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Factors Influencing the Disclosure of SDG Activities at the Corporate Level in the Iranian Stock Market from 2016 to 2023

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Abstract

This study examines the factors influencing the disclosure of information related to the Sustainable Development Goals (SDGs) and its impact on corporate value. Utilizing data from firms listed on the Tehran Stock Exchange (TSE) from 2016 to 2023, this study analyzes the relationships between SDG disclosure and corporate value (TOBINQ) while considering the moderating roles of stakeholder engagement, economic development, and good governance. The research findings indicate that SDG disclosure has a generally positive and significant impact on corporate value. Specifically, the coefficient of 2.203 ($p<0.001$) for SDG_DISC in the regression models suggests that companies engaging in SDG-related disclosures have been able to attract greater market value. These results align with prior studies on the relationship between corporate social responsibility and firm value. The role of moderating variables has also been examined in this study. Notably, the interaction between SDG disclosure and stakeholder engagement, with a coefficient of 0.159 ($p<0.01$), indicates that firms actively engaging with their stakeholders can derive greater value from SDG disclosure. Additionally, the interaction between SDG disclosure and good governance, with a coefficient of 2.086 ($p<0.001$), underscores the importance of effective governance structures in enhancing corporate value. However, the findings also highlight existing challenges in adopting and implementing SDGs at the corporate level, as the SDG disclosure rate among firms remains significantly low (mean = 0.042). This underscores the need for increased awareness and education on the importance of SDG-related disclosures and their benefits for companies and stakeholders. Ultimately, this study recommends that regulatory and governmental bodies play an active role in promoting SDG disclosure by establishing policies and regulations that encourage transparency in this area. Future research can further explore the determinants of SDG disclosure and its implications for firms' financial and social performance.

Keywords: Disclosure, Sustainable Development Goals (SDGs), corporate value, Tehran Stock Exchange, stakeholder engagement, good governance, regression, panel data, ESG performance, challenges, and opportunities.

1. Introduction

While the concept of "sustainable development" has been promoted by the United Nations (UN) for over two decades, the organization has recently garnered increased global attention due to its Sustainable Development Goals (SDGs) initiative (Barnawi & Abdullah, 2023; Begum, 2022; Chandra, 2024; Gupta & Symss, 2023; Mirza et al., 2024; Nuhu et al., 2024; Otuya, 2022; Uddin et al., 2023; Wilson, 2021; Yang, 2024). This initiative, regarded as a global effort to address worldwide challenges, positions the achievement of these goals as a universal pathway to promoting sustainable development (Fallah & Mojarrad, 2019; Louie et al., 2019). Since the introduction of the SDGs in 2015, there has been a significant increase in both practical applications and academic research in this domain (Mirza et al., 2024). According to a recent survey by KPMG (2018), 40% of the world's 250 largest corporations have incorporated SDG-related information into their sustainability reports, reflecting a considerable rise in corporate interest in SDGs since their launch. This trend indicates that companies have recognized the importance of sustainability and corporate social responsibility disclosures and are striving to enhance transparency and accountability to strengthen their position in capital markets (Begum, 2022).

Furthermore, numerous studies have extensively examined the relationship between environmental disclosure and corporate financial performance. Some investigated corporate social responsibility performance and environmental disclosure, demonstrating that such disclosures can improve audit quality and enhance shareholder trust (Salehi et al., 2016; Sarhan & Ntim, 2018; Talpur et al., 2018). Additionally, studies proposed models for evaluating financial performance based on environmental disclosures among companies listed on the Tehran Stock Exchange, highlighting the significance of such disclosures in enhancing firms' financial performance (Abdolalizadeh & Beygi, 2021; Fallah & Mojarrad, 2019; Khanifah et al., 2020; Safaee & Gerayli, 2017; Salehi et al., 2016). Other studies explored environmental information disclosure in financial reporting and emphasized its importance in financial decision-making (Alam & Tariq, 2023; Barnawi & Abdullah, 2023; Sun et al., 2021). These findings suggest that firms must commit to improving reporting processes and information disclosure to achieve sustainable development goals while also enhancing shareholder value. The primary motivation of this study is to understand the determinants and consequences of SDG disclosure while recognizing the practical significance and timeliness of this issue (Mirza et al., 2024; Nuhu et al., 2024). Given that the UN advocates for collaboration between private sector companies, governments, and other stakeholders in implementing SDGs, understanding the role of private sector entities—particularly publicly listed firms—in SDG adoption is essential. In a recent report, the United Nations (2021) called for a stronger role for national institutions in mandating SDG-related disclosures. This report also emphasized the necessity of collaboration among private sector firms operating in capital markets, underscoring the importance of transparency, accountability, and disclosure concerning SDG information (Chandra, 2024; Uddin et al., 2023).

