statistics and t-test Results for Compliance (POWER)

Company	N	Mean	Std. Dev.	Std. Error	t	Df	p Value
NHPC	8	96.43	6.615	2.339	-1.528	7	0.170
NTPC	8	98.21	5.052	1.786	-1.000	7	0.351
PGCIL	8	96.43	6.615	2.339	-1.528	7	0.170
RECL	8	92.86	7.638	2.701	-2.646	7	0.033
SJVN	8	96.43	6.615	2.339	-1.528	7	0.170

Source: SPSS 21

It has been found that NTPC is adhering with clauses the highest i.e. 98.21% compliances followed by NHPC, PGCIL and SJVN by complying with 96.43% items. While, RECL is complying with 92.86% items. The values of standard deviation are low indicating consistency in compliances. The calculated values of t for all the companies, except RECL, is not significant. Thus, null hypothesis is rejected for only RECL and it can be concluded that RECL has significant difference between mandatory and actual Compliances. For remaining companies, null hypothesis is accepted which depicts there is no significant difference in actual compliances made by the companies and the mandatory compliances as per Section 135.

Intra-Company Comparison of Power Sector Public Sector Undertakings

The compliance made by companies for CSR activities has been tested for significance of difference among different years (intra-company comparison). The results of one-way ANOVA have been presented in Table 4:

Table4: Results of ANOVA for Intra-Company Comparison (POWER)

Years	Count	Sum		Average	Variance
2014-15	5	442.86		88.57	40.82
2015-16	5	471.43		94.29	61.22
2016-17	5	485.71		97.14	40.82
2017-18	5	471.43		94.29	61.22
2018-19	5	471.43		94.29	61.22
2019-20	5	500.00		100.00	0.00
2020-21	5	500.00		100.00	0.00
2021-22	5	500.00		100.00	0.00
ANOVA					
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**
Between Groups	566.33	7	80.90	2.44	0.0401
Within Groups	1061.22	32	33.16		
Total	1627.55	39			

Source: SPSS 21

The results show that the compliance of CSR mandate is increasing year by year. In 2014-15 the average compliance was 88.57% which kept on increasing. The average Compliance in the years 2015-16, 2017-18 and 2018-19 was 94.29% and in the last three years it was 100%. The computed F statistic is determined to be 2.44, accompanied by a p-value of 0.040. Therefore, the null hypothesis is rejected at a significance level of 5%, leading to the conclusion that there is a substantial variation in compliance levels across the companies sampled over different years.

Testing the Significance of Difference of Compliance of Steel, Chemicals and Fertilizers Sector Public Sector Undertakings

In order to test the significance of difference compliance rate of the companies from mandatory compliance parameters as mentioned in Section 135, one sample t-test has been applied. The results have been shown in Table 5. According to Section 135, it is mandated to achieve full compliance, hence the population mean was set at 100.

Table 5:Descriptive Statistics and t-test Results for Compliance (SCF)

Company	N	Mean	Std. Dev.	Std. Error	T	df	p Value
MECON	8	95.69	6.11	2.16	-1.99	7.00	0.09
RINL	8	98.21	5.05	1.79	-1.00	7.00	0.35
SAIL	8	98.21	5.05	1.79	-1.00	7.00	0.35
NFL	8	90.61	8.46	2.99	-3.14	7.00	0.02
RCFL	8	100.00	0.00	0.00	**N. A.**		

Source: SPSS 21

It has been found that RCFL is complying with 100% items about CSR clause throughout the study period. While, the remaining companies have been also complying with more than 90% items. The low values of standard deviation have been showing consistency in compliance pattern of sampled companies. RCFL is having 0 standard deviation and hence its t-test could not be performed. All the calculated values of t for other companies except NFL, are not significant at 5% level of significance leading to the acceptance of null hypothesis depicting there is no significant difference in actual compliance of those companies and mandatory compliances as per Section 135. The null hypothesis is rejected for NFL depicting there is a significant difference in actual compliance of NFL and mandatory compliances as per Section 135.

