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THE IMPACT OF SUSTAINABILITY REPORTING ON FINANCIAL PERFORMANCE OF SELECTED LISTED COMPANIES: EVIDENCE FROM INDIA

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Abstract

At present, besides traditional disclosure practices, companies need to disclose all the relevant facts and figures relating to its contributions made towards the protection of environment and society. This type of reporting is popularly known as sustainability reporting. Sustainability reporting refers to the disclosure of information regarding the company's operations in major areas i.e., economic, environmental, social and corporate governance. During the last couple of decades, sustainability reporting has received considerable attention throughout the world. In this context, it is pertinent to understand the present status of sustainability reporting practices of Indian companies and to examine the impact of sustainability reporting on financial performance of companies. This study is based on secondary data which are retrieved from various financial and non-financial reports of 25 selected Indian listed companies belonging to Automobile, Information Technology, Oil and Gas, Power and Cement industries covering the period from 2014-15 to 2021-22. This study used content analysis to understand the present status of sustainability reporting practices of Indian companies as per the Global Reporting Initiative (GRI) guidelines. This study applied correlation and panel regression analysis to examine the impact of sustainability reporting on financial performance of companies. It is found that sustainability reporting has a positive impact on financial performance of Indian companies.

Keywords: *Sustainability Reporting, Financial Performance, Panel Regression, GRI.*

JEL Classification: C23, G3, M48, Q56.

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Introduction

As organisation is working within the society, it is the responsibility of that organisation to pay attention to the norms that apply in the sociality and carry out its activities in accordance with societal boundaries and norms where it operates ***(Deegan, 2002)***. According to the study of ***Cho and Patten (2007),*** environmental and social disclosure can be used as a legitimizing tool. Legitimization is obtained if an organization adhere expectations of stakeholders and fulfil hidden responsibilities to its society ***(Deegan and Blomquist, 2006; Long and Driscoll, 2008).*** Nowadays, apart from the traditional financial reporting, non-financial reporting has become a prime concern among companies. Non-financial reporting refers to disclosures of environmental, social and governance information. Some of these reporting types are Sustainability Reports, Environmental, Social and Governance (ESG) Reports, Integrated Reports, Environmental Reports, Business Responsibility Sustainability Report (BRSR) etc. Various institutions and statutory bodies across the globe have issued guidelines on non-financial reporting such as Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), EU Corporate Sustainability Reporting Directive (CSRD), International Sustainability Standards Board (ISSB),Securities and Exchange Board of India (SEBI). According to the study of Laskar and Maji (2016) various stakeholders are main audiences for GRI. In contrast, the main audiences for other reporting frameworks are investors, which makes GRI a widely recognised reporting framework**.**

In this context, this study examines the level of sustainability disclosures made by Indian companies in their sustainability reports and also investigates the impact of sustainability reporting on financial performance of selected Indian listed companies. The results of this study would help all the stakeholders of the companies including directors and managers, investors, policymakers to make important decisions. This study will also contribute to achieve the targets of Sustainable Development Goals (SDGs).

This study comprises eight sections. First section presents an introduction. Section two gives review of literature. Section three includes research gap. The objectives of the study and research methodology are presented in sections four and five. The sixth section focuses on the results and discussions. Conclusions and the limitations of this study are covered in the seventh and eighth sections respectively.

At first, the present state of sustainability reporting practices in India is shown below with the help of table and graphs. Here, Sustainability Disclosure Index (SDI) is created based on methodology used by the previous studies of ***Nguyen, (2020); Diantimala, (2018).***

Table 1: Sustainability Disclosure Index (SDI) in 2014-15 and 2021-22 of Selected Indian Companies

Industries	Industry Average of SDI in % (Financial Year 2014-15)	Industry Average of SDI in % (Financial Year 2021-22)
Information Technology Industries	34.11	73.39
Auto-Mobile Industries	44.88	71.53
Cement Industries	39.39	66.76
Power Industries	39	72.23
Oil And Gas Industries	50	72.4
Average	**41.48**	**71.26**

Source: Researchers' own presentation

Table 1 shows that the average level of disclosure made by the Indian companies in 2021-22 as per the GRI sustainability reporting guidelines is 71.26% which is much higher than the average level of disclosure in 2014-15. This is evidenced that Indian companies are now prioritizing sustainability reporting.