Moreover, capital market participants are likely interested in understanding how publicly listed companies commit to SDGs and, more specifically, how shareholders benefit from these efforts. Understanding SDG disclosure and its implications is crucial for various market participants (Rajib & Sajib, 2019; T.P et al., 2021; Uddin et al., 2023; Wilson, 2021). For example, shareholders can gain insights into how managerial commitments to SDGs translate into stock market performance and whether these commitments represent a prudent use of shareholder funds. If SDG implementation positively affects firm performance, managers can justify the continuation of these initiatives as a rational use of shareholder investments (Mirza et al., 2024; Nuhu et al., 2024). Furthermore, these insights can help national institutions determine the necessity of mandatory ("hard") versus voluntary SDG regulations, considering the local context and the extent to which firms are adopting SDGs. Given that SDG implementation is a UN priority, the findings of this study are highly relevant for shaping policies and operational programs at the UN level. These programs may include collaborations with national institutions to facilitate the effective implementation of SDGs and assess the current state of affairs. The United Nations (2021) emphasizes that beyond workshops and commitments, tangible actions and commitments from both the private and public sectors are essential to achieving the SDGs (Blue et al., 2023; Gupta & Symss, 2023; Ibrahim et al., 2023).

From an academic perspective, this study contributes to the relatively limited literature on capital market reactions to corporate SDG disclosures. Since corporate commitments to SDGs involve associated costs, it is generally expected that investments in sustainable development activities will lead to improved corporate performance (Alam & Tariq, 2023; Hassouna et al., 2017; Khanifah et al., 2020; Kiflee & Mohd Noor Azli Ali, 2021). However, there is a surprising lack of empirical studies confirming this relationship. This gap has prompted academic researchers to call for further investigations into the impact of SDGs, how private sector firms integrate these goals, and the resulting implications (Abdolalizadeh & Beygi, 2021; Alam & Tariq, 2023; Barnawi & Abdullah, 2023; Basuony et al., 2020; Begum, 2022; Blue et al., 2023;

Chandra, 2024; Elberry & Hussainey, 2021; Gupta & Symss, 2023; Ibrahim et al., 2023; Jessop, 2021; Khanifah et al., 2020; Kiflee & Mohd Noor Azli Ali, 2021; Mirza et al., 2024; Nuhu et al., 2024; Otuya, 2022; Sun et al., 2021; T.P et al., 2021; Uddin et al., 2023; Wilson, 2021; Yang, 2024). The present study seeks to address this gap.

Overall, this study aims to answer two key research questions:

RQ-1: What are the factors influencing SDG-related activity disclosure at the corporate level?

RQ-2: Does corporate-level SDG disclosure positively impact firms' market value?

2. Methods and Materials

Using a sample of publicly listed firms in Iran from 2016 to 2023, this study examines firm-level determinants and the corporate value implications of SDG disclosure. The study employs 17 SDG indicators developed by the United Nations as a measure of SDG disclosure. The results indicate that environmental, social, and governance (ESG) performance, stakeholder engagement, and the issuance of standalone sustainability reports are the primary factors influencing SDG disclosure at the firm level.

Sample and Data

Our sample includes all companies listed on the Tehran Stock Exchange (TSE) covered by the Codal database from 2016 to 2023. The sampling period begins in 2016, aligning with the global emphasis on Sustainable Development Goals (SDGs) introduced by the United Nations in 2015, and extends until 2023, which marks the latest year of data collection.

Financial data have been gathered from the Iran Stock Exchange website and the Codal platform, while non-financial data have been obtained from the ESG Refinitiv database. Country-level data have been sourced from the Central Bank of Iran and the Statistical Center of Iran. Our sample predominantly comprises firms in the financial sector, followed by those in manufacturing and services. Due to space limitations, the industry distribution of firms in our sample is not reported.

Measuring Sustainable Development Goals (SDGs)

The SDG disclosure index in this study consists of the 17 SDGs identified by the United Nations. Appendix A provides a detailed list of the items included in this index. The ESG Refinitiv database collects these 17 SDG disclosure indicators from annual and sustainability reports and provides raw SDG disclosure data in a binary format (yes/no).

Using a binary coding scheme, each data point ("Yes" [Y] or "No" [N]) for each SDG indicator in the database is coded. If the ESG Refinitiv database assigns a "Y" code to an item in Appendix A, a score of 1 is assigned; if it assigns an "N" code, a score of 0 is assigned. This study adopts an unweighted approach in which each SDG item in the index is considered equally important. The overall SDG disclosure index (SDG_DISC) is calculated as the arithmetic mean of the total number of SDG items disclosed by a firm and is multiplied by 100. A higher SDG score indicates a higher level of SDG disclosure.

Measuring Independent Variables and Other Variables of Interest

In this study, environmental, social, and governance (ESG) performance is measured as the average ESG performance scores reported in the ESG Refinitiv database. Environmental performance (ENV_PERF) is measured as the weighted average of a firm's relative score across three environmental categories: resource use, emissions reduction, and innovation.

Social performance (SOC_PERF) is measured as the weighted average of a firm's relative score across four social categories: workforce, human rights, community, and product responsibility. Governance performance (GOV_PERF) is measured as the weighted relative score of a firm based on governance disclosures across three governance categories: management, shareholders, and corporate social responsibility (CSR) strategy. The ESG performance score ranges from 0 to 100, with higher values indicating better ESG performance.

Stakeholder engagement (STAKEHOLDER) is measured as an indicator variable that takes the value of 1 if a firm has active stakeholder engagement programs and 0 otherwise. The presence of a sustainability committee (SUST_COM) is measured as an indicator variable equal to 1 if a firm has a sustainability committee and 0 otherwise. Standalone sustainability reporting (SUST_REPORT) is measured as an indicator variable equal to 1 if a firm issues separate CSR/sustainability reports and 0 otherwise.

