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# Investigating the Relationship Between Corporate Sustainability Reporting and Firm Performance: Evidence from Emerging Economy

Birajit Mohanty, Aashima*, Madhu Bala Kaushik, Veenus Gehlot, Saurabh Sharma

Department of Business Administration, Manipal University Jaipur, Jaipur 303007, India

Corresponding Author Email: aashima.210951003@muj.manipal.edu



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**ABSTRACT**

The purpose of this article is to investigate the relationship between sustainability reporting practices and firm performance. This study covers seventy-four BSE-listed companies from various industries that have been reporting on sustainability metrics according to the GRI principles for the financial years 2014-2015 to 2021-2022. This eight-year timeframe was selected so that the study would have access to data that was fair, dependable, and up to date. Sustainability reporting disclosures on social, economic, environmental, and governance aspects are analyzed as independent variables, whereas ROA and MBR serve as proxies for firm performance. The study finds that the mean level of disclosure in selected companies is about 71.5 percent of the items specified in the GRI framework, whereas the mean qualitative disclosure is about 62.4 percent of the items in totality. Further, the study finds a significant and positive relationship between corporate sustainability reporting practices and the firm performance of the selected Indian companies.

## 1. INTRODUCTION

As the global market becomes more competitive and changes happen faster than they did in the past, the pressure to succeed and stay successful is continually increasing. In recent years, investors, suppliers, consumers, and other stakeholders have all turned their focus to the sustainability of the company as a whole, making corporate sustainability a global buzzword that has attracted a lot of attention. Stakeholders are increasingly asking for disclosure of a company's social and environmental policies in addition to its financial statements [1]. Companies are encouraged to look beyond the limited and short-term perspective of profitability and place a greater emphasis on maintaining it over the long term. Therefore, corporate sustainability is all about incorporating social, economic, and environmental dimensions of business performance into financial reporting to create a triple bottom line [2]. Companies are realizing that concentrating solely on the economics of their business is no longer sufficient as they fight to remain relevant in rapidly evolving global markets. How well a firm positions itself in terms of sustainable development that balances financial, environmental, and human development is becoming increasingly important for designing a robust business strategy [3, 4].

Companies in a dynamic global market must take into account the ways in which their operations affect the local population and environment. Businesses can only continue to expand if society as a whole is only satisfied with an organization's total contribution to social well-being. Community health, education, and development, and business sustainability are among the most pressing issues of the present scenario [5]. This trend emphasises the significance of fairly and honestly recording and disclosing these activities. Businesses must behave ethically and responsibly if they want to continue operating and existing in the long run [6]. Governments from numerous nations have begun to examine corporate actions in light of the various aspects of sustainable development. In order to assess overall performance, sustainability reporting has been introduced. These reporting practices have gradually begun to strengthen the conventional financial reporting systems and show the genuine holistic performance of a business rather than merely providing window dressing. To receive "total performance reports" of a company for decision-making, an investor would need to access generally accepted standards for reporting sustainability information alongside financial information [7]. Additionally, it would help the firms comprehend their environmental impacts, compare and evaluate the corporate performances of their various divisions, and enhance their performance reporting practices. Beyond that, a potential investor would be more inclined to support businesses that diligently provide sustainability reports alongside their financial reports. Recently, it has gained popularity across the globe as a crucial communication tool for businesses to reveal their sustainability strategies and performance and boost stakeholder confidence. Around 12,704 organisations worldwide reported on sustainability metrics using the Global Reporting Initiative (GRI) methodology by the end of March 2018 [8].

The expected advantages of sustainability reporting are to increase awareness of general environmental and social issues within an organisation, to deliver internal and external corporate communications [9] to enable the tracking of progress against specific targets, to improve credibility through increased transparency, to assist companies in obtaining reputational benefits and to enhance business development [10].