Figure 1 shows the trends of sustainability disclosure of selected Indian companies belonging to Information Technology, Automobile, Cement, Power and Oil and Gas industries. It shows that all the leading companies of these industries are disclosing more sustainability related data during the period. The increasing trend is observed in terms of sustainability disclosure as per key indicators provided in GRI guidelines relating to economic, environmental, and social aspect for all the selected industries during the last eight years.

2. Review of Literature

Numerous studies using various theoretical frameworks have been conducted to examine the volume and type of environmental, social disclosures that businesses provide. Previous studies are presented in this section.

Kelly (1981) studied the disclosure policies for social responsibility of 50 Australian firms from 1969 to 1978 which found that bigger companies generally provide more information about the environment, energy, and products. ***Wiseman (1982)*** examined annual report disclosures published by 26 firms operating in environmentally sensitive industries. He found that company's environmental disclosures are inadequate and not related to the firms' real environmental performance. Malaysian companies' corporate social responsibility reporting practices have been investigated by ***Teoh and Tong (1984)*** and they observed that businesses are more focused on disclosing information about their products, services, and human resources than on environmental issues. ***Guthrie and Parker (1990)*** examined 147 annual reports

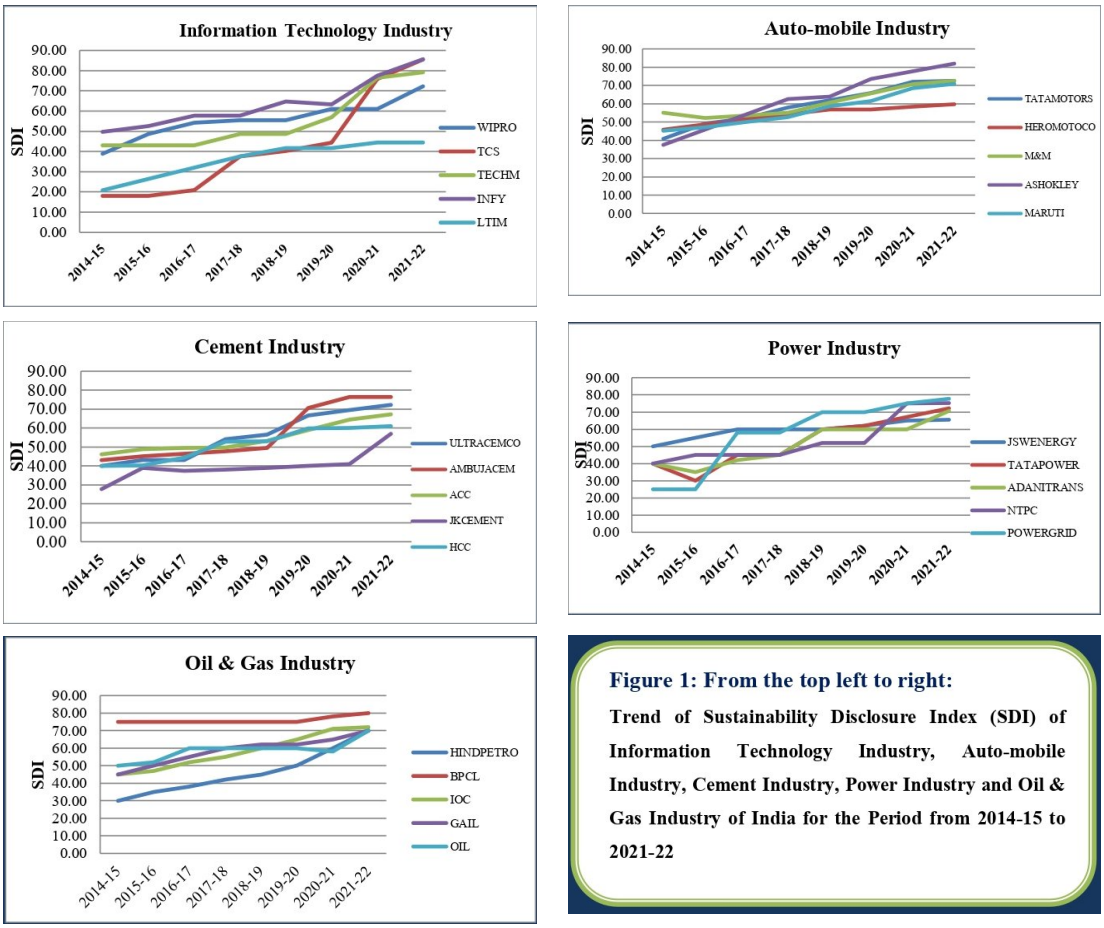

Figure 1: From the top left to right:
Trend of Sustainability Disclosure Index (SDI) of Information Technology Industry, Auto-mobile Industry, Cement Industry, Power Industry and Oil & Gas Industry of India for the Period from 2014-15 to 2021-22

Fig. 1: Trend of Sustainability Disclosure Index (SDI) of Selected Industries of India for the Period from2014-15 to 2021-22

Source: Researchers' own presentation

made by companies from various countries including Australia, the United Kingdom, and the United States and came to the conclusion that the percentage of environmental disclosures made by companies are different from country to country, like it was 14% in U.K. companies, 53% in U.S. companies, and 21% in Australian companies. ***Harte and Owen (1992)*** examined several studies on social disclosure from the year 1980 to 1990 and concluded that only one company in their survey of UK companies used a separate report for revealing information on social issues. They found that 40% of companies provided social and environmental issues in its statements. ***Al-Basteki (1997)*** studied annual reports and social disclosure practices of companies listed on the Bahraini Stock Exchange. The study's findings showed that the degree of social transparency varied depending on the company's size and sector. ***Gray et al. (2001)*** investigated the association between corporate social and environmental disclosure and business

