





## Are the corporate voluntary disclosures and transparency in the transitional economy better than the pre-transitional economy? Evidence from developing country

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### ABSTRACT

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The study's goal is to explore the role of corporate voluntary disclosure and transparency as a strategic tool rather than corporate reporting techniques. This empirical study employs a comparative approach to identify the variations in corporate voluntary disclosure in the pre-transitional and transitional stages of a developing country. A paired sample of 307 annual reports of the Dhaka Stock Exchange (DSE) listed companies is considered to explore their reporting practices between the pre-transitional and transitional stages. Lately, a paired t-test has been conducted to examine whether corporate voluntary disclosure significantly differs between the pre-transitional economy and transitional economy. It is found that the corporate people disclose more information in the transitional phase of the emerging economy rather than the pre-transitional phase. The findings of the study will assist emerging countries in designing their corporate strategies to achieve the Sustainable Development Goal (SDG). The study suggests that using voluntary disclosure as a strategic tool can help retain and attract both existing and prospective investors. This study also helps the regulatory body shape its macro-level corporate strategy to successfully graduate from the LDC to the developing economy. Moreover, this study will assist the transitional economy to transform from an aid-based economy to a trade-based economy.

**Contribution/Originality:** The findings of the study will induce the government, regulatory bodies, and corporate people to unveil the corporate voluntary disclosure as a strategic tool rather than reporting techniques.

### 1. INTRODUCTION

In the last decade, voluntary disclosures (VD) have turned into one of the most vital topics for researchers in the arena of accounting (Kamel & Awadallah, 2017; Kolsi, 2017; Masum et al., 2023; Reid, Ringel, & Pendleton, 2024; Zaini, Samkin, Sharma, & Davey, 2018; Zaini, Sharma, & Samkin, 2017; Zamil, Ramakrishnan, Jamal, Hatif, & Khatib, 2023). The dominance of voluntary disclosure resulted in an overwhelming acceleration in further theoretical development over the last three decades (Zaini et al., 2018). Voluntary disclosure becomes a rich arena of pragmatic research not only in the current period but also it sheds light on academic research in the next epochs as well (Healy & Palepu, 2001; Sharma & Davey, 2013). Corporate voluntary disclosures represent the disclosure of both the financial and the non-financial information of the corporations by the management besides the obligatory reporting (Dhaliwal, Li, Tsang, & Yang, 2011). As a result, corporate voluntary disclosures provide additional

information about the business organization, in addition to mandatory corporate disclosures. The magnitude of VD in developing countries is not satisfactory, even though prior studies show poor extent of voluntary disclosures in developing countries (Chau & Gray, 2010). The quality of voluntary disclosures in the least developing country is very insignificant, only limited to some very specific items (Khan & Khan, 2010) although it has been improving in recent days. And in a transitional economy like Bangladesh, the role of corporate people in the economy is very crucial.

To upgrade its economic status, a country has to comply with three thresholds recommended by the Committee for Development Policy (CDP) of the United Nations. As per the recommended guidelines, to be a developing country, the Least Developing Countries (LDC) have to comply with three conditions, namely, having a Human Asset Index (HAI) score of 66 or more, having an Economic Vulnerability Index (EVI) score of 32 or less, and having a Gross National Income per capita of \$1,242 or more (Bhattacharya, 2018). In addition, if an LDC crosses any of these two thresholds out of three, it will be considered a developing country (Bhattacharya, 2018). But to get the complete status of a developing country, this threshold should be continued over six-year periods. The CDP will investigate the achievement of the benchmarks in two phases, each equal to a three-year interval. As a consequence, Bangladesh crossed over the benchmarks of LDC in 2018, passing a transition period of six years. The economy passing through the transformation of these six years will be considered the transitional economy. However, Bangladesh satisfied one of these three thresholds in 2015 and became very close to the next threshold in 2015. Bangladesh has graduated from LDC to a developing country as it carries its success up to 2024, subject to the investigation made by CDP in two phases. During the developing phase, a country must rely on trade rather than aid from the donor nation. Therefore, it has become a significant challenge for the developing country to attract and retain both current and prospective business entities as stakeholders. The government of the developing country might reshape its economic strategies in such a way that it can recover the vacuums of foreign assistance.

