




# “Effect of corporate voluntary disclosure on corporate performance: Evidence from a transitional economy”

<b>AUTHORS</b>	Mofijul Hoq Masum  Sarkar James Bakul  Hassan Nazmul
<b>ARTICLE INFO</b>	Mofijul Hoq Masum, Sarkar James Bakul and Hassan Nazmul (2024). Effect of corporate voluntary disclosure on corporate performance: Evidence from a transitional economy. <i>Problems and Perspectives in Management</i> , 22(4), 414-426. doi: <a href="https://doi.org/10.21511/ppm.22(4).2024.31">10.21511/ppm.22(4).2024.31</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/ppm.22(4).2024.31">http://dx.doi.org/10.21511/ppm.22(4).2024.31</a>
<b>RELEASED ON</b>	Thursday, 05 December 2024
<b>RECEIVED ON</b>	Tuesday, 03 September 2024
<b>ACCEPTED ON</b>	Wednesday, 30 October 2024
<b>LICENSE</b>	 This work is licensed under a <a href="https://creativecommons.org/licenses/by/4.0/">Creative Commons Attribution 4.0 International License</a>
<b>JOURNAL</b>	"Problems and Perspectives in Management"
<b>ISSN PRINT</b>	1727-7051
<b>ISSN ONLINE</b>	1810-5467
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

66



NUMBER OF FIGURES

0



NUMBER OF TABLES

7

© The author(s) 2024. This publication is an open access article.



## BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Received on:** 3<sup>rd</sup> of September, 2024

**Accepted on:** 30<sup>th</sup> of October, 2024

**Published on:** 5<sup>th</sup> of December, 2024

© Mofijul Hoq Masum, Sarkar James Bakul, Hassan Nazmul, 2024

Mofijul Hoq Masum, Ph.D., Professor,  
School of Business and Economics,  
United International University,  
Bangladesh. (Corresponding author)

Sarkar James Bakul, Ph.D., Associate  
Professor, School of Business and  
Economics, United International  
University, Bangladesh.

Hassan Nazmul, Senior Lecturer,  
Department of Business  
Administration, East West University,  
Bangladesh.



This is an Open Access article,  
distributed under the terms of the  
[Creative Commons Attribution 4.0  
International license](https://creativecommons.org/licenses/by/4.0/), which permits  
unrestricted re-use, distribution, and  
reproduction in any medium, provided  
the original work is properly cited.

### **Conflict of interest statement:**

Author(s) reported no conflict of interest

Mofijul Hoq Masum (Bangladesh), Sarkar James Bakul (Bangladesh),  
Hassan Nazmul (Bangladesh)

# EFFECT OF CORPORATE VOLUNTARY DISCLOSURE ON CORPORATE PERFORMANCE: EVIDENCE FROM A TRANSITIONAL ECONOMY

## **Abstract**

Corporate performance is one of the core pillars of accelerating the economic growth of any economy. There are some direct and indirect components of corporate performance. This study is conducted to measure the impact of indirect factors, such as corporate voluntary disclosures, on corporate performance. A sample of 872 annual reports is investigated. A content analysis has been conducted to measure voluntary disclosure. The study employs the short panel data, fixed model regression, and Panel Corrected Standard Error (PCSE). The analysis indicates that corporate voluntary disclosure has influenced the return on assets with a regression coefficient of 0.0724 at  $p \leq 0.01$ . Corporate voluntary disclosure in the transitional economy significantly influences corporate performance. However, the volume of corporate voluntary reporting in energy-related disclosure and climate-related disclosure is minimal, as the mean is only 2.21% and 2.31%. This implies that the government of the transitional economy may focus on persuading corporations to disclose additional information besides mandatory disclosure. In addition, indirect determinant of corporate performance, like corporate voluntary disclosure, brings sustainability to corporate performance, which further assists the transitional economy in shifting its economic status from one dimension to another.

## **Keywords**

voluntary disclosure, indirect determinants, corporate performance, transitional economy, agency theory, Bangladesh

## **JEL Classification**

M14, G30, L25

## **INTRODUCTION**

Corporate performance is a burning issue due to the overwhelming requirements of stakeholders for it (Ahmed et al., 2017; Gakhar, 2012; Shukla & Gekara, 2010; Usenko & Zenkina, 2016). Corporate performance entails a holistic approach to how well the corporate people execute on its most significant parameters, archetypal financial, market, and shareholder performance. Management, as well as other stakeholders of any business organization, may need to know the effect of voluntary disclosure on corporate performance to move forward with voluntary disclosures. The shortcomings of the corporate voluntary disclosure literature are characterized by indecisiveness of findings (Orlitzky et al., 2003; Qiu et al., 2016). Previous findings on the affiliation between voluntary disclosure and corporate performance may not be appropriate for the transitional economy because of their divergent views. For instance, some argue that voluntary disclosure significantly influences corporate performance (Ho & Taylor, 2013; Plumlee et al., 2015; Qu et al., 2013; Uyar & Kılıç, 2012; Wang et al., 2008), voluntary

disclosure significantly influences the corporate performance but with an inverse effect (Wallace & Naser, 1995), or that there is no significant relationship between voluntary disclosures and corporate performance (McNally et al., 1982; Meek et al., 1995).

Prospective investors confirm their investment decisions based on reliable available information. Therefore, the minimization of information asymmetry becomes a vital issue for management, not only to induce prospective investors but also to retain existing shareholders. The literature presents that corporate voluntary disclosure has an impact on corporate performance, but the nature of the effect – positive or negative, significant or insignificant – is ambiguous due to diversified conclusions. Thus, it is apparent that corporations are required to know whether the voluntary information attracts prospective investors or not. Likewise, the regulatory body might have to gather ideas for formulating and designing corporate reporting strategies and policies for an economy.

If organizations in the transitional economy are confused about the effect of voluntary disclosure, then it becomes a minor issue for them; thus, they provide less private information to the stakeholders, which may have an adverse effect on the prospective investors. Most of the previous studies are concerned with either developed economy, developing economy, or least developing economy (Dhaliwal et al., 2011; Fauzi & Locke, 2012; Sarhan et al., 2019), but not a transitional one. Moreover, their findings are still inconclusive.