characteristics in the annual reports of the top 100 UK corporations from 1988 to 1995. According to the study's findings, a company's size, profitability, and industry affiliation are all positively correlated with its social and environmental disclosure. This result was consistent with the study of ***Cheema (2004).*** According to the study of ***Cheema (2004)*** larger corporations published more environmental information in their annual reports and also had a better system in place for keeping track of environmental expenses. Businesses that dealt with international clients were more environmentally aware made greater environmental disclosures. ***Hossain, Islam and Andrew (2006)*** examined the scope and nature of social and environmental reporting in companies' annual reports in Bangladesh. They investigated the association between the level of social disclosure and several corporate attributes. The findings showed that very few businesses in Bangladesh voluntarily disclose social data, and that the majority of this disclosure is of a qualitative character. ***Sahoo, Swain and Bal (2018)*** conducted research on India's corporate disclosure practises. They discovered that there is a lot of variation in the disclosure score across different industries of India. ***Laskar (2019)*** found that the impact of sustainability performance on financial performance was negative and significant in Indian context.

3. Research Gap

Over the years, academicians and researchers from across the world have made numerous attempts to examine the various aspects of corporate performance and sustainability, but most of them have concentrated on the companies belonging to developed countries. Based on thorough review of literature, it is found that there is lack of comprehensive study regarding the present status of sustainability reporting practices and its impact on financial performance of companies in India.

4. Objectives of the Study

The specific objectives are:

- To understand the present status of sustainability reporting practices of Indian companies.
- To examine the impact of sustainability reporting on financial performance of Indian companies.

5. Research Methodology

Sample and Description of Data

The present study is based on the secondary information which are collected from companies' annual reports, integrated reports and sustainability reports. The sample consists of 25 BSE listed non-financial (other than financial service provider companies like banks) Indian companies covering the period from 2014-15 to 2021-22. F.Y. 2014–15 is seen as the

