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THE MODERATING EFFECTS OF BUSINESS RESPONSIBILITY AND SUSTAINABILITY REPORTING ON CORPORATE FINANCIAL PERFORMANCE

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ABSTRACT

The sustainability of modern society, corporations, and governments was a critical concern. This study examined the impact of non-financial reporting on investor decision-making. Additionally, it analyzed which sector had most effectively adhered to non-financial reporting guidelines. Data on financial performance were obtained from companies' annual reports, while business responsibility and sustainability reports provided insights into corporate sustainability efforts. Investor reactions were assessed using information from the National Stock Exchange and Bombay Stock Exchange websites. The findings revealed that financial performance alone was insufficient for investment decisions—investors required additional information. Business responsibility and sustainability reporting significantly influenced the relationship between financial success and investor response. Therefore, investors and stakeholders needed to consider corporate responsibility, sustainability practices, and financial performance. However, the study was limited by the small sample size, as only a few companies had published business responsibility and sustainability reports.

Keywords: *BRSR, BRR, Financial performance, Investor Reaction, National stock exchange, Bombay stock exchange*

1. INTRODUCTION

Sustainability emerged in the early twentieth century as awareness grew regarding the need to conserve and preserve the environment for future generations. Conservation efforts emphasized sustainable use of natural resources to mitigate human impacts, while preservation sought to protect ecosystems from exploitation altogether. This foundation evolved through global milestones, culminating in the UN General Assembly's adoption of the 2030 Agenda for Sustainable Development in September 2015, which established the 17 Sustainable Development Goals (SDGs) to guide corporate and societal action. These goals underscore pressing environmental concerns like climate change and resource depletion, compelling businesses worldwide to integrate sustainability into core strategies amid rising regulatory pressures and stakeholder demands. The Paris Agreement, also signed in 2015, complements these efforts by focusing specifically on climate change mitigation, adaptation, sustainable finance, and related financing mechanisms. Over the past decade, escalating environmental challenges like climate change and resource depletion, amid a global population exceeding 8.2 billion, have heightened stakeholder demands for corporate accountability on social and environmental impacts. Initiatives such as Prime Minister Narendra Modi's "Ek Ped Maa Ke Naam" tree-planting campaign, launched on World Environment Day 2024, alongside individual actions like adopting electric heat pumps to cut CO2 emissions by up to 900 kg annually, underscore collective urgency toward the UN Sustainable Development Goals (SDGs) by 2030. In parallel, PRI signatories manage \$139.6 trillion in assets (45% of global institutional AUM), embedding ESG criteria into investment decisions.

India has introduced several initiatives to encourage businesses to disclose their sustainability practices, enhancing accountability and transparency. The top 100 listed Indian companies are required to include Business Responsibility Reports (BRRs) in their annual reports, following recommendations issued by the Securities and Exchange Board of India (SEBI) in 2012. SEBI later proposed renaming the format as the Business Responsibility and Sustainability Report (Consulting, 2022).

Under the BRSR framework, companies can cross-reference disclosures from their existing sustainability reports, prepared in accordance with internationally recognized reporting standards such as GRI, SASB, CDP, TCFD, or Integrated Reporting (Menghnani et al., 2022). Listed companies must report their performance based on the nine principles of the "National Guidelines for Responsible Business Conduct." Starting from the fiscal year 2022–2023, the top 1,000 listed companies are mandated to comply with the BRSR framework. The BRSR aims to provide standardized and quantifiable disclosures on Environmental, Social, and Governance (ESG) parameters, ensuring greater transparency in corporate sustainability practices.

Existing literature extensively documents global CSR/ESG-financial performance relationships, it reveals critical gaps in India-specific empirical analyses of SEBI's Business Responsibility and Sustainability Reporting (BRSR) framework—particularly its moderating role between key financial metrics (ROE, ROA, current ratio, debt-equity ratio, EPS) and investor reactions such as abnormal returns. Moreover, current BRSR research offers only aggregate compliance assessments or general ESG overviews, lacking granular, sector-specific comparative analyses across high-impact industries, including oil & gas consumables, fast-moving consumer goods (FMCG), healthcare, and information technology.

The objective of this empirical investigation is to determine how BRSR influences financial performance and investor responses. Mediation occurs when one variable affects another through a third variable—in this case, BRSR. This study employs empirical analysis to explore whether BRSR moderates the relationship between financial performance and investor responses. Specifically, it seeks to determine whether BRSR serves as a mediator between financial performance and investor reactions.

The structure of this paper is as follows: Section 2 presents the literature review, while Section 3 outlines the study's objectives. Section 4 discusses the conceptual framework, and Section 5 details the research methodology. The research results and discussion are provided in Section 6, followed by the study's conclusion in Section 7. Section 8 outlines the theoretical and practical implications. Finally, Section 9 highlights the study's limitations and future research scope.

