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The Nexus between Corporate Governance and Economic, Social and Environment (ESE) Practices: Bangladeshi Banking Paradox

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Abstract

This study aimed to investigate the relationship between corporate governance and sustainability practices at 45 scheduled commercial banks in Bangladesh. The study specifically focused on the impact of corporate governance on bank sustainability practices, using the Global Reporting Initiative (GRI-4) sustainability guidelines. The resource-based view theory was used to explain the relationship between corporate governance and sustainability practices. Panel data used for this analysis was derived from the annual and sustainability disclosure reports of these banks from 2017 to 2021. This study explores dimensions of corporate governance, including board size, independent board members, CEO duality, gender diversity, audit committees, risk management committees, and audit firm size, highlighting their importance in strategic decision-making. It also explores sustainability practices from a corporate perspective, focusing on economic, social, and environmental performance indicators and emphasizing the importance of strategic resource allocation and disclosure. Four hypotheses were formed, and ordinary least squares (OLS) regression was employed to test the relationship between corporate governance and bank sustainability practices. The statistical results showed that CG has a direct effect on firms overall sustainability as well as social and environmental sustainability practices. It was also seen that the size of the board has a significant effect on the overall sustainability measures (ESE). The study suggests that pro-active measures should be taken to improve sustainability practices in Bangladesh.

Keywords: corporate governance, sustainability, economic, social and environment, ESE

1. Introduction

Ongoing environmental movements, resource scarcity concerns, and the growing momentum of fossil fuel divestment activities have spurred a paradigm change in shareholder objectives. In the contemporary context, shareholders not only up for lucrative return but more concerned about corporations' social, environmental, and economic transparency (Agbata, Egolum, Offia, Okoye, & Review, 2022; Cosma, Cucurachi, Gentile, Rimo, & Environment, 2024; Crifo, Escrig-Olmedo, & Mottis, 2019; Shakil, Munim, Zamore, Tasnia, & Investment, 2024). Recent studies examined the relation between firms that high level voluntarily share information about their sustainability activities and the increasing market efficiency they receive. These studies found a mixed results; some found there is a positive correlation. Despite that, recognizing the benefits of sustainable business practices, investors are becoming increasingly enticed to firms that proactively publish information about their contributions to environmental conservation, social responsibility, and economic stability. This scenario highlights the rising significance of sustainability disclosure as a strategic strategy for attracting market attention (Velte, 2023; Vo, Van, Hoang, & Tran, 2023; Wang, 2023; Xu, Graves, Shan, & Yang, 2023).

In recent years, a growing body of literature has investigated the relationship between corporate governance and firm sustainability practices of companies in different industries listed on stock exchange (Agbata et al., 2022; Crifo et al., 2019; Naciti, 2019; Ong & Djajadikerta, 2017). While these studies contribute significantly to our understanding of how effective corporate governance structures affect firms environmental, social, and economic dimensions of corporations, a large study gap persists. Notably, there is a scarcity of research that expressively investigate the association between corporate governance and bank sustainability practices (Cosma et al., 2024; Shakil et al., 2024).

This research aims to fill this gap by performing a thorough analysis of the relationship between corporate governance mechanisms and sustainability disclosure practices in the Bangladeshi banking sector. Despite the crucial role banks play contemporaneously with other industries in the global economy there has been a surprising lack of research concentrating how corporate governance structures within these financial institutions contribute to or hinder their sustainability disclosure. Exploring the nexus between corporate governance and economic, social, and environmental (ESE) practices in Bangladeshi banking offers a crucial opportunity to address pressing paradoxes in the sector. Firstly, the rapid economic and social growth in Bangladesh has intensified the need for banks to integrate ESE practices into their operations to ensure SDGs However, secondly, there often exists a discrepancy between the corporate governance frameworks in place and the proper implementation of ESE practices. By investigating this research gap, the study aims to intended to explore how governance structures influence the adoption and implementation of ESE considerations in banking. Thirdly, this research intends to seek to provide actionable insights for enhancing the alignment between governance practices and ESE objectives, thereby fostering a more sustainability.

In Bangladesh research on sustainability practices is still in initial stage most importantly in the banking sector. The lack of studies examining how corporate governance impacts sustainability activities makes it challenging to identify challenges and opportunities for the country’s banking industry. Given that the banking sector plays a crucial role in Bangladeshi economic-development, aligning it with sustainable practices becomes vital for ensuring long term environmental and social stability. Recognizing this importance, it is essential for this study to measure the current application of sustainability into banking operations accelerated by different dimensions of corporate considering the context that the research on this topic is limited. By employing analysis this study aims to comprehend how corporate governance influences sustainability disclosure published in reports and other sustainability reports, within Bangladeshis banking industry. This will address knowledge gaps and unlock potential benefits within the country’s banking sector. First objective of this study is to explore the dimensions of corporate governance. Second objective of this study is to explore the dimensions of firm sustainability performance. Third objective of this study is to investigate the relationship between corporate governance and bank sustainability practices.