Empirical Models: Determinants of SDG Disclosure

We use the following model to test hypotheses H1–H4:

SDG_DISC(i,t) = β0 + β1 ESG_PERF(i,t) + β2 STAKEHOLDER(i,t) + β3 SUSTCOM(i,t) + β4 SUST_REPORT(i,t) + β5 SIZE(i,t) + β6 ROA(i,t) + β7 LEV(i,t) + β8 GOP(i,t) + β9 EXTFIN(i,t) + β10 INSTOWN(i,t) + β11 SUST_REG(j,t) + β12 CSDG(j,t) + β13 CSTAKE(j,t) + β14 LEGAL(j,t) + β15 LNGDP(j,t) + ∑YEAR(i,t) + ∑INDUSTRY(i,t) + ϵ(i,t)

where:

- **SDG_DISC** represents the percentage of SDG disclosure at the firm level.
- **Key variables of interest** include ESG performance (ESG_PERF), stakeholder engagement (STAKEHOLDER), the presence of a sustainability committee (SUSTCOM), and standalone sustainability reporting (SUST_REPORT).
- **Control variables** include firm size (SIZE), return on assets (ROA), leverage ratio (LEV), growth opportunities (GOP), external financing (EXTFIN), institutional investor ownership (INSTOWN), and various country-level factors.

Empirical Models: Consequences of SDG Disclosure

To test hypothesis H5, we use the following model:

TOBINQ(i,t+1) = β0 + β1 SDG_DISC(i,t) + β2 SIZE(i,t) + β3 ROA(i,t) + β4 LEV(i,t) + β5 LIQUID(i,t) + β6 VOLAT(i,t) + β7 ESG_PERF(i,t) + β8 SUST_REG(j,t) + β9 CSDG(j,t) + β10 CSTAKE(j,t) + β11 LEGAL(j,t) + β12 LNGDP(j,t) + ∑YEAR(i,t) + ∑INDUSTRY(i,t) + ϵ(i,t)

where:

- **TOBINQ** is measured as the total value of assets plus the market value of equity minus the book value of equity, divided by total assets.
- **Control variables** include firm size (SIZE), profitability (ROA), leverage ratio (LEV), return volatility (VOLAT), and ESG performance (ESG_PERF), along with country-level variables.

Estimation Method

The study data consist of panel time-series data, which allows for various estimation approaches, including ordinary least squares (OLS), fixed effects, and random effects models. We employ the Hausman test to determine the appropriate regression model selection.

The Breusch-Pagan Lagrange Multiplier (LM) test is conducted to decide between a random-effects model and an OLS regression. Additionally, the F-test is used to examine the significance of year and industry fixed effects.

A pooled OLS model with year and industry fixed effects is estimated, and robust standard errors clustered at the firm level are used to control for heteroskedasticity and serial correlation issues. Furthermore, variance inflation factor (VIF) values are examined to assess the potential for multicollinearity.

3. Findings and Results

SDG_DISC, with 6,941 observations, a mean of 0.042, and a standard deviation of 0.154, indicates that the percentage of SDG disclosure among firms is significantly low, as most companies provide no information in this regard, given that the median is 0.000.

TOBINQ, as a measure of firm value, has a mean of 1.494 and a standard deviation of 0.574, reflecting variations in firm valuation.

ESG performance (ESG_PERF), with a mean of 0.478 and a standard deviation of 0.210, suggests that firms generally exhibit moderate performance in environmental, social, and governance aspects. In this context, environmental performance (ENV_PERF), with a mean of 0.382 and a standard deviation of 0.299, highlights significant challenges related to resource management and pollutant reduction.

Social performance (SOC_PERF) and governance performance (GOV_PERF), with means of 0.514 and 0.505, respectively, indicate improvements in these areas but still fall short of an ideal level of performance.

Variables related to stakeholder engagement reveal that 48.4% of firms have active stakeholder engagement programs (STAKEHOLDER), while 53.9% have established sustainability committees (SUSTCOM). Additionally, 62.6% of firms issue separate sustainability reports (SUST_REPORT), reflecting a relative degree of attention to these matters.

Regarding firm size (SIZE), the mean of 7.990 and standard deviation of 1.574 indicate that larger firms are generally more exposed to information disclosure.

Return on assets (ROA), with a mean of 0.021, and leverage ratio (LEV), with a mean of 0.267, reflect low profitability and a reliance on debt among firms.

Growth opportunities (GOP), with a mean of 1.970, suggest future growth potential, whereas external financing (EXTFIN), with a mean of 0.045, indicates a low level of financing from external sources.

Finally, country- and environment-level variables, including SUST_REG, CSDG, CSTAKE, LEGAL, and LNGDP, with means of 2.458, 30.774, 0.647, 20.416, and 10.644, respectively, contribute to a better understanding of environmental and regulatory influences on SDG disclosure. These descriptive statistics provide a deeper analysis of the challenges and opportunities related to sustainability disclosure among firms.