transition year, representing the end of the MDGs and the start of the SDGs. Additionally, the GRI released G4 standards in 2013, and F.Y. 2014-15 was the first fiscal year in which companies began using GRI G4 guidelines. Due to this, a time frame of eight years, beginning in 2014-2015 and ending in 2021-2022, has been chosen for the study. ***Majmudar, Rana and Sanan (2015)*** demonstrate the ranking of India's top ten companies for responsible business, keeping attention on the significance of sustainability and CSR. It has been observed that these ten companies mostly belong to eight industries, including the Automobile, Information Technology, Oil and Gas, Power, Cement, FMCG, Chemicals and Steel industries. Based on the availability and consistency of the data, researchers selected five of the eight industries for this study. Furthermore, according to the Notification (2016) of Government of India, it has been observed that out of the five industries selected, four of them fall into the "red" category, meaning they have a Pollution Index score of 60 or above. Five companies from each industry are considered in this study based on market capitalization which was calculated on 14th December 2022 and all the large-cap companies are selected except Tata Power Ltd., Oil India Ltd., JK Cements Ltd., HCC Ltd., JSW Energy Ltd. In addition, it is to mention that five companies from each of the above-mentioned industries are considered because all these companies started to publish their respective sustainability reports on or before the F.Y. 2014-2015.

The companies that are selected for this study are presented below in tabular form.

Table 2: Sample companies for the study

Automobile Industry	Cement Industry	Information Technology Industry	Oil and Gas Industry	Power Industry
Hero Moto Corp Ltd.	Ultra Tech Cement Ltd.	Tech Mahindra Ltd.	Oil India Ltd.	Power Grid Corporation of India
Tata Motors Ltd.	Ambuja Cements Ltd.	LTI Mindtree Ltd.	Indian Oil Ltd.	National Thermal Power Corporation Ltd.
Mahindra Rise Ltd.	ACC Cements Ltd.	Wipro Ltd.	Hindustan Petroleum Ltd.	TATA Power Ltd.
Ashok Leyland Ltd	JK Cements Ltd.	Tata Consultancy Services Ltd.	Bharat Petroleum Corporation Ltd.	Adani Transmission Ltd.
Maruti Suzuki India ltd.	HCC Ltd.	Infosys Ltd.	Gas Authority of India Ltd.	JSW Energy Ltd.

In order to capture the level of sustainability disclosure made by sample companies based on GRI guidelines, Sustainability Disclosure Index (SDI) is created. The SDI is calculated on the basis of quantity of indicators that are disclosed by the company. For each indicator, one point was given for disclosure and zero points for non-disclosure. Following formula is used to determine the SDI for each company ***(Nguyen, 2020, Diantimala, 2018):***

$$SDI = STDS / MDS$$

Where,

SDI = Sustainability Disclosure Index

STDS = Sum the total disclosure score of a company

MDS =Maximum scores possible for a company

In this study, this SDI is utilised to understand the present status of sustainability reporting practices of Indian companies.

Table 3 : Description of Variables

Variables & Symbols	Formula	Description
Return on assets (ROA)	Net income (post-tax profits) over total assets	It indicates managerial efficiency. How efficient the management is to generate profit from its assets. In this study, ROA is considered as a proxy variable of financial performance of the selected companies.
Return on Capital Employed (ROCE)	EBIT/ TA - CL	It checks relative efficiency of fund utilisation. How efficiently the company is utilising its capital to generate profit. In this study, ROCE is considered as a proxy variable of financial performance of the selected companies.
Return on equity (ROE)	Net income over shareholder equity	It reflects shareholders return. In this study, ROE is considered as a proxy variable of financial performance of the selected companies.
Total assets	Natural log of total assets	It indicates company's size. In this study, natural log of total assets is considered as a proxy of company size.
Total Debt Equity ratio	Total Debts / Shareholders' Equity	It reflects company's financial risk. In this study, total debt equity ratio is considered as a proxy of company risk.

Source: Researchers' own presentation

Multivariate panel regression models have been developed by the researchers to investigate the effect of sustainability reporting on the financial performance of Indian companies. In this study, three different models are constructed where the dependent variable is Financial Performance (FP). Three proxy variables namely, ROA, ROCE and ROE are used here to measure the financial performance of the companies. The justifications of considering these three variables simultaneously are ROA emphasises on the efficient utilisation of assets, ROE shows the relationship between overall accounting profits and shareholders' funds, while ROCE considers operating profits and total assets, including both debt and equity. Due to its emphasis on operating profits and overall total assets, ROCE is considered to be a superior metric and more accurate proxy variable of financial performance. In examining a company's financial performance, these ratios are crucial. To corroborate the same, few previous studies like ***Maqbool and Zameer, 2018, Maqbool and Bakr, 2019, Sekhon and Kathuria, 2020, Sharma et al. 2020, Sharma et l. 2021, Okafor, Adeleye and Adusei., 2021, Nithya and Nirmala, 2022, Oware and Mallikarjunappa, 2022*** are mentioned here.

