



# Do the Banks Comply to GRI guidelines for Sustainable Reporting Practices? Empirical Evidence from Bangladesh

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## Research Article

### Abstract

*This paper explores the degree and nature of sustainability reporting practices of listed banks in Bangladesh in compliance with the Global Reporting Initiative (GRI) guidelines. Data are gathered from annual reports through content analysis of 29 banks listed in the Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) for the period between 2011 and 2018. Stakeholder and legitimacy theory is the theoretical perspectives underlying the study. The findings of the study revealed that 0% in 2011 and 17.14% in 2018 disclosed sustainability reports in line with GRI. On the other hand, the disclosure of sustainability information trend has increased from 32% in 2011 to 59% in 2018 considering 22 categories of information where most of the banks disclosed the highest information relating to green banking (C7) least information relating to public policy (C19). The major limitations of the study are the size of the sample, only secondary sources of data, and the use of descriptive statistics. The policymakers (Bangladesh Bank, Ministry of finance, commerce, law, and environment), management of the respective organizations, the NGOs, and professional accounting bodies can progress to enact and amend corporate laws for effective sustainability reporting for the public and private entities. This research recognizes the gap of sustainable reporting practices to implement the vision of '5 Ps' (people, prosperity, partnership, peace, and the planet) according to UN Sustainable Development Goals (SDGs) 2030.*

**Keywords:** Sustainability Reporting, Global Reporting Initiative (GRI), Dhaka Stock Exchange (DSE), Chittagong Stock Exchange (CSE), Bangladesh.

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## 1. Introduction

The perception of sustainability or sustainable development was first defined and presented in 1987 as a formative report called the Brundtland Report entitled "Our Common Future" at 42<sup>nd</sup> session (item 83) of United Nation general assembly by the United Nations World Commission on Environment and Development (UNWCED, 1987). The societal voice was raised after the publication of the report that stimulated organizations to incorporate organizational goals into a sustainable management process as a vision. Since in the mid-1990s, sustainability reporting has become a conventional reporting practice for business organizations to undertake and balance productive excretions for the stakeholders around the globe in considering three-dimensional aspect (e.g. people, planet and profit) during the two eras (Christofi, Christofi, and Sisaye 2012; Kolk 2010). This report integrates core business strategy to make companies' operations sustainable through considering economic, environmental, social, and governance issues in a sensible and organized way to contribute sustainable development that will support present and forthcoming generations (Dyllick and Hockerts 2002; Elkington 1994). So, sustainability report represents values, governance and efficiency that create a bridge between organizational strategy and commitment through setting goals, measuring growth and managing visions of the organizations to protect stakeholders' interest that leads to triple bottom line (economic, environmental and social) reporting (Caron and Turcotte 2009; Dwyer and Owen 2005). Performance of Corporate sustainability-focused not only traditional economic dimension but also contemporary environmental and social aspect to light on the demand of the stakeholders' that lead to long term organizational survival and viability (Laskar and Maji 2016). So, companies can express transparency, responsibility, and accountability of actions to their stakeholders (Akhter and Dey 2017). To encourage such reporting practices, large numbers of reporting guidelines have been initiated over the years but Global Reporting Initiatives (GRI) reporting framework is generally accepted and widely practiced in the developed as well as developing economy to measure organizational performance towards triple bottom line assumption in considering economic, environmental and social aspects (Gilbert, Rasche, and Waddock 2011). Disclosure of sustainability information based on the GRI reporting framework is significantly increased in the last decade. Furthermore, the reporting parameters, as well as proportions, are found reasonably high in progressive economics like the USA, UK, Japan, Germany, Italy, and many other European countries in the global context. In Asian and African contexts, corporate sustainability disclosure is well developed in Japan and South Korea but such reporting is in the emergent stage in emerging economies like China, India, Singapore, Malaysia, Indonesia, Bangladesh, and South Africa. There is incessant progress in the number of companies that disclose sustainable reporting. The analysis reported that 79% of the prominent 250 organizations of Fortune 500 disclosed separate sustainability report along with their annual reports in 2008 (Global 250, 2008) that is revealed 52% more in 2005 and the rate of reporting practices of 100 companies belong to 22 largest countries has been increased from 33% to 45% during the period