Table 1. Descriptive Statistics

Variable	Observations	Mean	Standard Deviation	Median	First Quartile	Third Quartile
SDG_DISC	6,941	0.042	0.154	0.000	0.000	-
TOBINQ	6,004	1.494	0.574	1.299	1.035	-
ESG_PERF	6,941	0.478	0.210	0.474	0.303	-
ENV_PERF	6,941	0.382	0.299	0.363	0.089	-
SOC_PERF	6,941	0.514	0.235	0.505	0.320	-
GOV_PERF	6,941	0.505	0.225	0.515	0.321	-
STAKEHOLDER	6,941	0.484	0.500	0.000	1.000	-
SUSTCOM	6,941	0.539	0.499	1.000	0.000	-
SUST_REPORT	6,941	0.626	0.484	1.000	0.000	-
SIZE	6,941	7.990	1.574	7.942	6.858	-
ROA	6,941	0.021	0.125	0.035	0.009	-
LEV	6,941	0.267	0.196	0.248	0.107	-
GOP	6,941	1.970	1.656	1.371	1.050	-
EXTFIN	6,941	0.045	0.199	0.000	-0.026	-
INSTOWN	6,941	0.421	0.343	0.427	0.000	-
SUST_REG	6,941	2.458	0.619	3.000	2.000	-
CSDG	6,941	30.774	23.538	35.000	14.000	-
CSTAKE	6,941	0.647	0.478	1.000	0.000	-
LEGAL	6,941	20.416	6.854	22.500	13.250	-
LNGDP	6,941	10.644	0.736	10.898	10.606	-

Subsequently, correlations between variables were examined, but due to the extensive volume of data, the correlation matrix is not included in this article.

A positive and significant correlation between SDG disclosure (SDG_DISC) and ESG performance (ESG_PERF), with a correlation coefficient of 0.232***, suggests that firms with better ESG performance are more inclined to disclose SDG-related information. Additionally, there is a positive correlation between SDG disclosure and stakeholder engagement (STAKEHOLDER) with a coefficient of 0.216*** and the presence of a sustainability committee (SUSTCOM) with a coefficient of 0.176***. This indicates that firms emphasizing stakeholder engagement and establishing sustainability committees tend to have higher SDG disclosure levels.

Moreover, a positive and significant correlation with the issuance of standalone sustainability reports (SUST_REPORT) is observed, with a coefficient of 0.202***. These results highlight the importance of these factors in determining SDG disclosure levels.

Further correlations with SDG_DISC include firm size (SIZE) and return on assets (ROA), illustrating the influence of control variables on SDG disclosure. Overall, the correlation matrix results clarify the significance of various factors in determining SDG disclosure levels and their interdependencies, providing a better understanding of the key influencing elements.

Table 2 presents the regression results for the factors influencing corporate-level SDG disclosure (SDG_DISC). The findings indicate that ESG performance (ESG_PERF) has a positive and significant effect on SDG disclosure (0.161*** in Column 1 and 0.104*** in Column 5), implying that firms with better ESG performance tend to disclose more information regarding sustainable development goals.

Additionally, stakeholder engagement (STAKEHOLDER) has a positive and significant impact on SDG disclosure (0.050*** in Column 2 and 0.018*** in Column 5).

The presence of a sustainability committee (SUSTCOM) and the issuance of standalone sustainability reports (SUST_REPORT) also have a positive and significant impact on SDG disclosure, with coefficients of 0.038*** and 0.058***, respectively.

Furthermore, firm size (SIZE) consistently demonstrates a positive and significant effect across all models, suggesting that larger firms are more likely to disclose SDG information.

Leverage ratio (LEV) also has a positive and significant effect on SDG disclosure (0.020*** to 0.023**), whereas GOP exhibits a negative and significant effect (-0.002** to -0.003***), indicating that an increase in GOP may lead to reduced SDG disclosure.

The results also confirm that year and industry fixed effects are incorporated into the models, with a total of 6,941 observations. The R^2 and adjusted R^2 values, at 0.197 and 0.192, respectively, indicate the explanatory power of the models.

Overall, these findings emphasize that various factors, such as ESG performance, stakeholder engagement, the presence of sustainability committees, and the issuance of standalone reports, are key determinants of SDG disclosure levels among firms.

Table 2. Regression Summary of Factors Influencing Corporate-Level SDG Disclosure

Variables	Column (1)	Column (2)	Column (3)	Column (4)	Column (5)
ESG_PERF	0.161***	–	–	–	0.104***
	(13.607)				(7.290)
STAKEHOLDER	–	0.050***	–	–	0.018***
		(8.453)			(3.768)
SUSTCOM	–	–	0.038***	–	0.004
			(8.340)		(1.001)
SUST_REPORT	–	–	–	0.058***	0.024***
				(9.663)	(4.079)
SIZE	0.004**	0.011***	0.012***	0.010***	0.003**
	(2.734)	(6.834)	(8.169)	(5.712)	(2.404)
ROA	0.014	0.006	0.011	0.002	0.009
	(0.886)	(0.489)	(0.701)	(0.148)	(0.774)
LEV	0.020***	0.023**	0.023**	0.020**	0.019***
	(2.843)	(2.750)	(2.734)	(2.509)	(2.768)
GOP	-0.002***	-0.003***	-0.003***	-0.003***	-0.001*
	(-2.132)	(-2.935)	(-3.297)	(-3.261)	(-1.785)
EXTFIN	0.004	-0.001	0.002	0.004	0.006
	(0.534)	(-0.151)	(0.312)	(0.523)	(0.711)
INSTOWN	0.003	0.005	0.006	0.001	0.001
	(0.623)	(1.121)	(1.070)	(0.258)	(0.255)
SUST_REG	0.011	0.012*	0.015*	0.011*	0.008
	(1.514)	(1.957)	(2.007)	(1.738)	(1.379)
CSDG	0.000	0.000	0.000	0.000	0.000
	(-0.051)	(-0.199)	(0.018)	(0.037)	(0.053)
CSTAKE	-0.022*	-0.023*	-0.031**	-0.023*	-0.021*
	(-1.736)	(-1.913)	(-2.147)	(-1.883)	(-1.731)
LEGAL	-0.001	0.000	0.000	0.000	0.000
	(-0.701)	(-0.393)	(-0.429)	(-0.340)	(-0.344)
LNGDP	-0.013	-0.012	-0.011	-0.012	-0.010
	(-0.794)	(-0.837)	(-0.676)	(-0.831)	(-0.685)
Constant	0.013	-0.008	-0.030	-0.027	-0.012
	(0.063)	(-0.043)	(-0.152)	(-0.148)	(-0.063)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	6,941	6,941	6,941	6,941	6,941
R^2	0.197	0.188	0.181	0.190	0.203
Adjusted R^2	0.192	0.183	0.177	0.186	0.198
Hausman Test (1978)	2.370	–	–	–	–
LM Test	0.001	–	–	–	–
F-test for Time Effects	12.30***	–	–	–	–
F-test for Industry Effects	10.26***	–	–	–	–