### 1.1 Sustainability reporting process and principles

Many organisations around the world give businesses advice on how to report on non-financial matters, such as which indicators should be reported, how reporting should be done, and what standards should be used [11]. These organisations include the United Nations Global Compact (UNGC), Sustainability Accounting Standards Board (SASB), Dow Jones Sustainability Index (DJSI), Global Reporting Initiative (GRI), and International Integrated Reporting Council (IIRC). The GRI, an independent non-profit organisation, was established by an alliance of numerous stakeholders, including consultants, industry and researchers. Its goal is to develop a thorough framework for sustainability reporting that will be widely used throughout the world. The Coalition for Environmentally Responsive Economies and the United Nations Environment Programme founded the GRI in 1997 as a stand-alone organisation with a primary focus on the environment. In order to add social, economic, and governance issues to the GRI framework and cover all aspects of sustainability reporting, a multi-stakeholder steering committee was established. The first iteration of guidelines was introduced in June 2000. The second-generation guidelines (G2) were subsequently created in 2002. The third version, G3, which includes detailed guidelines and criteria for creating sustainability reports, was published in 2006. GRI released G3.1 in 2011, and then G4 in 2013. In all, there are 91 indicators, including 34 environmental indicators, 48 social category indicators, and 9 indicators for economic success in the most recent version. The GRI reporting framework is a universally recognised methodology for reporting on economic, environmental and social performance [2, 12]. The G4 framework has four categories, such as governance, economics, environment, and social. A governance category has seven aspects with 56 indicators, an economic category has four aspects with nine indicators, an environmental category has 12 aspects with nine indicators, and a social category has 29 aspects with 48 indicators. In totality, there are 52 aspects with 149 indicators (GRI-G4 framework). A sizable group of stakeholders from all over the world have mutually agreed on the general and specific disclosure content of the framework. The concepts of openness, inclusivity, auditability, completeness, relevance, comparability, clarity, and timeliness serve as the foundation for the GRI reporting guidelines. To gauge a company's level of transparency based on sustainability disclosures, GRI has its own rating system.

### 1.2 Corporate sustainability reporting scenario in India

Considering the growing importance and significance of sustainability issues at the global level, the Ministry of Corporate Affairs (MCA), Government of India published the National Voluntary Guidelines (NVG) on Social, Environmental, and Economic Responsibilities of Business in July 2011. All Indian businesses, including MNCs and SMEs, can use these recommendations as a blueprint for reporting on corporate social responsibility. The Securities and Exchange Board of India (SEBI) mandated listed businesses to adopt the NVG guidelines and to uniformly publish their responsibility efforts in Business Responsibility Reports (BRRs) as part of annual reports in a circular on Business Responsibility Reports, dated August 13, 2012. For the top 100 listed companies based on market capitalization at the BSE and NSE as of March 31, 2012, the terms of the circular are mandatory and must be followed beginning with the financial year that ends on or after December 31, 2012. Only 34 Indian businesses reported using the Global Reporting Initiative (GRI) framework at the end of 2011, but there are now approximately 142. In India, TATA (Automotive) is a leader in sustainability reporting. Based on GRI principles, it started disclosing its sustainability performance in 2001. Since 2001, most reporting in India has been done voluntarily. The majority of Indian businesses create their sustainability reports in accordance with the GRI recommendations. A few examples of corporations that report on sustainability issues in their reports include Infosys Technologies India, ITC, Larsen and Toubro (L&T), Oil and Natural Gas Corporation (ONGC), Reliance Industries Limited, Tata Consultancy Services (TCS), Tata Motors, Wipro Ltd., ACC, and Indian Oil, among others. Many of these businesses have even listed their sustainability reports on the GRI website.

The current body of research has not yet reached a definitive conclusion about the correlation between sustainability reporting and financial performance. This study seeks to investigate the influence of sustainability reporting on financial performance within the Indian context, in order to address the issue.

## 2. REVIEW OF LITERATURE

Reviewing the research on the many aspects of reporting on sustainability, such as the amount and quality of reporting and how it relates to financial performance, shows the gaps in the literature. These gaps in the literature will serve as the foundation for further research in this area. In the list below are a few studies that are relevant and cover the above topics.

### 2.1 Reviews on quality of sustainability reporting

A study of the sustainability reports of German companies from 2000 to 2003 revealed that only 40.6% of the information was good enough to be shared [13]. In contrast, evaluations of companies listed on the TecDAX (German stock market) index showed a lack of significant data related to social and environmental factors [14].

It was also found that the four biggest mining companies in the Fortune 500 improved their disclosure of activities over time between 2000 and 2006. The survey indicated that these sample companies primarily reported on the social component, followed by environmental and economic aspects, in line with GRI requirements [15]. Another study examining the 30 largest companies worldwide found that these corporations predominantly publish economic information, which alone is insufficient for a comprehensive reflection of the company's performance.

The sustainability reporting practices of Indian companies have been scrutinized through survey methods by researchers, revealing that internal stakeholders often lack awareness of the benefits of such reporting [16].

KPMG analyzed the sustainability reporting practices of the world's top 250 companies (G250) and discovered that 92% of the organizations report on their corporate responsibility, with European companies displaying the highest quality in terms of reporting depth and breadth [3]. However, while most businesses demonstrate environmental commitment, few utilize the GRI framework to report their impacts, as determined through an examination of the corporate sustainability reporting (CSR) of the 200 largest Indian enterprises, both state-owned and private [17].

Previous studies indicate variability in sustainability performance ratings provided by different agencies, mainly attributable to diverse assessment methodologies [18]. Additionally, a content analysis of 10 PSU banks based on the GRI-G4 framework showed that most do not adhere to sustainability reporting, disclosure, and transparency policies [19].