The article proceed as follows with five sections. Initially introduction is presented. Literature review in section two with research model and hypothesis development, the next section discusses about the data, sample and overall methodology of the study, section four shows the results and discussions with overall discussion from Bangladesh perspective and the final section includes the recommendation and conclusion with future research directions.

2. Overview of Corporate Governance and Sustainability Practices

Previous studies have investigated the association between corporate governance and sustainability practices in listed companies and industry-specific businesses. A study by

Michelon & Parbonetti (2012) examined the relationship of corporate governance on sustainability disclosure of companies included in the Dow Jones Sustainability Index (DJSI). They measured corporate governance by number of independent directors, community influential members on board, presence of CSR committee, and the CEO duality (Michelon, Parbonetti, & governance, 2012). In that study it was found that, when independent directors were community influential members, they become relevant in guiding the sustainability disclosure. Independent directors, CEO duality, and sustainability had no noticeable relationship and found a weak relationship between CSR committee and sustainability disclosure. Janggu, Darus, Zain, & Sawani (2014) examined the board characteristics on sustainability disclosure of 100 public listed companies in Malaysia. They measured board characteristics by board size, ownership, professionalism, independence, designation, and foreign members on board (Janggu, Darus, Zain, Sawani, & Sciences, 2014). In that study it was found that, board size, followed by board professionalism and board designation, impacts sustainability practices. However, board ownership, independence, and foreign board members had no significant influence on sustainability practices (Janggu et al., 2014).

The impact of corporate governance on sustainability reporting of Australia's resources industry was conducted by Ong & Djajadikerta (2017). They measured corporate governance by number of independent directors, number of directors with multiple directorship, women directors on board, CEO duality, and presence of sustainability committee (Ong & Djajadikerta, 2017). In that study it was found that, independent directors increase the extent of total sustainability, economic and social disclosures of companies. However, there were no significant relationship found between independent directors and environmental disclosure. Multiple directorships and women directors had significant positive correlation on the total sustainability disclosure. Companies with a sustainability committee provided a greater extent sustainability information on the other hand, companies with CEO duality provided lesser sustainability information. Hussain, Rigoni, & Orij (2018) examined the relationship between corporate governance and the triple bottom line sustainability performance of 100 US companies from the high-performance Global Fortune 2013 list. They measured corporate governance by board size, board independence, CEO duality, female directors on board, and existence of sustainability committee. In that study it was found that, Board independence, women on board, board meeting, and presence of sustainability committee were positively related to social performance (Hussain, Rigoni, & Orij, 2018). However, there were no significant relationship between board size, CEO duality, and social performance. When it comes to economic sustainability performance, none of the variables were found to be significantly related. Board independence and sustainability committee were positively related to environmental sustainability performance, while CEO duality negatively related to environmental sustainability performance. There were no association found between board sizes, women on board, board meeting and environmental sustainability performance.

A study was conducted by Naciti (2019) to measure the impact of board composition characteristics namely, independent directors, board diversity (gender and nationality), CEO duality on the company's sustainability performance of large industrial firms included in Fortune Global 500 list (Naciti, 2019). In his study it was found that, the composition of the BoD significantly impacted sustainability performance. Board diversity in terms of gender and nationality and the chairman and CEO's separate roles significantly and positively related to sustainability. However, the relationship between independent directors on a board and sustainability performance was negative. A study from (Crifo et al., 2019) examined the relationships between corporate governance and corporate sustainability of 120 biggest French companies listed on the French SBF120 index in 2013. They measured corporate governance by boards of directors, and investor relations officers. In that study it was found that, corporate sustainability was positively related to inside director and negatively related to outside forces (general expert directors and investors' activist engagement. BoDs characteristics such as inside directors are crucial in determining environmental and governance performance. This study implies that inside directors should be better prepared to address corporate sustainability challenges and to play a more proactive role in this domain.