Sustainability Discloser Index (SDI) is considered as independent variable. Natural log of Total Assets and Total Debt/Equity are used as control variables. Here, E-views 12 software is employed to analyse the sample data.

Model Specification:

The general form of regression model is stated below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + ... + \beta_n X_n + \varepsilon$$

Where,

Y= the dependent variable;

X_1= the independent variable 1;

X_2= the independent variable 2;

n= number of observation

β_0 = constant

$\beta_1, \beta_2 ..... \beta_n$ = regression coefficients

ε = Term of random disturbance

Panel regression model is as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1\,it} + \beta_2 X_{2\,it} + ... + \beta_n X_{n\,it} + \varepsilon_{it}$$

Where,

Y= the explained or dependent variable of i^{th} company in t time;

X_1= the explanatory or independent variable 1 of i^{th} company in t time;

X_2= the explanatory or independent variable 2 of i^{th} company in t time;

X_n= the explanatory or independent variable n of i^{th} company in t time;

n= number of observations

β_0 = constant

$\beta_1, \beta_2 \ldots\ldots \beta_n$ = regression coefficients

ε = Term of random disturbance

The basic model of the study is as follows.

"Financial Performance" = f (Sustainable Disclosure Index)

The basic regression model of study is as follows:

$$FP = \beta_0 + \beta_1 SDI + \beta_2 Log\_total\ assets + \beta_3 D/E + \varepsilon$$

The basic panel data model for the study is as follows:

$$FP_{it} = \beta_0 + \beta_1 SDI_{it} + \beta_2 Log\_total\ assets_{it} + \beta_3 D/E_{it} + \varepsilon_{it}$$

Where,

β_0 = constant

$\beta_1, \beta_2, .\beta_3$= regression coefficients

FP = the explained variable (Financial Performance of i^{th} company in t time, represented by ROA, ROCE, ROE in model 1, 2 and 3 respectively).

SDI_{it}= the explanatory variable (Sustainability Disclosure Index of i^{th} company in t time)

Log_ total assets = the control variable 1 (Size of i^{th} company in t time)

D/E = the control variable 2 (Risk of i^{th} company in t time)

ε_{it}= Term of random disturbance

Econometric Tools Used:

In this study, at first, Panel Unit root test using Levin, Lin and Chu (LLC) methodology is applied to examine whether a series is stationary or non-stationary. Then the Breusch-Pagan testis conducted to confirm the Pooled Ordinary Least Square (POLS) is appropriate or not. The Hausman test is then used to choose between the Fixed Effect Model and Random Effect Model. At last, the Wald test is applied to check how far the independent variables are significant for the model.

Panel Unit Root Test: Unit root test examines whether a series is stationary or not. One of the popular panel unit root tests i.e., ***Levin, Lin and Chu (2002)*** is applied for this data set. The null hypothesis of the ***Levin, Lin and Chu (2002)*** indicates the presence of the unit root in the data series.

Breusch-Pagan Test: As Pooled Ordinary Least Square (POLS) assumes that residuals

are homoscedastic. Violation of this assumption implies heteroscedasticity is present in the residuals. In that situation, results of the regression become unreliable. The Breusch-Pagan test is used to confirm Pooled Ordinary Least Square (POLS) is appropriate or not. Null Hypothesis of the Breusch-Pagan test is the residuals are homoscedastic. If the p-value of the test is less than 0.05 then the null hypothesis is rejected. This implies heteroscedasticity is present in the regression model. So, in this situation, POLS is not appropriate ***(Wiredu, Nketiahand Adjei., 2020)***.

Hausman Test: The Hausman test determines whether there is any relationship between the unique errors and the independent variables in a model. This test is also used to choose between the Fixed Effects Model and the Random Effects Model. Null hypothesis of Hausman test states the Random Effects Model is preferred than the Fixed Effects Model.

Wald Test: The Wald test is applied here to check how far the independent variables are significant for the model. Variable significant implies it add value to the model. If the Wald test result rejects the null hypothesis that indicates independent variables are significant to the model. If the test results could not reject the null hypothesis, this means that removing the variable from the model will not considerably damage the fit of that model ***(Luo & Oberholzer, 2011)***.

