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| **Author(s):** | Shakhawat Hossain Sarkar |
| **Affiliation (s):** | Jatiya Kabi Kazi Nazrul Islam University, Bangladesh |
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Influence of Corporate Governance on Sustainability Disclosure in Bangladesh

Shakhawat Hossain Sarkar*
Jatiya Kabi Kazi Nazrul Islam University,
Bangladesh

Abstract

This research aims to investigate the relationship between an organization’s corporate governance and sustainability disclosure in Bangladesh. The study further designates sustainability reporting disclosure practices. The study used content scrutiny of the yearly statement of 175 companies listed in Dhaka Stock Exchange (DSE) for the year 2018, applying determinants count procedure and ordinary least square (OLS) regression analysis. Findings revealed that the level of sustainability reported among the listed companies in Bangladesh is deficient. Board independence and audit independence have a positive relationship with sustainability reports, but the female members in the board, audit committee size, and corporate governance compliance index have a negative relationship with sustainability as reporting. The board size of the companies is not a significant determinant of sustainability reported. The use of content analysis method for the measurement of sustainability report considering the quantity and ignoring the quality of disclosure, data consideration for only one year may contain subjectivity matter from the researcher’s perspective. Future research should be conducted based on content analysis with a mixed method to increase the quality. The findings of this study guided the essentials for step-up and the pursuance of corporate governance on sustainability exposure. This study contributes to works of literature on the association of corporate governance with sustainability disclosure.

Keywords: sustainability disclosure, board characteristics, corporate governance, listed companies, Bangladesh

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Introduction

At the beginning of the 1990s, Corporate governance received extensive consideration as a result of the discharge of CEOs and also at the beginning of the 2000s, after the vast bankruptcies of Enron and World.com, and it turns into a striking matter for Asian researchers, particularly later than the economic crisis in

* Corresponding author: sarkar_knu@yahoo.com
1997 (Zabri et al., 2016). Reports on Sustainability have become a more relevant matter in business and academics since the end of the 1990s (Hahn & Kuhnen, 2013). United Nations Agenda 2030 and the directives of the European Parliament together with the council of the European Union in recent times encouraged a noticeable improvement in sustainability, especially for larger companies or groups (Taliento et al., 2019). Italian lawmakers convey the order on keen force with the governmental ruling No.254/16, which indebted the public-interest body to practice the non-financial information in the organisation’s report (Fiandrino et al., 2019). Promising to govern the company, corporate social responsibility (CSR), and the ecology is evident for the business to avert companies from the operations that may influence stakeholders' views positively (Buallay et al., 2020).

Sustainability and CSR in the history of evolution are two different terms, but they have the same aim and objective in harmonising both communal and ecological economic responsibilities (Bhatia & Tuli, 2017a). Sustainability includes sustainability, CSR and integrated information (Esch et al., 2019). Companies can attempt to bring sustainable growth through implementing the triple bottom line report of CSR with the combination of ecological, communal, and financial parts (Wang, 2017). There are some facilities, dares, and prospects of sustainability in corporate governance that reveals the attractiveness to integrate these element into organisational management (Jaimes-Valdez & Jacobo-Hernandez, 2016). Amplifying business worth and sales, and enhancing company’s goodwill are some of the advantages of sustainability and corporate governance (Jaimes-Valdez & Jacobo-Hernandez, 2016).

The Board of directors plays vital roles such as setting strategies and formulating policies (Handajani et al., 2014) and also formulating acceptable practices of CSR (Frias-Aceituno et al., 2013) because policies are formulated by them (Fernandez-Feijoo et al., 2014). They also take part in playing essential roles such as organising the business to determine and direct its profit maximisation considering the benefits of more stakeholders (Donaldson & Davis, 1991, as cited in Ismail & Latiff, 2019). Policies made by the board of commissioners are expected not only to focus on short-range for income but also for long-standing corporate sustainability (Handajani et al., 2014). The board of directors’ role as the inside primary administration of a firm is vital for implementing any business (Mudiyanselage, 2018). There is an essential impact of corporate governance on sustainability and allied disclosures, and this has turned into a fastening dynamic dispute in modern business literature (Mudiyanselage, 2018). Corporate

1 Directive n.2014/95/EU available in https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095&from=FI
sustainability has grown consequently and led to financial expansion, ecological regulation-stewardship, and a drive for communal fairness and impartiality (Christofi et al., 2012). Sustainability reporting practices are increasing due to precision which assumes that the published information afford nearly all comprehensive as well as an authentic picture of the potential positive and negative impact of companies operations (Boiral, 2013).

Sustainability reporting allows benchmarking and assessment of a firm’s performance to sustainable advances (Laskar & Maji, 2016). Board diversity may reduce narrow views and enhance new ideas and better problem solving, including improvement of strategic planning and accountability of CSR implementation (Handajani et al., 2014).

Fragile corporate governance of the board and its decision-makers resulted to the issues arising from the environmental, social, and governance (ESG) matters as seen today (Ismail & Latiff, 2019). There are companies with a low level of awareness yet they benefit from the society, these companies will have ecological and social effects in the long run, and will also have a terrible impact on social and environmental sustainability (Saputra et al., 2017). Industrialisation and business expansion without environmental compliance are significant causes of environmental pollution (Sarkar et al., 2020).

It has been stated by most literature that Investors concentrate more on issues such as financial and non-financial as well as environmental, social, and governance as part of investment measures before deciding on any investment of a company (Ferrero-Ferrero et al., 2016; Ismail & Latiff, 2019). Sustainability reports deliver valuable financial data with additional information that assists the stakeholders to understand financial reporting properly (Swarnapali, 2019).

Thus, it is crucial to discover that the characteristics of the corporate governance are directing the companies to voluntarily introduce sustainability information after the issuance of GRI G4 guidelines and how these are vital for sustainability disclosure in emerging economy countries like Bangladesh.

This study incorporates board diversity attributes such as board size, independent directors in the board, female directors in the board, audit committee size, and independent members in the audit committee, and corporate governance compliance practices as independent variables.

**Literature Review and Hypotheses Development**

**Theoretical Review**

Though the research on sustainability began in the 1990s whereas CSR articles began to appear in the 1970s (Bhatia & Tuli, 2017a). Sustainability reporting covers the transformation of a green economy, eventually to a sustainable future.
by presenting readers with a comprehensive picture of a company’s performance including ecological and social information along with financial performance (Bhatia & Tuli, 2017b). Conventionally, materiality is one of the guidelines for financial reporting, however, there is more influential and a rising drive to apply a more extensive definition that will include disclosure of the perils and prospects posed by sustainability issues such as ecological transformation, human rights, and board accountability (Ribera, 2017). Theoretical development is essential to the execution of the most outstanding performances of corporate governance to ensure sustainability (Jaimes-Valdez & Jacobo-Hernandez, 2016). Agency theory put forward the role of boards’ pursuance for observing the firms along with diminishing agency cost and information irregularity in corporate governance literature (Brennan & Solomon, 2008; Dalton et al., 2003; Hendry, 2005; Hillman & Dalziel, 2003; Roberts et al., 2005, as cited in Shamil et al., 2014). On the other hand, stakeholder theory lays more emphasises on stakeholders' benefit through which business policies are executed to clarify firms' sustainability tactics and behaviours and this will become a practical approach to communal, ecological, and sustainability research (Wang, 2017). Management provides a signal to its stakeholders through the information of the disclosure of sustainability practices as a signaling theory to gain competitive advantages like the reduction of equity cost to better or easy financing (Cheng et al., 2014; Dhaliwal et al., 2011, as cited in Moses et al., 2020). Moses et al. (2020), Aguilera et al. (2008) stated that a large number of studies that are connected to board governance were directed based on agency theory. Moses et. al. (2020) conducted research that brought to light the agency theory with legitimacy, stakeholder, critical mass, resource dependence, and Socio-Emotional Wealth (SEW) theories to show the connection between sustainability reporting quality and board attributes. The researchers tried to provide messages to its stakeholders considering the signaling theory, agency theory and stakeholders theory regarding the connection between attributes of corporate governance and sustainability disclosure.