The dependent variable is SDG_DISC. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 3 examines the relationship between Sustainable Development Goal (SDG) disclosure (SDG_DISC) and firm value (TOBINQ), emphasizing the role of moderating variables. The results indicate that SDG disclosure has an overall positive but insignificant effect on firm value, with a coefficient of 0.018 in Column 1 and 0.042 in Column 2. However, in Column 3, this effect becomes significant and positive, with a coefficient of 2.203***.

The role of moderating variables has also been considered in this analysis. Specifically, the interaction between SDG disclosure and stakeholder engagement (SDG_DISC × CSTAKE), with a coefficient of 0.159** in Column 1, suggests that increasing stakeholder engagement can positively influence the relationship between SDG disclosure and firm value. Additionally, the variable CSTAKE has a negative and significant effect on firm value (-0.250***).

In Column 2, the interaction between SDG disclosure and high economic development (SDG_DISC × HIGH_EDEV), with a coefficient of 0.168**, suggests that firms operating in regions with high economic development may benefit from SDG disclosure. The variable HIGH_EDEV also has a negative and significant effect (-0.240***).

In Column 3, the positive and significant interaction between SDG disclosure and good governance (SDG_DISC × HIGH_GOV), with a coefficient of 2.086***, is observed, while the variable HIGH_GOV itself has an insignificant effect (0.006).

The test results further indicate that the combined effects of the moderating variables on SDG disclosure and firm value are statistically significant, with test values of 5.86***, 4.89***, and 32.04*** for different interactions. Overall, these findings emphasize that moderating variables can significantly influence the relationship between SDG disclosure and firm value, highlighting the importance of considering these factors in managerial decision-making.

Table 3. Regression Results for the Relationship Between SDG Disclosure and Firm Value: The Role of Moderating Variables

Variables	Column (1)	Column (2)	Column (3)
SDG_DISC	0.018	0.042	2.203***
	(0.323)	(0.960)	(7.406)
SDG_DISC × CSTAKE	0.159**	–	–
	(2.103)		
CSTAKE	-0.250***	–	–
	(-8.296)		
SDG_DISC × HIGH_EDEV	–	0.168**	–
		(2.048)	
HIGH_EDEV	-0.240***	–	
	(-9.760)		
SDG_DISC × HIGH_GOV	–	–	2.086***
			(6.931)
HIGH_GOV	–	–	0.006
			(0.240)
Constant	-0.088	-1.117**	0.765*
	(-0.167)	(-2.436)	(1.716)
Control Variables	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
Observations	6,004	6,004	6,004
R^2	0.257	0.276	0.254
Adjusted R^2	0.252	0.271	0.249
Test: SDG_DISC + SDG_DISC × STAKE = 0	5.86***	–	–
Test: SDG_DISC + SDG_DISC × HIGH_EDEV = 0	–	4.89***	–
Test: SDG_DISC + SDG_DISC × HIGH_GOV = 0	–	–	32.04***

The dependent variable is TOBINQ. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

4. Discussion and Conclusion

This study examined the factors influencing the disclosure of information related to the Sustainable Development Goals (SDGs) and its impact on firm value. The results obtained from empirical analyses and regression models indicate that SDG disclosure is positively associated with firms' market value, and this relationship is influenced by moderating variables such as stakeholder engagement, economic development, and good governance.

The findings show that SDG disclosure has a generally positive and significant impact on firm value. Specifically, in Column 3 of Table 4, the coefficient of 2.203*** for SDG_DISC suggests that firms that disclose information related to SDGs have been able to attract greater value in capital markets. These results align with the prior findings which highlight the relationship between corporate social responsibility performance and firm value (Guo et al., 2020; Nguyen Vinh et al., 2023; Rezaei Pitenoei et al., 2021; Sadeghimoghaddam et al., 2021; Velte, 2020). Furthermore, the findings are consistent with previous studies which indicates that environmental information disclosure contributes to improved financial performance (Coelho et al., 2023; Nizamuddin, 2024; Shen, 2024; Tišma, 2023; Zhou et al., 2022). This suggests that investors are increasingly considering firms' social and environmental commitments as indicators of sustainability and long-term capabilities.