---

## 1. LITERATURE REVIEW AND HYPOTHESIS

Voluntary disclosure is the amount and details of non-mandatory information in the annual report where the information is viewed as relevant to informed decisions and is used as a strategic tool to oversee managerial activities. This encapsulates the dual role of information: information can be used to precisely anticipate the value of the company (the informativeness role) and to evaluate managerial performances through assessing accessible information (the stewardship role). Shareholders make erroneous decisions regarding the company's affairs and lack confidence in the managerial role in the company's well-being because of inadequate reliable information. The practice of voluntary disclosure as a strategy can resolve these two challenges (misleading information and goal incongruence) while ensuring the operational success of the company (Patelli & Prencipe, 2007). However, literature on emerging economies documented that a company neither has disclosed information comprehensively nor has attained overall operational success (Ho & Wong, 2001; Ronen & Yaari, 1993).

Stakeholders and rational investors anticipate that the company will disclose more comprehensive information about its operational activities

and long-term strategies, which will assist stakeholders in making informed decisions (Boesso & Kumar, 2007). In practice, however, managers intend to control the dissemination of information in order to secure their personal interests (Watts & Zimmerman, 1990). Information asymmetry is the consequence of exercising such managerial control on the timely flow of information to stakeholders. Therefore, agency problems arise due to the separation of ownership from management. Additionally, a lack of trust between management and investors adversely affects operational success (Cotter et al., 2011).

Disclosure of a wide range of corporate information can enhance the value of a company by reducing the overall agency costs and mitigating information asymmetry (Botosan & Plumlee, 2002; Shroff et al., 2013). Additionally, voluntary disclosure influences the accountability and transparency of the company, which enhances trust and strengthens confidence between managers and stakeholders (Md Zaini et al., 2018). To uphold this position, managers use their discretion to disclose more information in the annual report spontaneously for a number of reasons. Firstly, the managers of profitable businesses want to convince the board that they are competent enough to operate the business; thus, their appointment should be prolonged (Singhvi & Desai, 1971).

Secondly, the management of a profitable business wants to prove that they are different from the losing concern (Akerlof, 1970). Thirdly, they want to enhance their remuneration package by providing more good news to the stakeholders (Kamel & Awadallah, 2017). Fourthly, by providing more voluntary information, managers of profitable businesses want to increase the value of their share (Inchausti, 1997).

Besides, directors utilize the information disclosed voluntarily in the annual report to evaluate managerial roles and control managerial activities through various bonding devices like debt contracts, remuneration packages, stock options, etc. (Cotter et al., 2011) and persuade them to act on behalf of the interest of the investors. Therefore, high-quality disclosure can mitigate the information gap between managers and shareholders as well as reduce the possibility of unforeseen inefficiency resulting from the information asymmetry (Diamond & Verrecchia, 1991). Thus, disclosure of a wide range of corporate information can regulate the agency problems and attenuate the intensity of information asymmetries, yielding organizational wealth at an optimum level (Jensen & Meckling, 1976).

In line with the empirical studies on voluntary disclosure, the study assumes agency theory to acumen the objectives of the research due to numerous reasons (Allegrini & Greco, 2013; Muttakin et al., 2015; Sarhan & Ntim, 2019). Firstly, agency theory assumes the segregation of business ownership from organizational management. In addition, it also postulates that board independence is the key feature of corporate governance in reducing the conflict between agent and principal. Board independence, along with the other congenial control mechanisms, may induce the organization to overcome its dodgy attitude in disclosing more relevant information to its stakeholders (Patelli & Prencipe, 2007; García-Meca & Sánchez-Ballesta, 2010). Moreover, the board composed of independent directors tends to voluntarily disclose more strategic and forward-looking information about the company (Lim et al., 2007). Since the corporate governance structure in developing and least developing countries is on the way to maturing or starting a while, information asymmetry is a more relevant and vital issue

in developing and transitional economies rather than in developed economies where the information cost is minimal. Secondly, the business has to incur additional costs to disclose more private information of its own. The relevance of such additional cost must be well informed to the principal (shareholders) as it ensures the availability of more voluntary information, which in turn reduces the information irregularity in a principal-agent relationship. Thirdly, one of the propositions of agency theory is to minimize the divergent views of interest between the agent (managers) and the principal (shareholders). To understand the conflict of interest, the board and ownership attributes become a cornerstone as they also influence the decision-making process of an organization (Dalton et al., 1999). Moreover, the board and ownership attributes also include leading, managing, and controlling the performance system of an organization. Therefore, complying with the concepts of agency theory, the board and ownership attributes of an organization play a pivotal role in minimizing the disputations between the agent (managers) and the principal (shareholders). Finally, the board and ownership attributes of an organization are a part of decision-making, conflict management, and control management in an organization. Consecutively, the degree of corporate voluntary disclosure and the smoothness of corporate performance are the upshots of this process. Therefore, the concepts of agency theory provide the best interrelated assumptions in line with the board and ownership attributes of an organization, corporate voluntary disclosure, which may result in the desired corporate performance of an organization.

From the context of agency theory, profitable business management tends to report a large volume of information due to maximizing their demands and values (Singhvi & Desai, 1971). However, the preceding literature on voluntary disclosure and corporate performance provides indecisive findings regarding the effect of voluntary disclosure on firm performance. Similarly, Wang et al. (2008) document the positive association of voluntary disclosure with business performance in the emerging economy. However, existing literature also reports that a losing business entity discloses more information to validate its operating activities and to overcome legal risks (Skinner, 1994). In

addition, in Egypt, Kamel and Awadallah (2017) were unable to detect any significant relationship between voluntary disclosure and corporate performance. Likewise, McNally et al. (1982), Wallace et al. (1994), and Meek et al. (1995) report no significant relationship between voluntary disclosure and performance.

Raza et al. (2012) investigated the relationship between CSR and firm performance by using content analysis based on the research manuscripts published from 1972 to 2012. They report that CSR significantly influences corporate performance, where corporate performance was measured through ROE, ROS, and ROA. Al-Dmour et al. (2018) report that the quality of financial reporting significantly influences firm performance, assessing the Amman Stock Exchange. Similar findings were also found by Kolsi (2017) in Abu Dhabi and Elfeky (2017) in Egypt.