The United Nations granted Bangladesh the new developing country status in 2018, but imposed a “graduation transition” period until 2024. Moving from a government-aided economy to a trade-based economy, Bangladesh, particularly the private sector, will need to embrace corporate management best practices. This will include implementing best-practices in corporate governance, and best-practices in corporate financial reporting, all to optimize corporate performance. A transitional economy, such as Bangladesh, necessitates improving its corporate performance in order to cope with current and future economic challenges. A good deal of academic research has found the engrossment of corporate voluntary disclosure to be one of the vital ingredients that positively affects corporate performance. The nature of corporate reporting is very important for a transitional economy like Bangladesh, as its economy has shifted from an aid-based economy to a trade trade-based economy. As LDC, Bangladesh has received several trade quotas from European and American markets, which will no longer be applicable after 2024 due to the graduation from LDC to developing countries. This issue has been overwhelmingly significant for Bangladesh in recent days, and the corporate people of the country should come together to assist the trade-based economy of the country. The economic sustainability of the country will not be ensured until or unless the business entities of the country attract prospective investors, both local and foreign. By inducing and compelling prospective investors, the country can ensure not only economic sustainability in the transforming stage but also sustainable development. This study may solve the issues of the transforming economy; especially for the LDC in the transition stage, it may know the critical factors and pinpoints on which a transitional economy should focus in accounting reporting. This is an opportunity for the accounting people to contribute to voluntary disclosure, as some least developing countries take 20 years to be a developing country, even some of the countries are still working hard for 40 years to be a developing country from a LDC.

The objective of this empirical study is to conduct a comparative analysis of corporate voluntary disclosure in a pre-transition economy and a transition economy within the same context. The findings of the study will help the transitional economy to shape its corporate strategy, which will assist the transitional economy to be a developing

country. However, the findings also aid emerging economies in restructuring their corporate strategies to align with the SDGs.

The study has a unique contribution to the literature on corporate voluntary disclosure as it constructs the contents of VD by considering the guidelines of both the UN and the academic literature. Moreover, to the best of our knowledge, this is the first study that uses the self-constructed voluntary disclosure index that includes both the indicators of the United Nations and contemporary academic literature. In addition, this study shows its uniqueness in proving the significance of VD not only in the corporate sector but also in the national and international arena. This implies that VD serves not only as a disclosure or reporting tool, but also as a strategic tool.

The next section of the study includes a literature review and hypothesis constructions. After that, we report the study's methodology. The next section discusses the results of the study, followed by the conclusion and suggestions for further research. The study's robustness test is reported in the last section.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1 Transition Economy and Bangladesh

Table 1's summary of information shows that Bangladesh and Nepal exceeded that EVI graduation threshold in 2015. In terms of HAI, Bangladesh has a very close score of the threshold, whereas Bhutan, Nepal, Solomon Islands, Kiribati, and Vanuatu cross over the HAI score of 66. In terms of Gross National Income (GNI) per capita, in 2015, Bangladesh had a very close score of the threshold, whereas Bhutan, Solomon Islands, Kiribati, and Vanuatu crossed over the GNI per capita of \$1,242. In 2015, Bangladesh only crossed one threshold, and it became close to the other two thresholds whereas, in 2018, Bangladesh achieved all the thresholds of the developing country (Bhattacharya, 2018; Masum, Latiff, & Osman, 2021). Recently, it has become a big challenge for Bangladesh to maintain its performance up to 2024. However, the coronavirus pandemic has extended the country's economic graduation process until 2026. During this period, Bangladesh must navigate two phases of investigation arranged by the CDP. During 2021 in the first phase, it kept its progress despite the adverse effects of corona pandemic. To achieve its sustainable developing status, Bangladesh should ensure a smooth graduation process; otherwise, it becomes a boomerang for the country. For instance, when the country becomes a developing country, it will lose its export quota. Without an export quota, the country faces significant challenges in maintaining the smooth performance of its companies (Bhattacharya, 2018). A developing country indicates that its economy will be constructed by business establishments instead of receiving foreign assistance (Masum, Latiff, & Osman, 2020). Thus, the corporate culture of Bangladesh should be redesigned so that it can attract current and potential investors. VD is a strategy for gaining attention from prospective investors by providing a wider range of information to various stakeholders.