**Corporate Governance and Sustainability Disclosure**

**Board Size**

Few researchers employed board size as a clarifying variable for the disparity in disclosure position of the corporate sector. Most of the studies (Bae et al., 2018; Giannarakis, 2015; Handajani et al., 2014; Hu & Loh, 2018; Lone et al., 2016; Mahmoodet al., 2018; Majeed et al., 2015; Mudiyanseilage, 2018; Olayinka, 2021; Shamil et al., 2014; Wang, 2017) showed a remarkable affirmative association between board size and CSR/ sustainability exposure. Rao and Tilt (2016) recognised a statistically meaningful association between board size affiliation and sustainability/ CSR exposure. Akhtaruddin et. al. (2009) confirmed a meaningful positive correlation between board size and voluntary exposure. Cancela et al.
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(2020) stated that the larger the board size, the fewer the agreement in the measures of performance. Tjahjadi et al. (2021) found that size has a positive consequence on economic performance, an adverse effect on communal, and no effect on ecological sustainability performance.

From this point of view, board size is likely to unveil more information on magnificent sustainability on which the first research hypothesis was proposed:

Hypothesis 1: Company’s board size has a significant positive relationship with the degree of sustainability disclosure.

Board Independence

Most empirical research observed the connection between the board’s independent member(s) and the extent of sustainability exposure. Some of the studies (Akhtaruddin et al., 2009; Bae et al., 2018; Garcia-Meca & Sanchez-Ballesta, 2010; Hu & Loh, 2018; Mudiyanselage, 2018; Ong & Djajadikerta, 2020; Ullah et al., 2019; Wang, 2017) showed a meaningful affirmative association between the ratio/ number of independent board member(s) and the level of sustainability/ voluntary/ CSR disclosure. Ismail and Latiff (2019) showed a negative significant association between the independent member(s) in the board and sustainability disclosure. Barako (2008), Cucari (2017), Jizi (2017) and Lone et al. (2016) found that firms' CSR exposure/ disclosure is linked to the independent director. Rao and Tilt (2016) found an unclear influence of independent directors on CSR disclosure. Handajani et al. (2014), Olayinka (2021), and Shamil et al. (2014) found that board independence does not affect corporate social disclosure/ sustainability disclosure.

Though the conclusion is contradictory, i.e., either positive, negative, or no relationship of board independence to the level of sustainability reporting, most of the studies found a positive correlation between the variables—with the suppositions from the literature, a positive relationship was expected between the variables. Therefore, the second hypothesis was formulated based on the board independence of the company.

Hypothesis 2: Board independence has a remarkable affirmative association with the level of sustainability disclosure.

Female Director

Gender multiplicity is a vital issue for a successful application of corporate governance since it bring about unbiased and fair business judgment and also gears the firm's actions (Terjesen et al., 2009; Vafaei et al., 2015; Ismail & Latiff, 2019). Many theoretical and empirical research has examined the relationship between the board’s female member(s) and sustainability exposure. Anazonwu et al. (2018), Lone et al. (2016), Madaleno and Vieira (2020), Mahmood et al. (2018),
Mudiyanselage (2018), Nadeem et al. (2017), Olayinka (2021), Ong and Djajadikerta (2020), and Ullah et. al. (2019) stated that there is an optimistic significant connection between the role of female directors in the board and sustainability/CSR exposure. Argento et al. (2019); Handajani et al. (2014), Ismail and Latiff (2019), Majeed et al. (2015), and Shamil et al. (2014) explained that female member(s) in the board has negative connection with sustainability disclosure/corporate social disclosure/CSR disclosure in companies. Barako (2008), Bear (2010), Fernandez-Feijoo et. al. (2014), and Harjoto (2015) found that when female members represent the board it significantly improves disclosure. Jizi (2017), and Rao and Tilt (2016) in their studies observed a potential influence of gender on CSR disclosure, and (Frias-Aceituno et al., 2013) the integrated dissemination of information. Khan (2010) found no crucial association between female members' participation in board and CSR disclosure. Cancela et al. (2020) stated that women are more conscious of the firm’s performance.

There is either a positive or negative connection between female participation in the board and the extent of sustainability disclosure based on an inequitable guess from empirical studies. Therefore, the third hypothesis was formulated regarding the female director on the board of the company.

**Hypothesis 3:** Female director(s) in the board has a significant connection with sustainability disclosure volume.

**Audit Committee Size**

A few number of studies found a robust affirmative association of the audit committee with the level of voluntary disclosure (Ho, 2001), sustainability reporting disclosure (Wang, 2017), CSR disclosure (Said et al., 2017). Cancela et al. (2020) found that the audit committee rises safekeeping for more profitability.

The above empirical studies suggested a positive relationship between the audit committee's size and the quantity of sustainability disclosure. So, the fourth hypothesis was formulated based on the audit committee size of the company.

**Hypothesis 4:** The size of the audit committee has a significant positive relationship with the amount of sustainability disclosure.

**Audit Independence**

Buallay and Al-Ajmi (2019) identified a meaningful positive connection between independent members in the audit committee and sustainability disclosure.

Based on these presumptions from the above result, a positive link between audit independence and sustainability disclosure level is expected. Thus, the
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formulation of the fifth hypothesis is based on the audit independence of the company.

Hypothesis 5: Audit independence has a significant positive link to the sustainability disclosure level.

Corporate Governance Practices

Amidjaya and Widagdo (2019), and Utamiet al. (2020) found a meaningful affirmative association of sustainability exposure with the company’s governance. On the other hand, Dienes et al. (2016) found no statistically significant relationship between corporate governance practices and sustainability. Rashid (2018) found that there is no convincing corporate governance on a firm CSR’s coverage.

Based on this contradictory conclusion, a positive significant relationship of corporate governance practices with the level of sustainability exposure is expected. Therefore, the sixth hypothesis was formulated based on the corporate governance practices of the business.

Hypothesis 6: Corporate governance practices have a notable association with the level of sustainability disclosure.

The independent variables, their brand, estimated symbols, and relationships are presented and described in Table 1.