The existing literature on sustainability reporting, including ESG, suggests that stakeholder awareness is increasing, yet calls for more robust research into the determinants of such reporting and ESG disclosure [20, 21]. One study, for example, employs bibliometric analysis to shed light on ESG reporting and advocates for a variety of improvement strategies to raise the quality of sustainability reporting [22].

Researchers have reached consensus that standardizing corporate sustainability reports would assist investors in making more informed decisions regarding risks and opportunities [23, 24].

The discussion underscores the critical nature of ESG reporting and sustainability, with numerous research papers published over the years. While many bibliometric studies have been conducted, they still face specific limitations.

### 2.2 Reviews on sustainability reporting and firm performance

One of the previous studies used cross-sectional data analysis to investigate the relationship between the financial market success of the top 100 UK firms and the disclosure of their social and environmental performance over a ten-year period. They discovered no connection between market performance and the companies' voluntary and required social and environmental disclosure [7].

In their study of 110 businesses from the DJSI and DJGI — Dow Jones Sustainability Global Index — researchers found a negative correlation between CSR performance, as indicated by profit before tax, and the indices [25]. A similar study using a sample of Australian businesses also found an unfavorable correlation between sustainability reporting and a company's extraordinary returns [15].

Indian researchers conducted a content analysis of the annual reports and websites of Indian firms to determine how sustainability impacts CFP. The authors discovered that sustainability has a considerable impact on return on sales (ROS), return on assets (ROA), and return on equity (ROE), but not on growth. Another study found a significant correlation between non-financial reporting and company performance in Indian manufacturing companies [26].

In the analysis of 600 large enterprises from Canada and the USA, researchers found positive and substantial correlations between CSP and company market value for those businesses that were able to share their sustainability performance with stakeholders [27]. Another study conducted in the same year found that businesses that uphold their obligations to the triple bottom line reporting perform better financially than those who do not [28]. Similarly, it was discovered that businesses with a focus on sustainable practices outperform those without such commitments in terms of ROA, profit before tax (PBT), and cash flow from operating activities [28].

In their 5-year study of listed businesses in Brazil, researchers found no link between accounting and market-based profit and the quality of reporting. However, the study reported that the quality of sustainability disclosure has gotten better over time [29]. The study examined the relationship between assessments of sustainability reporting and financial performance. The study observed that the impact of sustainability report reviews on certain short- and long-term financial performance metrics, such as growth related to ROA, ROS, and ROE, as well as sales, is significant. However, the company's value is negatively correlated with sustainability report reviews. Additionally, reviews of sustainability reports mitigate the effects of sales, leverage, and growth [30].

In another study, the researchers support the idea that ESG disclosure can alleviate the problem of information asymmetry between management and shareholders [31]. It is also reported that ESG disclosure helps reduce shareholder monitoring costs and improves shareholder value. Numerous studies have examined the link between business sustainability and financial metrics, but it is still not obvious whether the relationship is reciprocal [32]. The disclosure of sustainability reports brings value to investors and provides society with sustainability information and evidence that companies are taking sustainability issues seriously [33].

A careful examination of the aforementioned literature demonstrates that businesses all over the world adhere to a set of standards when disclosing their sustainability performance. Although there are other rules for reporting sustainability performance, the majority of businesses adhere to the GRI guidelines because they are the most popular and exhaustive. There is no exception in the case of Indian companies. Performance in sustainability is a subset of performance in general management, according to the notion of good management. According to the theory, general management performance has a variety of components, and sustainability management is one of them. Corporate sustainability and overall sustainability are therefore related. Second, strong financial results may have an impact on corporate sustainability because they make available the funds required to make investments in corporate sustainability. Companies with strong financial results and less risk can more easily afford to take responsible actions compared to rivals with lower returns and higher risk.

## 3. PROBLEM STATEMENT AND RESEARCH QUESTIONS

The empirical studies on the relationship between corporate sustainability reporting practices (CSRP) and firm performance are mostly done in developed countries, where CSRP is much more developed. But previous studies on the relationship between CSRP and financial performance, is however inconclusive due to conflicting results [34]. Except for a few survey reports [1, 2, 7], there is very little empirical evidence in the Indian context that CSRP is correlated with financial performance [35]. Study by Indian scholar [16] that have attempted to address various difficulties regarding corporate sustainability reporting methods in India. However, there is still a lot that is unknown about how Indian corporations are now reporting on sustainability parameters. Furthermore, there is little data supporting the effectiveness of disclosure and its relationship with companies' financial performance. Due to this gap in the literature, it is necessary to conduct research to determine whether Indian companies' sustainability reporting procedures are actually accomplishing the reporting's main goals. Additionally, it is generally unproven if the publication of sustainability reports improves firm performance. This article makes an effort to seek answers to these questions. The lack of valid data as a result of contradictory findings in earlier literature and the dearth of research in the Indian context were, respectively, the motivating factors behind this research.