between 2005 and 2008. According to the survey of Global Reporting Initiative (GRI), only 44 companies followed GRI reporting framework for sustainability disclosure in 2000, but in 2010, it was reached 1,973 firms mostly as voluntarily (Ioannou and Serafeim 2012). But some studies refereed that environmental, corporate social responsibility, social and sustainability reporting does not broadly practice in Asian countries (Choi et al. 1999; Dissanayake, Tilt, and Xydias-Lobo 2016). Disclosure of environmental data in community annual reports was voluntarily started during the 1970s and it extended during the 1990s to establish organizational justice and to manage public impressions towards the operations of organizations (Blacconiere and Patten 1994; Hooks, Coy, and Davey 2002; Patten 1992). Though, social and environmental reporting practices are new issues for financial institutions in Bangladesh (Sobhani, Amran, and Zainuddin 2009). Before the 1990s, there was no specific evidence that any listed organization in Dhaka Stock Exchange (DSE) has uncovered information relating to the environment in their published annual reports (Shil and Iqbal 2005). The more exposure of environmental accounting data in annual reports of the organizations, the more persuasive the recording condition will be projected (Ullah and Rahman 2015). Environmental data might be monetary or nonmonetary; as of now, be that as it may, accountants are trying to make the change over subjective environment-related data into quantitative data (Kaium Masud, Mi Bae, and Kim 2017). Moreover, environmental accounting & reporting, corporate sustainability reporting, manageability reviews upgrade an organization's image in the commercial center and among various partners, therefore reassuring top management to develop environmental circumstances (Elijido-ten 2011; Elijido-Ten 2011). Recently, Bangladesh faces a few environmental issues, as well as water pollution, air pollution, land exploitation, loss of biodiversity, poor waste management, waterfront fragmentation, and poor compound waste formulating (Belal, Cooper, and Khan 2015). Bangladeshi banks are rehearsing worldwide sustainability reporting practices as per the guidelines of the Global Reporting Initiative (Akhter and Dey 2017). Recently, Bangladesh Bank (BB) has made a marvelous effort since 2008 to deliver circulars linked to economic, social, and environmental issues (Masud and Hossain 2012; Sayaduzzaman and Masud 2012). Bangladesh Bank additionally started distributing a yearly Green Banking audit report on the financial division in 2013 portraying the quantitative as well as qualitative green performance exercises of banks (Kaium Masud et al. 2017). The banking segment in Bangladesh has additionally assumed a crucial job in CSR and EAR revealing as of late (Sobhani et al. 2009). in this manner perceiving the association between CSR capacities and environmental issues. Giant organizations are much more environmentally cognizant to run sustainable operation through triple bottom line reporting that integrates social and environmental along with financial paybacks (Esty and Winston 2006). Sustainability reporting empowers organizations to enable to make decisions about a wide range of sustainability issues regarding the risks and opportunities they face. Sustainability reporting helps in improving an organization's overall performance (Dilling 2010; Dissanayake et al. 2016). So, this study would like to focus on the sustainability reporting practices of banking organizations according to GRI guidelines. Do the banking companies in Bangladesh disclose sustainability information as per GRI guidelines? So, the purpose of the study is to evaluate sustainability disclosure trends and dimensions under 22 heads of disclosure (i.e. economic,

environmental, and social issues) as per GRI guidelines of listed banking companies in the Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE), Bangladesh. Therefore, this research will assist to disclose sustainable decisions in the banking sector of Bangladesh in considering risk and opportunities facing the organizations.

The remaining part of this study is structured as follows: the second chapter describes the previous studies that focus on empirical and theoretical literature with the proposed model of the study, and later one covers the methodological issues, the fourth chapter describes the main results and analysis, and finally, it provides concluding remarks including recommendation, limitations, and implications along with future research directions to the wide range of stakeholders to whom this study will serve.

## 2. Review of Related Literature

Sustainability consists of three major components, namely environmental elements, social elements, and also economic elements (Yusoff et al. 2019). Sustainability reporting enhances the corporate values along with its governance structure and clarifies the linkage of its strategy and its undertakings to the stakeholders. Stakeholder theory shows the interrelationship between businesses and their customers, suppliers, investors, employees, communities, and others who have a stake in the organization. Banking activity is involved with her stakeholders like investors, customers, shareholders, NGOs, and government. Environmental Accounting and Reporting (EAR) disclosure promises stakeholders of organizations' environmental performance as well as environmental investments & strategy (Bose et al. 2018; Nurunnabi 2016). The financial performance of an organization depends on its good and faithful relationship with stakeholders (de Villiers, Naiker, and van Staden 2011). Social activities have an impact on banking and non-banking financial performance like share prices & brand reputation (Islam and Chowdhury 2016). Stakeholders have an assumption concerning EAR performance in connection with environmental management systems, pollution prevention, climate change disclosure, biodiversity and efficiency, and effective utilization of natural resources (Nurunnabi 2016). Legitimacy theory shows the relationship between society and the organization, whereas strategic legitimacy uses to achieve social support over managerial performance (Barkemeyer et al. 2014). Strategic legitimacy clarifies organization aspiration & motivation for CSR and EAR and sustainable issues (Nurunnabi 2016). Legitimacy is significant for each association to deal with its strong and rumored position and status in the general society and to know the responses of the respondents from the general society (Sobhani et al. 2009). However, banking organizations will disclose sustainable information to cope with the legitimacy pressure from social anticipation.

The research on sustainability reporting has been started in Bangladesh since 2000 (Belal 2000) where Belal (2000) demonstrated that corporations have increased the disclosures trend than before in some environmental issues such as pollutions and waste management, but the number of disclosing facts reduced relating to social and economic issues (Masud, Hossain, and Khan 2016). (Azim, Ahmed, and Islam (2009) reviewed the sustainability report disclosure manners of banking corporations in Bangladesh, where such reporting was a matter of intentional disclosure.