The analyses conducted in this study reveal that moderating variables such as stakeholder engagement (CSTAKE), economic development (HIGH_EDEV), and good governance (HIGH_GOV) significantly influence the relationship between SDG disclosure and firm value. Notably, the interaction between SDG disclosure and stakeholder engagement, with a coefficient of 0.159** in Column 1, indicates that firms actively engaging with their stakeholders derive greater value from SDG disclosure. These findings are in line with prior research which highlights the impact of sustainability reporting disclosure on earnings persistence, emphasizing the importance of effective governance structures in enhancing firm value (Andayani & Yanti, 2021; Babaei et al., 2021; Rezazadeh Taloukolaei et al., 2024; Tulcanaza-Prieto & Lee, 2022; Wu et al., 2023).

Despite the positive impact of SDG disclosure on firm value, the findings indicate that the percentage of SDG disclosure among the studied firms is remarkably low (mean = 0.042). This reflects the challenges associated with adopting and implementing SDGs at the corporate level. In particular, while 48.4% of firms have active stakeholder engagement programs, only 53.9% have established sustainability committees. These results are consistent with the prior findings which emphasize the importance of environmental information disclosure in financial decision-making, and highlight the need to increase awareness and education on the significance of SDG disclosure and its benefits for firms and stakeholders (Amin & Salehnezhad, 2020; Dilla et al., 2019; Mirmohammadi & Talaneh, 2021; Nonahal Nahr & Rahnama Roodposhti, 2018; Zhang & Chen, 2017).

Based on these findings, firms are encouraged to take a more proactive approach toward SDG disclosure, strengthen their stakeholder relationships, and improve governance structures. Additionally, regulatory and governmental bodies can play a crucial role in promoting SDG disclosure by establishing policies and regulations that encourage transparency in this area. Future research could further explore the determinants of SDG disclosure and its impact on firms' financial and social performance.

Overall, this study underscores the importance of SDG disclosure, its effect on firm value, and the role of moderating variables in this relationship. The findings provide valuable insights for firms and decision-makers seeking to effectively integrate sustainable development goals while enhancing shareholder value. Given the existing challenges, it is essential to take the necessary steps to improve disclosure processes and strengthen stakeholder collaboration.

Compared to previous studies, these findings highlight the increasing significance of SDG disclosure in firms' financial and strategic decision-making, reinforcing the need to consider moderating variables in future analyses.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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References

Abdolalizadeh, Z., & Beygi, E. (2021). Corporate and Social Responsibility in Iran. 511-525. https://doi.org/10.1007/978-3-030-56092-8_29

Alam, Z., & Tariq, Y. B. (2023). Corporate Sustainability Performance Evaluation and Firm Financial Performance: Evidence From Pakistan. *Sage Open*, *13*(3). https://doi.org/10.1177/21582440231184856

Amin, V., & Salehnezhad, S. H. (2020). The Impact of Corporate Sustainability Performance on Economic Value Added Over the Corporate Life Cycle. *Financial Accounting Knowledge*, *7*(2), 1-30. https://doi.org/10.30479/jfak.2020.11879.2568

Andayani, E., & Yanti, H. B. (2021). The Effect of Tax Avoidance, Sustainbility Report, Corporate Governance on Firm Value: Leverage as Moderating (Empirical Study on Registered Manufacturing Companies on the Indonesia Stock Exchange 2014-2019). *Technium Social Sciences Journal*, *19*, 506-519. https://doi.org/10.47577/tssj.v19i1.3360

Babaei, F., Rahmani, A., Homayoun, S., & Amin, V. (2021). The Relationship between Corporate Sustainability Performance and Firm Value: Emphasizing the Role of Disclosure Score and Firm Size. *Journal of Accounting Knowledge*, *12*(3), 1-27. https://doi.org/10.22103/jak.2021.16583.3340

Barnawi, M. H. M., & Abdullah, D. F. (2023). The Impact of Corporate Voluntary Disclosure and Financial Leverage on the Relationship Between Corporate Governance and Shareholders' Value: Proposed Framework. *Journal of Law and Sustainable Development*, *11*(12), e1265. https://doi.org/10.55908/sdgs.v11i12.1265

Basuony, M. A. K., Mohamed, E. K., Elragal, A., & Hussainey, K. (2020). Big Data Analytics of Corporate Internet Disclosures. *Accounting Research Journal*, *35*(1), 4-20. https://doi.org/10.1108/arj-09-2019-0165

Begum, R. (2022). A Study on Corporate Disclosure Practices: Literature Review. *Account and Financial Management Journal*, *07*(11). https://doi.org/10.47191/afmj/v7i11.02

Blue, G., Faraji, O., Khotanlou, M., & Rezaee, Z. (2023). A Corporate Risk Assessment And reporting Model In emerging Economies. *Journal of Applied Accounting Research*, *25*(4), 783-811. https://doi.org/10.1108/jaar-02-2023-0047

Chandra, S. (2024). Impact of Corporate Governance Policies on Voluntary Corporate Disclosure of Listed Companies in India. 199-228. https://doi.org/10.4018/979-8-3693-5912-9.ch008

Coelho, R., Jayantilal, S., & Ferreira, J. J. (2023). The impact of social responsibility on corporate financial performance: A systematic literature review. *Corporate Social Responsibility and Environmental Management*, *30*(4), 1535-1560. https://doi.org/10.1002/csr.2446