This study will primarily examine the following research questions in order to assess sustainability reporting practices and their effect on firm performance: a) What is the quality of sustainability reporting practices of Indian companies; b) Does corporate sustainability reporting influence firm performance? c) Is the Global Reporting Initiative's sustainability framework an apt instrument for a company to reveal sustainability performance?

### 3.1 Objectives of the study

- To examine the quality of sustainability reporting practices of selected Indian companies.
- To investigate how quality of corporate sustainability reporting influence firm performance.
- To critically analyze Global Reporting Initiatives' sustainability framework.

### 3.2 Scope of the study

This study aims to examine the quality of sustainability reporting practices of select companies and also to investigates the relationship between sustainability reporting practices (CSRP) and firm performance of these companies in India. The study examines data of seven years, spanning from 2014-2015 to 2021-2022. The return on assets (ROA) and market-to-book ratio (MBR) are used as proxy variables for the firm performance, whereas disclosures on governance, social, economic, and environmental factors are the variables of the corporate sustainability reporting practices.

## 4. RESEARCH METHODOLOGY

### 4.1 Study design and analytical framework

Content Analysis technique has been used in this study for extracting information in a numeric form from the published sustainability reports of the select companies Content analysis methods are often used in social science studies, and this type of qualitative research has become more popular over the past few years. In this study, this method of content analysis was used to measure how much information was disclosed about sustainability. The GRI reporting framework is thought to be a better way to figure out the disclosure score because most Indian businesses follow the GRI rules when they publish their sustainability report. A four-point scale, from "0" to "3," is used to judge the quality of sustainability disclosure. Following the studies [29, 36], the coding system in this study has been somewhat modified (1999). First, there are two sorts of disclosed items: those that have been partially disclosed and those that have been fully disclosed. This is because the majority of the GRI framework's items can be divided into sub-items. The fully disclosed things are further divided into narrative form and quantitative form. Finally, the following values are assigned: '1' for partial disclosure, '2' for full disclosure in narrative form, '3' for full disclosure in quantitative form, and '0' for no disclosure. The total disclosure score for sustainability performance is calculated using the following equation after the item-wise score has been determined:

$$I_k = \sum_{i=0}^{n} Xik/n_k$$

where, the maximum predicted score for each of the four CSRP categories—Governance, economy, society, and environment—is denoted by the letters nk, where k stands for the company and I for the item. If the item is disclosed in the report, Xik assumes a value of "1," else it assumes a value of "0." While Xik uses a four-point scale with a value of '0' for not revealed, '1' for partially disclosed, '2' for fully disclosed in narrative form, and '3' for fully disclosed in quantitative form to determine the quality of the disclosure.

### 4.2 Sample size

Out of 142 companies which are doing sustainability reporting as per GRI guidelines in India, only 74 companies were found suitable for this study as these companies have been reporting on sustainability parameters as per GRI framework at least for a period of eight years and above. Therefore, a total of 74 companies from different sectors and industries were considered for this study.

The chosen companies belong to a wide range of sectors and industries, such as oil and gas, automobile, consumer goods, metals and mining, steel, cement, power, construction, and IT services, among others.

### 4.3 Data source and reference period

The study made use of secondary data that was gathered during 2014-2015 and 2021-2022, from the sustainability disclosure database (www.db.globalreporting.org). The study's requirements were carefully considered when compiling and using the data from this source. The selection of secondary data from such a source is impartial, precise, and offers the chance for replication. For this study, the sampling technique used was purposive.

### 4.4 Variables used and their explanation

**Corporate Sustainability Reporting (CSR):** It is a process of reporting by a company or organization about the economic, environmental and social impacts caused by its everyday activities. A sustainability report also presents the organization's values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global economy.

**Return on Assets (ROA):** It is an indicator of how profitable a bank is relative to its total assets. It gives an idea as to how efficient management is at using its assets to generate earnings. It is calculated by dividing a company's net income by its total assets.

**Market to Book Ration (M/B Ratio):** It is used to find the value of a company by comparing the market value of a firm to its book value. Book value is calculated by looking at the firm's historical cost, or accounting value. Market value is determined in the stock market through its market capitalization.

Firm size (SIZE) and financial leverage (LEV) are utilised as the control variables to neutralise the impact of company size on financial performance [35, 37]. The debt-to-equity ratio and the total assets' natural log are used, respectively, to calculate these quantities.

### 4.5 Analytical tools used in the study

In this study, both descriptive and inferential statistical tools were applied. The descriptive statistics such as maximum, minimum, mean, standard deviation, and coefficient of variance were used. Finally, the inferential statistics such as correlation and regression analysis have been used to gauge how strongly two variables are related and to examine relationship between CSRP on firm performance.