After an extensive survey, the study discovered that merely 15.45% of those corporations disclosed sustainability factors. In most companies, sustainability disclosures are used as a technique for getting favorable impressions towards a firm's sustainability presentation, and accordingly maintaining institutional legitimacy (Hahn 2013). Similarly, Khan et al. (2011) examined the tendencies of sustainability reporting on five areas by banks in comparison with global sustainability reporting indicators where they found that social perspective has been presented broadly, but other information relating to product responsibility and human rights are scarce. They added that merely seven matters out of 16 are revealed by all. Masud et al. (2016) have studied green reporting in the case of the environment by banks keeping in view GRI and found that green reporting has been increased in the last five years, but that is not enough according to the prescriptions of GRI-4 merely very few banks keep up the standards of GRI 4 in making green and sustainable statements. A similar result is also found by Kaium Masud et al. (2017) in which they mentioned that banks released environmental issues mainly for green banking and renewable energy, whereas they revealed the tiniest relating to environmental recognition and managing waste. Likewise, Islam and Chowdhury (2016) evaluated the sustainability reporting of the Bangladesh banking industry as per G4 standards. By content analysis, they have concluded that most banks have disclosed common information more than particular information. Again, they found a very poor level of overall disclosure as regards the guidelines of G4. On the contrary, Akhter and Dey (2017) examined green financing sustainability reports for current and probable stakeholders. By content-analysis, they found that green reporting is pleasing to certain sectors following the principles of the central bank of Bangladesh but revelations remain vague in most of the cases. In another study, Ray and Ray Chaudhuri (2018) again discovered that the whole level of societal and green reporting remained at a small level which is also supported by the study of Islam et al. (2020) which highlighted the sustainability practices as per Global Reporting Initiatives for measuring the environmental revelation in sustainability report. The result reflected that sustainability evidence in the annual report remained still unsatisfactory and failed to meet the principles of GRI.

In Bangladesh, considering the importance of sustainability, Bangladesh Bank has framed guiding principles for Environmental Hazard Management to increase awareness of the environment intended for confirming sustainable practices (Islam and Chowdhury 2016). But, Akhter and Dey (2017) highlighted that companies give mainly more emphasis on social issues keeping an eye on service and wage earner's welfares, but companies give less concern on environmental issues, social rights and obligation is narrow in relative to other matters. Several social issues like emission, biodiversity, human rights have to be more emphasized by developing countries (Akhter and Dey 2017; Bebbington and Larrinaga-González 2008; Lamberton 2005; Ullah and Rahman 2015). Kabir and Akinnusi (2012) found that the tendency to release corporate societal information of mainly private sector companies has been increasing than public sector companies day by day in these developing countries but disclosures appeared to be insufficient and vague in terms. In developing countries like Bangladesh, most of the company's disclosure level is meager as they use a maximum of twenty- five sentences in reporting sustainability (Islam and Chowdhury 2016). However, in developing countries like Bangladesh sustainable

environmental issues includes green banking (Bose et al. 2017) and renewable energy categories but there is the least information regarding waste management (Akhter and Dey 2017; Kaium Masud et al. 2017; Lamberton 2005). Sustainability statement includes all-inclusiveness, ease of understanding, and conformity that are appreciable owing to the suppleness in reporting and it has followed GRI guidelines (Knebel and Seele 2015). A study conducted by (Bae, Masud, and Kim (2018) covering three emerging countries of South Asia, namely, Bangladesh, Pakistan, and India in which, corporate governance is found to have sturdy dominant power that leads positive signs to the financial sector. Therefore, the superiority of corporate governance can arouse great sustainability enactment (Bose et al. 2017; Khan, Muttakin, and Siddiqui 2013). Several studies have elucidated the incentives, trends, and extent of sustainability reporting considering especially advanced countries. Sustainability reporting has been maintained mostly in developed countries such as Europe and Japan (Dissanayake et al. 2016; Lozano and Huisingh 2011; Lozano, Nummert, and Ceulemans 2016). Although in the emerging countries a growing number of corporations creates sustainability reports, the total number of corporations preparing sustainability reporting until now is trivial in matched with the total amount of companies functioning in the whole world (Dissanayake et al. 2016); besides, many of these sustainability reports collapse for not recording as per the GRI guiding principle (Lozano and Huisingh 2011). Due to this gap, our study explores the extent and nature of sustainability reporting practices of listed banking companies in Bangladesh in 22 significant categories covering social, economic, and environmental issues.

### 3. Methodological issues

#### 3.1 Research Design and Sample Size

The nature of the study is empirical cum explanatory and data were assembled from published annual reports of 29 banking companies listed at Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) in Bangladesh to investigate sustainability information disclosure. This is because the annual report is the most reliable and widely available source of information for stakeholders to reflect the overall picture and meet the organization's statutory requirements (Cameron & Guthrie 1993; Dealing 2010; Hooks et al. 2002; Khan et al. 2011; Lang & Lundhome 1993). Besides, Bangladesh Bank promulgated a circular and policy guideline for all banks in 2011 and 2013 respectively for embracing to adopt green banking policy to save the environment. For this reason, a non-probabilistic sampling technique is used to conduct the study where 29 listed banks are selected purposively. A total of 62 scheduled banks are operating in Bangladesh, but out of those only 30 banks are listed in DSE & CSE.