Table 1. Comparative graduation position of the LDCs including Bangladesh.

Least developing country	Human asset index	Economic vulnerability index	Gross national income
Bangladesh	63.8	25.1	926
Bhutan	67.9	40.2	2,277
Nepal	68.7	26.8	659
Solomon Islands	71.7	50.8	1,402
Kiribati	86.3	71.5	2,489
Vanuatu	81.3	47.7	2,997

### 2.2. Theoretical Background

The widespread use of corporate voluntary disclosure in academic research has created a new opportunity that requires significant improvement (Zaini et al., 2018). Various researchers Botosan and Plumlee (2002); Healy and

Palepu (2001); Masum et al. (2020) and Masum et al. (2021) have discussed the VD from diversified theoretical standpoints. In a study in Malaysia, using a two-round Delphi method, it was revealed that transparency (i.e., disclosure) was ranked seventh out of nine corporate governance dimensions that were mentioned by the forty experts who participated in the study (Mohd Noor, Rasli, Abdul Rashid, Mubarak, & Abas, 2022). By combining different types of qualitative and quantitative research methods based on relevant literature (Cotter, Lokman, & Najah, 2011; Zaini et al., 2018) these theories aim to help researchers and stakeholders understand things better. The theories on VD may be categorized into two broad thoughts: socio-political theories and economic-based theories (Cotter et al., 2011; Zaini et al., 2018). Socio-political perspectives of VD theories include – legitimacy, stakeholders, and political economy theories, while the economic perspectives include – agency, signaling, and propriety cost theories. The fundamental differences between these two sets of theories give rise to several issues in the interpretation of VD (Cotter et al., 2011). The application of these theories in voluntary disclosure research is not only influenced by their internal context, like corporate characteristics, board attributes, etc., but also by their external context, like the nature of capital markets, the economy of the countries, etc. (Zaini et al., 2018). According to the study's objectives, this research utilizes the agency and legitimacy theories to examine the differences in corporate voluntary disclosure between pre-transitional and transitional economies.

### 2.3. Literature Review

Corporate voluntary disclosure (VD) is one of the most important aspects of corporate reporting over the last four decades (Elfeky, 2017; Meek, Roberts, & Gray, 1995; Sumiani, Haslinda, & Lehman, 2007; Wicaksono et al., 2024). VD may be well-defined as the reporting of any financial and non-financial information by the organizations over and above the corporate mandatory reporting (Dhaliwal et al., 2011). One of the most important aspects of corporate reporting is corporate voluntary disclosures (Cotter et al., 2011; Hassan, Masum, & Sarkar, 2022). Corporate voluntary disclosures serves as a witnesses to the complement and supplementation of corporate mandatory disclosures (Meek et al., 1995). Researchers have conducted numerous studies to investigate the factors that influence corporate voluntary disclosures (Elfeky, 2017; Kamel & Awadallah, 2017; Kolsi, 2017; Sarhan & Ntim, 2019). Voluntary disclosure in annual reports may be classified into numerous types, namely, common and strategic information, and monetary and non-monetary information (Meek et al., 1995; Sarhan & Ntim, 2019). The types of a voluntary disclosures vary depending on the company's various aspects, contexts, and stakeholder divergent interests (Assidi, 2023; Masum et al., 2021; Zamil et al., 2023). Thus, the focus on voluntary disclosures in developing economies, developed economies, and transitional economies is predictably different. The criteria for determining a transitional economy by the United Nations are considered in this study.