2. LITERATURE REVIEW

Sustainability reporting has expanded to country-level evaluations of non-financial reporting by evaluating the quality and inclusivity of triple-bottom-line reports published by Greek companies. To do this, a numerical scoring system was developed based on the Global Reporting Initiative principles, which are the de facto global standard for company non-financial reporting. There are major gaps in the disclosing practices of Greek organizations. There is tremendous space for improvement in order to achieve international standards and encourage effective stakeholder participation (Skouloudis et al., 2010). (Akisik & Gal, 2014) has examined the relationship between financial and Performance and assessments self, Global Reporting Initiative (GRI), and third party of corporate social responsibility (CSR) reports issued by North American corporations. The data gathered from Compustat North America and GRI websites between the years 2006 and 2012, the results show that CSR report reviews are highly associated to specific short and long-term financial success parameters. Furthermore, third-party review is highly associated to financial performance for enterprises in specific industries such as mining, chemical, and petroleum. Furthermore, we discover that CSR reviews influence the impact of sales, leverage, and growth on financial performance. Another article has focused on an analysis

of the quality of sustainability reports released by German companies in 2014 and 2015. This article highlights patterns and advances in voluntary reporting. The number of standalone sustainability reports and integrated reports is growing, and businesses are focusing on the Global Reporting Initiative criteria. Researchers believe that there is opportunity for quality improvement. Furthermore, we show that many reports from organisations that are new to reporting are still lacking in content. More thorough selection and linking of financial and non-financial information is required (Hoffmann et al., 2018). Moreover, previous article found a relationship between the quality of financial reporting and non-financial company performance metrics, which limited our understanding of the idea of financial reporting quality and its importance. As a result, the goals of this study are to investigate empirically the proposed relationship between the quality of financial reporting and non-financial business performance in Jordanian publicly traded companies, as well as to determine whether their demographic characteristics (type, size, and experience) have any impact on the quality of financial reporting (Al-Dmour, 2018). Currently, sustainability of the environment is a major concern for modern society, industries, and governments. However, there is a dearth of understanding about how governments may achieve the aim of ending poverty while also safeguarding the environment. Our research seeks to investigate the moderating impact of institutional quality in the relationship between financial development and environmental quality in South Asia. From 1984 to 2018, we collected panel data from five South Asian nations (India, Bangladesh, Nepal, Sri Lanka, and Pakistan). We discover that financial development raises CO2 emissions in this region, meaning that South Asian countries have used financial development for capitalization rather than increasing manufacturing technologies (Hunjra et al., 2020). (Mehra & Sharma, 2021)has drawn to increasing attention in the context of the UN's 2030 Agenda. Since public health is impacted by the state of our environment, sustainability and healthcare are closely intertwined. A comprehensive theoretical model for sustainability in healthcare has been constructed, based on accepted sustainability practises, and supported by relevant theories. Twenty-seven sustainability practises are included in the model's triple bottom line (TBL), which has been reorganised into twelve sustainability metrics for examination on the advice of a group of experts. Additional article has investigated the impact of institutional investors on the sustainability reporting of Nigerian listed companies. Data is gathered from the Nigeria Stock Exchange of 50 firms. Sustainability reporting is the dependent variable. The Global Reporting Initiative Guidelines are used to collect data for sustainability reporting. Foreign and domestic institutional investors are independent variables. Data is gathered from percentages of shares (Olorede et al., 2022). (Al Hawaj & Buallay, 2022) looks at the impact of sustainability reporting on firm operational, financial, and market performance across seven distinct industries. The independent factors are taken from ESG score, while the dependent variable is firm performance. Firm performance includes several characteristics like ROA, ROE and Tobin Q. ESG has a large positive impact in

the energy, manufacturing, retail, and tourist sectors. The discovery of a positive association between sustainability reporting and financial success lends credence to the intuitive notion that meeting the needs of shareholders improves a company's financial performance. Another research focuses on identifying diversification opportunities through a set of distinct asset classes that serve as proxies for Green Funds, FinTech, and AI-based index funds. The approach and model used in the study are temporal and frequency connectedness in a Wavelet Coherence, and network analysis was used to assess for robustness. The study's novelty resides in determining the impact of the COVID-19 epidemic. The findings revealed that FinTech-based assets were the most robust asset class both before and after the COVID-19 outbreak (Sharma et al., 2023). Additional research article investigates the impact of Sustainability Report Disclosure on the firm's market performance. The independent variables in this study are three material components disclosed in the Sustainability report, namely economics (EC), environmental (EN), and social aspect (SC), while the dependent variable is market performance, which is proxied using Tobin's Q. The three hypotheses were tested using conventional positivistic quantitative methodologies in this study. The findings revealed that economic, environmental, and social factors all have a favourable impact on a company's market performance (Farisa Caesaria & Basuki, 2023). Existing literature has contributed to long-term development goals and reduces environmental degradation. However, the objective for sustainable development can have an impact on entrepreneurship. The bibliometric study revealed the increased interest among academics in the relationship between entrepreneurship and sustainability in recent years. the Hausmann test was employed to distinguish between random and fixed effects, and heteroskedasticity of residues, autocorrelation of residues, and residue dependence between panels were investigated (Apostu & Gigauri, 2023). A recent study explores the impact of sustainability reporting quality on firm value in the ASEAN+3 context, also considering the moderating role of environmental, social, and governance practices (Van, Nguyen, Afifa, Vo & Bui, 2024). Another recent article aims to investigate the relationship between sustainability reporting and the cost of capital, using Global Reporting Initiative (GRI) standards (Nguyen and Duong, 2025).