#### 3.2 Data Collection Period

To make the study up to date, eight years annual report were considered from 2011 to 2018. As a result, 232 observations have been chosen for the study from 29 listed banks.

### 3.3 Research method

Evaluating of content checkups, SR disclosure is investigated from the annual reports based on GRI guidelines and intensive review of literature where 22 significant categories of items are selected which are inclusively related with sustainable reporting with specific coding under economic, environmental and social dimensions (see Appendix B) are examined as the constituents of sustainability reporting. The investigation joins a scoring framework for the 22 classifications to legitimize what number of banks are giving data identified with SR. sustainability information is disclosed under the sum of 22 categories for each bank and each year:

$$SR = \sum_{i=1}^{22} di$$

SR= Sustainability Reporting,

### 3.4 Data Analysis

Descriptive statistics and general mathematical techniques were used in this study along with averages, percentages to measure SR index both quantitative and qualitative aspects. Several prior studies Gray, Kouhy, and Lavers (1995); Unerman (2000); Habib-Uz-Zaman Khan, Halabi, and Samy (2009); (Hoque, Clarke, and Huang (2016) described sustainability disclosure and applied to measure the above-mentioned methods. Excel and SPSS are used to analyze data.

**Table-1: Framework for the disclosure of sustainability information under twenty-two (22) heads**

Category	Disclosure items	Sources	Frequency of information	Percentage (Apprx.)
Economic	Climate change risk, Benefit plan obligations and other retirement plans	(Akhter and Dey 2017; Gbangbola and Lawler 2017) GRI 2006, 2011, 2013 & 2016;	03	14%
Environmental	Air pollution, water pollution, waste management, environmental policy, the award for environmental protection, green banking, tree plantation, environmental awareness training & education, renewable energy, energy savings, environmental audit, emissions, biodiversity	(Akhter and Dey 2017; Kaium Masud et al. 2017; Lamberton 2005; Milne and Adler 1999; Ullah and Rahman 2015; Unerman 2008) GRI 2006,2011,2013 & 2016	13	59%
Social	Human rights, labor/management relations, public policy, customer health and safety, customer privacy, training, and education.	(Akhter and Dey 2017; Belal et al. 2015; Habib-Uz-Zaman Khan et al. 2009) GRI 2006, 2011, 2013 & 2016	06	27%

## 4. Analysis and Findings

### 4.1 Sustainability Reporting Disclosure Scenario of 29 Listed Banking Companies in Bangladesh

Table 2 disclosed that in 2011, not a single bank followed GRI guidelines. In 2012, it is noticed that only 6 banks disclosed separate reports on sustainability issues in their annual report where only 1 bank (3.45%) followed the GRI (G-3) framework according to the GRI guideline. But, in 2013, it is observed that only 8 listed banks disclosed isolated report on sustainability issue in their annual report where only 2 banks (6.9%) followed the GRI (G-3, G-3.1) framework and in 2014, total 9 listed banks disclosed single report on sustainability topic in their annual report where only 2 banks (6.9%) followed the GRI (G-3, G-3.1) framework. In the year 2015, total 13 listed banks disclosed separate sustainability report where only 3 banks (10.34%) followed GRI guideline (G-4) and in 2016, total 15 listed banks disclosed separate sustainability disclosure where 6 banks (20.64%) followed GRI guideline (G-3, G-3.1, and G-4). Again in 2017, total 15 listed banks disclosed separate sustainability disclosure where only 3 banks (10.34%) followed GRI G-4 according to GRI guideline, and the year of 2018, total 18 listed banks disclosed separate sustainability report where only 5 banks (17.24%) followed GRI G-4 reporting framework. Moreover, table-4 and table-5 represent general standard disclosure as per GRI (G-3, G-3.1, and G-4) guidelines showing different banks along with years. BAL reported sustainability disclosure as per GRI reporting guidelines seven times that is the highest. But, SIBL, BBL, JBL, and Premier Bank reported sustainability disclosure as per GRI reporting guidelines for twice considered the lowest during the study period.

**Table 2: A Statement exposing separate sustainability disclosure in the annual report**

Year	Total Number of listed banks	Reporting Separate Sustainability Report in the Annual Report				Not-reporting Separate Sustainability Report in the Annual Report		Total percentage
		Number of Banks		Percentage		Number of banks	Percentage	
		As per GRI guiding framework	Avoiding GRI guiding framework	As per GRI guiding framework	Avoiding GRI guiding framework			
2011	29	0	4	0%	13.79%	25	86.21%	100%
2012	29	1(G-3)	5	3.45%	17.24%	23	79.31%	100%
2013	29	2(G-3, 3.1)	6	6.90%	20.69%	21	72.41%	100%
2014	29	2 (G-3, 3.1 & G-4)	7	6.90%	24.14%	20	68.97%	100%
2015	29	3 (G-4)	10	10.34%	34.48%	16	55.17%	100%
2016	29	6 (G-4)	9	20.69%	31.03%	14	48.28%	100%
2017	29	3 (G-4)	12	10.34%	41.38%	14	48.28%	100%
2018	29	5 (G-4)	13	17.24%	44.83%	11	37.93%	100%