The magnitude of corporate VD differs due to the variation of political context, economic context, and social context (Belal, Cooper, & Roberts, 2013; Hossain & Hammami, 2009; Kolsi, 2017). Numerous factors distinguish the context of the pre-transitional economy from the transitional economy. Firstly, in the pre-transitional economy, the economic, trade, and governance policy of a country is designed based on local and foreign aid, while in a transitional economy, the economic, trade, and governance policy of a country is designed based on trade (Bhattacharya, 2018; Fantom & Serajuddin, 2016; United Nations Conference on Trade and Development (UNCTD), 2020). Secondly, international stakeholders, globalization, and philosophy of inducing foreign investors put immense pressure on the transformation of the economy, trade, and governance policy of the transitional economy and developing economy (Elfeky, 2017; Reed, 2002). Thirdly, the content of corporate disclosures of the pre-transitional economy and transitional economy are not the same (Bhuiyan & Biswas, 2007), even if they apply to the same country within different economic transformation periods (Rahman & Masum, 2021). Although there is a global trend of convergence of various local and international governance laws and policies, there is still the vigilance of significant variations in practices and implementations of these issues (Bhuiyan & Biswas, 2007; Hossen, Roy, & Masum, 2023; Rahman & Masum, 2021).

Thus, it becomes apparent that there are substantial metamorphoses between the corporate reporting between the pre-transitional economy and the transitional economy. Moreover, the agency theory also postulates that agency conflict exists because of the diversified views of the management and other stakeholders, which can be minimized through discretionary corporate disclosures (Jensen & Meckling, 1976). Indeed, the trend of disclosing more diversified voluntary information is useful for existing and prospective investors to lessen fraud and optimize earning manipulation (Kolsi, 2017; Masum et al., 2023). In addition, as per the efficient market hypothesis, a wide range of diversified information has a dual role; firstly, it helps to monitor managerial activities, and secondly, it affects the market price of the organization (Ronen & Yaari, 1993). According to agency theory, a business organization in the transitional economy must offer a broader variety of diversified information to both retain current investors and attract new ones, unlike in the pre-transitional economy. According to the legitimacy theory, there is a social contract between the business and the organization. Therefore, the business organization should disclose more information that will make the social contract more value-worthy. Since, in a developing economy, a country pays more focus on trade rather than aid, it is expected that the extent of voluntary disclosure might be greater than in a pre-transition economy. Therefore, the hypothesis of this study is presumed to be:

*Hypothesis: The degree of corporate VD in the transitional economy is greater than in the pre-transitional economy.*

### 3. METHODOLOGY OF THE STUDY

#### 3.1. Population and Sample Construction

We used DSE-listed companies, the largest stock market in Bangladesh, in the current study. The DSE encompasses all the public limited companies, grouped into twenty-two different industries. Due to the nature of the research objectives, the study considers two distinct populations. The first population comprised two hundred and eighteen listed companies for a period of four years starting from 2012 to 2015; thus, the population size becomes eight hundred seventy-two. For the first population, we consider annual reports from the period when Bangladesh was in its least developed phase. Since the research objective of the study is to measure the significant difference between the corporate voluntary disclosures of the pre-transitional economy and transitional economy, four years from the pre-transitional economy and four years from the transitional economy are considered. The second population is designed from the transitional economy, as the rest of the research objectives are assumed to test the phenomena of the transitional economy.

**Table 2.** Construction of populations.

Serial no.	Industry	Total population
1	Cement	7
2	Ceramics sector	5
3	Engineering	38
4	Food and beverages	17
5	Fuel, energy, and power	19
6	Information technology sector	9
7	Jute industry	3
8	Paper	3
9	Pharmaceuticals	32
10	Service and real states	4
11	Tannery industries	6
12	Telecommunication	2
13	Textile	55
14	Travel and leisure	5
15	Miscellaneous	13
Total companies from one year		218
Total companies from the first population [218×4] from 2012 to 2015		872
Total companies from the second population [218×4] from 2016 to 2019		872

Source: Website of DSE visited on 28.07.2019.

