Journal of Management and Economic Studies
2022, Vol.4, No.3, 389-399
http://doi.org/10.26677/TR1010.2022.1095

JOMAES

Dynamic Association Between Board Independence and Firm Profitability: The Moderating Role of Director Ownership

Md Tariqul ISLAM[a], Mollah Aminul ISLAM[b]
[a]Department of Finance and Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh, tariqul@jkkniu.edu.bd https://orcid.org/0000-0003-2800-8090
[b]Department of Accounting and Information Systems, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh, onlinedu@gmail.com https://orcid.org/0000-0003-2162-0375

Abstract
The study investigates the association between board independence, directors' ownership, and organisational profitability. To illustrate the links, the case of listed nonfinancial enterprises on the Dhaka Stock Exchange between 2015 and 2019 is examined. To effectively manage the concern of endogeneity, the generalized method of moments (GMM) is used as the econometric technique in this research. The study reveals that board independence has a negative and significant effect on profitability, however, the effect of directors' shareholdings on the same is positive and significant. Further to this, the study finds that ownership of directors positively moderates the adverse effect of board independence on organisational performance. The outcome of this study suggests that the influence of a certain governance component may behave differently depending on the power of ownership concentration.

Keywords
Board Independence, Directors' Shareholdings, Firm Performance, GMM, Bangladesh

1. INTRODUCTION

The premise of the impact of independent directors (IDs) on business value has received considerable attention lately (Fan et al., 2020). Despite the voluminous studies on outside directors, the link with the profitability of the firms is found to be heterogeneous. Lee et al (2020) contend that the inconclusiveness in the relationship between board independence and performance lies, among others, due to the ownership structure of the firms. Although a plethora of applied studies is conducted on the effect of corporate governance (CG) arrangements (such as the size of the board, directors' independence, and CEO duality) and profitability of firms, literature relating to the mediating or moderating effect of the ownership concentration on the performance is scarce (Guizani, 2013; Kouki and Guizani, 2015). In this vein, Carpenter et al (2004) assert, that empirical studies that overlook intervening effects are not valued by researchers. Therefore, the purpose of this research is to examine the moderating influence of the substantial shareholdings held by the directors. in the vein of independence-performance nexus.

Heugens et al (2009) assert that CG theories aim to demonstrate how directors and/or management influence organizational behaviour and serve as a protection for shareholders seeking a return on their investment. In a similar spirit, agency theory contends that the board should oversee the executives' activities and whether the managers are effectively serving the welfare of the shareowners (Fama and Jensen, 1983). An efficient governance instrument at this point could be to appoint independent directors to boards. Because they may monitor board decisions, outside board members can guarantee that the supreme authority's activities are designed to protect the interests of the shareholders (Khan, 2010; Tauringana and Chithambo,

2015). By questioning a firm's internal choices and upholding the duties imposed on them, these external directors can establish oversight within a business and improve its financial performance (Puni and Anlesinya, 2020; Young, 2000). Stewardship theory rejects the presence of outside directors for monitoring reasons, which is a juxtaposition to the agential approach (Rashid, 2015). One of the main reasons why insiders are preferred over outsiders, according to Fama and Jensen (1983), is due to the fact that the former have easy access to information, which makes them more dominating than the latter. Insiders always look out for the interests of the firm since they are viewed as its custodians (Goel et al., 2022). As a result, inner directors are more capable of making decisions than outside executives (Donaldson and Davis 1991; Nicholson and Kiel 2007), which aids them in effectively carrying out managing obligations (Baysinger and Hoskisson, 1990).

The ownership structure of a company can be a significant factor in CG (Desender, 2009). In order to safeguard their personal financial interests, the majority of investors have a strong motivation to oversee the company's upper leadership, which ultimately lessens agency conflict (Shleifer and Vishny, 1986). Large investors have more access to internal information when they participate in decision-making through their directorship roles, which enables them to make better choices (Singh et al., 2018). Consequently, directors, with their significant shareholdings, are more inclined to formulate strategies that enhance firm performance.