Intra-Company Comparison of Steel, Chemicals and Fertilizers Sector Public Sector Undertakings

The compliance made by companies for CSR activities were tested for significance of difference among different years (intra-company comparison). The results of one-way ANOVA have been presented in Table 6:

Table 6: Results of ANOVA for Intra-Company Comparison (SCF)

Years	Count	Sum	Average	Variance
2014-15	5	457.14	91.43	61.22
2015-16	5	500.00	100.00	0.00
2016-17	5	500.00	100.00	0.00
2017-18	5	485.71	97.14	40.82
2018-19	5	485.71	97.14	40.82

Years	Count	Sum	Average	Variance	
2019-20	5	485.71	97.14	40.82	
2020-21	5	466.67	93.33	98.77	
2021-22	5	480.91	96.18	27.44	
ANOVA					
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**
Between Groups	307.85	7	43.98	1.14	0.3662
Within Groups	1239.51	32	38.73		
Total	1547.36	39			

Source: SPSS 21

It has been found that in the year 2015-16 and 2016-17 all the companies have complied with 100% items of the mandatory CSR clause. In 2017-18, 2018-19 and 2019-20 companies made 97.14% compliance which declined in the last two years. The computed F statistic is 1.14, accompanied by a p-value of 0.366. Therefore, based on a significance level of 5%, the null hypothesis is accepted, indicating that there is no statistically significant difference in CSR compliance among the companies over the years. Thus, it has been concluded that the companies have made almost similar compliances in different years.

Inter-Sector Comparison of Power and Steel, Chemicals and Fertilizers Sector PSUs

The compliances made by different companies of Power and Steel, Chemicals and fertilizers sector for CSR were tested for significance of difference (inter-sector comparison). The results of one-way ANOVA have been presented in Table 7:

Table7: Results of ANOVA for Inter-Sector Comparison

Sector	SS	Df	MS	F	P-value
Power	122.45	4	30.61	0.71	0.5893
Steel, Chemicals and Fertilizers	427.25	4	106.81	3.34	0.0204

Source: SPSS 21

The computed F statistic is 0.71, and the associated p-value is 0.589. Therefore, based on a significance level of 5%, the null hypothesis is accepted, leading to the conclusion that there is no statistically substantial variation in compliance with CSR activities among the organizations sampled in Power sector. Hence, the companies of Power sector fairly adhere to the same approach while complying with CSR mandatory compliances. While, for Steel, Chemicals and Fertilizers sector, the computed F value is 3.34, accompanied by a p-value of 0.02. Therefore, the null hypothesis is rejected at a significance level of 5%depicting that thereis a significant difference among compliances made by different companies within a sector. Hence, the companies within steel, chemicals and fertilizers sector differ in their approach while complying with mandatory clause of CSR.

Conclusion

The analysis of CSR adherence among Power and Steel, Chemicals, and Fertilizers PSUs in accordance with Section 135 of the Companies Act, 2013, offers significant observations regarding the developing domain of corporate social responsibility in India. This study has provided insights into the different strategies and levels of dedication exhibited by PSUs functioning in these crucial industries. These industries have demonstrated praiseworthy endeavors in aligning their CSR programs with the priorities of national development, sustainable objectives, and issues specific to their respective sectors.

Based on the outcomes of this research, it is crucial for PSUs operating in the Power and Steel, Chemicals, and Fertilizers industries to persistently enhance their CSR approaches, promote innovation, and engage in collaborative efforts with relevant stakeholders to optimize their beneficial influence on society and the environment. In addition, it is imperative for legislators, industry associations, and regulatory agencies to collaborate in order to offer direction, incentives, and frameworks that promote the attainment of CSR excellence and guarantee the enforcement of accountability.CSR compliance plays a pivotal role in enabling these organizations to make meaningful contributions to the betterment of society, the environment, and their own enduring viability. The effectiveness of CSR compliance in these sectors should be evaluated based on both the financial investments made and the tangible and enduring improvements observed in the well-being of the communities they cater to, as well as the constructive contributions made towards fostering a more sustainable and equitable future for India.