Due to the inconclusive findings of the previous studies, it is crucial to reassess the relationship between corporate voluntary disclosure and corporate performance in the context of a transitional economy. Therefore, the study aims to examine the relationship between corporate voluntary disclosure and corporate performance in a transitional economy. In line with the research objective, the following hypothesis needs to be examined:

*H1: Corporate voluntary disclosure has a positive influence on corporate performance in a transitional economy.*

## 2. METHOD

The empirical study was designed to ascertain the relationship between voluntary disclosures and corporate performances in the context of a transitional economy – Bangladesh. To execute the study, secondary data based on the annual reports of Dhaka Stock Exchange (DSE) listed companies are considered. A final sample of 92 DSE-listed companies for the tenure of four years has been examined. Annual reports of the DSE-listed companies have been used to determine the causal relationship of the aforementioned variables. Annual reports of the organizations are more trustworthy and verifiable as they are verified by an indepen-

dent third party (Gray et al., 2001; Masum et al., 2024; Masum et al., 2020). Consequently, cross-sectional data analysis becomes inappropriate for the study as it ignores the time effect and firm-specific effect. On the other hand, due to the nature of the data, a longitudinal study is executed rather than a time series study.

In the current study, the return on asset is cast as the proxy of the dependent variable, corporate performance. It measures the operating efficiency of organization management in generating earnings through the utilization of its economic resources or assets. Return on assets is best suited for the study as it considers the assets employed by all investors, both the internal capital providers and external capital providers. ROA is used as a proxy variable of corporate performance since numerous researchers used ROA to measure firm performance (Clarkson et al., 2013; Dhaliwal et al., 2011; Fauzi & Locke, 2012; Kolsi, 2017). In this study, ROA is determined by dividing the income before extraordinary items by the total assets of the same accounting period. However, in developing countries where a weak form of capital market exists, in most cases, market value approaches may significantly lack accuracy and availability (Masum et al., 2021). For the above circumstances and reality, in a transitional economy like Bangladesh, which has a weak form of the capital market and poor governance mechanism, accounting approaches of performance measurement, specifically return on assets, seem to be best suited. Therefore, the study uses return on assets as the proxy of corporate performance.

Previous studies on voluntary disclosure have reported that corporate characteristics may influence corporate performance (Orlitzky, 2001; Waddock & Graves, 1997). In this study, voluntary disclosure is used as an independent variable. Its dimensions, along with the items in each dimension with references, are stated in Table 1. As per the previous literature, company size, leverage, return on equity, sales growth, earnings per share, and company age are control variables (Choi et al., 2010; Qiu et al., 2016). Consecutively, the study assumes company size, leverage, sales growth, earnings per share, and age as the proxy of control variables. Table 2 shows detailed information on the variables used in this study.

The quality of voluntary disclosure can be determined in various ways: using some words (Gray et al., 1996), sentences used in disclosing information (Hackston & Milne, 1996), pages upholding the information (Gray et al., 1996), or using content analysis (Aras et al., 2010; Haniffa & Cooke, 2005; Saleh et al., 2010). Although most of these techniques have their pros and cons, content analysis is the best way to describe more realistic and accurate phenomena and quantify the qualitative information (Saleh et al., 2010). Therefore, in the study, a content analysis of 77 items on nine broad dimensions is finally selected as a tool to quantify the level of voluntary disclosure. Here, for each reported item on the annual report, the company got “1” and for each non-disclosure, the score was “0.” After that, for better understanding and comparability, the relative voluntary disclosure scores for each selected sample are determined by using the following formula:

$$VD_{ji} = \frac{\sum_{k=1}^{nij} X_{ij}}{nij}, \tag{1}$$

where,  $VD_j$  = Voluntary disclosure score for the firm  $j$  for the period  $i$ ;  $X_{ij}$  = Actual score availed by firm  $j$  in year  $i$ ;  $n$  = Maximum possible score of firm  $j$  in year  $i$ , subject to the condition that,  $n_{ij} \leq 77$  so that,  $0 \leq V_{dij} \leq 77$ .

As per the objective of this study, a fixed regression model is executed to explore the relationship between return on assets – the proxy variables of corporate performance and a composite variable on voluntary disclosure. Since the data set has heteroscedasticity and autocorrelation issues, a fixed effect with panel-corrected standard error (Model 1) is used to examine the effect of voluntary disclosure on corporate disclosure. Panel-corrected standard error seems to be the best-suited model

**Table 1.** Dimensions of voluntary disclosures

Dimensions of Voluntary Disclosures	Total Items	References
Ordinary business information	6 items	Elfeky (2017), Kolsi (2017), Rezaee and Tuo (2017), Sarhan and Ntim (2019)
Governance information	7 items	Elfeky (2017), Kamel and Awadallah (2017), Kolsi (2017), Rezaee and Tuo (2017), Sarhan and Ntim (2019)
Climate change information disclosures	12 items	Choi et al. (2010), Rahman Belal et al. (2010)
Environmental disclosures	13 items	Alnabsha et al. (2018), Elfeky (2017), Kolsi (2017), Sarhan et al. (2019)
Energy information disclosure	8 items	Rezaee and Tuo (2017), Sarhan and Ntim (2019)
Employee information	15 items	Aras et al. (2010), Elfeky (2017), Kolsi (2017), Saleh et al. (2010)
Social information disclosure	8 items	Alnabsha et al. (2018), Elfeky (2017), Kolsi (2017), Saleh et al. (2010)
Product information disclosure	3 items	Kamel and Awadallah (2017), Kolsi (2017), Rezaee and Tuo (2017)
Customer information disclosure	5 items	Elfeky (2017), Kolsi (2017), Rezaee and Tuo (2017), Saleh et al. (2010), Sarhan and Ntim (2019)
Total	<b>77 items</b>	