3. OBJETIVES OF THE STUDY

- To examine a comparative analysis of Business responsibility and sustainability reporting practices between four sectors.
- To study the relationship between financial performance and investor reaction
- To examine the moderating role of business responsibility and sustainability reporting on financial performance and investor reaction.

TABLE 1 COMPARATIVE ANALYSIS OF BUSINESS RESPONSIBILITY AND SUSTAINABILITY REPORTING BETWEEN FOUR SECTORS

CONTENT ELEMENT OF BRSR	TOT AL SCO RE	SECTOR 1 OIL & GAS CONSUMABLE					SECTOR 2 FAST MOVING CONSUMABLE GOODS					SECTOR 3 HEALTH CARE					SECTOR 4 INFORMATION TECHNOLOGY				
General Question	24	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4
Governance and Management	12	1 2	1 1	1 1	1 1	1 2	1 2	1 2	1 2	1 1	1 2	1 2	6 2	1 2	1 2	1 2	1 2	1 2	9 2	1 2	1 2
Ethics Transparency & Accountability (E-7, L-2)	9	9	8	8	9	8	9	9	7	9	9	9	6	9	7	8	8	9	9	9	7
Sustainable provision of goods (E-4, L-5)	9	3	3	6	6	5	9	9	8	8	9	9	5	9	6	4	9	9	9	9	4
Well-being of Employees (E- 15, L-6)	21	1 7	2 0	2 0	2 0	1 6	2 1	1 8	1 5	2 1	2 1	2 1	1 8	2 1	1 6	2 0	2 1	2 1	2 1	2 1	1 5
Respect Interest of all stakeholders (E- 2, L-3)	5	5	3	5	5	2	5	5	5	5	4	5	2	5	5	5	5	5	5	5	2
Respect Human Rights (E-10, L- 5)	15	1 3	1 6	1 5	1 5	1 6	1 5	1 2	1 0	1 5	1 5	1 5	1 0	1 5	1 0	1 2	1 5	1 5	1 5	1 5	1 0
Protect and Restore Env. (E- 12, L-9)	21	1 6	2 0	2 1	1 6	1 2	2 1	1 9	2 1	2 0	2 1	2 1	1 8	2 1	1 8	1 3	2 1	2 1	2 1	2 1	2 1
Influencing Public Policy (E- 2, L-1)	3	2	2	2	3	2	3	3	3	3	3	3	3	3	0	3	3	3	3	3	2
Inclusive Growth (E-4, L- 6)	10	7	7	1 0	7	7	1 0	6	6	9	1 0	1 0	5	1 0	7	9	1 0	1 0	9	1 0	4
Engage with consumers (E-6, L-5)	11	7	1 1	1 1	1 1	1 1	1 1	8	6	1 1	1 1	1 1	9	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
TOTAL	145	606					657					624					667				

(Source: Developed by authors)

The Securities and Exchange Board of India (SEBI) introduced Business Responsibility and Sustainability Reporting (BRSR) as a new reporting framework. BRSR disclosure information is categorized into eleven sections, each containing specific details in a question format, following SEBI's structured guidelines. The reporting requirement applies to the top 1,000 listed companies by market capitalization on the NSE and BSE indices. While BRSR disclosures became mandatory from the financial year 2022–2023, they were voluntary for the financial year 2021–2022. The disclosures are divided into two categories: essential indicators and leadership indicators (Sattva, 2022). Essential indicators are mandatory, whereas leadership indicators are optional, depending on the company. Compared to the previous Business Responsibility Report (BRR), BRSR is more quantitative. It consists of 145 disclosure items, all analyzed using content analysis.