F=Followed, N/F= Not Followed

Source: Annual Reports of listed banks 2011-2018



**Table 3: Application of General standard disclosure as per GRI (G-4) guidelines**

General Standard Disclosure	Prime 2014	SI BL 2015	BA L 2015	U CB L2 015	BA L 2016	U CB L 2016	BB L2 016	M TB L 2016	SI BL 2016	Prime 2016	BA L 2017	JB L 2017	M TB L 2017	BA L 2018	Prime 2018	BB L 2018	JBL 2018	Premier 2018
Strategy & Analysis	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Organizational Profile	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Identified Material Aspect and boundaries	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Stakeholder engagement	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Report profile	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Governance	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Ethics & integrity	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F

**Table 4: Application of General standard disclosure as per GRI (G-3/3.1) guidelines**

General standard Disclosure aspects	BAL 2012 GRI (G-3)	BAL 2013 GRI (G-3/3.1)	Prime 2013 (G-3)	BAL 2014 GRI (G-3/3.1)
Strategy & analysis	F	F	F	F
Organizational profile	F	F	F	F
Report parameters	F	F	F	F
Governance, commitment, and engagement	F	F	F	F

F=Followed, N/F= Not Followed

Source: Annual Reports of listed banks 2011-2018

#### 4.2 The Specific Standard Sustainability Disclosures in Selected Categories

Table 5 reveals the statistics and scores in 22 categories of SR. The analysis explored that only four banks i.e. MTBL, Prime, BAL, and DBL (please refer to Appendix for meanings of abbreviations), disclosed sustainability information in all 22 relevant areas whereas OBL disclosed the least amount of sustainability information. Besides, FSIBL and PUBALI banks also disclosed sustainability information that is less than 50% of overall disclosure. This study also demonstrates that the other 23 banks disclosed enough but not sufficient sustainability information as well as the average disclosure of sustainability information is at 78%. As linked to the latest study by

Azim, Ahmed, and D'Netto (2011); Ullah and Rahman (2015) reported that most of the banks provide sustainability information in their annual reports was almost 40–50% that was evident as per the consequence of Bangladesh Bank's guidelines for green reporting (Bank, 2019). The study shows satisfactory results regarding sustainability disclosures in annual reports.

**Table 5: Reporting statistics of 29 studied banks' total SR disclosures under 22 heads 2011–2018.**

SR heads/banks	Reporting SR Statistics	Percentage (%)
AAIBL	17	77%
BBL	21	95%
EBL	19	86%
MBL	22	100%
PRIME	22	100%
ABBL	19	86%
IFIC	19	86%
EXIM	19	86%
IBL	21	95%
SHIBL	14	64%
SOIBL	16	73%
NCCBL	16	73%
DBBL	19	86%
FSIBL	09	41%
ICB	15	68%
JBL	19	86%
MTBL	19	86%
NBL	17	77%
OBL	08	37%
PBL	14	64%
PUBALI	10	46%
SBL	16	73%
TBL	16	73%
SEBL	18	82%
UCBL	17	77%
UBL	14	64%
BAL	22	100%
DBL	22	100%
CBL	19	86%
Average	17.21	78%