**Table 2.** Measurement of variables

Variables	Measurement	References
Corporate voluntary disclosure	A binary variable. Items disclosed by each company are scaled by maximum total score	Masum et al. (2024)
Return on assets	Reported net profit scaled by average assets	Masum et al. (2024)
Company size	Natural log of the total assets of the company reported on the balance sheet	Elfeky (2017), Kolsi (2017), Rezaee and Tuo (2017), Sarhan and Ntim (2019)
Leverage	Total debt is scaled by the total assets of the company	Elfeky (2017), Kolsi (2017)
Company age	Total years from the date of incorporation to 2019	Kolsi (2017), Masum et al. (2024), Sahasranamam et al. (2019)
Sales growth	Differences between the sales of the current year and the previous year divided by the previous year	Masum et al. (2024), Sahasranamam et al. (2019)
Earnings per share	Net profit attributable to the ordinary shareholders scaled by the weighted average number of shares outstanding	Masum et al. (2020)

for the data set, as the correlation coefficient between the variables is a bit higher. However, the regression coefficients, standard error, and their level of significance of the fixed effect model before considering the heteroscedasticity problem and autocorrelation problem (Model 2) and fixed model having no time effect (Model 3) are also presented for comparability. The final fixed model (Model 4) for the empirical study is stated below:

$$\begin{aligned} CP = & \alpha + \beta 1VD + \beta 2C\_LEV \\ & + \beta 3C\_SIZE + \beta 4C\_AGE \\ & + \beta 5C\_GROWTH + \beta 6C\_EPS + \varepsilon, \end{aligned} \quad (2)$$

where,  $CP$  = Corporate performance;  $VD$  = Voluntary disclosure;  $C\_LEV$  = Leverage;  $C\_SIZE$  = Company size;  $C\_AGE$  = Company age;  $C\_Growth$  = Sales growth;  $C\_EPS$  = Earnings per share.

### 3. RESULTS AND DISCUSSION

Table 3 entails the descriptive statistics of the nine dimensions of corporate voluntary disclosure. The mean voluntary disclosure score is reported as 22.41%, with a standard deviation of 11.77%. This result implies that, on average, the selected sample reports only 22.41% of the selected contents from the voluntary disclosure index. Based on the empirical findings, it can be generalized that the DSE-listed companies report very little information about their energy disclosure, with a score of 2.21% with a standard deviation of 1.87%.

Table 4 reports the descriptive statistics of the control variables. The empirical findings report that the mean age of the selected samples is only 23.45 years, with a standard deviation of 12.16 years. This result implies that in an emerging and transforming economy, listed companies operate for an average of 23.45 years, while their minimum operating time is two years with a maximum operating time of 57 years. It was also found that the mean leverage score was 0.83, with a standard deviation of 2.49. This result implies that the mean leverage score is good, but there are a good number of debt-intensive firms in Bangladesh's listed market. The lowest and highest leverage ratios are 0.02 and 23.25, respectively.

Table 4 also reports the mean earnings per share as Tk. 6.04 with a standard deviation of Tk. 14.99. This result entails that the operating performance of all the selected samples is not in a positive status. Although some of the companies perform very well with a maximum earning per share of Tk. 131.06, but some incur negative earnings per share or losses per share. The standard deviation also postulates that the operating performance scenario of the listed companies is not homogeneous. The growth scenario of the transitional economy of Bangladesh is also encouraging as the mean sales growth is 10.24%, although the standard deviation is 26.60%. Since the market includes several companies with negative growth, this results in a high standard deviation (26.60%) compared to the mean (10.24%).

Table 5 reports the correlation matrix relating to the exploration of the relationship between return

**Table 3.** Descriptive statistics – Voluntary disclosure

Dimensions of Corporate Voluntary Disclosures	Mean, %	Standard Deviation, %	Minimum, %	Maximum, %
Ordinary business information	54.26	17.23	15.28	100
Governance information	36.12	16.21	13.12	100
Climate change information	2.31	1.89	0	36.76
Environmental disclosures	9.12	7.21	0	71.34
Energy disclosures	2.21	1.87	0	34.23
Employee disclosures	31.32	19.56	18.22	82.65
Social disclosures	21.09	17.32	0	71.23
Product disclosures	19.21	11.42	0	100
Customer disclosures	26.21	12.74	0	100
Composite voluntary disclosure	22.41	11.77	5.08	79.26
Mean	22.41%	11.77%	–	–

**Table 4.** Descriptive statistics – Control variables

Variables	Mean	Standard Deviation	Minimum	Maximum
Age	23.45	12.16	2	57
Size	9.32	0.85	6.27	11.39
Leverage	0.83	2.49	0.02	23.25
Earnings per share	Tk. 6.04	Tk. 14.99	Tk. -52.75	Tk. 131.06
Sales growth	10.24 (%)	26.60 (%)	-95.6 (%)	201.67 (%)

on assets and corporate voluntary disclosure. It is found that corporate voluntary disclosure has a significant positive relationship with the return on assets at  $p < 0.01$  with a correlation coefficient of 0.392.

This empirical study implies that DSE-listed companies pay less attention to disclosing their private information to the public, which is also consistent with the previous literature (Belal, 2000; Islam & Deegan, 2008). However, the scenario of disclosing voluntary information has gradually improved over the years (Belal et al., 2013; Masum et al., 2020). The standard deviation of the voluntary disclosure index also indicates that there is a noteworthy deviation among the companies disclosing their voluntary information in the annual reports. These meager scenarios are also further proved by the minimum voluntary disclosure score, which is 5.08%, and the maximum voluntary disclosure index, which is 79.26%. Therefore, the range (74.18%) between the maximum voluntary disclosure score and the minimum score also evidenced that the consideration of voluntary disclosure in the eyes of all the selected samples is not the same.

However, disclosing general information among the stakeholders is a way of introducing the company to the stakeholders; thus, it has the highest disclosure percentages compared to the other dimensions of voluntary disclosure. From the context of Bangladesh, it is obvious that business or-

ganizations are less concerned about their energy consumption. The empirical results also show homogeneity in terms of the size of listed companies in Bangladesh, as its mean value is 9.32 with a standard deviation of 0.85. The resemblance of company size in Bangladesh has also been proved as its minimum value is 6.27 with a maximum value of 11.39.

The study indicates a weak significant relationship between corporate performance and voluntary disclosure in the context of the transitional economy of Bangladesh. It becomes apparent that businesses are supposed to disclose more voluntary disclosures once they have financial sustainability. Out of the six control variables, age, size, return on equity, and earning per share have a positive relationship with voluntary disclosure that is statistically significant at  $p \leq 0.1$  and  $p \leq 0.01$ , correspondingly. At the same time, no significant statistical relationship was found between the leverage and sales growth with the corporate voluntary disclosure. However, none of the control variables exceed a correlation coefficient of 0.3. Therefore, there exists no severe multi-collinearity issue between the proxy variables of control variables and corporate voluntary disclosure.