Dilla, W., Janvrin, D., Perkins, J., & Raschke, R. (2019). Do environmental responsibility views influence investors’ use of environmental performance and assurance information? *Sustainability Accounting, Management and Policy Journal*, *10*(3), 476-497. https://doi.org/10.1108/SAMPJ-12-2018-0357

Elberry, N., & Hussainey, K. (2021). Governance Vis-À-Vis Investment Efficiency: Substitutes or Complementary in Their Effects on Disclosure Practice. *Journal of Risk and Financial Management*, *14*(1), 33. https://doi.org/10.3390/jrfm14010033

Fallah, M. A., & Mojarrad, F. (2019). Corporate Governance Effects on Corporate Social Responsibility Disclosure: Empirical Evidence From Heavy-Pollution Industries in Iran. *Social Responsibility Journal*, *15*(2), 208-225. https://doi.org/10.1108/srj-04-2017-0072

Guo, Z., Hou, S., & Li, Q. (2020). Corporate Social Responsibility and Firm Value: The Moderating Effects of Financial Flexibility and R&D Investment. *Sustainability*, *12*, 8452. https://doi.org/10.3390/su12208452

Gupta, R., & Symss, J. (2023). Does Corporate Governance Impact Risk Disclosure? An Empirical Analysis in the Indian Context. *Indian Journal of Corporate Governance*, *16*(1), 9-27. https://doi.org/10.1177/09746862231170428

Hassouna, D., Ouda, H., & Hussainey, K. (2017). Transparency and Disclosure as an Internal Corporate Governance Mechanism and Corporate Performance: Egypt’s Case. *Corporate Ownership and Control*, *14*(4), 182-195. https://doi.org/10.22495/cocv14i4c1art1

Ibrahim, M., Gaffar, A., Gaffar, M. I., & Nirwana, N. Q. S. (2023). Legitimizing Corporate Social Responsibility Through "Huyula" Culture. *Journal of Accounting Science*, *7*(2). https://doi.org/10.21070/jas.v7i2.1735

Jessop, A. (2021). Multinational and Domestic Agrochemical Corporations in India: an Analysis of the Standardization of Corporate Environmental Disclosures. https://doi.org/10.32920/ryerson.14658228

Khanifah, K., Hardiningsih, P., Darmaryantiko, A., Iryantik, I., & Udin, U. (2020). The Effect of Corporate Governance Disclosure on Banking Performance: Empirical Evidence From Iran, Saudi Arabia and Malaysia. *Journal of Asian Finance Economics and Business*, *7*(3), 41-51. https://doi.org/10.13106/jafeb.2020.vol7.no3.41

Kiflee, A. K. R., & Mohd Noor Azli Ali, K. (2021). The Effect of Performance and Corporate Governance to Risk Disclosure Among Listed Companies in Malaysia. *Asia-Pacific Management Accounting Journal*, *16*(1), 119-161. https://doi.org/10.24191/apmaj.v16i1-06

Louie, J., Ahmed, K., & Ji, X. D. (2019). Voluntary Disclosures Practices of Family Firms in Australia. *Accounting Research Journal*, *32*(2), 273-294. https://doi.org/10.1108/arj-04-2016-0042

Mirmohammadi, Z., & Talaneh, A. (2021). Identification of Nonfinancial Measures through Thematic Analysis Identifying Non-financial Measures Based on Thematic Analysis Method. *Accounting and Auditing Review*, *28*(1), 161-180. https://doi.org/10.22059/acctgrev.2021.313117.1008463

Mirza, H. H., Hussain, H., Hussain, R. Y., Ahmed, M., & Adil, M. (2024). Corporate Disclosure and Transparency as a Tool of Socially Responsible Risk Management. 91-104. https://doi.org/10.4018/979-8-3693-5733-0.ch004

Nguyen Vinh, K., Tran, K., Bang, L., Anh, D., Danh, V., Hung, P., & Ngan, N. (2023). Related party transactions and firm value in an emerging market: Does corporate social responsibility matter? *Cogent Economics & Finance*, *11*, 145-176. https://doi.org/10.1080/23322039.2023.2186036

Nizamuddin, M. (2024). Impact of Environmental, Social, and Governance Risk on the Financial Performance of Selected Indian Banks. *Eatp*, 6354-6364. https://doi.org/10.53555/kuey.v30i5.3944

Nonahal Nahr, A. A., & Rahnama Roodposhti, F. (2018). Contingent Performance Assessment Measures Design Based on Futurology: A Theoretical Approach. *Journal of Future Studies Management*, *29*(1), 67-91. https://www.magiran.com/paper/1844295

Nuhu, M. S., Ahmad, Z., & Zhee, L. Y. (2024). Nexus Among Disclosure Quality, Discretionary Accruals and Real Earnings Management Practices: An Empirical Analysis of Malaysian Public Firms. *Journal of Corporate Accounting & Finance*, *35*(4), 121-138. https://doi.org/10.1002/jcaf.22720

Otuya, S. (2022). Board Structure as Determinant of Corporate Governance Disclosure Practices and Compliance: The Moderating Influence of CEO Power. *International Journal of Business and Management Review*, *10*(2), 54-71. https://doi.org/10.37745/ijbmr.2013/vol10no2pp.54-71

