

Sustainability reporting quality of Indian firms? Pre and Post-SEBI amendment

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Abstract

Following the amendment of company listing agreements in 2012, which required the 100 top listed companies to submit their sustainability reports, this study suggests to compare the quality of these reports before (2011) and after (2021) using the sustainability reporting (SR) elements based on global reporting initiatives (GRI). For both years, we employed content analysis of 51 environmentally sensitive firms' annual, integrated, and sustainability reports. The findings show a substantial upsurge in sustainability reporting quality (SRQ) from 2011 to 2021. The quality of SR improvement suggests that businesses are dedicated to reducing, if not eradicating, environmental deterioration and social well-being.

Subject Classification: 00A99.

Keywords: Content analysis, Global reporting initiatives (GRI), Sustainability reporting quality (SRQ), Sustainability reporting elements, SEBI agreement.

1. Introduction

External and internal demands on companies to address sustainability problems have resulted from the increase in environmental degradation, child labour, corporate malfeasance, and other environmental, social, and economic issues (Mokthsim and Salleh, 2014). Companies are now

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required to acknowledge the importance of sustainability problems and address them as part of their obligations due to external demand from legislation and the government, as well as internal demand from employees, suppliers, and investors (Haugh and Talwar, 2010). Thus, social, environmental, and economic reports must be prepared to ensure that companies fulfill their duties in the field of sustainable development. This obligation is called Sustainability Reporting (SR) in this research.

This integrated reporting method of social, economic, and environmental components allows a thorough examination of the company's operations. Governments all over the world have issued voluntary or compulsory rules to strengthen the aforementioned components and disclosures. In 2011, the Ministry of Corporate Affairs (MCA) in India issued the National Voluntary Guidelines (NVG) on the social, environmental, and economic responsibilities of businesses (MCA, 2020). Furthermore, in 2012, the Securities and Exchange Board of India (SEBI) amended the stock exchange listing agreement and ordered the top 100 listed companies to submit an annual sustainability report (SEBI, 2013). As a result, the key question is what can the amendment do to the quality of these reports?

The Global Reporting Initiatives (GRI) framework for sustainability reports is widely utilized worldwide (KPMG, 2017). In accordance with global regulations, India has also launched various changes to strengthen the disclosure requirements of Indian corporations. SEBI believes that if companies follow these disclosure standards, they will be more transparent and will be motivated to describe their economic and environmental performance, as well as the social implications associated with it (SEBI, 2013). On the contrary, these mandatory disclosure standards can exert pressure on companies to make greater efforts to address social and environmental issues, which may lead to additional costs and affect shareholder value (Ioannou and Serafeim, 2017). In this endeavor, we primarily focus on one theoretical lens (i.e., information asymmetry theory) (Ferrero et. al., 2015). According to this theory, in order to enhance sustainability reporting quality, certain rules are needed, and Indian companies are responsible for ensuring that information asymmetry is prevented in the light of the SEBI agreement 2012.

This research attempts to address several gaps. First, numerous researchers have previously studied sustainability reporting quality (SRQ) over a period of time using a variety of indicators such as the number of independent directors, sustainable remuneration, gender diversity, and others (Amran et. al., 2013; Jamil et. al., 2021; Goel, 2018; Gerwing

et. al., 2022). These studies have also been conducted in countries such as Germany (Gerwing et. al., 2022), Malaysia (Jamil et. al., 2021), Croatia (Amran et. al., 2013), and others. So far, limited academic attention has been devoted in India comparing the SRQ before (2011) and after (2021) the amendment of company listing agreements in 2012, which require the top 100 listed businesses to submit annual sustainability reports using GRI SR elements. Our study attempts to address these gaps in the SR literature.

The sections of this research are as follows. In the following section, we examine the literature on SR. This is followed by a theoretical development. Data collection and methods, tools, and procedures are explained in the consequent section. After this, results and a discussion of the data are presented. Lastly, we provide limitations and conclusions.

2. Review of the literature

Issues of 'sustainability' have been one of the most important and pressing challenges in a world that has experienced natural resource depletion, pollution, climate change, and over-population (Ruiz-Lozano and Tirado-Valencia, 2016). It has drawn a lot of interest as a field of study, and is becoming more and more pertinent (Hahn and Kühnen, 2013). Sustainability in effect, refers to the ability of organizations to conserve finite resources for future generations, while preserving current values (James, 2014). Largely, the economic, environmental, and social challenges form the three distinct pillars of the world today (Elkington, 1994). Resultantly, every organization that's looking to implement a 'sustainability strategy' must consider these three aspects (Jensen and Berg, 2012). Larger organizations typically provide sustainability data on their website or even in printed publications, including annual reports, integrated reports, or sustainability reports (Romero et. al., 2019); however, the same cannot be said of small or mid-sized organizations.