The following regression models are used to test the hypotheses and analyse the relationship between corporate sustainability reporting (CSR) and financial performance, along with two explanatory variables, for 74 selected Indian enterprises.

$$ROA = \alpha + \beta_1 CSR + \beta_2 SIZE + \beta_3 LEV + \varepsilon \text{ (Regression Model 1)}$$

$$MBR = \alpha + \beta_1 CSR + \beta_2 SIZE + \beta_3 LEV + \varepsilon \text{ (Regression Model 2)}$$

where, the acronyms for ROA, CSR, SIZE, LEV, and MBR stand for Return on Assets, Corporate Sustainability Reporting, Debt to Equity Ratio, and Market to Book Ratio, respectively.

The F-test is used to determine the overall validity and relevance of multiple regression models. This test has been run to ensure that each regression model is valid. An analysis of variance (ANOVA) is used to conduct the F-test. To gauge the effectiveness of the multiple regression model employed in the analysis, additionally multiple coefficients of determination ($R^2$) and adjusted multiple coefficients of determination (Adjusted $R^2$) are also compiled. The F-test was used to determine the validity and significance of all multiple regression models. For the analysis, MS-Excel and SPSS 25 statistical tools are used.

## 5. RESULT AND DISCUSSION

### 5.1 Quality of disclosure of CSR:

The sustainability reporting processes of the chosen companies, as well as the number of criteria that the companies disclosed, have been carefully examined in the sustainability reports and the annual reports of these companies. Table 1 displays the descriptive statistics for the variables in the study.

**Table 1.** Descriptive statistics variables used in the study

| Variables | Minimum | Maximum | Mean | Std. Dev. | Coefficient of Variation |
|---|---|---|---|---|---|
| CSRL | 0.474 | 0.848 | 0.715 | 0.212 | 0.2965 |
| CSRQ | 0.26 | 0.729 | 0.624 | 0.114 | 0.1826 |
| LEV | 0.27 | 1.64 | 0.568 | 0.2936 | 0.3408 |
| SIZE | 3.43 | 5.61 | 4.771 | 0.5917 | 0.1240 |
| ROA | 6.34 | 32.08 | 13.010 | 5.940 | 0.5335 |
| MBR | 5.62 | 31.28 | 6.677 | 7.884 | 0.6757 |

CSRL: Corporate Sustainability Reporting Level; CSRQ: Corporate Sustainability Reporting Quality; LEV: Leverage, SIZE: Firm Size; ROA: Return on Asset; MBR: Market to Book Ratio
(Source: Authors' analysis)

A closer look at the table indicates that CSRL and CSRQ each have mean values of 0.715 and 0.624, respectively. This shows that the mean level of disclosure of sample companies is approximately 71.5% of the GRI framework's items, and the mean qualitative disclosure is approximately 62.4% of the items overall. These disclosure scores show that Indian enterprises have revealed almost all of the GRI framework's components, and that the quality of disclosure is generally very good. Stakeholders gain from such information disclosure since it helps them understand the report and make informed decisions. The level of disclosure is where there is more of a deviation, (SD= 0.212) though the deviation is relatively less in the quality of sustainability reporting. This suggests that some businesses' efforts to provide information objectively have not been successful. Additionally, the sample companies' market values of equity are, on average, nearly seven times greater than their book values of equity, according to the mean MBR value of 6.677. However, the data set is not typical, as evidenced by the extremely large MBR standard deviation. However, it was discovered that the profitability measures' coefficients of variation (standard deviation/mean) values were greater, which suggests that the chosen companies' profitability metrics are very volatile. The difference between CSRL and CSRQ is shown to be gradually closing over time, suggesting that Indian businesses may have begun to recognize the significance of sustainable practices and are attempting to increase the quality of sustainability reporting for their stakeholders.

### 5.2 Relationship between quality of sustainability reporting and financial performances

The study has performed bivariate correlation analysis to examine the strength of the relationship between the quality of sustainability reporting and financial performance. Table 2 displays the findings of the correlation analysis.

The correlation matrix demonstrates a statistically significant relationship between the quality of sustainability reporting and financial performance indicators such as ROA and MBR. This suggests that the chosen companies are genuinely interested in reporting on sustainability parameters and effectively informing stakeholders through a report. The correlation between MBR and SIZE is shown to be moderately positive but not statistically significant, indicating that the market price of a share increases with company size and vice versa. LEV was also found to have a low correlation with ROA whereas it was found to have negative correlation with MBR and SIZE. Further, in case of MBR, it was not in case of SIZE it was found to be statistically significant. As a result, the alternative hypothesis that empirically demonstrated a significant and positive relationship between quality of sustainability reporting and financial performance, is hereby accepted.