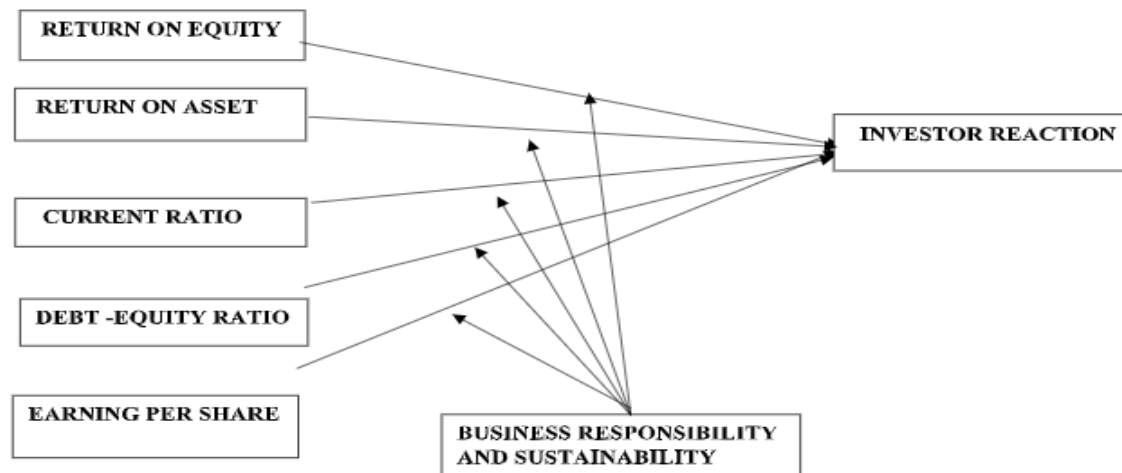
The study focuses on four sectors: fast-moving consumer goods, information technology, oil and gas consumable fuels, and healthcare, with five companies selected from each sector. The compliance level with BRSR guidelines is determined through a scoring system.

According to (Agnihotri & Kumar Head, 2019) the oil and gas consumable fuels sector scored lower than other sectors in BRSR compliance. This sector primarily produces petroleum-based products used for transportation, home heating, and as raw materials for plastics and medicines. However, the industry has a low recycling rate of less than 10%, making it environmentally unsustainable.

The findings reveal two critical issues: first, the oil and gas sector failed to adhere to the reporting standards and non-financial disclosure requirements recommended by SEBI. Second, over a five-year period, the sector showed no improvement in its BRSR reporting practices. Additionally, BRSR includes nine principles and policies, yet the industry did not fully comply with them.

4. CONCEPTUAL FRAMEWORK AND RESEARCH MODAL

FIGURE 1 Graphical representation of research modal.



In the study model, firm performance is independent variable. The financial performance consists of five dimensions: return on equity, return on asset, current ratio, debt-equity ratio, and earnings per share. The dependent variable is investor reaction. Business responsibility and sustainability reports have a moderating effect. This study suggests a moderating factor that might enhance the connection between financial performance and investor response. This study aims to investigate the relationship between financial performance and investor response using BRSR as a moderating factor in figure 2. This empirical analysis aims to evaluate the mediating role of business responsibility and sustainability reporting on the perception of financial performance by investors' reactions.

5. RESEARCH METHODOLOGY

Population and Sample

The population of this research is all listed firms. The business must have published a Business Responsibility and Sustainability Report (BRSR) in its annual report and the company has listed on National Stock Exchange and Bombay Stock Exchange. Only few companies has published business responsibility and sustainability reporting Every company has not published BRSR because SEBI introduced a brand-new BRSR to replace the previous Business Responsibility report in May 2021. Data on BRSR and financial performance were taken from the annual report. Investor sentiment was gathered from historical price data at the yahoo finance website for the years 2021–2022. The number of firms meeting the sample criteria is 40.

Business Responsibility and Sustainability Report

BRSR requests reports from publicly traded companies regarding how they performed in relation to the nine national guidelines for responsible business conduct principles. Business Responsibility and Sustainability Report (BRSR), which was updated and expanded upon, was released by SEBI in May 2021. Every organisation has released a BRSR and expanded upon, was released by SEBI in May 2021.

The entire format is divided into three sections such as Section A, Section B, and Section C.

General Disclosure

There is general disclosure under Section A. This section has provided basic information about the company like size, location, CSR activities, products and services, holding subsidiary and associate company, complaints/ grievances on any of principals (NGRBC), no of employees, etc.

Management And Process Disclosure:

There is management and process disclosure under Section B. This section aims to assist businesses in demonstrating the structure, policies, and procedures necessary to adopt and apply the NGRBC Principles of stakeholder engagement, leadership, and governance. This section's goal is to determine whether the business has the foundation in place to support and guarantee ethical business practices.

Principal-Wise Section:

There is a principal-wise section under section C in table 2. A company's performance with regard to each Core Element and Principle of the NGRBCs is shown in Section C. Companies must comply with this part and show their intentions and dedication to ethical business practices through their activities and results. This section's questions have been split into two groups: essential and leadership. Those that must be followed by all businesses are called essentials. Those that are optional and provide businesses a chance to discuss their affects and results are knowns as leadership.

Table 2 Showing principles details.