Generally, an organization's sustainability report provides information about its socio-environmental impact, public image, and aspirations (Kilic and Kuzet, 2018). Enlisting stakeholders in pursuing this aim provides the organizations the option to align their beliefs, performance, and behavior with a sustainable development framework (Brusca et. al., 2018). Some organizations specifically choose to publish activities related to Corporate Social Responsibility (CSR) separately, while others decide to just include a section on sustainability initiatives in their annual report (Abdullah et. al., 2018).

India and other developing countries are paying close attention to sustainability reports (Kumar and devi, 2015). For emerging nations like India, which is transitioning to a more open and accountable system of economic governance, disclosure reforms are crucial (Sanan and Yadav, 2011). India has carried out significant changes to enhance social and environmental reporting as well as corporate governance (MCA, 2020). The “National Voluntary Guidelines on Social, Environmental, and Economic Responsibilities of Business” were published by India’s Ministry of Corporate Affairs in 2011 (MCA, 2020). Additionally, the rules mandate that the top 100 listed companies submit a Business Responsibility Report (BRR) in 2012 in order to improve the quality of disclosures (SEBI Circular, 2013) and after connected to GRI in 2017.

GRI is the most extensively used framework for producing sustainability reports worldwide, according to the survey (KPMG survey, 2017). GRI seeks to promote consistency and comparability of sustainability reporting throughout time, and between different types of businesses (Einwiller et. al., 2016). It is believed that socio-environmental disclosures would be provided in a more relevant fashion as a result of the implementation of GRI principles (Al Farooque and Ahlu, 2017).

Additionally, it may be noted here that most of corporate sustainability reports are largely narrative and descriptive in nature (Sobhani et. al., 2012). Importantly, in these reports, most organizations only share positive news, while concealing unfavorable ones in order to enhance their image and brand (Sobhani et. al., 2012). This reflects that the reporting practices introduced, are primarily perceived as a public affairs exercise, and don’t really provide stakeholders with crucial information (Sahay, 2004). It may also be noted that reports from various industries and businesses cannot be effectively compared due to the unstructured nature of reporting procedures (Searcy and Buslovich, 2014). Moreover, due to a lack of time and expertise in gathering and reporting indicators, or owing to the fact that organizations are at a loss to understand what they should report, several Indian organizations do not take this exercise seriously, owing to which, the larger practice of sustainability reporting quality takes a significant hit (Malarvizhi and Yadav, 2008). Over a period of time, many academics have studied sustainability reporting quality (SRQ) using a variety of parameters, including the number of independent directors, sustainable remuneration, gender diversity, and others (Amran et. al., 2013; Jamil et. al., 2021; Goel, 2018; Gerwing et. al., 2022; Peters and Romi, 2013). These studies have also been looked at with respect to other nations, including Germany (Gerwing et. al., 2022), Croatia (Amran et. al., 2013),

and others. So far, there has been limited scholarly emphasis dedicated to literature on (SRQ) in developing countries like India, utilising a comparative analysis. This study seeks to bridge this gap by comparing the SRQ before (2011) and after (2021), during which time the firm listing agreements were amended in 2012, mandating the topmost 100 listed corporations in India to publish their sustainability reports using GRI sustainability reporting elements.

3. Theoretical Underpinning

3.1 Information Asymmetry Theory

The information asymmetry theory assumes that at least one party in an organization has relevant information, but the others do not (Ferrero et. al., 2015). The difficulties and possibilities brought about by information asymmetries are fundamental components of numerous theories, including agency theory (Jensen and Meckling, 1976). For example, agency theory arose from the agency connection, in which the principal assigned work to agents, resulting in principle-agent problems (Huse, 2005). The principal-agent dilemma arises because agents exhibit opportunistic behavior and there is information asymmetry (Hussain et. al., 2015). There is an information asymmetry between them because the agent is intimately involved in daily operations (Deegan, 2004). Furthermore, according to Ho and Taylor (2013), managers, as self-interested agents, acquire more information about a company's performance than shareholders or other stakeholders.

Indian companies are obligated to prevent asymmetry of information, and enhance the SRQ in light of the agreement with SEBI in 2012. Companies transmit value-relevant information to a variety of interested outside groups to decrease information asymmetries (Brammer and Pavelin, 2008). As a result, reducing information asymmetry makes it easier for all stakeholders to have equal access to information and conditions to make sound decisions (Martnez-Ferrero et. al., 2015).

4. Methodology

In order to assess SRQ, content analysis was best suited, as it aims to analyze texts in a systematic manner (Krippendorff, 2018). We used manual content analysis despite the greater time and effort associated with the complex structure and content of the reports. Notably, we used secondary data collected from companies' annual reports, sustainability

reports, and integrated reports for the years 2011 and 2021, covering specifically the observation period from 1st January 2011 through to 31st December 2011 (prior to the SEBI (2012) implementation period) and from 1st January 2021 through to 31st December 2021 (following the SEBI (2012) implementation period).