**Table 2.** Correlations between quality of sustainability reporting and financial performances

| Variables | SRPL | SRPQ | LEV | SIZE | ROA | MBR |
|---|---|---|---|---|---|---|
| CSRL | 1 | | | | | |
| CSRQ | 0.688** | 1 | | | | |
| LEV | 0.083 | -0.274 | 1 | | | |
| SIZE | 0.328* | 0.386 | -0.312* | 1 | | |
| ROA | 0.52* | 0.50* | 0.249 | 0.463 | 1 | |
| MBR | 0.412* | 0.477* | -0.0971 | 0.604 | 0.610 | 1 |

*Correlation is significant at the 0.01 level (2-tailed), ** Correlation is significant at the 0.05 level (2-tailed).
(Source: Authors' analysis)

### 5.3 Quality of sustainability reporting practices and firm performance

As noted in the research methodology section, the researcher has employed various regression models to examine the impact of sustainability reporting on financial performance.

The regression model used to analyze the impact of sustainability reporting on financial performance is summarised in Table 3 (dependent variable: return on assets). A summary of the analysis presented in the table reveals that the sustainability score coefficient is positive and significant at the 5% level. This suggests that the company's sustainability reporting quality has a positive and significant effect on its financial performance. The sustainability score coefficient is positive and significant at the 5% level, according to the review of the summary table. This suggests that the effectiveness of the company's sustainability reporting has a favourable and significant effect on its financial performance. The estimated sustainability score coefficient is also noteworthy and favourable. This shows that, for the selected companies in the Indian context, the level of transparency is positively connected with company performance as measured by ROA. The size of the company, one of the control variables, was not found to be significant. Because large businesses have stronger options to expand their product lines and broaden their consumer bases, this is also somewhat expected. This in turn boosts market strength and the ability to earn more profits. On the other hand, ROA and LEV have a negative association. The pecking order theory of capital structure, which holds that profitable businesses employ less debt because they have sufficient internally generated cash, is compatible with the fact that LEV has a negative impact on ROA. The models' observed explanatory power and the significant F-statistic show that the regression model chosen for this investigation of the relationship between financial success and sustainability reporting quality is appropriate. The absence of serial and auto-correlation in the dataset used is explained by Durbin-Watson statistics, and the VIF results also show that multi-collinearity is not a significant issue for the current models.

**Table 3.** Model summary and ANOVA (F) results dependent variable: ROA

| | Variables | Coefficients B | Coefficients Std. Error | 't' value | Significance | Collinearity Statistic Tolerance | Collinearity Statistic VIF |
|---|---|---|---|---|---|---|---|
| 1 | Constant | 0.240 | 1.432 | 1.032 | .975 | | |
| | SUS_SCORE | 3.397 | .502 | 2.790* | .042 | .148 | 1.750 |
| | LEV | -2.964 | 1.963 | -.570 | .584 | .465 | 2.149 |
| | SIZE | 0.398 | 3.927 | .101 | .922 | .160 | 1.236 |
| R = 0.531, R Squared = 0.282, Adj. R Squared =0.235, F Value = 3.263* at p value = 0.0461, DW statistics = 1.250 | | | | | | | |

Source: Authors' analysis

**Table 4.** Model summary and ANOVA (F) results dependent variable: ROA

| | Variables | Coefficients B | Coefficients Std. Error | 't' value | Significance | Collinearity Statistic Tolerance | Collinearity Statistic VIF |
|---|---|---|---|---|---|---|---|
| 1 | Constant | .112 | 2.182 | .051 | .960 | | |
| | SUS_SCORE | .052 | .147 | 2.732* | .015 | .048 | 2.750 |
| | LEV | -4.252 | 4.099 | -1.037 | .330 | .465 | 2.149 |
| | SIZE | .728 | 1.153 | 2.631* | .046 | .160 | 1.236 |
| R = 0.617, R Squared = 0.380, Adj. R Squared =0.318, F Value = 2.863* at p value = 0.005, DW statistics = 1.125 | | | | | | | |

Source: Authors' analysis

Table 4 summarizes the regression model's findings for examining the impact of quality of sustainability reporting on financial performance (dependent variable: MBR). A thorough examination of the table reveals that the sustainability score coefficient is positive and significant at the 5 percent level. This implies that the disclosure of sustainability performance has a positive and significant impact on the company's performance, as measured by its market value. This suggests that the amount of disclosure with respect to the selected companies in the context of India is positively correlated with the market value of the selected companies, as assessed in terms of MBR. A further probe revealed that the beta coefficients of SIZE were found to be positive but, interestingly, had no significant impact on financial performance. Because large businesses have stronger options to expand their product lines and broaden their consumer bases, this is also somewhat expected. This increases the company's capacity for making a profit and, hence, its market power. LEV, on the other hand, was found to be negatively impacting MBR. The negative effect of LEV on ROA is consistent with the pecking order theory of capital structure. The observed explanatory power of the models and the F-statistic demonstrate the validity of the regression model used in this study to examine the impact of quality sustainability reporting on company performance. The effectiveness of Durbin-Watson statistics also demonstrates the absence of serial autocorrelation. Additionally, the values of VIF show that multi-collinearity is not a significant issue in the regression model.