The resource-based view (RBV) is a managerial framework that concentrates on the strategic resources and management ability to identify firm's internal resources include assets, core competencies, and distinctive capabilities, of a firm in order to attain a sustained competitive advantage over the long term (Johl & Toha, 2021; M. Toha, Johl, & Khan, 2020; M. A. Toha & S. K. Johl, 2021; M. A. Toha & S. K. J. D. Johl, 2021; M. A. Toha, Khan, Irfan, Salim, & Khan, 2024). Furthermore, this approach underscores the significance of internal resources in the identification of strengths, abilities, and competencies that confer a competitive advantage onto the organization in relation to its rivals (Johl & Toha, 2021; M. Toha et al., 2020; M. A. Toha & S. K. Johl, 2021; M. A. Toha & S. K. J. D. Johl, 2021; M. A. Toha et al., 2024). The figure 1 in the following section represents the research model on the base of research objectives

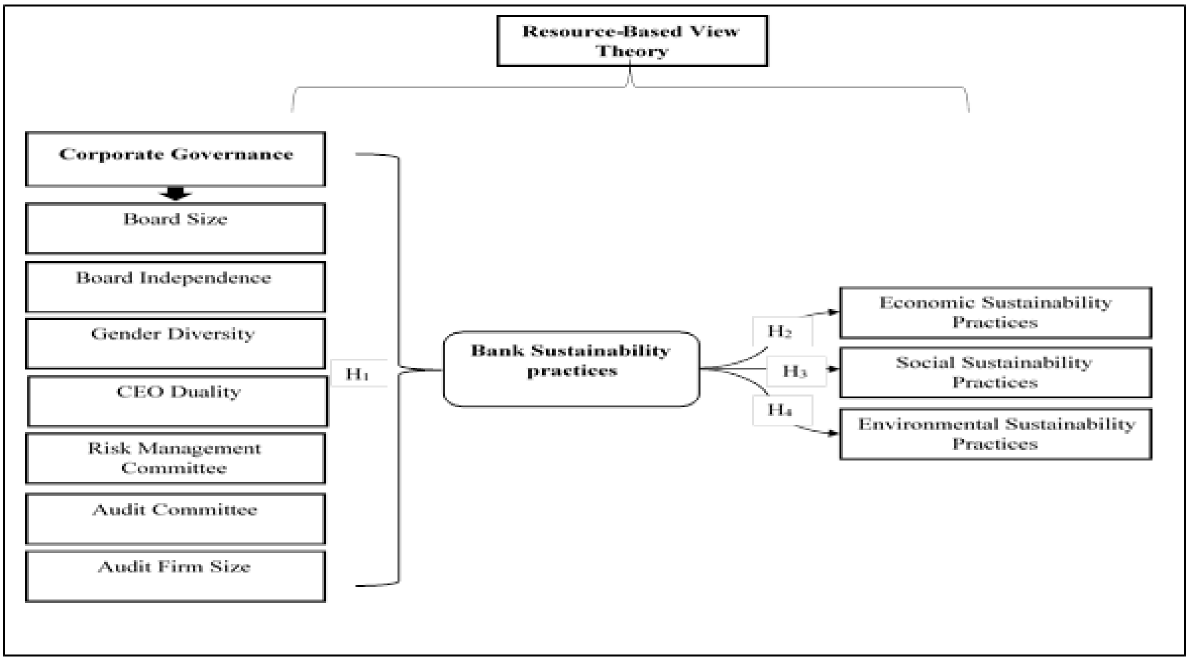

Figure 1. Research Model

2.1 Hypothesis Development

Studies focusing on corporate governance and sustainability practices in aggregated way are not sufficient (Agbata et al., 2022). Available studies on the corporate governance and sustainability practices centered on top listed companies. However, studies on the impact of corporate governance and sustainability practices in financial sector in Bangladesh is very limited(Ali, Adegbite, & Nguyen, 2023; Alodat, Salleh, & Hashim, 2023; Nguyen, Nguyen, Nguyen, & Le, 2023; Oyewo, Tawiah, & Hussain, 2023). This shows a significant gap in the existing literature of sustainability domain(Ali et al., 2023; Alodat et al., 2023; Nguyen et al., 2023; Oyewo et al., 2023). The lack of study specifically addressing sustainability in the banking industry emphasizes the necessity for additional investigation. The primary aim of this research is to address this gap by conducting an empirical analysis of the sustainability practices of Bangladeshi banks that are influenced by corporate governance. The aim of this paper is to provide valuable insights into sustainability practices in the banking industry, which is crucial for economic, social, and environmental growth. This will contribute to the existing literature on sustainability and help improve our understanding of this sector.