A sustainability report checklist was consistent with the GRI guidelines and used to evaluate the SRQ (Table A1). To accommodate the choice of years (i.e., 2011 and 2021), we opted for a combination of G3 and GRI standards, as G3 was published in 2006, and GRI standards were introduced in 2016. Importantly, we believed that the items in the guideline would be relevant for testing on the annual report, sustainability reports, and integrated reports prepared for both years.

The weighted scoring method was used to measure the quality of sustainability reporting in order to highlight the levels of emphasis given to specific reporting items (Al-Tuwaijri et. al., 2004) and thereby, enable comparison between poor and excellent reporting (Freedman and Jaggi, 2005), which cannot be captured by the dichotomous method. Particularly, the sustainability reporting index was scored using a six-point scale adapted from Janggu et. al. (2014) and Jamil et. al. (2021). This scale was preferred over others, because it considers both the amount and type of data disclosed (whether quantitative or qualitative disclosure) (Table 1).

The research consisted of 51 environmentally sensitive companies. Figure 1 depicts the sample distribution per industrial type. To determine whether the SR score for 2021 is significantly higher than that for 2011, a pair-sample t-test was conducted.

Table 1
Scale

Score	Description
0	The information has not been disclosed
1	General disclosure – one to two sentences
2	Brief qualitative explanation – three to five sentences
3	More than five sentences of qualitative explanation
4	A brief description of the quantitative disclosure - one to five sentences
5	Disclosure of quantitative information with detailed explanations - more than five sentences
Adapted from Jamil et. al. (2021) and Janghu et. al. (2015)	

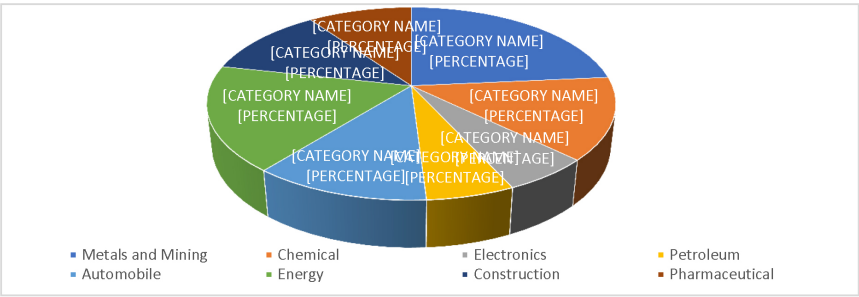


Figure 1
Sample Distribution by Industry-type

5. Results and discussion

Table 2 contains descriptive statistics for the sustainability report of Indian companies concerned about the environment. Of 51 companies, the lowest rating is 11.4 percent, and the highest rating is 61.6 percent in 2011. On the other hand, for the year 2021, the minimum rating is 9.2 percent, and the maximum is 62 percent. The results show that the quality from sustainability reports of Indian companies sensitive to the environment varies widely. Furthermore, in 2011, the variation is much wider than in 2021, with 0.136 SD as opposed to 0.123. The mean score for 2021 is higher (0.399) than it was in 2011 (0.296). Despite improvements, the SRQ remains low.

The results are shown in Table 3, which shows a significant increase in SR ratings in all aspects from 2011 to 2021, namely economic,

Table 2
Descriptive statistics

Descriptive analysis	2011	2021
Min	0.114	0.092
Max	0.616	0.622
Mean	0.296	0.399
Standard Deviation (SD)	0.136	0.123
Notes: N=51		

Table 3
Pair-sample t-test for SR

	EC	EP	SP	TOTAL
Mean differences	0.099	0.122	0.091	0.103
T-test	3.245*	3.589***	3.491***	3.906***
Eta squared	0.174	0.205	0.196	0.234
Notes: N = 51; ***at 1 percent significant; **at 5 percent significant; EC= Economic, EP= Environment, SP= Social				

environmental, social and in total (Moreover, eta squared statistics for economic performance, environmental performance and social performance demonstrates fundamental effect, with a 17 percent, 20 percent and 19 percent differences respectively in SR scores, both before and after the mandate. Additionally, the eta squared statistic for total elements (0.234) indicates a significant impact, with a 23 percent difference between the SR scores obtained prior to and after the SEBI agreement's amendment (2012). These results imply that, while SR quality remained low on average, it improved after the SEBI agreement was amended (2012). It implies that the SEBI agreement (2012) amendment was successful in pushing firms to participate in more sustainability activities in order to achieve the objective.