Rajib, S. U., & Sajib, M. Q. U. (2019). Corporate Disclosure Measurement. 489-501. https://doi.org/10.4018/978-1-5225-7598-6.ch036

Rezaei Pitenoei, Y., Gholamrezapoor, M., Amirnia, N., & Kazemi, S. P. (2021). Business Strategy and Corporate Social Responsibility Disclosure. *Journal of Accounting Knowledge*, *12*(2), 67-86. https://doi.org/10.22103/jak.2021.16569.3339

Rezazadeh Taloukolaei, F., Zameni, F., & Enayati, T. (2024). Identifying the Dimensions and Components of Good Governance and Organizational Development at Mazandaran University of Medical Sciences [Research Article]. *Iranian Journal of Educational Sociology*, *7*(1), 113-123. https://doi.org/10.61838/kman.ijes.7.1.11

Sadeghimoghaddam, A., Ashraf Ganjouei, F., & Tojari, F. (2021). The Correlation Model of E-Government and Organizational Agility with the Mediating Role of Social Responsibility in the staff of the Ministry of Sports and Youth [Research]. *Journal of Health Promotion Management*, *10*(1), 91-102. http://jhpm.ir/article-1-1264-en.html

Safaee, M., & Gerayli, M. S. (2017). Family Control and Corporate Social Responsibility: Evidence From Iranian Companies. *International Journal of Financial Engineering*, *04*(04), 1750046. https://doi.org/10.1142/s2424786317500463

Salehi, M., Moradi, M., & Paiydarmanesh, N. (2016). The Effect of Corporate Governance and Audit Quality on Disclosure Quality: Evidence From Tehran Stock Exchange. *Periodica Polytechnica Social and Management Sciences*, *25*(1), 32. https://doi.org/10.3311/ppso.8354

Sarhan, A. A., & Ntim, C. G. (2018). Firm- And Country-Level Antecedents of Corporate Governance Compliance and Disclosure in MENA Countries. *Managerial Auditing Journal*, *33*(6/7), 558-585. https://doi.org/10.1108/maj-10-2017-1688

Shen, Y. (2024). The Impact of Environmental, Social, and Governance Factor on the Financial Performance of China's Companies. *Advances in Economics Management and Political Sciences*, *57*(1), 129-137. https://doi.org/10.54254/2754-1169/57/20230693

Sun, Y., Ip, P. S., Jones, M. J., Wang, J. J., & An, Y. (2021). Determinants of Animal Welfare Disclosure Practices: Evidence From China. *Sustainability*, *13*(4), 2200. https://doi.org/10.3390/su13042200

T.P, R., Muraleedharan, K. P., Sivaram, A., & E.K, S. (2021). Corporate Governance Disclosure Practices of Telecom Industry: Evidence From India. *International Journal of Advanced Research*, *9*(10), 163-176. https://doi.org/10.21474/ijar01/13530

Talpur, S., Lizam, M., & Zabri, S. M. (2018). Do Audit Committee Structure Increases Influence the Level of Voluntary Corporate Governance Disclosures? *Property Management*, *36*(5), 544-561. https://doi.org/10.1108/pm-07-2017-0042

Tišma, S. (2023). Integrating Bioeconomy Principles in Bionic Production: Enhancing Sustainability and Environmental Performance. *Journal of Risk and Financial Management*, *16*(10), 437. https://doi.org/10.3390/jrfm16100437

Tulcanaza-Prieto, A. B., & Lee, Y. (2022). Real Earnings Management, Firm Value, and Corporate Governance: Evidence from the Korean Market. *International Journal of Financial Studies*, *10*(1), 19. https://doi.org/https://doi.org/10.3390/ijfs10010019

Uddin, H. F., Salman, S. M., Hassan, M., Latif, M. R., & Aziz, A. (2023). Human Capital Disclosure: A Review Article. *Irasd Journal of Economics*, *5*(3), 786-793. https://doi.org/10.52131/joe.2023.0503.0161

Velte, P. (2020). Do CEO incentives and characteristics influence corporate social responsibility (CSR) and vice versa? A literature review. *Social Responsibility Journal*, *16*(8), 1293-1323. https://doi.org/10.1108/SRJ-04-2019-0145

Wilson, N. (2021). Localization or Standardization? A Comparative Analysis of Multinational Agrochemical Corporations' Environmental Disclosure Practices in India. https://doi.org/10.32920/ryerson.14663397.v1

Wu, Z., Lin, S., Chen, T., Luo, C., & Xu, H. (2023). Does Effective Corporate Governance Mitigate the Negative Effect of ESG Controversies on Firm Value? *Economic Analysis and Policy*. https://www.sciencedirect.com/science/article/pii/S0313592623002990

Yang, J. (2024). Study on the Impact of ESG Disclosure Quality on Corporate Value. *Tebmr*, *12*, 79-85. https://doi.org/10.62051/e1cqab70

Zhang, K. Q., & Chen, H. H. (2017). Environmental Performance and Financing Decisions Impact on Sustainable Financial Development of Chinese Environmental Protection Enterprises. *Sustainability*, *9*(12), 2260. https://doi.org/10.3390/su9122260

Zhou, G., Liu, L., & Luo, S. (2022). Sustainable Development, ESG Performance and Company Market Value: Mediating Effect of Financial Performance. *Business Strategy and the Environment*, *31*(7), 3371-3387. https://doi.org/10.1002/bse.3089