6. Results and discussion

Panel Unit Root Test:

Table 4 shows the results of ***Levin, Lin and Chu (2002)*** panel unit root tests.

Table 4 : Results of Panel Unit Root Test using Levin, Lin and Chu Method

Variables	Stat.	Probability	Order of Integration
ROA	-8.18135	0.0000	At level
ROCE	-8.71253	0.0000	At level
ROE	-9.03004	0.0000	At level
SDI	-60.7903	0.0000	At level
LOG_TA	-6.91295	0.0000	At level
D/E	-5.93552	0.0000	At first difference

Source: Researchers' own calculation using E-Views Software.
Note: Test Critical Value has been checked at 1%, 5% level of significance, respectively.

In this study, researchers utilised the panel unit root tests proposed by Levin-Lin-Chu and table 4 shows that variables except Debt-Equity ratio are stationary as null hypothesis of unit root is rejected. The null hypothesis of no unit roots for Debt-Equity ratio is not rejected at

level which denotes presence of a unit root at level. After taking the first difference, it is found that null hypothesis of unit root is rejected for Debt-Equity ratio. Thus, all the variables are stationary.

Table 5 : Results of Descriptive Statistics

Variables	ROA	ROCE	ROE	SDI	D/E	LOG_TA
Mean	8.373993	15.869250	17.153900	54.650090	0.842757	10.904180
Median	5.950000	13.425000	15.905000	54.583330	0.740000	11.042450
Maximum	27.380000	52.910000	42.990000	85.500000	8.210000	12.939680
Minimum	0.220000	-1.710000	0.700000	18.055560	-5.400000	8.025552
Std. Dev.	6.614393	11.122090	8.619131	13.906330	1.449235	1.120146
Observations	200	200	200	200	200	200

Source: Researchers' own presentation

Table 5 reveals that sustainability disclosure of the Indian Companies belonging to Automobile, Information technology, Oil and Gas, Power and Cement industries over the eight years period ranged from 18% to 85% and with average values of 54% and the standard deviation of 13.906330 indicating that on average, 54% of the observations disclosed sustainability related information as per the GRI framework. It shows that the minimum disclosure is 18% while the maximum disclosure was 85%. It is an indication that Indian companies are revealing moderately sustainability related information. The average of Return on Assets is 8.37% with a standard deviation of 6.61. The average of Return on Capital Employed is 15.87% with a standard deviation of 11.12. The average of Return on Equity is 17.15% with a standard deviation of 8.62. The average of Debt Equity ratio is 0.84 with a standard deviation of 1.45. The average of Log Total Assets is 10.90 with a standard deviation of 1.12.

Table 6 : Results of the Correlations between Pairs of Variables

Variables	ROA	ROCE	ROE	SDI	D/E	LOG_TA
ROA	1	0.79031	0.86522	0.16274	-0.2374	-0.1832
ROCE	0.79031	1	0.80654	0.07548	-0.205	-0.082
ROE	0.86522	0.80654	1	0.05936	-0.3711	-0.2069
SDI	0.16274	0.07548	0.05936	1	0.03374	0.3521
DE	-0.2374	-0.205	-0.3711	0.03374	1	0.22111
LOG_TA	-0.1832	-0.082	-0.2069	0.3521	0.22111	1

Source: Researchers' own presentation

As per table 6, the correlation matrix shows the relationship between variables used in the regression model. It reveals that ROA, ROCE, ROE and SDI have a positive correlation among themselves. This indicates that as the SDI increases the ROA, ROCE, ROE of the

firms increase and vice versa. On the other hand, a negative sign demonstrates a negative correlation between D/E, Log_ TA, ROA, ROCE, and ROE. In this study, Pooled Ordinary Least Square (POLS) is run for all the models then applied the Breusch-Pagan test to confirm POLS is appropriate or not. Null Hypothesis of the Breusch-Pagan test considers POLS is appropriate than the Fixed Effects Model and the Random Effects Model, indicates no effect of different cross-sections on intercept ***(Wiredu et al., 2020).***

Table 7 reveals that the p value is significant for cross-section. This indicates POLS is not appropriate in this case.