Table 1

Independent Variables

| Variable Labels | Variables | Description | Hypotheses | Expected Sign |
|-----------------|-----------|-------------|-------------|---------------|
| SIZE            | Board size| SIZE has a positive relationship with the sustainability disclosure | H1 | + |
| IND             | Independent members on board | IND affirmatively associated with the sustainability disclosure | H2 | + |
| FEM             | Female director(s) on the board | FEM associated with the sustainability disclosure | H3 | +/- |
| Variable Labels | Variables                  | Description                                                      | Hypotheses | Expected Sign |
|-----------------|----------------------------|------------------------------------------------------------------|------------|---------------|
| AUDSIZE         | Audit committee Size       | AUDSIZE has a positive relationship with the sustainability disclosure | H4         | +             |
| AUDIND          | Audit Independence         | AUDIND affirmatively associated with the sustainability exposure | H5         | +             |
| CGCI            | Corporate governance compliance index | CGCI has a relationship with the levels of sustainability disclosure | H6         | +/-           |

The variables used in this study take into consideration of previous studies undertaken by other researchers. Six corporate governance attributes recognise board size (indicated by the number of directors in the board), board independence (indicated by the number of independent director(s) in the board), female director (proxied by the number of female member(s) in the board), audit committee size (proxied by the member(s) in audit committee), audit independence (proxied by the independent member(s) in the audit committee), and corporate governance practices (proxied by corporate governance compliance index). The above paragraphs justified taking into consideration the corporate governance trait chosen as explanatory variables.

The Methodology of the Study

The research is empirically based on secondary sources of data collected through content analysis of the number of determinants of the yearly report of Bangladeshi listed companies with Dhaka Stock Exchange (DSE).

Population and Sample

There were 316 companies listed in 2018 with Dhaka Stock Exchange (DSE), Bangladesh. Based on the Krejcie and Morgan table (1970 cited in KENPRO), the research used 175 companies (175 samples for population size 320) as a sample. Therefore, the sample includes 175 companies from 18 categories based on DSE classification as follows.
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Table 2
Population and Sample

| Categories                        | Population | Sample | Percent |
|----------------------------------|------------|--------|---------|
| Bank                             | 30         | 23     | 76.67   |
| Financial Institutions           | 23         | 13     | 56.52   |
| Insurance                        | 47         | 15     | 31.91   |
| Pharmaceuticals and Chemicals    | 31         | 15     | 48.39   |
| Jute                             | 3          | 2      | 66.67   |
| Textile                          | 55         | 30     | 54.55   |
| Cement                           | 7          | 5      | 71.43   |
| Services and Real Estate         | 4          | 3      | 75.00   |
| Foods & Allied                   | 17         | 9      | 52.94   |
| Tannery Industries               | 6          | 4      | 66.67   |
| Engineering                      | 38         | 19     | 50.00   |
| Ceramic Sector                   | 5          | 4      | 80.00   |
| Fuel and Power                   | 19         | 14     | 73.68   |
| Telecommunication                | 2          | 2      | 100.00  |
| IT Sector                        | 9          | 3      | 33.33   |
| Paper and Printing               | 3          | 2      | 66.67   |
| Travel & Leisure                 | 4          | 3      | 75.00   |
| Miscellaneous                    | 13         | 9      | 69.23   |
| Total                            | 316        | 175    | 55.38   |

*Source (DSE Website and own calculation)

Measurement Procedure

Different measurement procedures were used to assess the level of sustainability disclosure practices by earlier researchers. Akter et al. (2018), and Molla et al. (2019) used content analysis to collect data on sustainability disclosures from the one-year annual report and websites. Bhatia and Tuli (2017a), Bhatia and Tuli (2017b), Boiral (2013), and Ong and Djajadikerta (2020) used content analysis. Dissanayake et al. (2019) used word count content analysis for measurement procedure. Ferri (2017) used content analysis of a seven-point Likert scale. Haladu and Salim (2017), and Hossain (2017) used content analysis applying disclosure checklist a score of 1 awarded if an item is reported; otherwise, 0 assigned by browsing the sample companies' websites.

Aktas et al. (2013), Bhatia and Tuli (2018), Ching et al. (2013), and Ching et al. (2017) used content investigation following the GRI framework. Alam et al. (2018) measured the level of sustainability reporting practices according to the GRI G-3/3.1, reviewing annual reports, and results were shown as full disclosure, partial disclosure, and no discourse. Laskar and Maji (2018) used content
examination according to GRI 3 and 3.1 frameworks to measure the exposure level of corporate sustainability performance. Akhter and Dey (2017) used content analysis techniques to analyse sustainability disclosures in the annual report and website based on GRI G4 guidelines. Laskar (2018) used content investigation (binary 0 and 1) to compute the disclosure volume of sustainability performance, considering the GRI setup.

Argento et al. (2019) used content analysis to develop a sustainability disclosure index. Atan et al. (2016) used content assessment of the yearly plus stand-alone statement to establish a modified index. Content analysis is a tool for extracting numeric forms of information being used extensively in social sciences research from published documents (Laskar & Maji, 2016). Szekely and Brocke (2017) used semi-automated text-mining techniques, whereas Nur et al. (2016) used the UN Global Compact framework for sustainability reporting to measure sustainability disclosure. Ismail and Latiff (2019) used Thomson Reuters ESG scores of listed companies.

This study considered content investigation of the yearly report using the 2018 report to compute determinants of sustainability disclosure. The yearly reports are considered as a source of data because of its legislation, there is an obligation to produce regularly all listed companies so that it will be easy to make relative comparisons (Tilt, 2001, as cited in Akbas, 2014).

Data Analysis Techniques

This study used descriptive statistics to determine the stage of sustainability exposure in the corporate sector in Bangladesh. In contrast, the ordinary least square (OLS) regression model applied using multiple regression techniques to examine relationships between corporate governance and the intensity of sustainability disclosure.

Dependent and Independent Variables

The number of determinants disclosed in the yearly sustainability report (economic, environmental, and social) is determined by its sustainability disclosure score (SDS) as a dependent variable for each of the companies studied. In the process, the researcher counted the number of determinants disclosed on economic, social and environmental aspects at any place of the company's annual report by using content analysis. Determinants count was implemented as a means of the message with a whole meaning. Dissanayake et al. (2019) used the number of determinants as dependent variables in their research on sustainability reporting in the context of Sri Lanka. Moreover, Ufere et al. (2017) used the number of determinants to collect environmental disclosures from a one-year annual report in Malaysia, whereas Abubakar (2017) used the number of determinants to collect environmental exposures in Nigeria. Independent variables are taken through the
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review of the literature. Figure-1 shows the association of independent and dependent variables.