Corporate governance has a significant impact on economic, social, and environmental sustainability practices (Agbata et al., 2022). Banking sustainability performance indicators and ultimately better financial performance are depended on the quality of corporate governance mechanism. A well governed bank with good corporate governance results in better sustainability performance (Adu, Owusu, Martin-Yeboah, Pino Gavidia, & Gyamfi, 2022). Considering the available literature on corporate governance and sustainability practices across different industries, this study proposes the following hypothesis specifically for the banking sector in Bangladesh.

- H_1 Corporate governance impacts overall sustainability practices (ESE).
- H_2 Corporate governance impacts Economic sustainability practices (EP).
- H_3 Corporate governance impacts social sustainability practices (SP).
- H_4 Corporate governance impacts Environmental sustainability practices (EnP).

3. Research Methodology

3.1 Population and Sample

The population size for this proposed research is very modest, with just 61 scheduled banks in Bangladesh. This research will focus on judgmental sampling (Non probability sampling technique) for this study. The basis for the sample selection is the availability of information in the sampling elements. The judgment sampling design is employed in situations when the desired information is possessed by only a limited amount or specific type of individuals shown in table 1.

Table 1. Total sample

Unit of analysis	Sample	Total
Scheduled commercial banks	State Owned Commercial Banks (SOCBs)	6
	Conventional PCBs	29
	Islami Shariah based PCBs	10
	Total sample size	45

Source: (Bangladesh Bank Website 2022)

3.2 Measurement of Independent Variable

There are seven independent variables used in this study namely, board size, independent board members, CEO duality, gender diversity, audit committee, risk management committee, and audit firm size. These variables are used as an indicator for corporate governance mechanism. All these variables are taken from annual reports published by Bangladeshi commercial banks.

The table 2 below shows summary of independent variables:

Table 2. Independent variables

Corporate governance mechanisms	Indicators
Board size	Total number of independent and dependent directors on the board.
Independent board members	Total number of non-executive directors in the total board size
CEO duality	Coded “0” if chairman role is separate from CEO role or coded “1” if chairman role and CEO role is same.
Gender diversity	Total number of women performing role as inside or outside directors on the board
Audit committee	Total number of members on the audit committee.
Risk management committee	Total number of members on risk management board.
Audit firm size	Coded “0” if annual report is not audited by big 4 affiliated firms or coded “1” if annual report is audited by big 4 affiliated firms.

3.3 Measurement of Dependent Variable

The dependent variable sustainability practices is measured by “Economic”, “social”, and “Environmental” (ESE) disclosure. These are taken from the financial services sector disclosures of Global Reporting Initiatives (GRI G4 Financial Services Sector Disclosures). Authors use modified GRI framework as our dependent variables for banking sectors. This study is designed to assess the extent of sustainability disclosure (ESE) by employing a content analysis methodology that utilizes a score system ranging from 0 to 2. In the context of this study, the numerical values 0, 1, and 2 are used to represent different levels of information. Specifically, a value of 0 indicates the absence of any information, a value of 1 signifies the presence of a concise description lacking quantitative specifics, and a value of 2 denotes the provision of comprehensive information, such as a detailed disclosure, an outline of the implementation process, or the inclusion of quantitative terms.

4. Data Analysis and Findings

4.1 Descriptive Statistics

The descriptive table depicting the dimensions of corporate governance (Number of board of directors, CEO duality, Number of independent directors, Number of female directors, Audit firm size, Number of audit committee members, and Number of risk management committee members). The maximum number of board of directors is 21 and minimum is 5. The average number is 13.73 (SD=4.468). There are no CEO duality in Bangladeshi Schedule commercial Banks. That is the role of the chairman and CEO is separate. The maximum number of independent directors is 13 and minimum is 0. The average number is 3.03 (SD=3.14). The maximum number of female directors is 5 and minimum is 0. The average number is 1.78 (SD=1.515). The maximum number members in audit committee is 5 and minimum is 2. The average number is 4.15 (SD=.913). The maximum number members in risk management committee is 5 and minimum is 2. The average number is 4.26 (SD=.885). The frequencies table shows that 90 banks (40%) audited by big 4 affiliated firms and 135 banks (60%) not audited by big 4 affiliated firms.

From the perspective of sustainability practices there are, overall sustainability practices (ESE) and three dimensions of it namely, Economic performance indicators (EP), Environmental performance indicators (EnP), and finally Social performance indicators (SP). The economic performance indicators is measured by the sum average of Economic Performance, Market presence, indirect economic impacts, and Procurement practices. The maximum score of economic performance indicators is 1.5 and minimum is 0. The average score is .6300 (SD=.37506).