Table 6: Total SR disclosure of sample banks 2011–2018

SRS/ Banks	C 01	C 02	C 03	C 04	C 05	C 06	C 07	C 08	C 09	C 10	C 11	C 12	C 13	C 14	C 15	C 16	C 17	C 18	C 19	C 20	C 21	C 22
AAIBL	1	0	0	6	1	4	8	5	6	4	4	1	5	3	0	0	8	0	1	4	3	7
BBL	0	3	6	7	5	5	7	4	4	7	2	4	7	3	3	5	6	4	4	3	2	5
EBL	1	3	0	6	1	4	8	2	4	4	1	4	4	2	0	0	8	4	4	7	3	7
MBL	3	3	4	6	2	5	6	6	4	6	4	1	5	4	1	5	5	1	3	6	1	6
PRIME	2	4	5	7	5	6	8	2	5	8	4	5	7	3	2	2	4	3	6	4	4	8
ABBL	1	4	5	7	0	4	8	0	5	0	3	6	2	2	2	5	6	2	1	4	1	6
IFIC	1	2	1	2	0	3	8	0	6	4	3	3	5	0	1	1	1	2	1	2	1	6
EXIM	3	8	6	7	2	4	8	0	6	7	5	5	8	3	3	7	3	1	0	4	0	7
IBL	2	7	7	3	4	5	8	6	6	7	3	6	7	3	0	1	7	4	6	7	5	8
SHIBL	0	0	4	4	0	0	8	0	5	2	8	6	8	0	6	0	0	4	2	1	2	8
SOIBL	1	1	5	7	0	5	7	3	6	6	1	6	6	0	2	0	0	0	0	2	4	8
NCCBL	1	5	1	5	0	5	7	1	6	4	3	6	3	2	0	3	2	0	0	0	0	8
DBBL	2	3	1	5	0	3	8	3	4	7	7	3	8	1	2	1	0	0	1	4	2	8
FSIBL	0	0	4	0	5	8	0	1	0	2	2	8	0	1	0	0	0	0	0	0	0	8
ICB	0	1	4	7	1	1	8	1	5	0	0	1	8	0	2	2	0	0	0	1	1	3
JBL	2	6	4	8	0	0	8	1	8	8	8	8	8	6	3	2	2	6	0	4	2	8
MTBL	1	7	5	8	0	5	8	2	8	7	6	4	6	1	3	4	3	4	0	0	1	7
NBL	2	2	0	6	2	4	5	0	6	1	3	6	8	0	0	2	0	5	1	2	5	6
OBL	0	0	0	1	0	0	8	0	5	2	0	0	8	1	1	0	0	0	0	0	0	8
PBL	0	5	5	1	2	3	7	0	6	7	1	0	7	0	0	3	0	3	1	0	0	7
PUBAL I	0	0	1	2	1	0	3	0	1	0	0	5	7	0	1	1	0	0	0	0	0	8
SBL	2	5	1	6	0	3	8	0	6	5	5	7	5	3	3	5	0	1	0	0	0	8
TBL	1	4	6	5	0	0	8	0	6	4	3	3	5	3	6	6	3	3	0	0	0	8
SEBL	3	3	3	3	5	3	7	2	6	4	4	4	7	2	0	0	0	5	0	4	3	6
UCBL	2	4	5	4	0	4	8	0	8	1	5	5	6	0	3	5	2	2	0	3	0	5
UBL	5	5	4	6	0	6	6	2	1	0	3	6	6	0	4	3	0	0	0	0	0	6
BAL	4	6	4	6	2	4	8	4	7	8	8	5	8	3	5	3	5	5	1	5	5	8
DBL	3	7	4	8	2	3	8	7	6	8	8	8	8	2	6	4	1	6	2	6	7	8
CBL	0	2	5	5	2	6	6	1	6	5	5	5	7	4	4	1	2	5	0	0	1	8
Total	43	100	148	42	103	205	53	152	128	109	131	176	52	63	71	68	70	34	73	53	204	
Average	1.48	3.49	3.49	5.10	1.49	3.55	7.06	1.83	5.24	4.41	3.75	4.52	6.06	1.79	2.17	2.45	2.34	2.41	1.17	2.52	1.83	7.03

Table 6 revealed scenario of SR statistics for all banks during eight years, showing that the groups (as indicated to Appendix B for the explanation of SR Coding) of green banking (C7) scored the highest followed by training & education (C22) as well as the benefit of plan obligation scored lowest and followed by other retirement plans (C13). On the other hand, public policy (C19) scored the least, followed by an award for environmental protection (C4), air pollution (C1), an environmental audit (C14). Consequently, they disclosed 43% on average (TSRD 2178 out of 5104) during the survey period. The results denote that banks have completed small progress on these purposes. Furthermore, from the analysis, it has been found that results are consistent with the current survey (Bose et al. 2017; Kaium Masud et al. 2017). Among the 29 banks, DBL scored highest rank (score of 122 out of 176) that denoted 69% and PUBALI ranked the lowest (score of 30 out of 176) that revealed only 17% for disclosure of SR information. Moreover, some banks scored the same score but different aspects like TBL, ABBL, SEBL, NCCBL, UBL, SBL, and DBBL. The findings are varying with the findings of other researchers, for example, Ullah and Rahman (2015) and Kaium Masud et al. (2017).

Table 7 represented ranking of banks under all different heads of yearly disclosure, For the period 2011 to 2018, every bank disclosed sustainability information in different aspects whereas information disclosed most in 2018 (59%) and the least in 2011 (32%). Banking companies are gradually disclosing sustainability information according to Bangladesh Bank's green policy efforts (Bose et al. 2017). Similarly, the result of the survey is consistent with preceding studies of Azim et al. (2011); Ullah and Rahman (2015); Masud and Kabir (2016) and Kaium Masud et al. (2017).

**Table 7: Sample banks' ranking as per SR exposure during eight years (2011-18)**

Rank	Bank Names	Total Disclosure	Rank	Bank Names	Total Disclosures
01	DBL	122	15	AAIBL	71
02	BAL	114	16	SOIBL	70
03	IBL	112	17	SHIBL	68
04	PRIME	104	18	NBL	66
05	JBL	102	19	NCCBL	62
06	EXIM	97	19	UBL	62
07	BBL	96	20	PREMIER	58
08	MTBL	90	21	IFIC	53
09	MBL	87	22	ICB	46
10	CBL	80	23	FSIBL	39
11	EBL	77	24	OBL	34
12	TBL	74	25	PUBALI	30
12	ABBL	74			
12	SEBL	74			
13	SBL	73			
13	DBBL	73			
14	UCBL	72			