Table 7: Results of the Breusch-Pagan Test

Model		Cross-section	Time	Both
Model 1	Breusch-Pagan	514.6138	1.760023	516.3738
	Probability Value	0.0000	0.1846	0.0000
Model 2	Breusch-Pagan	282.4205	0.97688	283.3974
	Probability Value	0.0000	0.323	0.0000
Model 3	Breusch-Pagan	256.019	0.96355	256.9825
	Probability Value	0.0000	0.3263	0.0000

Source: Researchers' own calculation using E-Views Software.

Table 8: Results of Hausman Test

Hausman Test for Model 1			
Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.52819	3	0.2098
Hausman Test for Model 2			
Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.92041	3	0.0745
Hausman Test for Model 3			
Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.38293	3	0.0606

Source: Researchers' own calculation using E-Views Software.

Null hypothesis of Hausman test states that the Random Effect Model is preferred than the Fixed Effect Model. However, table 8 exhibits that the null hypothesis is accepted here since

the probability of the Chi square statistic is greater than 5% for all the models. It indicates that the Random Effects Model is preferred than the Fixed Effects Model in this case.

Table 9 : Panel Regression Results: Impact of Sustainability Disclosure on Financial Performance (indicated by ROA)

Variables	Coefficient	T-stat.	Probability Value
X 1 = SDI	0.039127	2.235885	0.0265
X 2 = D/E	-0.493542	-1.666816	0.0071
x 3 = LOG_TA	-2.262636	-3.416804	0.0008
Constant	31.32384	4.611542	0.0000
R-squared	0.064687		
Adjusted R-squared	0.050371		
Durbin-Watson stat.	0.937158		
F-stat.	4.51851		
Probability (F-Stat.)	0.004342		
Number of observations	200		

Source: Researchers' own calculation using E-Views Software.

According to the results of the Random Effect Model, the coefficient of determination, or 'R-Squared,' is 6.47%. This means that the variables taken into account in Model 1 account for about 6.47% of the change in the dependent variable i.e., ROA and the remaining change is due to other variables not taken into account by these models. It indicates that the level of sustainability disclosure (measured by SDI), financial risk (measured by D/ E ratio), and size of the companies (measured by Log_ TA) account for 6.47% of the overall variation in ROA of the companies.

The result of Model 1 shows that the relationship between ROA and SDI is positive and significant at 5%, this can be justified with a positive 't' of 2.235885. Furthermore, the positive coefficient of 0.039127 shows that, with a one-unit rise in SDI, companies ROA will increase by 0.039127 while all other variables remain constant. This implies that, SDI has a positive association with the ROA.

Table 10 : Results of the Wald Test of Model 1

Test Stat.	Value	d.f.	Prob.
F-stat.	4.55374	(3, 196)	0.0041
Chi-square	13.66122	3	0.0034

Source: Researchers' own calculation using E-Views Software.

Wald test is used to check whether independent variables in a model are significant or not. According to the results of the Wald test probability value is less than 0.01. This indicates that the independent variables are significant in the Model 1.

Table 11 : Panel Regression Results: Impact of Sustainability Disclosure on Financial Performance (indicated by ROCE)

Variables	Coefficient	T-stat.	Probability Value
X 1 = SDI	0.164781	3.869107	0.0001
X 2 = D/E	-1.447098	-2.061025	0.0406
x 3 = LOG_TA	-2.70911	-2.060968	0.0406
Constant	37.62417	2.820541	0.0053
R-squared	0.084607		
Adjusted R-squared	0.070596		
Durbin-Watson stat.	1.120579		
F-stat.	6.038547		
Probability (F-Stat.)	0.000593		
Number of observations	200		

Source: Researchers' own calculation using E-Views Software.

According to the results of the Random Effect Model, the coefficient of determination, or 'R-Squared,' is 8.46%. This means that the variables taken into account in Model 2 account for about 8.46% of the change in the dependent variable i.e., ROE and the remaining change is due to other variables not taken into account by these models. It indicates that the level of sustainability disclosure (measured by SDI), financial risk (measured by D/E ratio), and size of the companies (measured by Log_ TA) account for 8.46% of the overall variation in ROA of the companies. The results of Model 2 show that the relationship between ROCE and SDI is positive and significant at 1%. It indicates that as the level of sustainability disclosure rises while other variables remain the same, the ROCE rises as well, and vice versa.