The following table 3 shows the summary descriptive statistics:

Table 3. Descriptive Table

Items	**Minimum**	**Maximum**	**Mean**	**SD**
Number of board of directors	5	21	13.73	4.468
CEO duality	0	0	.00	.000
Number of independent directors	0	13	3.14	2.629
Number of female directors	0	5	1.78	1.515
Audit firm size	0	1	.40	0.491
Number of audit committee members	2	5	4.15	0.913
Number of risk management committee members	2	5	4.26	.0885
Economic performance indicators	.00	1.50	.630	.3750
Environmental performance indicators	.00	.92	.4137	.2416
Social performance indicators	.11	1.11	.8237	.2764
ESE Indicator	.04	1.15	.6229	.2600

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5. Correlation

Pearson product correlation analysis of independent and dependent variables is shown in table 4. Findings of the Pearson correlation reveals that some independent variables positively correlated with dependent variables. Correlation of the number of board of directors and overall sustainability (ESE) indicator was found to be very low positive and statistically significant (*r*= .188, *p*< .001). The number of board of directors correlates positively with Environmental sustainability performance indicators having a very low positive and statistically significant correlation (*r*= .186, *p*< .001). The social sustainability performance indicators was found to be correlated with the number of board of directors in very low level and statistically significant (*r*= .185, *p*< .001). These indicate that with the increase in number of board of directors, the economic, social, and overall ESE performance also increases but in very low level.

The number of independent directors correlates positively with Environmental sustainability performance indicators having a very low positive and statistically significant correlation (*r*= .183, *p*< .001). Correlation of the audit firm size and the economic sustainability indicator was found to be very low positive and statistically significant (*r*= .183, *p*< .001). The audit firm size correlates positively with Environmental sustainability performance indicators having a very low positive and statistically significant correlation (*r*= .164, *p*< .005). The ESE indicators was found to be correlated with the audit firm size in very low level and statistically significant (*r*= .140, *p*< .005). These indicate that banks audited by big 4 affiliated firms tend to be showing a positive economic, environmental, and overall ESE performance in very low level.

Table 4. Correlation analysis

	BoD	**Duality**	**InD**	**FD**	**FS**	**AC**	**RMC**	**EP**	**EnP**	**SP**	**ESE**
BoD	1										
Duality	0	0									
InD	-.071	0	1								
FD	.245**	0	-.046	1							
FS	.107	0	.079	.136*	1						
AC	.587**	0	.118	.108	.094	1					
RMC	.510**	0	.183**	.039	-.027	.702**	1				
EP	.118	0	.042	.109	.183**	.082	.085	1			
EnP	.186**	0	.183**	-.030	.164*	.208**	.284**	.627**	1		
SP	.185**	0	.048	-.085	.080	.015	.084	.601**	.758**	1	
ESE	.188**	0	.118	.028	.140*	.126	.179**	.893**	.864**	.843**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

5.1 Regression Analysis

In order to find the answer of research objective two of this study, the regression analysis was applied. The following section (table 5, 6,7, 8, 9, 10, 11, 12, 13,14,15,16) will discuss more about individual hypothesis analysis with their relevant findings.

5.1.1 Corporate Governance and Bank Overall Sustainability Practices (ESE)

Table 5. Model Summary -H_1

Model Summary				
Model	*R*	R^2	Adjusted R^2	*SEE*
1	.276	.076	.051	.25160

Table 6. ANOVA Table

ANOVA						
Model		*SS*	*df*	*MS*	*F*	*p*
1	**Regression**	1.135	6	.189	2.989	.008
	Residual	13.800	218	.063		
	Total	14.995	224			

Table 7. Coefficients Table

Model		***B***	***SE***	***β***	***t***	***p***
1	**(Constant)**	.364	.089		4.086	.000
	BoD	.010	.005	.170	1.982	.049
	FD	-.004	.012	-.022	-.326	.744
	FS	.069	.035	.131	1.949	.053
	AC	-.028	.028	-.100	-1.009	.314
	RMC	.043	.028	.148	1.549	.123
	InD	.011	.007	.103	1.520	.130

The first hypothesis was that the bank sustainability practices (ESE) can be predicted by presented corporate governance factors namely Bod, FD, FS, AC, RMC, and InD. To test the hypothesis Ordinary Least Squares Regression (OLS) was used.

Results show a significant effect on bank sustainability practices (ESE) *F*(6, 218) = 2.989,

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p=.008, which indicates that the independent variables under the study have significant impact on bank sustainability practices. Moreover, the R^2 = .076 suggesting that 7.6% of the variation in ESE can be predicted by the six factors of corporate governance, collectively. Looking at the individual contributions of the predictors, the results show that only the board of directors (β=.170, *t*=1.982, *p*=.049) positively impacts sustainability practices. The standardized coefficient (β) indicates that a one-standard-deviation increase in the BoD is associated with a 0.170 standard-deviation increase in the ESE holding all other variables constant. This suggests that number of boards of directors on the board (BoD) impacts the sustainability practices (ESE) of Bangladeshi scheduled commercial banks.