**Figure 1**

*Independent and Dependent Variable*

![Diagram showing the association of independent and dependent variables](image)

*Source (Author)*

**Multiple Regression Models**

Multiple linear regression models developed for the study thus; -

\[ SDS = \alpha + \beta_1 \text{SIZE}_i + \beta_2 \text{IND}_i + \beta_3 \text{FEM}_i + \beta_4 \text{AUDSIZE}_i + \beta_5 \text{AUDIND}_i + \beta_6 \text{CGCI}_i + \epsilon_i \]

SDS= quantity of sustainability exposure in 2018 (Total determinants on sustainability in the yearly report of the company)
\( \alpha= \) intercept
SIZE: board size of the company (number of members in the board of directors)
IND: independent member(s) in the company’s board
FEM: female member(s) in the company’s board
AUDSIZE: company’s audit committee size (members in the audit committee)
AUDIND: independent member(s) in the audit committee of the company
CGCI: corporate governance compliance index of the company
\( \epsilon= \) the error term
Data Analysis and Results

The result section of the study is presented and discussed in three parts. In the first part, univariate statistics of the variables are presented in the table with a brief description. In the second part, the Pearson correlation matrix was employed to test the relationship among variables. In the last part, an ordinary least square regression model was tested and presented.

Descriptive Statistics

Table 3 presents univariate statistics of independent and dependent variables, i.e., mean, median, mode, standard deviation, minimum and maximum. Measures of skewness and kurtosis were also presented.

The mean value of SDS is 88.26, with a vast volume of deviation (SD 118.43, minima 4, and maxima 720) among companies. The result indicated that the deviation of disclosure on information sustainability in the annual report of the companies under this study is large. Table 3 also illustrated that the mean SIZE is 9.59 (median 9.00 and mode 5) with a high volume of deviation (standard deviation 4.034 and range 17), which is comparable (mean 7.77) to the result of Shamil et al. (2014) and (mean 8.135) found in the study of Mudiyanselage (2018) in Sri Lanka. The mean of IND is 2.09 (median 2.00 and mode 2) with a high volume of deviation (standard deviation 0.899 and range 6). It should be mentioned here that the study found only 22 percent of the board members as independent whereas 39 percent in the work of (Shamil et al., 2014) and 42 percent (Mudiyanselage, 2018) in Sri Lanka. The mean of the FEM on the board is 1.57 (median 1.00 and mode 0) with a high volume of deviation (standard deviation 1.566 and range 8). It should also be mentioned that the female involvement under this study is superior (16.37 percent) in Bangladesh than (8 percent) in Sri Lanka (Mudiyanselage, 2018). The mean of AUDSIZE is 3.99 (median 4.00 and mode 4) with a high deviation (standard deviation 1.202 and range 9), mean of AUDIND is 1.39 (median 1.00 and mode 1) with a high volume of variation (standard deviation 0.66 and range 4), and the mean of CGCI is 82.28 with a standard deviation of 10.06.

Table 3

Descriptive Statistics of Dependent and Independent Variables

| VAR. | Obs. | Mean  | Med.  | Mode | Std. Dev. | Min | Max. | Skew | Kurt. |
|------|------|-------|-------|------|-----------|-----|------|------|-------|
| SDS  | 175  | 88.26 | 45.00 | 12   | 118.43    | 3   | 720  | 2.885 | 9.849 |
Table 4 demonstrates the Pearson correlation matrix of the independent and dependent variables. The correlation analysis indicated that size of the board and independent board members have a maximum (0.552) correlation coefficient among the independent variables. There is no intolerable limit of multicollinearity among the independent variables. Farrar and Glauber (1967, as cited in Akbas, 2014) recommended that the correlation coefficients of 0.8 to 0.9 among independent variables should not be detrimental.

**Table 4**

**Pearson Correlation Matrix**

| Variables | SDS   | SIZE  | IND   | FEM   | AUDSIZE | AUDIND | CGCI     |
|-----------|-------|-------|-------|-------|---------|--------|----------|
| SDS       | 1     |       |       |       |         |        |          |
| SIZE      | .303  | 1     |       |       |         |        |          |
| IND       | .516* | .552**| 1     |       |         |        |          |
| FEM       | -.051*| .370  | .179  | 1     |         |        |          |
| AUDSIZE   | .044* | .296  | .209  | .031  | 1       |        |          |
| AUDIND    | .442* | .141  | .405  | -.084 | .246    | 1      |          |
The analytical result indicated that the level of sustainability disclosure is, as expected, positively correlated to IND and AUDIND, whereas negatively correlated to FEM. The level of sustainability disclosure is negatively correlated, contrary to the expectation, with AUDSIZE and CGCI at the 5 percent significance level. However, the SIZE is not statistically interconnected to the level of sustainability disclosure, conflicting its future.

**Regression Results**

Table 5 shows the estimated value of the company SIZE 2.734, and its t-value is 1.176 with a p-value of 0.241, the estimated value for IND is 51.009, and its t-value is 5.012 with p-value 0.000, the estimated value for FEM is -11.799, and its t-value is -2.426 with p-value 0.016, the estimated value for AUDSIZE is -13.950, and its t-value is -2.230 with p-value 0.027, the estimated value for AUDIND is 47.259, and its t-value is 3.896 with p-value 0.000, the estimated value for CGCI is -2.777, and its t-value is -3.842 with p-value 0.000. Statistical results indicated that IND and AUDIND have a meaningful statistical positive relationship with sustainability disclosure. In contrast, FEM, AUDSIZE, and CGCI have a remarkable pessimistic statistical association with sustainability disclosure at a five percent level of significance. However, SIZE has no significant statistical relationship with sustainability disclosure. Since the variance inflation factor (VIF) values are <two, independent variables do not have multicollinearity. The result of the correlation matrix found no variable with a higher correlation in the data set. The Durban Watson test statistical value is 1.347, which lies within the standard series of 1.0 to 2.5. Field (2009) put forward that values below one or over 3 are a matter of anxiety. So, the result indicated that there is no autocorrelation. Figure-2 shows a typically distributed data set. The $R^2$ value for this model is 0.420, and the $\text{Adj}R^2$ value is 0.399, which implies that the predictor variables explain about 42.0 percent of the entire disparity by $R^2$ and about 39.9 percent of the absolute deviation by $\text{Adj}R^2$. 

| Variables | SDS | SIZE | IND | FEM | AUDSIZE | AUDIND | CGCI |
|-----------|-----|------|-----|-----|---------|--------|------|
| CGCI      | -.311* | -.247 | -.120 | -.116 | -.072 | -.130 | 1    |

*Significant at the 0.05 level (2-tailed) of significance
**Highest correlation coefficient between independent variables
*Source (Analysis of data collected using content analysis of annual reports)
Table 5

Result of OLS Regression Showing the Link Between the Level of Sustainability Information and Governance of the Company

| Model                                    | Regression Coefficients | t-value | P-value | Collinearity Statistics |
|------------------------------------------|-------------------------|---------|---------|-------------------------|
|                                          |                         |         |         | Tolerance               | VIF     |
| Intercept                                | 192.730                 | 2.737   | .007    |                         |         |
| Board size                               | 2.734                   | 1.176   | .241    | .554                    | 1.806   |
| Board Independence                       | 51.009                  | 5.012   | .000    | .582                    | 1.719   |
| Female director(s)                       | -11.799                 | -2.426  | .016    | .839                    | 1.191   |
| Size of audit committee                  | -13.950                 | -2.230  | .027    | .866                    | 1.155   |
| Audit independence                       | 47.259                  | 3.896   | .000    | .763                    | 1.310   |
| Corporate governance compliance index    | -2.777                  | -3.842  | .000    | .923                    | 1.083   |
| R-Square                                 | .420                    |         |         |                         |         |
| Adjusted R-Square                        | .399                    |         |         |                         |         |
| Durbin-Watson                            | 1.35                    |         |         |                         |         |
| F-statistic                              | 20.125                  |         |         |                         |         |
| p-value of F-statistic                   | .000                    |         |         |                         |         |

a. Dependent Variable: Number of sentences, *Source (Regression coefficient of data)
This study investigated the connection of sustainability exposure with attributes of corporate governance using secondary sources of data collected from content investigation of the 2018 yearly statement of 175 companies listed in the DSE Bangladesh. The determinants employed to quantify the extent of sustainability disclosure in this study are six corporate characteristics considered as independent variables based on previous literature.