Table 6 shows that corporate voluntary disclosure has influenced the return on assets with a regression coefficient of 0.0724 at  $p \leq 0.01$ . Therefore, when the magnitude of corporate voluntary dis-

**Table 5.** Correlation matrix

Variables	VD	Age	Size	Leverage	EPS	Sales growth	ROA
Voluntary disclosure	1	-	-	-	-	-	-
Age	.079*	1	-	-	-	-	-
Size	.138***	-.009	1	-	-	-	-
Leverage	-.009	.003	-.168***	1	-	-	-
Earnings per share	.191***	.385***	-.039	.010	1	-	-
Sales growth	.068	-.013	.088**	.028	.026	1	-
ROA	.392***	.076	.008	-.011	.514***	.096**	1

Note: \*\*\* significant at 0.01; \*\* significant at 0.05; \* significant at 0.10.



**Table 6.** Effect of corporate voluntary disclosure on corporate performance

Variables	Model 1 Fixed effect with PCSE	Model 2 Fixed effect	Model 3 Only fixed effect, no time effect
<b>Independent Variables</b>			
Voluntary disclosure	0.0724 (0.0212)**	0.0649 (0.0162)**	0.0727 (0.0258)**
<b>Control Variables</b>			
Sales growth	0.0200 (0.0086)***	0.0056 (0.0039)***	0.0188 (0.0052)***
Earnings per share	-0.0404 (0.0386)**	-0.0212 (0.0249)**	0.0515 (0.0194)**
ROE	0.2563 (0.0379)**	0.2828 (0.0203)**	0.1506 (0.0188)**
Leverage	0.0384 (0.1649)	-0.1937 (0.1446)	-0.0419 (0.1654)
Size	0.4325 (0.3530)	-0.7921 (0.3020)	0.0405 (0.4742)
Age	0.0166 (0.0447)**	0.0479 (0.0404)**	0.2405 (0.0452)**
Constant	-3.4838 (3.7501)	7.1119 (2.9860)	-4.3509 (4.6485)
R square	0.6173***	0.7262***	0.3636***

Note: \*\*\* significant at 0.01; \*\* significant at 0.05; \* significant at 0.10.

closure increases, the return on assets also increases accordingly. Nguyen et al. (2020) examined the impact of voluntary disclosure on ROA in the context of Vietnam and found positive associations. By contrast, Hossain and Hammami (2009) did not find any considerable association between return on assets and voluntary disclosure. Nevertheless, Gamerschlag et al. (2011) recommend that profitable organizations are more enthusiastic about disclosing how they can earn profit than less profitable companies. Kolsi (2017) opined that profitable organizations tend to report additional corporate information to justify that they operate within the norms of society. The agency theory also advocates that the management of an effective and efficient organization discloses more information proactively to confirm their rewards (Singhvi & Desai, 1971) and to enrich their

value in the labor market. In addition, non-profitable organizations tend to report a lesser amount of information as additional arrangement of information requires extra cost (Kolsi, 2017).

In this empirical study, the robustness test of the fixed effect model was conducted by altering the proxy variables of corporate performance. Table A1, Appendix A, shows an additional test considering the return on equity as the proxy of corporate performance instead of return on assets. All three models – fixed effect with panel-corrected standard error, fixed effect, and fixed effect with no time effect – were investigated. It is found that there are no significant differences between the proxy variables of corporate performance. Therefore, the findings show the robustness of the model used in this study.

## CONCLUSION

Corporate performance has become a burning issue for business organizations over the years. Business entities put their effort to achieve the optimum level of corporate performance. To achieve sustainable corporate performance both the direct and indirect determinants of corporate performance are crucial. This study is steered to explore the relationship between corporate voluntary disclosure and corporate performance. It is found that voluntary disclosure significantly influences corporate performance from the context of a transitional economy, Bangladesh. The transitional economy puts more focus on trade

and commerce of the country rather than foreign aid. Thus, the transitional economy needs to design its policy to retain the existing investor and induce the prospective investor. In connection with this transition, the government of Bangladesh adopted several policies like incorporating the Code of Corporate Governance 2018, revised Income Tax Act 2023, etc., that induce the business organization to provide more private information to the investors. This extra information will minimize the information asymmetry between the business and its current and prospective investors. Therefore, the companies having more information bring more investment. Moreover, this empirical study opens the doors of several research opportunities. Firstly, this empirical study is limited to the transitional economy since all the samples are taken from Bangladesh. However, the magnitude of voluntary disclosure is not the same and consistent across the boundaries of a country. In addition, the study analyzes the quantitative aspects of corporate voluntary disclosures; a qualitative study may provide a deeper understanding of the relevant literature. Finally, in this study, annual reports are considered as the source of measuring voluntary disclosure. Some other sources of voluntary disclosures, such as websites, sustainability reporting, or integrated reporting, may provide more rigorous voluntary information.

## AUTHOR CONTRIBUTIONS

Conceptualization: Mofijul Hoq Masum.

Data curation: Mofijul Hoq Masum.

Formal analysis: Mofijul Hoq Masum, Sarkar James Bakul.

Funding acquisition: Sarkar James Bakul, Hassan Nazmul.

Investigation: Mofijul Hoq Masum.

Methodology: Mofijul Hoq Masum.

Project administration: Mofijul Hoq Masum, Sarkar James Bakul.

Resources: Mofijul Hoq Masum, Sarkar James Bakul.

Supervision: Mofijul Hoq Masum, Sarkar James Bakul.

Validation: Hassan Nazmul.

Visualization: Hassan Nazmul.

Writing – original draft: Mofijul Hoq Masum, Sarkar James Bakul.

Writing – review & editing: Hassan Nazmul.

## ACKNOWLEDGMENT

The authors are very thankful to the Institute of Advanced Research, United International University, Bangladesh, for providing partial funds to complete this empirical study.

This project is partially funded by the Institute for Advanced Research Publication Grant of United International University, Ref. No.: IAR-2024-Pub-069.