The second population size is designed based on the transition period of four years starting from 2016 to 2019, thus resulting in eight hundred and seventy-two companies. The second population was taken after the declaration of the graduation process of Bangladesh – from LDC to developing country. Out of twenty-two industries categorized by the DSE, seven have been excluded because their nature, operations, and formations are different and regulated by customized laws and statutory regulations. [Table 2](#) provides details on population construction.

Due to the research objective, two sampling frames from two populations are considered for the study. The first sampling frame is constructed based on four years of the population starting from 2012 to 2015, when Bangladesh was in the LDC phase. In contrast, the second sampling frame is constructed based on four years of population, starting from 2016 to 2019, when Bangladesh was in the graduation phase. Both of the sampling frames are finally constructed considering various important issues, such as companies having four years of audited annual reports for the first sampling frame (2012-2015) and four years for the second sampling frame (2016-2019), availability of the annual reports, not the financial statements, and the companies not being in Z categories of the DSE. Since both the population sizes are not large, all the DSE-listed companies were assumed as an initial sample, but due to the availability, reliability, and relevance, the final sample construction includes 336 companies for the first sampling frame and 368 companies for the second sampling frame. However, as the nature of the study only requires paired samples – the same company has both pre-transitional VD and transitional VD, the final sample is composed of 307 paired samples. [Table 3](#) provides details of the sampling frame constructions.

**Table 3.** Construction of paired sample.

Description	Companies (Pre-transition)	Companies (Transition)
Initial samples	872	872
Less: Unaudited annual reports	45	42
Less: Newly established/Enlisted companies do not have eight years of annual reports	201	192
Less: Unavailable annual reports	97	83
Less: Companies having financial statements only in the annual report rather than a comprehensive annual report	61	57
Less: Corporations having annual reports for more than 12 months	132	130
Final sample	336	368
Paired sample	307	

### 3.2. Research Tool

To determine the extent of the voluntary disclosure, a self-constructed, unweighted disclosure has been used. A disclosure index is a popular and widely accepted research tool in the field of voluntary disclosure ([Assidi, 2023](#); [Masum et al., 2021](#); [Rahman & Masum, 2021](#); [Zamil et al., 2023](#)). In this study, corporate voluntary disclosure is a composite variable that includes nine broad dimensions of voluntary disclosure, namely ordinary business information disclosure, governance disclosure, climate change disclosure, environmental disclosure, energy information disclosure, employee information disclosure, social information disclosure, product information disclosure, and customer information disclosure. These nine dimensions are used to measure the VD of each sample firm, as these were also used as VD in the previous empirical studies based in Bangladesh ([Ahmed, Uddin, & Masum, 2021](#); [Masum et al., 2021](#); [Masum et al., 2023](#)). However, the derivation of the disclosure index does not include the mandatory items from these nine dimensions. We further categorize these nine dimensions into seventy-seven items. Therefore, we have measured the extent of corporate voluntary disclosure using a total of seventy-seven contents in the final disclosure index. Subsequently, the items of the content analysis for the voluntary disclosure are extracted aligning with the three measurement sticks of the UN, namely, GNI per capita, economic vulnerability index, and human assets index. A mapping of the UN criteria based on the aforementioned three dimensions with the prior literature on voluntary disclosure is stated in the [Appendix 1](#). The disclosure index used in this study is unique as it has been constructed considering a disclosure index of seventy-seven items, which are

composed of both the previous literature and UN guidelines. For each of the disclosed items, a company will get “one,” otherwise the score becomes “zero.” Therefore, the VD has a minimum score of zero and a highest score of seventy-seven. Finally, we have used the selected company’s relative VD score to determine the extent of voluntary disclosure in the context of Bangladesh.

$$VD\ score = (\text{Actual VD score of a company} / \text{Maximum possible VD score}) \times 100$$

After obtaining the VD score of the paired sample, the corporate VD score of Bangladesh between the pre-transitional and transitional period. Aligning with the objective of the study, a paired sample t-test was used to explore whether the corporate VD in a transitional economy is significantly different from the pretransitional economy. We used a paired t-test to test the significant differences in the mean values of the same variables across different observations.