5.1.2 Corporate Governance and Bank Economic Sustainability Practices (EP)

Table 8. Model Summary -H_2

Model Summary				
Model	*R*	R^2	Adjusted R^2	*SEE*
2	.226	.051	.025	.37035

Table 9. ANOVA Table

ANOVA						
Model		*SS*	*df*	*MS*	*F*	*p*
2	Regression	1.610	6	.268	1.956	.073
	Residual	29.900	218	.137		
	Total	31.510	224			

Table 10. Coefficients Table

Model		***B***	***SE***	***β***	***t***	***p***
2	**(Constant)**	.382	.131		2.913	.004
	BoD	.006	.008	.068	.777	.438
	FD	.018	.017	.072	1.039	.300
	FS	.129	.052	.169	2.490	.014
	AC	-.014	.041	-.034	-.336	.737
	RMC	.030	.041	.071	.732	.465
	InD	.004	.010	.028	.400	.690

The second hypothesis was that the bank economic sustainability practices (EP) can be predicted by presented corporate governance factors namely Bod, FD, FS, AC, RMC, and InD. To test the hypothesis Ordinary Least Squares Regression (OLS) regression was used.

Results reject a significant effect on bank economic sustainability practices (EP) $F(6, 218) = 1.956$, p=.073. However it is significant at 90% confidence interval level which indicates that the independent variables under the study have significant impact on bank economic sustainability practices. Moreover, the R^2 = .051 suggesting that 5.1% of the variation in EP can be predicted by the six factors of corporate governance, collectively. Looking at the individual contributions of the predictors, the results show that only the firm size (β=.169, t=2.490, p=.014) positively impacts economic sustainability practices. The standardized coefficient (β) indicates that a one-standard-deviation increase in the FS is associated with a 0.169 standard-deviation increase in the EP holding all other variables constant. This suggests that bank audited by big four affiliated firms impacts the economic sustainability practices (EP) of Bangladeshi scheduled commercial banks.

5.1.3 Corporate Governance and Bank Social Sustainability Practices (SP)

Table 11. Model Summary -H3

Model Summary				
Model	R	R^2	Adjusted R^2	*SEE*
3	.287	.082	.057	.24403

Table 12 ANOVA Ta.ble

ANOVA						
Model		*SS*	*df*	*MS*	*F*	*p*
3	Regression	1.165	6	.194	3.261	.004
	Residual	12.982	218	.060		
	Total	14.147	224			

Table 13. Coefficients Table

Parameter Estimates with Robust Standard Errors				
Parameter	*B*	*RSE*	*t*	*p*
Intercept	.734	.093	7.862	.000
BoD	.018	.005	3.474	.001
FD	-.025	.011	-2.191	.030
FS	.043	.036	1.206	.229
AC	-.060	.027	-2.213	.028
RMC	.022	.027	.808	.420
InD	.007	.007	.968	.334

The third hypothesis was that the bank social sustainability practices (SP) can be predicted by presented corporate governance factors namely Bod, FD, FS, AC, RMC, and InD. To test the hypothesis Ordinary Least Squares Regression (OLS) regression with Robust Standard Error was used since H_3 violated assumption of homoscedasticity.

Results show a significant effect on bank social sustainability practices (SP) $F(6, 218) = 3.261$, p=.004, which indicates that the independent variables under the study have significant impact on bank social sustainability performance. Moreover, the $R^2 = .082$ suggesting that 8.2% of the variation in SP can be predicted by the six factors of corporate governance, collectively. Looking at the individual contributions of the predictors, the parameter estimates show that the board of directors (B=.018, t=3.474, p=.001) positively impacts social sustainability practices. The unstandardized coefficient (B) indicates that on average, a one unit increase in the BoD is associated with a .018 unit increase in the SP. Conversely, results reveal that female directors (B=-.025, t=-2.191, p=.030) and audit committee (B=-.060, t=-2.213, p=.028) negatively impact social sustainability practices. The unstandardized coefficient (B) indicates that on average, a one unit increase in the FD and AC is associated with a -.025 and -.060 unit decrease in the SP respectively holding all other variables constant. This suggests that number of boards of directors (BoD), number of female directors on the board (FD), and audit committee (AC) impacts the social sustainability practices (SP) of Bangladeshi scheduled commercial banks.