**Table 8: Yearly disclosure of SR.**

SR Categories	2011	2012	2013	2014	2015	2016	2017	2018
C1	06	05	02	04	03	08	03	12
C2	11	14	12	13	11	12	12	15
C3	6	10	9	15	12	16	13	18
C4	15	17	19	21	21	18	21	21
C5	2	3	2	6	5	3	6	9
C6	9	8	15	15	12	10	12	19
C7	21	24	28	27	28	28	29	28
C8	1	3	4	5	6	7	11	15
C9	12	18	18	20	22	17	21	25
C10	11	13	14	19	19	17	17	16
C11	12	14	16	14	15	10	11	17
C12	9	13	16	15	15	16	18	23
C13	20	24	22	25	23	22	23	28
C14	5	4	3	5	5	8	8	13
C15	6	6	7	4	8	10	9	14
C16	9	10	8	6	7	7	9	15
C17	5	8	8	5	7	8	11	16
C18	7	5	9	9	9	8	10	13
C19	1	4	3	5	3	7	4	7
C20	6	10	11	7	9	8	10	12
C21	5	3	7	6	9	7	8	11
C22	22	24	25	28	24	25	28	29
<b>Total</b>	<b>201</b>	<b>240</b>	<b>258</b>	<b>274</b>	<b>273</b>	<b>272</b>	<b>294</b>	<b>376</b>
(%) of SR	32	38	40	43	43	43	46	59

Table 9 represents the comparison of SR disclosure trends of 29 listed banking companies for 8 years from 2011 to 2018. In 2011, it shows that the average information disclosure regarding the sustainability aspect is 9.14 whereas the minimum disclosure is 1 and maximum disclosure is 22 aspects of 29 listed banking companies under DSE and CSE. The mean disclosure of SR in 2012 is 10 which is higher than in 2011. From T-value testing, the comparison between mean in 2011(9.14) and the 7-year period from 2012-2018 (12.43) is significant ( $t=2.324$ ) at a 2% level. A comparison between two medians denotes the same result ( $z=2.331$ ) by using a non-parametric Wilcoxon two-sample test. The mean disclosures for 2012 2013, 2014, 2015, 2016, 2017 and 2018 are respectively 10.91, 11.73, 12.45, 12.41, 12.36, 13.36 and 17.09. The mean disclosure is almost twice in 2018 rather than in 2011. The finding is similar to the current study about disclosure of green reporting of Bangladeshi Banks (Bose et al. 2017) and also similar with the result of a recent study of

Environmental Accounting and Reporting practices of 20 listed banking companies of Bangladesh (Kaium Masud et al. 2017).

**Table 9: SR disclosure comparison 2011–2018**

Year	Mean	Median	Std. Dev.	Minimum	Maximum	Mode
2011	9.14	8	6.018	1	22	6
2012	10.91	10	6.989	3	24	10
2013	11.73	10	7.497	2	28	2
2014	12.45	11	7.980	4	28	5
2015	12.41	10	7.417	3	28	9
2016	12.36	10	6.594	3	28	8
2017	13.36	11	7.208	3	29	11
2018	17.09	15.5	6.218	7	29	15
2012-2018	12.43	11				
Comparison between 2011 and 2012-2018	t= 2.324 P= .021	z= 2.331 P= .020	7.200	1	29	8

## 5. Conclusion and Direction for future research

The sustainability issue is the most burning concern in the current world to make the world sustainable. This issue is not a matter of concern for the first world countries but the third world countries. This empirical study was based on the content analysis of the annual report. This study investigates the disclosure pattern of sustainability reporting of banking companies and found a very few banks disclose sustainable reporting under GRI guidelines indicating general standard and specific standard guidelines (i.e. economic, environmental, and social aspects). Only four banks disclosed all the 22 categories of dimensions. Among the 22 dimensions, most of the listed banks disclosed green banking (C7) belonging highest average of 7.06 and the second highest disclosed dimension is training and education (C22) which average is 7.03. The results also show that the total percentage of disclosure increased from 2011 (13.79%) to 2018 (62.07%). The mean comparison shows a positive result at a significant level of 0.021. Banking organizations reinforce and reveal data for the most part for green banking, environmental policy and employee training and education yet they should concentrate more air pollution, water pollution and waste management, environmental audit, renewable energy, climate change risk, customer health and safety, customer privacy, human rights strategy. In recent days, most of the listed banks have a separate department for green banking. The government of Bangladesh can encourage banking companies to follow GRI guidelines for sustainability reporting through providing diverse facilities (i.e. tax rebate, tax holiday facilities, easy listing facilities in the stock market of non-listed banks, new branch opening facilities in the downtown area, etc.) for adopting and publishing a separate sustainable report. Corporate laws should be improved with amendments through including more social and environmental provisions to ensure preventing environmental

pollution and increasing social safety net. Bangladesh bank and BSEC should publish a circular for listing facilities with mandatory publishing of separate sustainable reports based on the above guidelines for reforming the reporting design in Bangladesh. If banks do not follow the circular effectively, the penalty should be implemented thereon. The policymakers of the people's Republic of Bangladesh (Bangladesh Bank, Ministry of finance, law, and environment) and management of the respective organizations and NGOs will be able to recognize the gap in sustainable reporting patterns and aspects (economic, environmental and social) of listed banking companies under 22 heads of the disclosure. The quantitative scoring model is used to disclose sustainability information under 22 areas to the stakeholders for implementing the vision of 5'ps (people, prosperity, partnership, peace, and the planet) according to UN Sustainable Development Goals (SDGs). As a result, the policymakers can also evaluate how far we have reached to attain UN Sustainable Development Goals (SDGs) in 2030.