## 4. RESULTS AND FINDINGS

### 4.1. Comparative Descriptive Statistics of the Paired Sample T-test

To portray a true picture of corporate voluntary disclosure practices in the pre-transitional economy and transitional economy, we determine a comparative descriptive statistic of the paired sample t-test between these two economic sectors. Table 4 depicts the comparative descriptive statistics of the paired sample test. As shown in Table 4, the mean VD index pre-transitional economy is 16.11, while the mean voluntary disclosure index of the transitional economy is 20.70, which is sharply higher than the pre-transitional economy with a standard deviation of 10.18 and 13.96, respectively. Furthermore, the pre-transitional economy’s VD scores range from 1 to 53, while the transitional economy’s voluntary disclosure scores range from 4 to 75, respectively. This result portrays the dispersed nature of corporate voluntary reporting in both the pre-transitional and transitional economies. Belal (2000) found that the environmental disclosure of the business entities was very low in the context of Bangladesh. He found that about 51% of the selected sample did not disclose any items on environment-related information.

Bhuiyan and Biswas (2007) also found a very low disclosure level in the context of Bangladesh, as there is no obligatory or voluntary legislation conserving social and environmental disclosure in Bangladesh. We expect business organizations in a transitional economy to report voluntary information more widely than in a pre-transitional economy. Adams, Larrinaga-González, Belal, and Owen (2007) also found very low social disclosure practices in Bangladesh, but corporate social disclosure becomes improving when external forces like the media pressure are visible in the economy. Moreover, the skewness and kurtosis of transitional economy are 1.42 and 2.07, respectively, which is better than the skewness (1.54) and kurtosis (2.65) of the pre-transitional economy. It is also mentionable that the transitional economy in Bangladesh started from the beginning of 2018, although the sample of the transitional economy is selected from 2016 since the country complies with one condition (out of three) to be a developing country in 2015. Due to the inherent characteristics of the transitional economy, it is projected that the magnitude of VD in the transitional phase will be better than in the pre-transitional phase, which is further justified by these findings.

**Table 4.** Comparative descriptive statistics of the paired sample t-test.

Descriptive statistics	VD score pre-transition	VD score transition
Mean	16.11	20.70
Standard deviation	10.18	13.96
Minimum	1	4
Maximum	53	75
Skewness	1.54	1.42
Kurtosis	2.65	2.07
Paired sample	307	

#### 4.2. Normality of the Data for the Paired Sample T-Test

To investigate whether the quality of corporate VD in a transitional economy is significantly greater than in the pre-transitional economy, we have executed a paired sample t-test, in compliance with the first research objectives. Before conducting the paired t-test, the normality of the data set for both transitional and pre-transitional economies is tested. Both the Kolmogorov-Smirnov test and the Shapiro-Wilk test are significant at  $p < 0.001$ . This indicates that the data set used to investigate notable variances in corporate VD excellence in a transitional economy compared to the pre-transitional economy does not follow a normal distribution. Table 5 presents the results of both the Kolmogorov-Smirnov test and the Shapiro-Wilk test. However, Coakes and Steed (2001) recommend that non-compliance with normality is not a substantial fact if the sample size becomes larger, especially more than 30. In addition, Brooks (2008) also opines the following regarding the normality of the data set:

“For sufficiently large sample sizes, violation of the normality assumption is virtually inconsequential. According to a central limit theorem, the test statistics will asymptotically follow the appropriate distributions even in the absence of error normality.”

Table 5. Test of normality.

Period	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Transition	0.156	307	0.000	0.869	307	0.000
Pre-transition	0.172	307	0.000	0.865	307	0.000

Note: a. Lilliefors significance correction.