S. NO	PRINCIPLE	DETAILS
1	Principle 1	As per this principle, the entity should conduct and govern itself with ethics, transparency, and accountability.
2	Principle 2	As per this principle, the entity should provide details of goods and services that are safe and contribute to sustainability throughout its lifecycle.
3	Principle 3	As per this principle, the entity should promote the wellbeing of its employees
4	Principle 4	As per this principle, the entity should respect the interests of all stakeholders and also become responsive towards all stakeholders, specifically to those who are disadvantaged, vulnerable and marginalised.
5	Principle 5	As per this principle, the entity should respect and promote the human rights.
6	Principle 6	As per this principle, the entity should respect, protect and make efforts to restore the environment.
7	Principle 7	As per this principle, the entity should act in a responsible manner, when engaged in influencing public and regulatory policy
8	Principle 8	As per this principle, the entity should support inclusive growth and equitable development
9	Principle 9	As per this principle, the entity should engage with and provide value to its customers and consumers in a responsible manner

(Source: Developed by authors based on information in the Security Exchange Board of India)

All BRSR disclosure information was separated into eleven subheads for analysis purposes, and each subhead had a unique set of contents. There is total of one-forty content

in BRSR. All businesses are expected to report on these One-Forty contents. The table 3 below explains the content score subheadings for each of the chosen companies.

TABLE 3 Depicts a detailed table about content score of subheading

BRSR Section	Title	Number of questions
Categories		
Section A:	General Disclosure	24 questions
Section B:	Governance and Management	12 questions
Section C:		
Principles		
Principles- 1	Ethics, Transparency& Accountable	9 questions
Principles- 2	Sustainable Provision of goods	9 questions
Principles- 3	Well-being of employees	21 questions
Principles- 4	Respect Interest of all stakeholders	5 questions
Principles- 5	Respect Human Rights	15 questions
Principles- 6	Protect and restore the environment	21 questions
Principles- 7	Influencing public policy	3 questions
Principles- 8	Inclusive Growth	10 questions
Principles- 9	Engage with consumers	11 questions

(Source: Developed by authors based on information in the Security Exchange Board of India)

6. FINANCIAL PERFORMANCE

Profitability Ratio:

Return on Equity: Return on equity is a measurement of financial performance. A company's ROE can be used to determine how effectively its management produces profits from the available capital invested. The profit or income that is available to the company's owner in exchange for capital invested in the company is used to calculate ROE. The following is the formula for determining ROE:

Return on Equity: $\text{Net Income} / \text{Shareholder equity}$.

Return on Asset: Return on Asset is a measurement of financial performance. Return on Asset measures a company's management's effectiveness in creating profits from its available financial resources or the assets shown on its balance sheet. The profit or income that is available to the company's owner in exchange for assets in the company is used to calculate ROE. The following is the formula for determining ROE:

Return on Asset: $(\text{Net Income} + \text{Interest expenses}) / \text{Asset}$.

Liquidity ratio:

The current ratio is used in this study to calculate the liquidity ratio. It measures a company's ability to pay short-term debts or those that are due within one year. It explains

to investors and analysts how a business can use its current assets to pay down all of its outstanding debt and other payables. The ability of current assets to meet current liabilities is demonstrated by the current ratio. The following formula is used to get the current ratio. The following is the formula for determining the Current ratio:

Current Ratio: Current Asset/Current Liability

Solvency ratio:

The debt-to-equity ratio was considered the solvency measure in this study (DER). DER is a ratio used to assess the capital structure of the company. The capital structure is a permanent fund made up of shareholder capital, long-term debt, and preferred stock. The following equation can be used to determine DER:

DER: total liability/ Capital

Market ratio:

The market ratio used in this study is the ratio of earnings per share (EPS). Investors and potential investors frequently worry about EPS. EPS displays the revenue (return) produced by a single share. The greater the value of EPS, the greater the profit earned by shareholders. As a result, the EPS that the company reports may catch the eye of investors or potential investors. This formula can be used to determine EPS:

EPS: Net income after interest and taxes/ no of outstanding shares

7. INVESTOR REACTION

The abnormal return is the actual access return compared to the expected return. Therefore, the cumulative abnormal return is the cumulative annual abnormal return of each firm's stock. There are multiple steps involved in calculating the cumulative abnormal return, as follows:

Calculate actual stock returns during the event period.

Actual return can be calculated using the formula:

$$R_{it} = (P_{it} - P_{it-1}) / P_{it-1}$$

where R_{it} = Return of stock i on day t; P_{it} = Stock price i on day t; and P_{it-1} = Stock price i on day t-1.

Calculate the expected return during the event period.

The expected return can be calculated by using three estimation models, namely the mean adjusted model, market model, and market adjusted model. The market-adjusted approach is adopted in this study. This model is the best model for estimating the return of a securities from market index returns during that time

$$R_{mt} = IHS_{Gt} - IHS_{Gt-1} / IHS_{Gt-1}$$

where R_{mt} = Market return on day t; IHS_{Gt} = Composite stock price index on day t; and IHS_{Gt-1} = Composite stock price index on day t-1.

Calculate the abnormal share return during the event period.

The abnormal return formula can be calculated as follows:

$$AR_{it} = R_{it} - E(R_{it})$$

where AR_{it} = Abnormal return of stock i on day t; R_{it} = Actual return of stock i on day t; and $E(R_{it})$ = Expected return of stock day t.