Table 12: Results of the Wald Test of Model 2

Test Stat.	Value	df	Prob.
F-stat.	6.159331	(3, 196)	0.0005
Chi-square	18.47799	3	0.0004

Source: Researchers' own calculation using E-Views Software.

Wald test is used to check whether independent variables in a model are significant or not. According to the results of the Wald test probability value is less than 0.01. This indicates that the independent variables are significant in the Model 2.

Table 13 : Panel Regression Results: Impact of Sustainability Disclosure on Financial Performance (indicated by ROE)

Variables	Coefficient	T-stat.	Probability Value
X 1 = SDI	0.085991	2.340583	0.0203
X 2 = D/E	-0.779631	-1.297688	0.1959
x 3 = LOG_TA	-1.906343	-1.727237	0.0057
Constant	33.89863	3.028355	0.0028
R-squared	0.035484		
Adjusted R-squared	0.020721		
Durbin-Watson stat.	1.178693		
F-stat.	2.403573		
Probability (F-Stat.)	0.068802		
Number of observations	200		

Source: Researchers' own calculation

According to the results of the Random Effect Model, the coefficient of determination, or 'R-Squared,' is 3.55%. This means that the variables taken into account in Model 3 account for about 3.55% of the change in the dependent variable i.e., ROE and the remaining change is due to other variables not taken into account by these models. It indicates that the level of sustainability disclosure (measured by SDI), financial risk (measured by D/E ratio), and size of the companies (measured by Log_ TA) account for 3.55% of the overall variation in ROA of the companies. The results of Model 3 show that the relationship between ROE and SDI is positive and significant at 5%. It indicates that as the level of sustainability disclosure rises while other variables remain the same, ROE rises and vice versa.

Table 14 : Results of the Wald Test of Model 3

Test Stat.	Value	df	Prob.
F-stat.	2.457321	(3, 196)	0.0442
Chi-square	7.371964	3	0.0309

Source: Researchers' own calculation

Wald test is used to check whether independent variables in a model are significant. According to the results of the Wald test probability value is less than 0.05. This indicates that the independent variables are significant in the Model 3.

7. Conclusions

From the above findings, it may be concluded that there is an increasing trend in sustainability reporting in India. It is found that Indian companies disclosed 71.26% information in F.Y. 2021-22 as per GRI sustainability reporting guidelines in their sustainability reports, which is quite satisfactory. This presents that Indian companies are now prioritizing sustainability reporting and disclosing more sustainability related information in their sustainability reports to become a good corporate citizen and ensure sustainable future. In this study, results of panel regression models show there is a positive relation exists between sustainability reporting and financial performance. This indicates profitability of the companies may rise if the company disclose more sustainability related information through their integrated reports and sustainability reports. Increased sustainability disclosure score is nothing but the reflection of increased sustainability practices implemented by the companies. This result indicates increase in companies' efforts towards its environmental, social responsibility which lead to generate additional profit and better financial results. Though the relationship exists between sustainability reporting and financial performance but the degree of relationship is not high. This is consistent with the results of some previous research which state that corporate sustainability has no significant association with firm performance ***(Buys, Oberholzer and Andrikopoulos, 2011; Manescu, 2011)***. This may be due to the lack of awareness of Indian investors, consumers and other stakeholders towards sustainability reporting in their decision making. It can be said that the sustainable and environmental reporting and practice has not become an integral part to the most of the Indians. It is evident from the fact that seven years have already passed since the SDG introduced but, still in India, inequality has been rising sharply. However, the results of this study would not only assist the directors but also the investors, the policymakers to make important decisions, which will contribute to achieve the targets of sustainable development goals.

8. Limitations of the Study

Results of the study would have been different if researchers considered large number of companies. Moreover, the present study is based on GRI guidelines of sustainability reporting. However, large sample size consisting of both financial and non-financial companies combining with different reporting standards like IFRS, Sustainability Disclosure Standards, BRSR guidelines may provide better results. The outcomes of the study cannot be generalised for all the Indian companies of different industries.

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