5.1.4 Corporate Governance and Bank Environmental Sustainability Practices (EnP)

Table 14. Model Summary -H4

Model Summary				
Model	*R*	R^2	Adjusted R^2	*SEE*
4	.364	.133	.109	.22813

Table 15. ANOVA Table

ANOVA						
Model		*SS*	*df*	*MS*	*F*	*p*
4	Regression	1.736	6	.289	5.559	.001
	Residual	11.345	218	.052		
	Total	13.081	224			

Table 16. Coefficients Table

Model		***B***	***SE***	***β***	***t***	***p***
4	(Constant)	.047	.081		.586	.558
	BoD	.005	.005	.096	1.156	.249
	FD	-.012	.010	-.075	-1.137	.257
	FS	.081	.032	.164	2.532	.012
	AC	-.013	.025	-.048	-.502	.616
	RMC	.069	.025	.251	2.711	.007
	InD	.013	.006	.133	2.020	.045

The fourth hypothesis was that the bank environmental sustainability practices (EnP) can be predicted by presented corporate governance factors namely BoD, FD, FS, AC, RMC, and InD. To test the hypothesis Ordinary Least Squares Regression (OLS) regression was used.

Results show a significant effect on bank environmental sustainability practices (EnP) $F(6, 218) = 5.559$, $p<.001$, which indicates that the independent variables under the study have significant impact on bank environmental sustainability practices. Moreover, the $R^2 = .133$ suggesting that 13.3% of the variation in EnP can be predicted by the six factors of corporate governance, collectively. Looking at the individual contributions of the predictors, the results show that the risk management committee (β=.251, t=2.711, p=.007) and independent directors on the board (β=.133, t=2.020, p=.043) positively impacts environmental sustainability practices. The standardized coefficient (β) indicates that a one-standard-deviation increase in the RMC and InD is associated with a 0.251 and .133 standard-deviation increase in the EnP holding all other variables constant. Furthermore, the results also suggest that banks audited by big four affiliated firms (β=.164, t=2.532, p=.012) positively impacts environmental sustainability practices. This suggests that number of risk management committee (RMC), number of independent directors (InD), and frim size (FS) impact the environmental sustainability practices (EnP) of Bangladeshi scheduled commercial banks. The following table 17 shows the hypothesis summary of this whole study.

Table 17. Hypothesis summary

Hypothesis	*F* value	*P* value	Remarks
H_1: Corporate governance impacts overall sustainability practices (ESE).	2.989	.008	Accepted
H_2: Corporate governance impacts Economic sustainability practices (EP).	1.956	.073	Rejected
H_3: Corporate governance impacts Social sustainability practices (SP).	3.261	.004	Accepted
H_4: Corporate governance impacts Environmental sustainability practices (EnP).	5.559	.001	Accepted

6. Discussion and Conclusion

Using GRI-4 sustainability performance indicators for sustainability practices in banks, this 5-year study observation of 45 banks concludes that corporate governance (CG) has a considerable influence on the overall sustainability (ESE), as well as the social and environmental sustainability practices. The size of the board has a significant effect on the overall sustainability measures (ESE). The size of the audit firm has a significant positive impact on the economic sustainability practices. The presence of a larger board size has a significant positive impact on social sustainability practices. However, the inclusion of female directors and audit committee members has a negative impact on social sustainability practices. Moreover, the size of a firm and the presence of a risk management committee have significant positive impact on the environmental sustainability practices.

6.1 Theoretical and Practical Contribution

Corporate governance is crucial factor that helps shaping and reporting a corporation's information voluntary that is important for different external stakeholders as well as uplifting the company's image especially in regards of transparency. This study expands the knowledge of previous research by examining the relationship between corporate governance and sustainability practices. This research bridges the knowledge gap between the corporate governance theory and its implication on sustainability practices in financial sectors by exploring the dimensions of corporate governance and sustainability practices in Bangladeshi banking sector. This study also demonstrates that based on Resource-Based View theory how diversified board demography can enhance company's sustainability practices.