8. DATA ANALYSIS METHOD

EViews is the analysis tool and structural equation modelling (SEM) is the analysis approach employed in this study. Modern econometric, statistical, and forecasting software called EViews provides strong analytical capabilities in a customizable, user-friendly environment. Financial performance is an independent variable in the model. The return on equity, return on asset, current ratio, debt-to-equity ratio, and earnings per share are the five components that make up financial performance. Investor response serves as the dependent variable. Business responsibility and Sustainability Reporting have a moderating effect in table 4.

TABLE 4 Showing definitions of variables.

Variable Type	Variable Name	Variable Symbol	Variable Definitions
Dependent Variable	Investor Reaction	IR	The abnormal return is the actual access return compared to the expected return.
Independent Variable	Return on Equity	ROE	Net Income/ Shareholder equity
	Return on Asset	ROA	(Net Income+ Interest expenses)/Asset
	Liquidity Ratio	LR	Current Asset/Current Liability
	Solvency Ratio	SR	total liability/ Capital
	Market Ratio	MR	Net income after interest and taxes/ no of outstanding shares
Moderating	Business Responsibility and	BRSR	Total 145 question Company provided information=1

	Sustainability Reporting		Not being provided information= 0
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(Source: Developed by authors)

9. RESULT AND DISCUSSION

Descriptive Variable

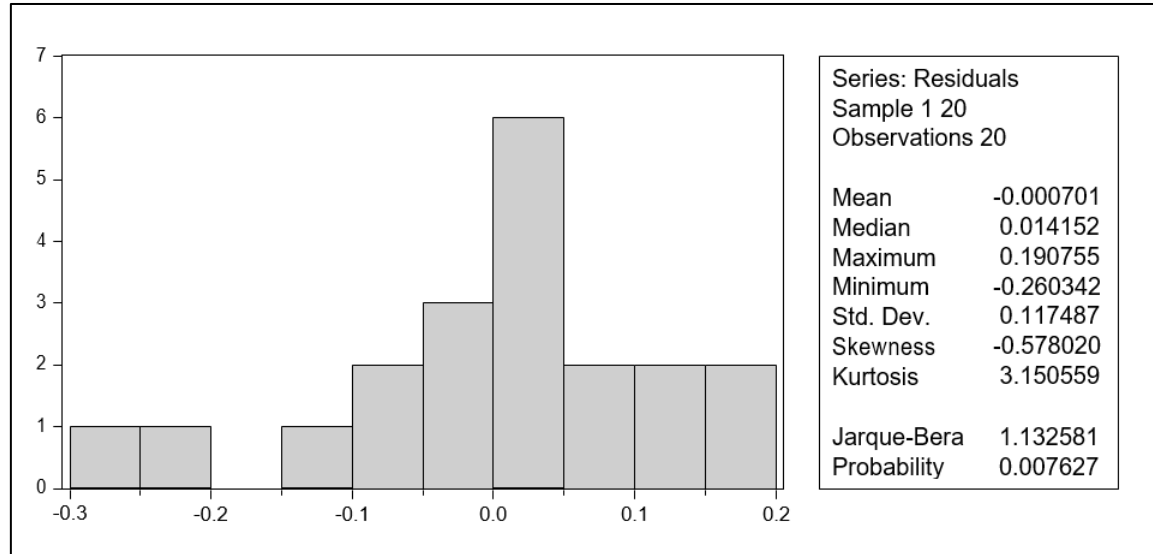
TABLE 5 Showing descriptive variables.

	IR	ROE	ROA	LR	SR	MR
Mean	0.064799	0.259605	0.117400	1.915500	0.150050	44.42800
Median	0.063182	0.224050	0.060750	1.840000	0.090000	34.92000
Maximum	0.330493	0.740000	1.103900	4.220000	0.840000	207.0000
Minimum	0.525308	0.010000	0.137300	0.760000	0.000000	9.800000
Std. Dev	0.194893	0.155993	0.253464	0.796839	0.214562	43.21312
Skewness	0.335684	1.488547	3.111828	1.035783	2.050385	2.923813
Kurtosis	3.446015	5.976020	12.84699	4.491675	6.640411	11.35409
Sum	1.295971	5.192100	2.348000	38.31000	3.001000	888.5600
Sum Sq.Dev	0.721684	0.462345	1.220633	12.06409	0.874701	35480.10
Observation	20	20	20	20	20	20

(Source: Developed by authors)

The descriptive analysis results reveal the mean, median, maximum, minimum standard deviation, and others in table 5. Skewness determines how asymmetric a series is. Value is normally distributed if it is zero. Kurtosis gauges how flat or peaks the series' distribution is. It is referred to as a mesokurtic curve if the value is 3. The mean value of the financial performance variable (roe) was 0.25, with a range of -0.01 to 0.74. (Purnama Sari, n.d.) The mean of return on asset is 0.11 and ranges from 0.13 to 1.10, with a standard deviation of 0.25. The solvency ratio is a proxy for the debt-equity ratio. The mean of solvency ratio is 0.15 and ranges from 0.00 to 0.84, with a standard deviation of 0.21. It means that there is a company that has no debt in the financial year. In addition, the market ratio of mean is 44.42 and ranges from 9.8 to 207.00, with a standard deviation of 43.21.