The mean disclosure of sustainability information is 88.26 with a high deviation (standard deviation 118.43 and range 716). The mean of the SIZE is 9.59 with a median of 9, and mode 5, mean of IND is 2.09 with median and mode 2, mean FEM of the selected companies is 1.57 with median 1 and mode 0, mean of the size of the audit committee is 3.99 with median and mode 4, and mean of AUDIND is 1.39 with median and mode 1. The mean CGCI of the selected companies is 82.28, with a standard deviation of 10.06.

The correlation matrix shows that the multicollinearity is not at an intolerable limit among the independent variables because the uppermost coefficient value of the independent variables is 0.552 between the board size and independent members in the board.

The result from the regression computed indicated that five out of six hypotheses are supported. The empirical result means that IND (hypothesis 2) has...
a positive statistical association with a degree of sustainability exposure as expected. Hypothesis 2 specified that the board comprises more independent directors influencing the company to disclose a large volume of sustainability information in their annual reports. This findings is similar to the previous results of Akhtaruddin et al. (2009), Garcia-Meca and Sanchez-Ballesta (2010), Mudiyanselage (2018), Ong and Djajadikerta (2020), and Wang (2017). The empirical result also found that AUDIND (hypothesis 5) has a statistically significant affirmative connection with the size of sustainability disclosure as expected. The results indicated that companies’ audit committee have more independent auditors who discloses a higher quantity of sustainability information in their annual reports, which is similar to the result of Buallay and Al-Ajmi (2019).

The statistical result in (hypothesis 3) confirmed that FEM has a noteworthy negative statistically affiliation with the extent of sustainability exposure. The outcome indicated that the companies disclose a higher quantity of sustainability information in their annual reports, the boards are composed of a lower number of female members and this is in line with the studies of Argento et al. (2019), Handajani et al. (2014), Ismail and Latiff (2019), Majeed et al. (2015), and Shamil et al. (2014).

On the other hand, the AUDSIZE (hypothesis 4) is contrary to expectation, it has a negative affiliation with the extent of sustainability exposure and this indicate that the companies unveil a lower quantity of sustainability matter in their annual reports; especially those with large size of the audit committee. CGCI (hypothesis 6) is also contrary to the expectation, indicating a negative significant connection to the volume of sustainability disclosure. The results of hypothesis 6 indicated that the companies disclose a lower quantity of sustainability information in their annual reports; those with high CGCI.

Hypothesis on SIZE (hypothesis 1) has a positive statistical insignificant relationship. The result indicated that SIZE has a statistically insignificant connection with the level of sustainability disclosure—this is supported by the work of Rao and Tilt (2016).

Theoretical and Practical Implications

This is one the studies that advances the relationship between corporate governance and sustainability disclosure in Bangladesh. Among available literatures, we found that this is one pioneer study that shows the relationship between corporate governance and sustainability disclosure on listed companies in Bangladesh. The study results indicated that corporate governance influences sustainability reporting because board independence and audit independence have positive relationships with sustainability disclosure. Female directors, the size of
the audit committee, and corporate governance have a negative significant relationship with sustainability reporting. If the shareholders of the companies appoint more independent directors in the board and more independent members in the audit committee, it will enhance sustainability disclosure. The study enriched the knowledge area on the association of corporate governance with sustainability exposure in Bangladesh, owing to this type of research mainly conducted in developed countries. It is also expected that the study provides valuable guidelines to policymakers and practicing authorities to implement corporate governance as a weapon to increase voluntary disclosure like sustainability disclosure to legitimate stakeholders. The research may open an avenue of sustainable development through more investment in the country's corporate sector by implementing corporate governance and sustainability reporting absolutely to ensure transparency, accountability, faithfulness, and reliability of the stakeholders.

Bhatia and Tuli (2017) suggested that developing countries enthused from developed countries on practicing sustainability exposure and frame up a separate set of disclosure principles considering their constraints of financial resources, educational levels, stakeholder awareness, and other requirements. Buallay (2020) found that sustainability exposure affirmatively persuades the operational, economic, and market performance in the manufacturing segment and negatively influences the banking division. Petrescu et al. (2020) opined that the sustainability statement, on one hand is a mechanism to uphold business enterprise and, conversely, make information available to existing and potential investors, consumers, and other concerned parties about substantial impact of the enterprise’s activity on civilisation and the ecology. Dhaka Stocke Exchange (DSE, 2019) stated that the GRI Sustainability Reporting Standards help companies convene transparently and consistently. Ioannou and Serafeim (2011) explored that obligatory exposure of sustainability information directly augment social responsibility of business, a prioritisation of sustainable growth with trained employees, efficient supervision of management, an increase in the execution of moral practices by firms, diminished bribery and corruption, and a step-up of administrative trustworthiness within the society.

Proper implementation of sustainability reporting can fulfill the state of agency theory and stakeholder theory by ensuring financial, communal, and ecological compliance and accountability. This is because sustainability reporting requirements all mentioned issues. Agency theory facilitates the implementation of various governance instruments to control the agents’ acts in corporations (Panda & Leepsa, 2017). Stakeholder theory suggests that the satisfaction of all who have stakes in the company should be taken into consideration (Ademola, 2014).
Conclusion

The immense importance of the earth, ecology, resources, society, human rights, and welfare is directed to the concept of sustainability and sustainability reporting. Sustainability originated from the thinking of future generations at the time of consumption and practices by the present generation. Awareness of sustainability reporting was popular afterward at the United Nations General Assembly (UNGA) in 1987 (Ong, 2016; Moses et al. 2020). In the era of globalization, technological development, urbanization, and rapid industrialization of the world is transforming from natural systems to artificial platforms. The revolution consumes more natural resources to create artificial facilities and improper practices of emission leading to increased environmental degradation. In the capitalist economy, private ownership encourages malpractices of the uses of natural resources, labor practices, human rights, society, product responsibility, and customer privacy to earn more profit, leading to violation of human rights and welfare, less concentration on social services. In the changing world especially in the corporate sector, the board responsibility has been shifted from stockholders to the stakeholders and requires more attention beyond traditional responsibility. Keeping an eye on the above issues, the study examines the effect of corporate governance attributes to the sustainability disclosure of the DSE listed companies in Bangladesh using secondary data collected from content analysis of 175 companies’ annual reports. Statistical results indicated that board and audit independence were found positive whereas the number of female directors, size of the audit committee, and corporate governance compliance practices have a negative and significant relationship with sustainability disclosure.