The major limitations of the study are the omission of some instrumental items of disclosure, only secondary sources of data, and descriptive. Future research can be directed at all listed companies (i.e. financial as well as non-financial sectors) of DSE and CSE through constructing and testing significant hypotheses as well as recognizing the perception of stakeholder groups (i.e. management, investors, creditors, etc.) for reporting sustainable issues.

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## Appendix

Table A1: Report of Sustainability disclosure of Listed Banks (2011-2018)

Name of listed banks	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Remarks
BAL	Reported avoiding GRI framework	Reported as per GRI G-3 Framework	Reported as per GRI G-3/3.1 Framework	Reported as per GRI G-3/3.1 Framework	Reported as per GRI G-4 Framework	Reported as per GRI G-4 Framework	Reported as per GRI G-4 Framework	Reported as per GRI G-4 Framework	Disclosed
EBL	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed 2012, 13, 15, 16, 17 and 2018
Exim	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
UCBL	Not Reported	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported as per GRI G-4 Framework	Reported as per GRI G-4 Framework	Not Reported	Reported avoiding GRI framework	Disclosed 2013, 14, 15, 16 and 2018
SBL	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed 2014, 15, 16, 17 and 2018
Prime	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported as per GRI G-3.1 Framework	Reported as per GRI G-4 Framework	Reported avoiding GRI framework	Reported as per GRI G-4 Framework	Reported avoiding GRI framework	Reported as per GRI G-4 Framework	Disclosed
BBL	Not Reported	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Reported as per GRI G-4 Framework	Reported avoiding GRI framework	Reported as per GRI G-4 Framework	Disclosed 2015, 16, 17 and 2018
AB Bank	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
MBL	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed 2012, 13, 14, 15, 16, 17 and 2018
TBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
JBL	Not Reported	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported as per GRI G-4 Framework	Reported as per GRI G-4 Framework	Disclosed 2015, 16, 17 and 2018
CBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
IFIC	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Not Reported	Not Reported	Not Reported	Not Reported	Disclosed 2014
OBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
Premier	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Reported as per GRI G-4 Framework	Disclosed 2018

SEBL	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported
DBBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported 2016,17 and 2018
MTBL	Not Reported	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Reported as per GRI G-4 Framework	Reported as per GRI G-4 Framework	Reported avoiding GRI framework	Reported 2015, 16, 17 and 2018
NCCBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Disclosed 2018
NBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
IBBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed 2016, 17 and 2018
SHIBL	Not Reported	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed 2013, 14, 15, 16, 17 and 2018
FSIBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
SOIBL	Not Reported	Not Reported	Not Reported	Not Reported	Reported as per GRI G-4 Framework	Reported as per GRI G-4 Framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed 2015, 16, 17 and 2018
ICB	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
AAIBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed
DBL	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed
PUBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Reported avoiding GRI framework	Reported avoiding GRI framework	Disclosed 2017 and 2018
UBL	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Disclosed

**Table A2. List of Banks Selected for the Sample**

1.AL-Arafah Islami Bank Ltd. (AAIBL)	16.Jamuna Bank Ltd. (JBL)
2.BRAC Bank Ltd. (BRAC)	17.Mutual Trust Bank Ltd. (MTBL)
3.Eastern Bank Ltd. (EBL)	18.Nation Bank Ltd. (NBL)
4. Mercantile Bank Ltd. (MBL)	19.One Bank Ltd. (OBL)
5.Prime Bank Ltd. (PRIME)	20.Premier Bank Ltd. (Premier)
6.AB Bank Ltd. (AB)	21.Pubali Bank Ltd. (PUBL)
7.IFIC Bank (IFIC)	22.Standard Bank Ltd. (SBL)
8.Export-Import Bank (EXIM)	23.Trust Bank Ltd. (TBL)
9.Islami Bank Ltd. (IBL)	24.Southeast Bank Ltd. (SEBL)
10.Shahjalal Islami Bank Ltd. (SHIBL)	25.United Commercial Bank Ltd. (UCL)
11.Social Islami Bank Ltd. (SOIBL)	26.Uttara Bank Ltd. (UBL)
12.National Commercial Bank Ltd. (NCCBL)	27.Bank Asia Ltd. (BAL)
13.Dutch-Bangla Bank Ltd. (DBBL)	28.Dhaka Bank Ltd. (DBL)
14.First Security Islami Bank Ltd. (FSIBL)	29.City Bank Ltd. (CBL)
15.ICB Islami Bank Ltd. (ICB)	

**Table A3. Sustainability Reporting Score (SRS) Coding**

SRS Code No	SRS Code Items
C1	Air Pollution
C2	Water Pollution
C3	Waste Management
C4	Environmental Policy
C5	Award for Environmental Protection
C6	Separate Department of Environment
C7	Green Banking
C8	Tree Plantation
C9	Environmental Awareness Training & Education
C10	Renewable Energy
C11	Energy Savings
C12	Climate Change Risk
C13	The benefit of Plan Obligation and other Retirement Plan
C14	Environmental Audit
C15	Emission
C16	Biodiversity
C17	Human Rights
C18	Labor/Management Relations
C19	Public Policy
C20	Customer Health & Safety
C21	Customer Privacy
C22	Training & Education