## REFERENCES

1. Ahmed, U., Khalid, N., Ahmed, A., & Shah, M. H. (2017). Assessing moderation of employee engagement on the relationship between work discretion, job clarity and business performance in the banking sector of Pakistan. *Asian Economic and Financial Review*, 7(12), 1197-1210. <https://doi.org/10.18488/journal.aefr.2017.712.1197.1210>
2. Akerlof, G. A. (1970). The market for "lemons": Quality and the market mechanism. *Journal Economics*, 84(3), 488-500. <https://doi.org/10.2307/1879431>
3. Al-Dmour, A., Abbod, M., & Al-Balqa, N. (2018). The impact of the quality of financial reporting on non-financial business performance and the role of organizations demographic' attributes (type, size and experience). *Academy of Strategic Management Journal*, 22(1), 1-18. Retrieved from <https://bura.brunel.ac.uk/bitstream/2438/15768/1/Fulltext.pdf>
4. Allegrini, M., & Greco, G. (2013). Corporate boards, audit committees and voluntary disclosure: Evidence from Italian listed com-

- panies. *Journal of Management & Governance*, 17(1), 187-216. <https://doi.org/10.1007/s10997-011-9168-3>
5. Alnabsha, A., Abdou, H. A., Ntim, C. G., & Elamer, A. A. (2018). Corporate boards, ownership structures and corporate disclosures: Evidence from a developing country. *Journal of Applied Accounting Research*, 19(1), 20-41. <https://doi.org/10.1108/JAAR-01-2016-0001>
  6. Aras, G., Aybars, A., & Kutlu, O. (2010). Managing corporate performance: Investigating the relationship between corporate social responsibility and financial performance in emerging markets. *International Journal of Productivity and Performance Management*, 59(3), 229-254. <https://doi.org/10.1108/17410401011023573>
  7. Belal, A. R. (2000). Environmental reporting in developing countries: Empirical evidence from Bangladesh. *Eco-Management and Auditing: The Journal of Corporate Environmental Management*, 7(3), 114-121. [https://doi.org/10.1002/1099-0925\(200009\)7:3%3C114::AID-EMA131%3E3.0.CO;2-E](https://doi.org/10.1002/1099-0925(200009)7:3%3C114::AID-EMA131%3E3.0.CO;2-E)
  8. Belal, A. R., Cooper, S. M., & Roberts, R. W. (2013). Vulnerable and exploitable: The need for organisational accountability and transparency in emerging and less developed economies. *Accounting Forum*, 37(2), 81-91. <https://doi.org/10.1016/j.accfor.2013.04.001>
  9. Boesso, G., & Kumar, K. (2007). Drivers of corporate voluntary disclosure: A framework and empirical evidence from Italy and the United States. *Accounting, Auditing & Accountability Journal*, 20(2), 269-296. <https://doi.org/10.1108/09513570710741028>
  10. Botosan, C. A., & Plumlee, M. A. (2002). A re-examination of disclosure level and the expected cost of equity capital. *Journal of Accounting Research*, 40(1), 21-40. <https://doi.org/10.1111/1475-679X.00037>
  11. Choi, J.-S., Kwak, Y.-M., & Choe, C. (2010). Corporate social responsibility and corporate financial performance: Evidence from Korea. *Australian Journal of Management*, 35(3), 291-311. <https://doi.org/10.1177/0312896210384681>
  12. Clarkson, P. M., Fang, X., Li, Y., & Richardson, G. (2013). The relevance of environmental disclosures: Are such disclosures incrementally informative? *Journal of Accounting and Public Policy*, 32(5), 410-431. <https://doi.org/10.1016/j.jaccpubpol.2013.06.008>
  13. Cotter, J., Lokman, N., & Najah, M. M. (2011). Voluntary disclosure research: Which theory is relevant? *The Journal of Theoretical Accounting Research*, 6(2), 77-95. <https://dx.doi.org/10.2139/ssrn.3470466>
  14. Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, 42(6), 674-686. <https://doi.org/10.2307/256988>
  15. Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 59-100. <https://doi.org/10.2308/accr.00000005>
  16. Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance*, 46(4), 1325-1359. <https://doi.org/10.1111/j.1540-6261.1991.tb04620.x>
  17. Elfeky, M. I. (2017). The extent of voluntary disclosure and its determinants in emerging markets: Evidence from Egypt. *The Journal of Finance and Data Science*, 3(1-4), 45-59. <https://doi.org/10.1016/j.jfds.2017.09.005>
  18. Fauzi, F., & Locke, S. (2012). Board structure, ownership structure and firm performance: A study of New Zealand listed-firms. *Asian Academy of Management Journal of Accounting and Finance (AAMJAF)*, 8(2), 43-67. Retrieved from [https://ideas.repec.org/a/usm/journal/aamjaf00802\\_43-67.html](https://ideas.repec.org/a/usm/journal/aamjaf00802_43-67.html)
  19. Gakhar, D. V. (2012). Perception of stakeholders on web-based corporate reporting practices. *Journal of Advances in Management Research*, 9(1), 64-76. <https://doi.org/10.1108/09727981211225653>
  20. Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: Empirical evidence from Germany. *Review of Managerial Science*, 5(2-3), 233-262. <https://doi.org/10.1007/s11846-010-0052-3>
  21. García-Meca, E., & Sánchez-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>
  22. Gray, R., Javad, M., Power, D. M., & Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: A research note and extension. *Journal of Business Finance & Accounting*, 28(3-4), 327-356. <https://doi.org/10.1111/1468-5957.00376>
  23. Gray, R., Owen, D., & Adams, C. (1996). *Accounting & accountability: Changes and challenges in corporate social and environmental reporting*. Prentice Hall.
  24. Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal*, 9(1), 77-108. <https://doi.org/10.1108/09513579610109987>
  25. Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, 24(5), 391-430. <https://doi.org/10.1016/j.jaccpubpol.2005.06.001>