Figure 2 Graphical representation of normality test



(Source: Developed by authors)

Researcher utilised a histogram to check the residuals' normality in figure 3. (Kusumawati et al., 2022)The Jarque Bera test value of 1.132 is found to be non-significant at the 5% level of significance, indicating that the residuals are normally distributed.

TABLE 6 Depicts multi-collinearity test

Variable	Coefficient Variance	Centered VIF
Return on equity	0.075244	3.118407
Return on asset	0.037192	1.274051
Liquidity ratio	0.001574	3.079401
Solvency ratio	0.041677	1.264252
Market ratio	1.390619	2.384867

(Source: Developed by authors)

There is more than one independent variable in the case of multi-linear regression models in table 6. The OLS assumption of no multi-collinearity states that the independent variables should not have a linear connection. The variance inflation factor model is the most appropriate for testing multicollinearity. (Normality Test, n.d.)The variance inflation

factor is a tool for calculating and quantifying how much variance is inflated. VIF are typically computed by EViews software as part of a regression study. VIF is less than 10 indicate that multiple-linear regression model does not suffer from multi-collinearity.

Table 7 Showing autocorrelation test.

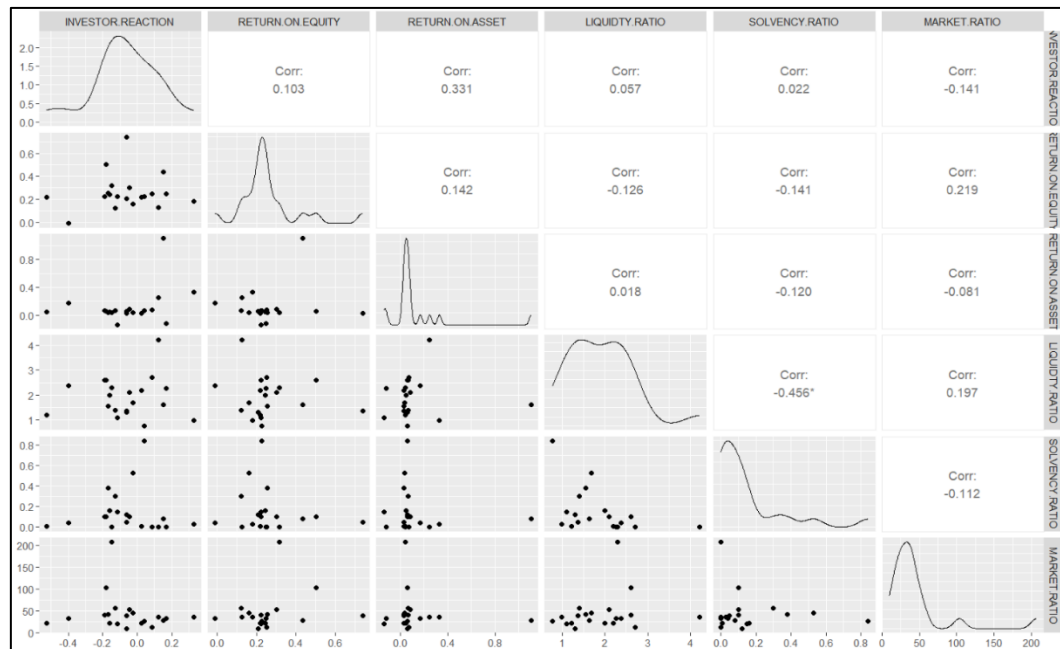
Durbin-Watson Stat	1.780790
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(Source: Developed by authors)

The OLS independence assumption is satisfied if the error components in the regression model are uncorrelated. The Durbin-Watson model is the best for testing autocorrelation. (Kusumawati et al., 2022) A Durbin-Watson test score of around two indicates that there is no relationship between residuals, implying that the error factors in the model are independent. Durbin Watson values between 1.5 and 2.5 suggest that there is no autocorrelation.

Correlation

Figure 3 Graphically representation of correlation



(Source: Developed by authors)

Figure 4 display correlation between variables. Correlation is a statistical term that reflects how much two or more variables vary in relation to one another. (Bakshi & Prasad Yadav,

n.d.)Return on equity, return on asset, and liquidity ratio have all been found to be positively correlated. The solvency ratio and the market ratio are inversely correlated. Return on equity and return on asset have highly correlated. The debt-equity ratio is high. It indicates that investors did not react positively because debt is very high.