Empirical evidence in the Indian context rejects the second hypothesis, which claimed there was no significant relationship between the quality of sustainability disclosure and financial performance. So, the alternative hypothesis (Ha2) is accepted, which says that the quality of sustainability reporting has a big effect on how well sample companies in India perform financially. The findings of this study are consistent with the findings of earlier studies [33, 34, 38].

### 5.4 Analysis of the global reporting initiatives' sustainability framework

In response to stakeholders' growing demands for accountability and transparency, organisations have started sharing non-financial data under the guise of a "business sustainability report." This trend in the release of such reports was sparked by the GRI framework, a voluntary reporting tool that uses the term "corporate sustainability" to characterise disclosures on four primary dimensions of sustainable development at the business level (social, environmental, governance and economic). Global attention has been focused on GRI since the initial edition of the reporting standards was released in June 2000. The majority of businesses are using the GRI sustainability reporting methodology to publish their reports, according to the survey report. Although the GRI is a framework that is frequently used for releasing sustainability reports, not all sectors or businesses may find that it is enough for disclosing their corporate sustainability reporting information. Each sector operates at a different level and with a distinct level of performance. Also, the stakeholders from various nations have varied information needs. It is not practical to include these variations in activities and information requirements using a standard GRI framework [39, 40].

Some of the biggest problems with the GRI framework are the ways to give advice and encourage external verification. The recurrent charge of "green washing" and "cheerful picking" in voluntary sustainability reporting is a common theme that adds to the credibility gap in such reporting systems. Stakeholders require a report that presents a truthful picture and goes beyond serving as a public relations tool [1]. A company releasing a sustainability report is required by GRI to use external verification. The addition of a plus sign at the appropriate application level for the firm should be used to indicate that the report has been verified. It is noteworthy that the GRI framework offers little direction on how to verify the report and sheds light only on a small number of concerns pertaining to using verification services. Some academics have identified numerous problems with the practise of external verification and assurance in their studies, including little stakeholder involvement, a lack of transparency, and similar verification standards [40-42]. The Towards Sustainable Mining Framework and the Sustainable Development Framework of the International Council on Mining and Metals are two examples of several recommendations that have been developed with specific norms and assistance towards external assurance to solve some of these concerns. In this regard, GRI falls short of making specific and comprehensive suggestions and encourages organisations to seek guidance from other sources. Companies must compromise on the veracity of non-financial disclosures in order to attain various levels and types of assurance [43].

The GRI framework, despite not having integrated indicators, which many authors have said are important for making decisions about sustainability. But the GRI framework doesn't talk about how to put social, environmental, and economic data in reports. The GRI framework makes it hard for reporters to understand how the stated indicators compare to each other. Because it enables decision-makers to recognise the interdependence of the pillars, identify integrated benefits, and evaluate the inevitable trade-offs between sustainability dimensions, integration between the economy, environment, and society—the three main pillars of corporate sustainability—is essential. Although, few earlier studies have mentioned that the GRI framework does not provide level playing field for businesses to show how well it is doing in terms of sustainability and meeting the needs of stakeholders. The GRI framework is comprehensive and contains a number of indicators that are not advantageous to all organisations on an equal basis [44]. On the other hand, it was claimed that not all pertinent sustainable development indicators are included in the GRI framework. But, according to them, the GRI is a good place to start when describing sustainability-related issues, organising sustainability measurement, and facilitating comparisons across multiple companies using the same framework [45]. However, the GRI framework must always be used in addition to a number of other criteria. Although the GRI framework is the only one used by the majority of companies for releasing their sustainability reports, structural modifications are required to make the current GRI framework a more complete framework in order to overcome the numerous constraints of the existing framework [38, 46].

### 5.5 Practical implications

The idea of sustainable development has gained international attention since the release of the study "Our Common Future." Also, according to a number of survey reports, sustainability reporting is now seen as a standard practise in business due to the necessity of such practises in order to both enhance overall firm performance and support sustainable development. The results of this study also show that corporate sustainability reporting improves business performance, which increases the significance of sustainability reporting. Only a few companies are continuously publishing this type of research in India, nonetheless. As a result, the study's findings might inspire businesses to create and implement sustainability plans. According to the "Brundtland Report," such a strategy will support the achievement of the broad goals of sustainable development in addition to enhancing company performance and fostering competitive advantage.