  26. Ho, P.-L., & Taylor, G. (2013). Corporate governance and different types of voluntary disclosure: Evidence from Malaysian listed firms. *Pacific Accounting Review*, 25(1), 4-29. <https://doi.org/10.1108/01140581311318940>
  27. Ho, S. S., & Wong, K. S. (2001). A study of the relationship 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](https://doi.org/10.1016/S1061-9518(01)00041-6)
28. Hossain, M., & Hammami, H. (2009). Voluntary disclosure in the annual reports of an emerging country: The case of Qatar. *Advances in Accounting*, 25(2), 255-265. <https://doi.org/10.1016/j.adiac.2009.08.002>
  29. Inchausti, B. G. (1997). The influence of company characteristics and accounting regulation on information disclosed by Spanish firms. *European Accounting Review*, 6(1), 45-68. <https://doi.org/10.1080/096381897336863>
  30. Islam, M. A., & Deegan, C. (2008). Motivations for an organisation within a developing country to report social responsibility information: Evidence from Bangladesh. *Accounting, Auditing & Accountability Journal*, 21(6), 850-874. <https://doi.org/10.1108/09513570810893272>
  31. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
  32. Kamel, H., & Awadallah, E. (2017). The extent of voluntary corporate disclosure in the Egyptian stock exchange: Its determinants and consequences. *Journal of Accounting in Emerging Economies*, 7(2), 266-291. <https://doi.org/10.1108/JAEE-05-2015-0037>
  33. Kolsi, M. C. (2017). The determinants of corporate voluntary disclosure policy: Evidence from the Abu Dhabi Securities Exchange (ADX). *Journal of Accounting in Emerging Economies*, 7(2), 249-265. <https://doi.org/10.1108/JAEE-12-2015-0089>
  34. Masum, M. H., Alam, M. F., & Alam, M. S. (2024). Effect of board and ownership attributes on corporate performance in transition economy. *Cogent Business & Management*, 11(1), Article 2369708. <https://doi.org/10.1080/23311975.2024.2369708>
  35. Masum, M. H., Latiff, A. R. A., & Osman, M. N. H. (2020). Ownership structure and corporate voluntary disclosures in transition economy. *The Journal of Asian Finance, Economics and Business (JAFEB)*, 7(10), 601-611. <https://doi.org/10.13106/jafeb.2020.vol7.no10.601>
  36. Masum, M. H., Latiff, A. R. A., & Osman, M. N. H. (2021). Determinants of corporate voluntary disclosure in a transition economy. *Problems and Perspectives in Management*, 18(4), 130-141. [https://doi.org/10.21511/ppm.18\(4\).2020.12](https://doi.org/10.21511/ppm.18(4).2020.12)
  37. McNally, G. M., Eng, L. H., & Hasedine, C. R. (1982). Corporate financial reporting in New Zealand: An analysis of user preferences, corporate characteristics and disclosure practices for discretionary information. *Accounting and Business Research*, 13(49), 11-20. <https://doi.org/10.1080/00014788.1982.9729725>
  38. Md Zaini, S., Samkin, G., Sharma, U., & Davey, H. (2018). Voluntary disclosure in emerging countries: A literature review. *Journal of Accounting in Emerging Economies*, 8(1), 29-65. <https://doi.org/10.1108/JAEE-08-2016-0069>
  39. Meek, G. K., Roberts, C. B., & Gray, S. J. (1995). Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations. *Journal of International Business Studies*, 26(3), 555-572. <https://doi.org/10.1057/palgrave.jibs.8490186>
  40. Muttakin, M. B., Khan, A., & Subramaniam, N. (2015). Firm characteristics, board diversity and corporate social responsibility: Evidence from Bangladesh. *Pacific Accounting Review*, 27(3), 353-372. <https://doi.org/10.1108/PAR-01-2013-0007>
  41. Nguyen, T. M. H., Nguyen, N. T., & Nguyen, H. T. (2020). Factors affecting voluntary information disclosure on annual reports: Listed companies in Ho Chi Minh city stock exchange. *The Journal of Asian Finance, Economics, and Business*, 7(3), 53-62. <https://doi.org/10.13106/jafeb.2020.vol7.no3.53>
  42. Orlitzky, M. (2001). Does firm size comfound the relationship between corporate social performance and firm financial performance? *Journal of Business Ethics*, 33(2), 167-180. <https://doi.org/10.1023/A:1017516826427>
  43. Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403-441. <https://doi.org/10.1177/0170840603024003910>
  44. Patelli, L., & Prencipe, A. (2007). The relationship between voluntary disclosure and independent directors in the presence of a dominant shareholder. *European Accounting Review*, 16(1), 5-33. <https://doi.org/10.1080/09638180701265820>
  45. Plumlee, M., Brown, D., Hayes, R. M., & Marshall, R. S. (2015). Voluntary environmental disclosure quality and firm value: Further evidence. *Journal of Accounting and Public Policy*, 34(4), 336-361. <https://doi.org/10.1016/j.jaccpubpol.2015.04.004>
  46. Qiu, Y., Shaukat, A., & Tharyan, R. (2016). Environmental and social disclosures: Link with corporate financial performance. *The British Accounting Review*, 48(1), 102-116. <https://doi.org/10.1016/j.bar.2014.10.007>
  47. Qu, W., Leung, P., & Cooper, B. (2013). A study of voluntary disclosure of listed Chinese firms – A stakeholder perspective. *Managerial Auditing Journal*, 28(3), 261-294. <https://doi.org/10.1108/02686901311304376>
  48. Rahman Belal, A., Rezaul Kabir, M., Cooper, S., Dey, P., Ahmed Khan, N., Rahman, T., & Ali, M. (2010). Corporate environmental and climate change disclosures: Empirical evidence from Bangladesh. In M. Tsamenyi & S. Uddin (Eds.), *Research in Accounting in Emerging Economies* (pp. 145-167). Leeds: Emerald Group Publishing Limited. [https://doi.org/10.1108/S1479-3563\(2010\)0000010011](https://doi.org/10.1108/S1479-3563(2010)0000010011)
  49. Raza, A., Ilyas, M. I., Rauf, R., & Qamar, R. (2012). Relationship between corporate social responsibility (CSR) and corporate financial