Limitations and Future Research

Mentionable limitations of the study include that research is based only on one-year data collected from annual reports of selected Bangladeshi companies, this quantity is without the consideration of the quality of disclosure considered. The future research should be conducted and gaps such as longitudinal data, quality of the disclosure, annual reports, and other company publications as data sources should be considered to overcome these limitations. There is plenty of research to determine the relationship between corporate governance and sustainability exposure of the companies in the south Asian countries.

References

Abubakar, I. R. (2017). Access to sanitation facilities among nigerian households: determinants and sustainability implications. *Sustainability, 9*(4), 547. [https://doi.org/10.3390/su9040547](https://doi.org/10.3390/su9040547)
Ademola, O. E. (2014). Detailing stakeholder theory of management: A managerial performance technique. *Computing, Information Systems, Development Informatics & Allied Research Journal, 5*(4), 61-70.

Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: costs, contingencies, and complementarities. *Organization Science, 19*(3), 381-495. https://doi.org/10.1287/orsc.1070.0322

Akbas, H. E. (2014). Company characteristics and environmental disclosure: An empirical investigation on companies listed on Borsa Istanbul 100 index. *The Journal of Accounting and Finance, April/2014*(62), 145-163.

Akhtaruddin, M., Hossain, M. A., Hossain, M., & Yao, L. (2009). Corporate governance and voluntary disclosure in corporate annual reports of Malaysian listed firms. *Journal of Applied Management Accounting Research, 7*(1), 1–20.

Akhter, S., & Dey, P. K. (2017). Sustainability reporting practices: Evidence from Bangladesh. *International Journal of Accounting and Financial Reporting, 7*(2), 61-78. https://doi.org/10.5296/ijaf.v7i2.11659

Aktas, R., Kayalidere, K., & Karğin, M. (2013). Corporate sustainability reporting and analysis of sustainability reports in Turkey. *International Journal of Economics and Finance, 5*(3), 113-125. https://doi.org/10.5539/ijef.v5n3p113

Akter, F., Akter, A., & Akhter, H. (2018). Sustainability reporting practices: A study of selected banking companies of Bangladesh. *European Journal of Business and Management, 10*(17), 21-29.

Alam, S., Ahmed, T., & Hasan, M. M. (2018). Sustainability reporting practices by non-bank financial institutions of Bangladesh. *The Cost and Management, 46*(2), 31-36.

Amidjaya, P. G., & Widagdo, A. K. (2019). Sustainability reporting in Indonesian listed banks: Do corporate governance, ownership structure and digital banking matter? *Journal of Applied Accounting Research, 21*(2), 231-247. https://doi.org/10.1108/JAAR-09-2018-0149

Anamazonwu, H. O., Egbunike, F. C., & Gunardi, A. (2018). Corporate board diversity and sustainability reporting: A study of selected listed manufacturing firms in Nigeria. *Indonesian Journal of Sustainability Accounting and Management, 2*(1), 65–78. https://doi.org/10.28992/ijsam.v2i1.52

Argento, D., Grossi, G., Persson, K., & Vingren, T. (2019). Sustainability disclosures of hybrid organisations: Swedish state-owned enterprises.
Atan, R., Razali, F. A., Said, J., & Zainun, S. (2016). Environmental, social and governance (ESG) disclosure and its effect on firm’s performance: A comparative study. *International Journal of Economics and Management, 10* (S2), 355 – 375.

Bae, S. M., Masud, M. A. K., & Kim, J. D. (2018). A cross-country investigation of corporate governance and corporate sustainability disclosure: A signaling theory perspective. *Sustainability, 10*(2611), 1-16. https://doi.org/10.3390/su10082611

Barako, D. G. (2008). Corporate social reporting and board representation: Evidence from the Kenyan banking sector. *Journal of Management and Governance, 12*(4), 309-324. https://doi.org/10.1007/s10997-008-9053-x

Bear, S. R. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics, 97*, 207-221. https://doi.org/10.1007/s10551-010-0505-2

Bhatia, A., & Tuli, S. (2017a). Sustainability reporting practices in US and UK: An empirical comparison. *International Journal of Law and Management, 60*(4), 1034-1056. https://doi.org/10.1108/IJLMA-04-2017-0102

Bhatia, A., & Tuli, S. (2017b). Corporate attributes affecting sustainability reporting: An Indian perspective. *International Journal of Law and Management, 59*(3), 322-340. https://doi.org/10.1108/IJLMA-11-2015-0057

Bhatia, A., & Tuli, S. (2018). Sustainability reporting: An empirical evaluation of emerging and developed economies. *Journal of Global Responsibility, 9*(2), 207-234. https://doi.org/10.1108/JGR-01-2018-0003

Boiral, O. (2013). Sustainability reports as simulacra? A counter-account of A and A 1 GRI reports. *Accounting, Auditing & Accountability Journal, 26*(7), 1036-1071. https://doi.org/10.1108/AAAJ-04-2012-0098

Buallay, A. (2020). Sustainability reporting and firm’s performance: Comparative study between manufacturing and banking sectors. *International Journal of Productivity and Performance Management, 69*(3), 431-445. https://doi.org/10.1108/IJPPM-10-2018-0371

Buallay, A., & Al-Ajmi, J. (2019). The role of audit committee attributes in corporate sustainability reporting: Evidence from banks in the Gulf Cooperation Council. *Journal of Applied Accounting Research, 21*(2), 249-264. https://doi.org/10.1108/JAAR-06-2018-0085
Buallay, A., Fadel, S. M., Alajmi, J., & Saudagaran, S. (2020). Sustainability reporting and bank performance after financial crisis: Evidence from developed and developing countries. *Competitiveness Review, 31*(4), 747-770. https://doi.org/10.1108/CR-04-2019-0040

Cancela, B. L., Neves, M. E. D., Rodrigues, L. L., & Dias, A. C. G. (2020). The influence of corporate governance on corporate sustainability: new evidence using panel data in the Iberian macroeconomic environment. *International Journal of Accounting & Information Management, 28*(4), 785-806. https://doi.org/10.1108/IJAIM-05-2020-0068

Ching, H. Y., Gerab, F., & Toste, T. (2013). Analysis of sustainability reports and quality of information disclosed of top Brazilian companies. *International Business Research, 6*(10), 62-77. https://doi.org/10.5539/ibr.v6n10p62

Ching, H. Y., Gerab, F., & Toste, T. H. (2017). The quality of sustainability reports and corporate financial performance: Evidence from Brazilian listed companies. *SAGE Open, April-June 2017*, 1 –9. https://doi.org/10.1177/2158244017712027

Christofi, A., Christofi, P., & Sisaye, S. (2012). Corporate sustainability: Historical development and reporting practices. *Management Research Review, 35*(2), 157-172. https://doi.org/10.1108/01409171211195170