The result of our study shows that larger board size enhances overall sustainability as well as social sustainability practices. This outcome suggests that banks can be benefited from larger board demography. This result also supports the notion of our research model framework. Thus, banks should increase the directors with expertise in economic social, and environment areas; also, from different background to bring wider perspective in board. The findings of our study suggest to employ larger audit firms to enhance economic sustainability practices. Banks should consider to engage with reputable, larger audit firms that have strong sustainability expertise. This study also shows that the larger audit firm size and presence of risk management committee impact positively on environmental sustainability practices. Bank should allocate more resources to preserve environment and take environmental initiatives. Bank should also strengthen risk management committee to identify and address environmental risk proactively (Abdullah, Shukor, & Rahmat, 2017; Akter & Toha, 2021; Al-Amin, Hossain, & Toha, 2021; Hossain, Al-Amin, Toha, & Strategy, 2021; M. A. Toha, Rahman, & Datta, 2015)

6.2 Recommendations And Future Research Areas

Sustainability reporting in annual report is still on completely voluntary basis. To promote sustainability reporting, provide a globally comparable baseline for sustainability-related disclosure standards for listed companies in response to the demand of public authorities and market participants, in November 2021, at COP 26 IFRS foundation trustees established the International Sustainability Standards Board (ISSB) (International Financial Reporting Standards).

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The ISSB has released two sustainability reporting standards, IFRS S1 and IFRS S2 with the endorsement of G20, the Financial Stability Board, the International Organization of Securities Commissions (IOSCO), and other influential figures in the business and investor sectors (International Financial Reporting Standards). The implementation of these standards will be applicable for annual reporting periods commencing on or after 1 January 2024 (TDB, 2023).

To address the sustainability related reporting infrastructural and technical challenges and enhance sustainability reporting quality, various countries have implemented different initiatives. For example, Brazil established the "Sustainability Pronouncements Committee" in 2022. In June 2022, Canada created the "Sustainability Standards Board." China implemented the "measures for the administration of legal disclosure of enterprise environmental information" in 2021. Colombia introduced "sustainability reporting requirements" in 2021. India issued new reporting requirements on ESG related issues in 2021. In 2022, Mexico will establish sustainability disclosure criteria for non-listed corporations. Nigeria will accept impending standards produced by the International Sustainability criteria Board (ISSB). The Russian Federation implemented a law in 2021 to restrict greenhouse gas emissions. Zimbabwe has already adopted ISSB standards ahead of other countries (TDB, 2023).

Considering the worldwide trend towards sustainability reporting, Bangladesh should adopt some proactive efforts to improve sustainability reporting, for instances, implementing laws on sustainability reporting and establishing an obligation for listed corporations to engage in sustainability reporting (Adhikary, Mitra, & Meah, 2021; Bhuiyan, Mamur, Begum, & Technology, 2021; Chowdhury, Mahdzan, & Rahman, 2024; Rashid, Khanam, & Ullah, 2022; Sheikh & Alom, 2021; Tabassum, Akter, Toha, Akter, & BEHAVIOUR, 2021; M. A. Toha & Akter, 2017; M. N. Uddin, Hosen, Chowdhury, Tabassum, & Mazumder, 2021). Establishing a national sustainable oversight committees for overseeing the national level sustainability standards and practices in accordance with international standards. Making a provision of having a sustainability oversight board mandatory for listed companies that would have a role in providing guidance to corporations regarding compliance, performing audits, and promoting ongoing enhancements in sustainability reporting methods.

Through these activities, Bangladesh may make a valuable contribution to the worldwide effort to promote sustainable business practices and simultaneously improve its standing as a responsible participant in the global business community. Additionally, adhering to IFRS sustainability requirements for fair financial reporting might appeal more foreign investors that prioritize environmental and social considerations. This, in turn, can enhance the economic and environmental conditions of the country (Akter & Toha, 2021; M. A. Toha et al., 2024; M. A. Toha et al., 2015; M. S. Uddin, Toha, & Faruq, 2019).

This research study has set an initial platform for future researchers in measuring the corporate governance contribution on sustainability practices in Bangladesh(Adhikary et al., 2021; Bhuiyan et al., 2021; Chowdhury et al., 2024; Rashid et al., 2022; Sheikh & Alom, 2021; Tabassum et al., 2021; M. A. Toha & Akter, 2017; M. N. Uddin et al., 2021) Research can be conducted for mapping the present picture sustainability of individual Banks or based on group of banks such as foreign commercial banks or Islami shariah banks. This research is industry specific and therefore cannot be generalized for all sectors in Bangladesh. So future study can be conducted for other industries. Independent variables such as education, experience, multiple directorships of the board members, education and expertise of the top management team can be considered as corporate governance elements. Sustainability practices based on ownership structure of banks can be studied. Furthermore, bank age, size, profitability can also be taken into consideration for the robustness of findings. Sustainability measuring would be fruitful in least developed or developing countries such as Bangladesh only when globally comparable single baseline for sustainability is fully implemented in mandatory basis.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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No additional data are available.

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