Table 4 shows the distribution of the SR index for the companies included in the investigation in ranges of 10 percent based on industry. Since 63 percent of companies in 2011 and 18 percent in 2021 had less than 30 percent SR, the frequency confirms that the SRQ among Indian firms is rather good. Only 14 percent of the companies in 2011 and 25 percent in 2021 had more than 50 percent SR. Once again, the data shows that the quality has improved as the number of top scorers has increased in the SEBI 2012 post-agreement period. Additionally, most of the companies in the sample were in the lowest category of sustainability report scores. Of the 51 companies, only one reached more than 60 percent of the sustainable reporting results in 2011 (including the energy companies). In 2021, more than 60 percent of companies with sustainability ratings doubled, including companies from the energy and construction sectors.

Table 4
Distribution of SR for various industries

SR index (%) Industry	0.01-9.99	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	Total
Number of firms										
Year 2011 (pre-SEBI agreement)										
Energy	0	2	3	0	2	1	1	0	0	9
Construction	0	2	1	1	0	2	0	0	0	6
Chemical	0	1	5	0	0	1	0	0	0	7
Pharmaceutical	0	0	3	1	0	1	0	0	0	5
Metal and Mining	0	4	3	2	2	1	0	0	0	12
Automobile		2	2	2	0	0	0	0	0	6
Electronics	0	1	2	0	0	0	0	0	0	3
Petroleum	0	0	1	0	2	0	0	0	0	3
Total	0	12	20	6	6	6	1	0	0	51
Year 2021 (post-SEBI agreement)										
Energy	0	0	1	1	5	1	1	0	0	9
Construction	0	0	1	0	1	3	1	0	0	6
Chemical	0	0	1	2	2	2	0	0	0	7
Pharmaceutical	0	0	0	2	2	1	0	0	0	5
Metal and Mining	1	3	1	2	4	1	0	0	0	12
Automobile	0	0	1	1	3	1	0	0	0	6
Electronics	0	0	0	0	2	1	0	0	0	3
Petroleum	0	0	0	1	1	1	0	0	0	3
Total	1	3	5	9	20	11	2	0	0	51

Conclusion, Future Research and Recommendations

The present study examines how the introduction of the SEBI agreement (2012) influences SRQ. According to the results, SRQ improved in 2021 compared to 2011. As a result of regulatory enhancement, specifically

the new sustainability requirement in 2012, companies have engaged in more sustainability activities, and thus disclosed more information about sustainability. As suggested by Malarvizhi and Yadav (2008) and Siddique et. al. (2007), it was found that most sectors have reported more than 50 percent increase in sustainability reporting. Furthermore, the number of Indian firms reporting sustainability, according to GRI, has increased over time and it is indicating that Indian companies are embracing the relevance of global reporting indicators (Banerjee, 2006). Similarly, the asymmetry of information in sustainability reporting has been reduced due to the disclosure of useful data, which aligns with the information asymmetry theory. Even though this study contradicts with Downing's (2003) recommendation, which suggests that reporting as per GRI is abysmal, and demonstrates that Indian companies do not recognize GRI's significance, this can be attributed to a possible change in the matter over the years.

There are some drawbacks to this study. Firstly, the investigation of SR is focused on annual and standalone sustainability reports. Future research may incorporate websites because they are increasingly relevant, important, and recognized in modern business environments. The study might be expanded in the future to acquire a deeper comprehension and interpretation of the existing situation in SR procedures in enterprises by combining qualitative and quantitative approaches. Surveys, interviews, and case studies can be done to determine accountants' insights of SR or problems faced by auditors when preparing reports. The study compared the SRQ for two years, and to get a more transparent picture of environmentally sensitive companies, companies can do longitudinal studies in the future. Furthermore, we have included environmentally sensitive companies in our research. As a result, researchers can compare SR among the top-ranked companies according to market capitalization in the future.

The ramifications of our findings are significant for stakeholders, preparers, and regulators. Preparers, for example, can improve their SRQ by focusing on the SEBI amendments. It is recommended that by including the SEBI guidelines in their reports, companies can signal enhanced sustainability actions and provide more useful information to their stakeholders regarding the impact of their operations on sustainability. Furthermore, it is suggested that authorities establish more standards to enhance the quality of diverse companies' sustainability reports.

Appendix

Table A1
SR Checklist

Indicators	Description
Economic Performance	Sample Items: • Direct Economic Value • In cases of corruption, measures are taken. • Employees are trained in policies and procedures to combat corruption • Local hiring procedures
Environmental Performance	Sample items: • Materials used • The materials used are recycled raw materials • Withdrawal of total water • Discharge of water • Significant spills • Waste
Social Performance	Sample Items: • Employee Turnover • Training of employees • Incidents relating to discrimination • The type of service and product information needed • Risks associated with the collective bargaining and exercise of freedom of association • Composition of employee breakdown and governance bodies • Salary differences between men and women

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