Cucari, N. D. (2017). Diversity of board of directors and environmental social governance: Evidence from Italian listed companies. *Corporate Social Responsibility and Environmental Management, 25*(3), 250-266. https://doi.org/10.1002/csr.1452

Dienes, D., Sassen, R., & Fischer, J. (2016). What are the drivers of sustainability reporting? A systematic review. *Sustainability Accounting, Management and Policy Journal, 7*(2), 154-189. https://doi.org/10.1108/SAMPJ-08-2014-0050

Dissanayake, D., Tilt, C., & Qian, W. (2019). Factors influencing sustainability reporting by Sri Lankan companies. *Pacific Accounting Review, 31*(1), 67-92. https://doi.org/10.1108/PAR-10-2017-0085

Dhaka Stock Exchange Limited. (2019). *Guidance on Sustainability Reporting for Listed Companies in Bangladesh*. Dhaka Stock Exchange Limited. www.carrotsandsticks.net/reporting-instruments/guidance-on-sustainability-reporting-for-listed-companies-in-bangladesh/

Esch, M., Schnellbacher, B., & Wald, A. (2019). Does integrated reporting information influence internal decision making? An experimental study of investment behavior. *Business Strategy and the Environment, 28*(4), 599-610. https://doi.org/10.1002/bse_2267
Influence of Corporate Governance

Fernandez-Feijoo, B., Romero, S., & Ruiz-Blanco, S. (2014). Women on boards: do they affect sustainability reporting? *Corporate Social Responsibility and Environmental Management*, 21(6), 351–364. http://doi.org/10.1002/csr.1329

Ferrero-Ferrero, I., Fernández-Izquierdo, M., Á., and Muñoz-Torres, M., J. (2016). The effect of environmental, social and governance consistency on economic results. *Sustainability*, 8(10), 1005. https://doi.org/10.3390/su8101005

Ferri, L. M. (2017). The influence of the institutional context on sustainability reporting. A cross-national analysis. *Social Responsibility Journal*, 13(1), 24-47. DOI 10.1108/SRJ-11-2015-0172

Fiandrino, S., Busso, D., & Vrontis, D. (2019). Sustainable responsible conduct beyond the boundaries of compliance: Lessons from Italian listed food and beverage companies. *British Food Journal*, 121(5), 1035-1049. http://doi.org/10.1108/BFJ-03-2019-0182

Field, A. (2009) *Discovering Statistics Using SPSS*. Sage Publications Ltd.

Frias-Aceituno, J. V., Rodriguez-Ariza, L., & Garcia-Sanchez, I. (2013). The role of the board in the dissemination of integrated corporate social reporting. *Corporate Social Responsibility and Environmental Management*, 20(4), 219–233. http://doi.org/10.1002/csr.1294

Garcia-Meca, E., & Sanchez-Ballesta, J. P. (2010). The association of board independence and ownership concentration with voluntary disclosure: A meta-analysis. *European Accounting Review*, 19(3), 603-627. https://doi.org/10.1080/09638180.2010.496979

Giannarakis, G. (2015). The determinants influencing the extent of CSR disclosure. *International Journal of Law and Management*, 56(5), 393-416. https://doi.org/10.1108/IJLMA-05-2013-0021

Hahn, R., & Kuhnen, M. (2013). Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production*, 59(2013), 5-21. http://dx.doi.org/10.1016/j.jclepro.2013.07.005

Haladu, A., & Salim, B. B. (2017). Sustainability reporting by firms in the Nigerian economy: Social versus environmental disclosure. *Journal of Accounting and Finance in Emerging Economies*, 3(2), 87-112. https://doi.org/10.26710/jafee.v3i2.96

Handajani, L., Subroto, B., Sutrisno, T., & Saraswati, E. (2014). Does board diversity matter on corporate social disclosure? An Indonesian evidence. *Journal of Economics and Sustainable Development*, 5(9), 8-16.
Harjoto, M. L. (2015). Board diversity and corporate social responsibility. Journal of Business Ethics, 132, 641-660. https://doi.org/10.1007/s10551-014-2343-0

Ho, S. S. (2001). A study of relationships between corporate governance structures and the extent of voluntary disclosure. Journal of International Accounting, Auditing and Taxation, 10(2), 139-156. https://doi.org/10.1016/S1061-9518(01)00041-6

Hossain, M. M. (2017). Sustainability report of financial services industry in SAARC countries: Special reference to Bangladesh. Independent Business Review, 10(1-2), 144-192.

Hu, M., & Loh, L. (2018). Board governance and sustainability disclosure: A cross-sectional study of Singapore-listed companies. Sustainability, 10(7), 1-14. https://doi.org/10.3390/su10072578

Ioannou, I., & Serafeim, G. (2011). The Consequences of mandatory corporate sustainability reporting. (Working Paper 11-100). Harvard Business School.

Ismail, A. M., & Latiff, I. H. M. (2019). Board diversity and corporate sustainability practices: Evidence on environmental, social and governance (ESG) reporting. International Journal of Financial Research, 10(3), 31-50. https://doi.org/10.5430/ijfr.v10n3p31

Jaimes-Valdez, M. A., & Jacobo-Hernandez, C. A. (2016). Sustainability and corporate governance: Theoretical development and perspectives. Journal of Management and Sustainability, 6(3), 44-56. https://doi.org/10.5539/jms.v6n3p44

Jizi, M. (2017). The influence of board composition on sustainable development disclosure. Business Strategy and the Environment, 26(5), 640–655. http://doi.org/10.1002/bse.1943

KENPRO (2012, August 25). Sample size determination using krejcie and morgan table. KENPRO. http://www.kenpro.org/sample-size-determination-using-krejcie-and-morgan-table/

Khan, H. (2010). The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh. International Journal of Law and Management, 52(2), 82–109. http://doi.org/10.1108/17542431011029406

Laskar, N. (2018). Impact of corporate sustainability reporting on firm performance: An empirical examination in Asia. Journal of Asia Business Studies, 12(4), 571-593. https://doi.org/10.1108/JABS-11-2016-0157
Laskar, N., & Maji, S. G. (2016). Corporate sustainability reporting practices in India: Myth or reality? Social Responsibility Journal, 12(4), 625-641. https://doi.org/10.1108/SRJ-05-2015-0065

Laskar, N., & Maji, S. G. (2018). Disclosure of corporate sustainability performance and firm performance in Asia. Asian Review of Accounting, 26(4), 414-443. https://doi.org/10.1108/ARA-02-2017-0029

Lone, E. J., Ali, A., & Khan, I. (2016). Corporate governance and corporate social responsibility disclosure: Evidence from Pakistan. Corporate Governance, 16(5), 785-797. https://doi.org/10.1108/CG-05-2016-0100

Madaleno, M., & Vieira, E. (2020). Corporate performance and sustainability: Evidence from listed firms in Portugal and Spain. Energy Reports, 6(2020), 141–147. https://doi.org/10.1016/j.egyr.2020.11.092

Mahmood, Z., Kouser, R., Ali, W., Ahmad, Z., & Salman, T. (2018). Does corporate governance affect sustainability disclosure? A mixed methods study. Sustainability, 10(11), 1-20. https://doi.org/10.3390/su10010207

Majeed, S., Aziz, T., & Saleem, S. (2015). The effect of corporate governance elements on corporate social responsibility (CSR) disclosure: An empirical evidence from listed companies at KSE Pakistan. International Journal of Financial Studies, 3(4), 530-556. https://doi.org/10.3390/ijfs3040530

Molla, M. S., Ibrahim, Y., & Ishak, Z. (2019). Corporate sustainability practices: A review on the measurements, relevant problems and a proposition. Global Journal of Management and Business Research: Accounting and Auditing, 19(1), 1-8.