Regression

Table 8 Showing regression analysis with moderating effect

Variables	Coefficient	Std Error	t-statistic	Probability	Result
Return on equity-> Investor reaction	6.845	4.331	1.580	0.148	insignificant
Return on asset -> Investor reaction	17.920	5.541	3.233	0.0103	significant
Liquidity ratio -> Investor reaction	0.2264	0.4939	0.4583	0.6576	insignificant
Solvency ratio -> Investor reaction	1.5825	3.664	0.4318	0.6760	insignificant
Market ratio -> Investor reaction	0.5517	0.2613	2.111	0.0639	insignificant
BRSR × Return on equity-> Investor reaction	0.4498	0.3207	2.967	0.0158	significant
BRSR × Return on asset -> Investor reaction	0.1462	0.4590	3.202	0.0108	significant
BRSR × Liquidity ratio -> Investor reaction	0.4517	0.3487	1.295	0.2274	insignificant
BRSR × Solvency ratio -> Investor reaction	0.1780	0.2658	0.6698	0.5197	insignificant
BRSR × Market ratio -> Investor reaction	0.3961	0.0199	2.669	0.0058	significant

(Source: Developed by authors)

Regression analysis indicates the dependent and independent relationship between variables with moderating effects. Only the return on asset is significantly and positively impacted by investor reaction. P-value for the other variable is more than 5%. It implies that investor responses have not been considerably impacted by return on equity, liquidity ratio, solvency ratio, or market ratio. One option the company has to cover up its dire financial situation is to provide its business responsibility and sustainability reports. By doing this, the company may maintain the trust of investors, which in turn will encourage them to make investments. Investor response is greatly impacted by business responsibility and sustainability reporting in terms of return on equity, return on asset, and market ratio.

10. CONCLUSION

The Based on the findings of the analysis performed for this study. Investors do not respond when they see only financial performance, it can be said. Even investors desire additional information, such as ESG, SDG, sustainability reporting and non-financial information. The impact of financial performance on investor reaction is not supported by the results. The impact of return on equity, return on asset, and market ratios can be moderated by business responsibility and sustainability reporting, but current ratio and solvency ratio effects cannot be. if there is a lot of debt. It indicates that businesses won't be able to invest profits on ESG in the future. BRSR doesn't have a moderate with solvency ratio. It suggests that publication of a business responsibility and sustainability report is one of the options available to a company to mask its poor financial performance and maintain a positive reputation with investors, which would in turn encourage investment. This demonstrates that the firm's non-financial report can have a significant impact on investors' decisions to replace information regarding earnings per share. A sustainability report is a good way for a company to demonstrate to investors that it is committed to social and environmental responsibility. Its awareness of the significance of sustainability report disclosure information such that the information can influence how investor emotions are impacted by earnings per share. The findings reflect two more important things that oil & gas sector did not follow guidelines and format of non-financial reporting which is recommendation by SEBI. Other side, this sector did not improve BRSR reporting practices in consecutive five years. There are nine principles and polices also mentioned in the format of BRSR. All nine principles and polices did not follow by this sector.

11. THEORETICAL AND PRACTICAL IMPLICATIONS

Theoretical Implications

Business responsibility and sustainability reporting enhance stakeholder theory by demonstrating how sustainability disclosures moderate financial outcomes, signalling legitimacy, and reducing information asymmetry for investors. The study extends the resource-based view, showing that high financial slack positively moderates sustainability-

financial performance links, aiding firms in resource allocation for ESG initiatives. It contributes to signalling theory in emerging markets like India, where BRSR disclosures validate long-term value creation amid climate risks.

Practical Implications

Firms gain better access to sustainable capital by prioritizing BRSR, attracting ESG-focused investors and improving stock stability. Managers should build financial slack to amplify BRSR benefits on ROA and Tobin's Q, fostering operational efficiency and risk mitigation. In India, compliance boosts reputation and competitiveness, urging top-1000 listed companies to integrate BRSR for regulatory adherence and innovation

12. LIMITATION AND FUTURE SCOPE OF THE STUDY

There are a few limitations surely exist in this research. The study concluded in about one year. Most corporations do not provide BRSR for the current fiscal year. According to SEBI requirements, the BRSR report is not mandatory for the fiscal year 2021-22. The study only included a few financial performance ratios. It is envisaged that future studies will include a larger sample of companies. Time series research can be done in the future. Other financial performance ratios include total asset turnover ratio, liquidity ratio, gross profit turnover, net profit margin, and so forth. This variable can be studied further in the future. We also indicate that there is a plenty of room for future research in this field by adding more entities from the same sector.

13. CONFLICT OF INTEREST

The authors declare that there are no known financial or non-financial conflicts of interest associated with this manuscript.

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15. AI DISCLOSURE STATEMENT

AI-assisted tools were used solely to improve the manuscript's language quality, clarity, and presentation. Grammarly and QuillBot were utilized for assistance with grammar, style, and paraphrasing. Turnitin was employed to check plagiarism and potential AI-generated content. No AI tool was used to generate original scholarly content, data, analyses, or conclusions. The authors take full responsibility for the originality, accuracy, and integrity of the manuscript.

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AUTHOR CONTRIBUTIONS

Dr. Nancy Gupta: Conceptualized the study, wrote the original draft, contributed to reviewing and editing the manuscript, and secured funding.

Dr. Rachita Rana: Collected data, performed formal analysis, secured additional funding, and contributed to reviewing and editing the manuscript.