#### 4.3. Correlation between Pre-Transition and Transitional Economy

Table 6 reports the correlation between the corporate VD in the pre-transitional economy and transitional economy with a correlation coefficient of 0.655 at  $p < 0.001$ . This shows a moderately positive relationship between the VD practices in the pre-transitional and transitional economies, which is significant at  $p < 1\%$ . In addition, the intra-class correlation coefficient between pre-transitional and transitional economies is 0.624 and 0.768 for the single measures and average measures, respectively, with a p-value lower than 0.001. Moreover, based on Table 7, it is found that both the single and average measures have the same F statistics (4.315), both of which are also significant at  $p < 0.001$ . It implies that the interrelationship to the magnitude of VD is positively concomitant with each other and the excellence of corporate VD is a gradual issue rather than a sudden incurrence.

Table 6. Paired sample correlation matrix – pre-transitional and transitional economy.

Period	N	Correlation coefficient	Significance
Pre-transitional and transitional economy	307	0.655	0.000

Table 7. Intra-class correlation coefficient between pre-transitional and transitional economy.

Measures	Intra-class correlation	F test statistics	Significance
Single measures	0.624	4.315	0.000
Average measures	0.768	4.315	0.000

#### 4.4. Paired Sample t-test - Pre-Transition and Transition Economy

Based on the first research objective that assumes a significant difference between the VD in the pre-transitional economy and transitional economy, a paired sample t-test has been conducted. Table 8 illustrates the differences between the paradigm of disclosing voluntary information in the pre-transitional economy and the transitional economy. The results suggest that the reporting of additional information on the face of annual reports



in the transitional economy is significantly higher than in the pre-transitional economy with a t value of 5.604, which is significant at  $p = <0.001$ . Muttakin, Khan, and Subramaniam (2015) found that the mean corporate social responsibility disclosure score is about 22, which is sharply lower than the findings of Rouf and Akhtaruddin (2018). In addition, Nurunnabi (2016) found that only 2.23% of the companies report climate change issues, whereas she found that only 3.1% of the selected companies report climate change issues in their annual reports. Therefore, the findings of these empirical studies suggest that the level of corporate voluntary reporting in the transitional economy is significantly higher than in the pre-transitional economy. Hence, the acceptance of the hypothesis is also justified. Moreover, as the transitional economy is going to face the removal of trade quota and export quota, the government of the transitional economy tends to design their policies in such a way that induces potential investors, both local and foreign. As a result, in a transitional economy, corporate bodies tend to report more private information about the corporation to investors.

Table 8. Paired sample t-tests.

Paired variables	Mean	Standard deviation	Standard error of mean	T-statistics	Significance
Pre-transitional and transitional economy	4.583	10.601	0.818	5.604	0.000

## 5. CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

Based on the results of the paired t-test and the study's objective, we accept the the hypothesis that the magnitude of VD in the transitional economy is better than in the pre-transitional economy. A transitional economy puts more emphasis on trade rather than aid from various donors (Hassan et al., 2022; Hossen et al., 2023). Thus, the policy of such an economy encourages, induces, and to some extent enforces the business people to execute their activities in a certain desired direction. In the context of Bangladesh, the country lounges various policies to accommodate the issues of a transitional economy suggested by the United Nations and other regulatory bodies (both local and global), like the enforcement of green tax, gradual adoption of Value Added Tax and Supplementary Duty Act 2012, liberalization of various trade policies, the establishment of various Export Processing Zones for customized foreign countries, and encouraging and relaxing the terms and conditions of various Private-Public Partnership project. These policies of the country certainly induce and compel the corporate people to report extra information. A transitional economy focuses more attention on business activities instead of depending on external donations. Thus, all the relevant factors that affect corporate performance become the prime issue in the transitional economy. According to the VD's literature, voluntary disclosure influences perspective investors' investment decisions, and more investment, in turn, enhances corporate performance. Therefore, considering the inherent prerequisites of a transitional economy, the disclosure level of VD in a transitional economy is greater than in a pre-transitional economy. The findings of the study will help the transitional economy to shape their corporate reporting strategies, which will help them in promoting their economic status. Although graduation from LDC is not a static process, rather it starts a never-ending loop for the transitional economy. The transitional economy has to face several challenges in its transition phase. The transitional economy faces several challenges. These challenges should be converted into opportunities by inducing the corporate people to work in line with the objectives of the emerging country. The study will help the regulatory body identify the contents of voluntary disclosure that retain and accelerate the graduation process even to achieve the SDG.