Limitations and Future Scope

Nevertheless, similar to any scholarly investigation, this study possesses inherent constraints that necessitate recognition.Firstly, the study primarily concentrated on the sectors of Power and Steel, Chemicals, and Fertilizers. Thus, the generalizability of the findings is limited to specific PSUs and may not be applicable across various sectors.Moreover, the extent and scope of the analysis is limited by the resources at hand, i.e., annual reports of the companies.In addition, CSR compliance and performance can be affected by a wide variety of external factors, such as differences in regions, the state of the economy, and shifting legal requirements. Although the study has successfully identified trends and levels of compliance, it has not shown a definitive correlation or causality between corporate social responsibility (CSR) policies and specific results. Furthermore, the primary emphasis of this study lies in the area of CSR compliance; nevertheless, it has not extensively explored the tangible effects of CSR initiatives on the specific communities or the environment. Lastly, the study may not comprehensively account for the distinct contextual elements that impact corporate social responsibility (CSR) activities in various sectors or PSUs.

The research provides a robust basis for further academic research and investigation.Firstly, a broader range of sectors and industries within the Indian public sector can be incorporated into the research would facilitate a more thorough comprehension of CSR practices and issues across several domains.The incorporation of qualitative methodologies such as questionnaires, in-depth interviews, etc. in evaluating the effects of CSR activities on diverse stakeholders, including communities, the environment, and employees, can offer a more empirically grounded viewpoint on the outcomes of CSR.In addition, performing a comparative analysis of CSR practices in public sector undertakings and private sector companies operating in the same industries would unveil distinctions and similarities in their CSR strategies and efficacy.Moreover, the establishment of benchmarking frameworks and the identification of performance indicators tailored to individual sectors could facilitate a standardized evaluation of CSR adherence and efficacy inside PSUs. Further, a global perspective on CSR compliance and effectiveness in the public sector could be gained by including comparative analyses with CSR practices in other countries or regions.

References

- Altaf, N. (2023). Mandatory corporate social responsibility and provision of trade credit: Evidence from India. *Journal of Public Affairs*, *23*(1), e2830.
- Ararat, M., 2008. A development perspective for "corporate social responsibility": case of Turkey. *Corporate Governance: The international journal of business in society*, *8*(3), pp.271-285.
- Arora, A. (2023). Enforcement and Compliance: The Case of Mandated CSR Provisions in an Emerging Economy. *Management and Labour Studies*, *48*(1), 64-75.
- Asavajaru, B., Cortet, D., Elangbawy, Z., & Wong, S. (2018). Thriving in a Transparent World: A Model for Future-Proof Business.
- Barkemeyer, R. (2009). Beyond compliance–below expectations? CSR in the context of international development. *Business Ethics: A European Review*, *18*(3), 273-289.
- Baxi, C. V., & Ray, R. S. (2012). *Corporate social responsibility*. Vikas Publishing House.