Most people think that the quality of sustainability disclosure is more important to the success of a company than the amount of disclosure. The study's results also showed that there is no clear difference between the degree and quality of sustainability reporting and how well a company does. This shows that investors are not aware of how critical it is to distinguish between different levels and qualities of information sharing. Investors may convey the wrong message to the company about the importance of quality disclosure if they do not respect quality disclosure of corporate sustainability, which could ultimately lead to a "Greenwash" problem. Furthermore, it is crucial for firms to comprehend how these developments may affect their stakeholder relationships as reporting standards for sustainability continue to alter. In the current business climate, GRI rules have been adopted by almost all companies.

Despite being widely accepted, the paper makes the case that the GRI framework might not be adequate to supply the required data. It is therefore impractical for a single GRI framework to take into consideration the different information requirements of stakeholders in developed and developing nations. So, in order to improve the validity and acceptability of sustainability reports, it is essential for a company to disclose some additional sustainability-related facts in addition to the GRI-specified aspects.

This study adds to what is known about CSP and firm performance by showing that focusing on the triple bottom line can be a good business strategy to enhance financial performance. The study's results are also important for making academics and policymakers better able to explain sustainable development to the public. Corporate executives will benefit even more from it as they create stronger company sustainability programmes. This study also increases corporate awareness of stakeholders' participation in organisational activities. As a result, sustainability issues will be taken into account while making strategic decisions.

## 6. CONCLUSION

The current study is a small attempt to look at how 78 listed Indian companies from different industries report on sustainability over the course of eight years, from 2014-15 to 2021-22.

According to the study, 71.5 percent of disclosure is made in accordance with the GRI sustainability reporting guidelines, and the quality of disclosure is close to 62.4 percent, which is quite excellent. Indian companies provide a considerable amount of information in their sustainability report. This indicates that Indian companies are more serious about their obligations to inform stakeholders about their effects on the economy, society, and environment. But throughout time, the quantity and quality of disclosure have largely remained constant. For stakeholders to make better decisions, the gap needs to be closed by raising the quality of the information. The research also demonstrates how all of the sample comapnies have consistently disclosed non-financial information using the GRI framework.

The study found a significant correlation between financial performance, as measured by accounting and market-based profitability measures, and the quality of sustainability reporting. The results of the current study are in agreement with those of past examinations [47]. The study also shows that practically all of the sample companies publish their sustainability reports using the same GRI reporting structure.

But the GRI framework has some problems and might not be enough to report all the important information. GRI framework will still be used until a more comprehensive and better framework is made, because it is the only one that lets companies share the whole picture of how well they do in terms of sustainability. The study's findings show that Indian companies' sustainability efforts are not a hoax but rather are becoming more routine [48].

## 7. LIMITATION AND IMPLICATIONS FOR FUTURE RESEARCH

The study contains certain limitations, despite the results of the investigation. Only those businesses that have been reporting on sustainability metrics for the past eight years are included in the study. Thus, researchers should use caution when extrapolating the study's findings. Future research can take into account the mediating effects of other factors and other company performance measurements, as well as a larger sample size and a greater number of data years. The study's findings raise awareness of the companies that voluntarily publish data in the form of sustainability reports as well as the importance of adopting generally accepted standards for sustainability reporting. Even though it is also related to things like market performance, human resource performance, and operational performance, this study focused mostly on how corporate sustainability reporting affects financial performance. The current study suggests using a good mix of qualitative and quantitative methods to learn more about how corporate sustainability reporting affects the overall performance of a firm. Also, industrialised countries understand sustainability better and to a greater degree than does India. A comparison between corporate sustainability reporting and overall company performance in India and other developed countries may be useful for an organization's success, given the significance of sustainability reporting techniques in the business sector [33, 34, 38] This study can be used by corporate managers, environmentalists, governmental organizations, and regulatory bodies as a basis for generating innovative theoretical ideas, informing key participants, and signifying new directions for sustainability implementation. Policymakers and practitioners can use the recommended sustainability dimensions to incorporate sustainability reporting within their organizations, effectively verify their firms' sustainability plans, and also consider the tools and drivers of sustainability reporting.

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## NOMENCLATURE

| | |
|---|---|
| Var. | Variables |
| CSRP | Corporate sustainability reporting practices |
| ROA | Return on assets |
| SIZE | Firm size |
| LEV | Financial leverage |
| MBR | Market to Book Ratio |
| CSRL | Corporate Sustainability Reporting Level |
| CSRQ | Corporate Sustainability Reporting Quality |
| SD | Standarad Deviation |

### Greek symbols

| | |
|---|---|
| $\alpha$ | Constant |
| $\beta$ | Corresponding coefficient of independent variables |
| $\varepsilon$ | Error term |

### Subscripts

| | |
|---|---|
| nk | Maximum predicted score CSRP categories |
| K | Company |
| I | Item |