This study opens ample opportunities for further research in the area of corporate voluntary disclosures. Firstly, we can conduct qualitative studies using primary data, such as observation studies and questionnaires. Secondly, this study has been conducted based on one country; a multi-country approach might bring more fruitful output in this regard. Thirdly, we could examine a causal relationship to investigate the degree of association between VD and profitability within the transitional economy. Finally, a comparative study can be conducted to

identify whether the factors affecting the VD in the pre-transitional economy and transitional economy are the same or different.

## 6. ROBUSTNESS AND ADDITIONAL TEST

To re-investigate the robustness of the study's outcomes, the empirical study conducts several analyses. One of the big challenges of the study was to examine the validity of the hand-collected VD index through content analysis. Following Botosan (1997), the appropriateness of the items on the disclosure index was confirmed through three-layer cross-checking: checking from previous literature, checking from regulatory bodies, and checking from industry experts. The contents of the disclosure index are initially taken from the previous literature and then rechecked by the regulatory authorities (Manager of Corporate Reporting Division, DSE), and finally, the degree of appropriateness of the items of the disclosure index is reconfirmed by the industry experts to determine the relevance of the disclosure index in the context of transitional economy. After cross-checking the contents, 77 items are finally selected for the disclosure index. The hand-collected VD score was measured based on inputs from two independently trained coders, then a paired t-test was conducted, which was found significant at  $p < 0.01$ . Furthermore, an additional test was done by appointing a third data coder, and a second paired t-test was done to cross-check the validity of the VD score. The second paired t-test is also significant at  $p < 0.1$ . Therefore, we can confidently assert that the study's VD score exhibits good reliability.

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Appendix 1. VD and parameters of transitional economy.

Indices of transition economy	Sub-indices of transition economy	Dimensions of voluntary disclosures	References
Human asset index	1.1 Percentage of population undernourished	Social disclosures	Kamel and Awadallah (2017) and Kolsi (2017).
	1.2 Mortality rate for kids	Social disclosures	Elfeky (2017)
	1.3 Gross secondary school intake ratio	Social disclosures employee disclosure	Kamel and Awadallah (2017)
	1.4 Literacy ratio	Social disclosures employee disclosure	Kolsi (2017); Elfeky (2017) and Islam and Deegan (2008)
Economic vulnerability index	2.1 Size sub-index - population	General business information governance information of the business	Kamel and Awadallah (2017) and Kolsi (2017); Elfeky (2017)
	2.2 Location sub-index- remoteness	General business information governance information of the business	Kamel and Awadallah (2017)
	2.3 Economic structure sub-index	General business information governance information	Kamel and Awadallah (2017) and Elfeky (2017)

Indices of transition economy	Sub-indices of transition economy	Dimensions of voluntary disclosures	References
		of the business	
	2.4 Environment sub-index	Environmental disclosures Carbon disclosures	<a href="#">Kolsi (2017)</a>
	2.5 Trade shock sub-index	General business information governance information of the business	<a href="#">Kamel and Awadallah (2017)</a> ; <a href="#">Kolsi (2017)</a> and <a href="#">Elfeky (2017)</a>
	2.6 Natural shock sub-index - victims of natural disasters	Carbon emission disclosures environmental disclosures climate change disclosures	<a href="#">Kolsi (2017)</a>
GNI per capita	3.1 Gross national income	General business information governance information of the business	<a href="#">Kamel and Awadallah (2017)</a> ; <a href="#">Kolsi (2017)</a> and <a href="#">Elfeky (2017)</a>

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