- Bhatia, A., & Dhawan, A. (2023). A paradigm shift in corporate social responsibility: India's transition from mandatory regime to the COVID-19 era. *Social Responsibility Journal*, *19*(1), 166-183.
- Bhatia, A., & Dhawan, A. (2023). Legitimising CSR through the institutional backup–gauging compliance of the Indian corporate sector in the mandatory regime. *International Journal of Law and Management*.
- Bian, J., Liao, Y., Wang, Y. Y., & Tao, F. (2021). Analysis of firm CSR strategies. *European journal of operational research*, *290*(3), 914-926.
- Dharmapala, D., & Khanna, V. (2018). The impact of mandated corporate social responsibility: Evidence from India's Companies Act of 2013. *International Review of law and Economics*, *56*, 92-104.
- Fox, T., Ward, H., & Howard, B. (2002). *Public sector roles in strengthening corporate social responsibility: A baseline study*. Washington, DC: World Bank.
- Gangopadhyay, S., &Homroy, S. (2023). Do social policies foster innovation? Evidence from India's CSR regulation. *Research Policy*, *52*(1), 104654.
- Hyder, A. S., Chowdhury, E., &Sundström, A. (2017). Balancing control and trust to manage CSR compliance in supply chains. *International Journal of Supply Chain Management*, *6*(2), 1-14.
- Jaber, J. O., Badran, O. O., & Abu-Shikhah, N. (2004). Sustainable energy and environmental impact: role of renewables as clean and secure source of energy for the 21st century in Jordan. *Clean Technologies and Environmental Policy*, *6*, 174-186.
- Jain, A., Kansal, M., & Joshi, M. (2021). New development: Corporate philanthropy to mandatory corporate social responsibility (CSR)—A new law for India. *Public Money & Management*, *41*(3), 276-278.
- Jumde, A. (2021). The law on CSR in India: An analysis of its compliance by companies through corporate disclosures. *Journal of Corporate Law Studies*, *21*(1), 253-282.
- Khalid, F., Kefu, Y., Akram, R., & Batool, K. (2023). Linking corporate social responsibility and energy poverty: An environmental sustainability paradigm. *Energy & Environment*, 0958305X231169009.
- Kumar, N., & Singh-Jumde, A. (2022). Compliance and enforcement challenges under India's CSR law. *Austl. J. Asian L.*, *23(1)*, 41-56.
- Liao, C. (2019). Social Enterprise Law: Friend or Foe to Corporate Sustainability?. *Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability (Cambridge University Press, 2019)*.
- O'Keeffe, J. M., Cummins, V., Devoy, R. J., Lyons, D., & Gault, J. (2020). Stakeholder awareness of climate adaptation in the commercial seaport sector: A case study from Ireland. *Marine Policy*, *111*, 102404.
- Olabi, A. G., Obaideen, K., Elsaid, K., Wilberforce, T., Sayed, E. T., Maghrabie, H. M., &Abdelkareem, M. A. (2022). Assessment of the pre-combustion carbon capture contribution into sustainable development goals SDGs using novel indicators. *Renewable and Sustainable Energy Reviews*, *153*, 111710.
- Pandey, S. C., &Pattnaik, P. N. (2017). Mandatory CSR and organizational compliance in India: The experience of Bharti Airtel. *Global Business and Organizational Excellence*, *36*(6), 19-24.
- Rathore, N. S., & Panwar, N. L. (2007). *Renewable energy sources for sustainable development*. New India Publishing.
- Sarkar, J., & Sarkar, S. (2015). Corporate social responsibility in India—An effort to bridge the welfare gap. *Review of Market Integration*, *7*(1), 1-36.
- Shaw, T. S., Raithatha, M., Krishnan, G. V., &Cordeiro, J. J. (2021). Did mandatory CSR compliance impact accounting conservatism? Evidence from the Indian Companies Act 2013. *Journal of Contemporary Accounting & Economics*, *17*(3), 100280.
- Sinkovics, N., Hoque, S. F., &Sinkovics, R. R. (2016). Rana Plaza collapse aftermath: are CSR compliance and auditing pressures effective?. *Accounting, Auditing & Accountability Journal*, *29*(4), 617-649.
- Taneja, P., Jain, A., Joshi, M., &Kansal, M. (2022). Mandatory corporate social responsibility in India:

reporting reality, issues and way forward. *Meditari Accountancy Research*, *30*(3), 472-494.

- Tripathi, S., & Tripathi, M. A. (2000). Public Sector in India and Policy Shifts During 1990'. *Emerging Issues in Management & Economics in the Post Pandemic Era*, *119*, 95.
- Vishwakarma, V. (2019). Corporate social responsibility (A literature review). *Shanlax International Journal of Management*, *7*(1).
- Were, A. (2016). Manufacturing in Kenya: Features, challenges and opportunities. *International Journal of Science, Management and Engineering*, *4*(6), 15-26.