- performance (CFP): Literature review approach. *Elixir Financial Management*, 46(9), 8404-8409.
50. Rezaee, Z., & Tuo, L. (2017). Voluntary disclosure of non-financial information and its association with sustainability performance. *Advances in Accounting*, 39, 47-59. <https://doi.org/10.1016/j.adiac.2017.08.001>
  51. Ronen, J., & Yaari, V. (1993). The disclosure policy of the firm in an efficient market. *Review of Quantitative Finance and Accounting*, 3, 311-324. <https://doi.org/10.1007/BF02406994>
  52. Sahasranamam, S., Arya, B., & Sud, M. (2019). Ownership structure and corporate social responsibility in an emerging market. *Asia Pacific Journal of Management*, 37, 1165-1192. <https://doi.org/10.1007/s10490-019-09649-1>
  53. Saleh, M., Zulkifli, N., & Muhamad, R. (2010). Corporate social responsibility disclosure and its relation on institutional ownership: Evidence from public listed companies in Malaysia. *Managerial Auditing Journal*, 25(6), 591-613. <https://doi.org/10.1108/02686901011054881>
  54. Sarhan, A. A., & Ntim, C. G. (2019). Corporate boards, shareholding structures and voluntary disclosure in emerging MENA economies. *Journal of Accounting in Emerging Economies*, 9(1), 2-27. <https://doi.org/10.1108/JAEE-03-2017-0033>
  55. Sarhan, A. A., Ntim, C. G., & Al-Najjar, B. (2019). Board diversity, corporate governance, corporate performance, and executive pay. *International Journal of Finance & Economics*, 24(2), 761-786. <https://doi.org/10.1002/ijfe.1690>
  56. Shroff, N., Sun, A., White, H., & Zhang, W. (2013). Voluntary disclosure and information asymmetry: Evidence from the 2005 securities offering reform. *Journal of Accounting Research*, 51(5), 1299-1345. <https://doi.org/10.1111/1475-679X.12022>
  57. Shukla, A., & Gekara, M. G. (2010). Effects of multinational mergers and acquisitions on shareholders' wealth and corporate performance. *The IUP Journal of Accounting Research & Audit Practices*, 9(1&2), 44-62. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1597132](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1597132)
  58. Singhvi, S. S., & Desai, H. B. (1971). An empirical analysis of the quality of corporate financial disclosure. *The Accounting Review*, 46(1), 129-138. Retrieved from <https://www.jstor.org/stable/243894>
  59. Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32(1), 38-60. <https://doi.org/10.2307/2491386>
  60. Usenko, L., & Zenkina, I. (2016). Modern trends and issues of corporate reporting data disclosure on organization activities. *Mediterranean Journal of Social Sciences*, 7(3), 212-212. <http://dx.doi.org/10.5901/mjss.2016.v7n3p212>
  61. Uyar, A., & Kılıç, M. (2012). Value relevance of voluntary disclosure: Evidence from Turkish firms. *Journal of Intellectual Capital*, 13(3), 363-376. <https://doi.org/10.1108/14691931211248918>
  62. Waddock, S. A., & Graves, S. B. (1997). The corporate social performance-financial performance link. *Strategic Management Journal*, 18(4), 303-319. [https://doi.org/10.1002/\(SICI\)1097-0266\(199704\)18:4%3C303::AID-SMJ869%3E3.0.CO;2-G](https://doi.org/10.1002/(SICI)1097-0266(199704)18:4%3C303::AID-SMJ869%3E3.0.CO;2-G)
  63. Wallace, R. O., & Naser, K. (1995). Firm-specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong. *Journal of Accounting and Public Policy*, 14(4), 311-368. [https://doi.org/10.1016/0278-4254\(95\)00042-9](https://doi.org/10.1016/0278-4254(95)00042-9)
  64. Wallace, R. S., Naser, K., & Mora, A. (1994). The relationship between the comprehensiveness of corporate annual reports and firm characteristics in Spain. *Accounting and Business Research*, 25(97), 41-53. <https://doi.org/10.1080/00014788.1994.9729927>
  65. Wang, K., Sewon, O., & Claiborne, M. C. (2008). Determinants and consequences of voluntary disclosure in an emerging market: Evidence from China. *Journal of International Accounting, Auditing and Taxation*, 17(1), 14-30. <https://doi.org/10.1016/j.intaccud-tax.2008.01.001>
  66. Watts, R. L., & Zimmerman, J. L. (1990). Positive accounting theory: A ten year perspective. *Accounting Review*, 65(1), 131-156. Retrieved from <https://www.jstor.org/stable/247880>

## APPENDIX A

**Table A1.** Robustness test – Corporate voluntary disclosure and corporate performance

Variables	FE with PCSE (ROA)	FE with PCSE (ROE)	FE only (ROA)	FE only (ROE)	Only FE no time effect (ROA)	Only FE no time effect (ROE)
<b>Independent Variables</b>						
Voluntary disclosure	0.0724 (0.0212)**	0.061 (0.0242)**	0.0649 (0.0162)**	0.0549 (0.0092)**	0.0727 (0.0258)**	0.0677 (0.0358)**
<b>Control Variables</b>						
Sales growth	0.0200 (0.0086)***	0.0140 (0.0046)***	0.0056 (0.0039)***	0.0056 (0.0079)***	0.0188 (0.0052)***	0.0188 (0.0352)**
EPS	-0.0404 (0.0386)**	-0.0410 (0.0416)**	-0.0212 (0.0249)**	-0.0112 (0.0349)**	0.0515 (0.0194)**	0.0415 (0.0694)***
Leverage	0.0384 (0.1649)	0.0484 (0.1949)	-0.1937 (0.1446)	-0.2137 (0.1846)	-0.0419 (0.1654)	-0.0319 (0.2154)
Company size	0.4325 (0.3530)	0.2325 (0.4530)	-0.7921 (0.3020)	-0.8121 (0.2920)	0.0405 (0.4742)	0.0305 (0.3942)
Age	0.0166 (0.0447)**	0.0266 (0.0557)*	0.0479 (0.0404)**	0.0499 (0.0484)**	0.2405 (0.0452)**	0.1805 (0.0552)*
Constant	-3.4838 (3.7501)	-4.3788 (2.7501)	7.1119 (2.9860)	6.9119 (2.7850)	-4.3509 (4.6485)	-3.9509 (3.9485)
Adjusted R square	0.6173***	0.5773***	0.7262***	0.6962***	0.3636***	0.3132***
N	368	368	368	368	368	368

Note: \*\*\* significant at 1%, \*\* significant at 5%, \* significant at 10%.