Moses, E., Che-Ahmad, A., & Abdulmalik, S. O. (2020). Board governance mechanisms and sustainability reporting quality: A theoretical framework. Cogent Business & Management, 7(1), 1-23. https://doi.org/10.1080/23311975.2020.1771075

Mudiyanselage, N. C. S. R. (2018). Board involvement in corporate sustainability reporting: Evidence from Sri Lanka. Corporate Governance, 18(6), 1042-1056. https://doi.org/10.1108/CGR-10-2017-0252

Nadeem, M., Zaman, R., & Saleem, I. (2017). Boardroom gender diversity and corporate sustainability practices: Evidence from Australian securities exchange listed firms. Journal of Cleaner Production, 149, 874–885. http://doi.org/10.1016/j.jclepro.2017.02.141

Nur, T., Akther, T., & Rahman, F. (2016). Rationality and status of corporate sustainability reporting through compliance with the UN global compact -
Bangladesh steps towards the achievement of SDGs. *E-Bangladesh Accountant, October-December 2016*, 50-60.

Olayinka, O. M. (2021). Corporate governance and economic sustainability reporting in Nigeria. *Journal of Accounting and Taxation, 13*(4), 243-254. http://doi.org/10.5897/JAT2021.0478

Ong, T., & Djajadikerta, H. G. (2020). Corporate governance and sustainability reporting in the Australian resources industry: An empirical analysis. *Social Responsibility Journal, 16*(1), 1-14. http://doi.org/10.1108/SRJ-06-2018-0135

Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance, 10*(1), 74–95. http://doi.org/10.1177/0974686217701467

Petrescu, A. G., Bilcan, F. R., Petrescu, M., Oncioiu, I. H., Türkes, M. C., & Căpuşneanu, S. (2020). Assessing the benefits of the sustainability reporting practices in the top Romanian companies. *Sustainability, 12*(3470), 1-31 http://doi.org/10.3390/su12083470

Rao, K., & Tilt, C. (2016). Board diversity and CSR reporting: An Australian study. *Meditary Accounting Research, 24*(2), 182-210. https://doi.org/10.1108/MEDAR-08-2015-0052

Rashid, A. (2018). The influence of corporate governance practices on corporate social responsibility reporting. *Social Responsibility Journal, 14*(1), 20-39. https://doi.org/10.1108/MEDAR-08-2015-00520.1108/SRJ-05-2016-0080

Ribera, J. M. (2017). Materiality in sustainability reporting: multiple standards and looking for common principles and measurement. The case of the seven biggest groups in Spain. *European Accounting and Management Review, 4*(1), 108-147.

Said, R., Joseph, C., & Mohd Sidek, N. Z. (2017). Corporate governance and corporate social responsibility (CSR) disclosure: The moderating role of cultural values. *Modern Organisational Governance (Developments in Corporate Governance and Responsibility, 12*, 189-206. https://doi.org/10.1108/S2043-052320170000012013

Saputra, B. W., Djadjadikerta, H., & Majidah (2017). Individual characters for sustainability reporting. *International Journal of Applied Business and Economic Research, 15*(19), 181-193.

Sarkar, S. H., Ahmed, R., & Islam, M. N. (2020). Level and pattern of environmental disclosure in the corporate sector of Bangladesh. *Emperor International Journal of Finance and Management Research, 6*(4), 21-41.
Shamil, M. M., Shaikh, J. M., Ho, P-L, & Krishnan, A. (2014). The influence of board characteristics on sustainability reporting: Empirical evidence from Sri Lankan firms. *Asian Review of Accounting*, 22(2), 78-97. https://doi.org/10.1108/ARA-09-2013-0060

Swarnapali, R. M. N. C. (2019). Sustainability disclosure and earnings informativeness: Evidence from Sri Lanka. *Asian Journal of Accounting Research, 5*(1), 33-46. https://doi.org/10.1108/AJAR-05-2019-0033

Szekely, N., & Brocke, J. (2017). What can we learn from corporate sustainability reporting? Deriving propositions for research and practice from over 9,500 corporate sustainability reports published between 1999 and 2015 using topic modelling technique. *PLOS ONE, 12*(4), 1-27. https://doi.org/10.1371/journal.pone.0174807

Taliento, M., Favino, C., & Netti, A. (2019). Impact of environmental, social, and governance information on economic performance: Evidence of a corporate ‘sustainability advantage’ from Europe. *Sustainability, 11*(1738), 1-26. https://doi.org/10.3390/su11061738

Terjesen, S., Sealy, R., & Singh, V. (2009). Women directors on corporate boards: A review and research agenda. *Corporate Governance, 17*(3), 320-337. https://doi.org/10.1111/j.1467-8683.2009.00742.x

Tjahjadi, B, Soewarno, N., & Mustikaningtiyas, F. (2021). Good corporate governance and corporate sustainability performance in Indonesia: A triple bottom line approach. *Heliyon, 7*(2021) e06453. https://doi.org/10.1016/j.heliyon.2021.e06453

Ufere, K. J., Buang, A., Godwin, U. A., & Onu U. J. (2017). The level of environmental disclosure in listed property sector companies. *International Journal of Real Estate Studies, 11*(2), 85-92.

Ullah, M. S., Muttakin, M. B., & Khan, A. (2019). Corporate governance and corporate social responsibility disclosures in insurance companies. *International Journal of Accounting & Information Management, 27*(2), 284-300. https://doi.org/10.1108/IJAIM-10-2017-0120

Utami, H. N., Cahyana, B. E., Nimran, U., & Iqbal, M. (2020). Organizational transformation as a determinant of corporate hospitality and its effect on corporate sustainability. *International Trade, Politics and Development, 4*(2), 105-125. https://doi.org/10.1108/ITPD-04-2020-0014

Vafaei, A., Ahmed, K., & Mather P. (2015). Board Diversity and Financial Performance in the Top 500 Australian Firms. *Australian Accounting Review, 25*(4), 413-427. https://doi.org/10.1111/auar.12068
Wang, M-C. (2017). The relationship between firm characteristics and the disclosure of sustainability reporting. *Sustainability, 9*(624), 1-14. https://doi.org/10.3390/su9040624

Zabri, S. M., Ahmad, K., & Wah, K. K. (2016). Corporate governance practices and firm performance: Evidence from top 100 public listed companies in Malaysia. *Procedia Economics and Finance, 35*, 287–296. https://doi.org/10.1016/S2212-5671(16)00036-8