Bangladesh is an interesting case of CG studies since, similar to the other developing countries, it is endowed predominance of shareholders concentration (Islam, 2022). The study finds that IDs negatively affect firm performance. Director ownership, on the other hand, shows a positive correlation with profitability. Additionally, it reports that directors with their major shareholdings moderates the negative impact of board independence. The moderating effect of directors' shareholdings on board independence has received a scant amount of attention in research, which ultimately influences business performance, and thus, is still an under-researched area. This study makes a contribution to the existing body of research in two different ways. *First*, unlike other CG studies in Bangladesh, it analyses the independence-performance nexus with the moderation effect of the shareholding concentration of the directors. *Second*, in so doing, it employs the dynamic panel data estimation technique, which effectively accounts for endogeneity issues that may arise in CG research.

The study's remaining sections are organised as follows: The second section delineates the literature review and hypothesis development; the third section details the methodology used; the fourth section outlines the results of key empirical analysis; the fifth section outlines model sensitivity and robustness checks; finally, the sixth section concludes the study with direction for future research.

2. LITERATURE REVIEW

The CG codes of Bangladesh identify ID as a non-executive director who does not have any financial ties to the firm. Additionally, their family members as a director are entitled to hold at most one per cent of the entire paid-up capital of a firm. However, a cultural trait observed in emerging economies suggests notwithstanding the fact that their close contact with in-house directors may limit disagreement in decision-making if the outsiders hold prior relationship (Singh et al., 2018). Agency theory and stewardship theory, two schools of thought in CG research, hold opposing opinions on the issue of whether board independence, as measured as a proportion of independence, affects business performance. According to agency theory, external independent directors can perform critical oversight duties toward resolving management-shareholder agency disagreements (Bathala and Rao, 1995). Moreover, as a member of the board, independent directors can operate as dependable and impartial agents for the parties that rely on managerial and directorial decisions. Furthermore, outside directors can monitor board decisions

and actions made by senior officials to put the interests of the shareholders first because they have no financial stake in the firm (Bose et al., 2017; Khan, 2010; Tauringana and Chithambo, 2015). Being outsiders, independent directors have no connection with the internal management of the companies, which motivates them to perform assigned responsibilities and enhance the profitability of firms (Puni and Anlesinya, 2020). Considering the agential perspective, BSEC in Bangladesh also included the condition of incorporating independent members into the board in both the guidelines.

In stark contrast to the agency view, according to Davis et al (1997) and Donaldson and Davis (1991), the stewardship theory posits that the managers (also known as agents) are self-driven and supposed to take actions that best serve the interests of the principals (also known as shareholders). In addition, Davis et al (1997) suggest that the top management and the internal directors would collaborate since they share a common goal. Due to the fact that internal directors spend a great lot of time engaging with the routine tasks of corporations (Donaldson and Davis, 1991, 1994), they are much more knowledgeable about the firms' operations than outside directors (Booth and Deli 1996). Because independent directors lack access to secret information from executive directors, they are unable to adequately perform their monitoring activities (Saravanan et al., 2021). Therefore, it magnifies agency problems, which eventually deteriorates the firm performance (Kyere and Ausloos, 2020).

The research outcomes on the relationship between board independence and firm profitability demonstrate heterogeneous outcomes. Research documents an optimistic link between outsiders' participation as directors and profitability in the advanced (Reguera-Alvarado and Bravo, 2017) as well as the emerging countries (Liu et al., 2015). Another line of study demonstrates an inverse correlation between the ratio of board independence and the business performance of Indian firms (Mishra, 2020) and of Australian firms (Shan, 2019). Notwithstanding, depending on the familial relationships in Bangladesh (Rashid, 2018), where family and business networks prevail, most board members are appointed rather than elected (Uddin and Choudhury, 2008). Even political ties are given preference when it comes to being on the board, particularly for businesses that are supported by the government (Khatun, 2013). Eventually, the existence of independent directors in this situation can only be viewed as ratifying the wishes of the largest shareholders. Based on the review of the literature and the current scenario in Bangladesh, the study postulates that:

Hypothesis 1: There exists a negative relationship between the ratio of board independence and organisational profitability.

Kao et al (2019) claim that the degree of ownership concentration is a critical component in determining the standard of CG. The multiplicity of a company's ownership can affect the effectiveness of CG as a controlling device (Cho and Kim, 2007); hence, the ownership structure is an essential aspect of CG study (Shleifer & Vishny, 1986). Managerial ownership is viewed as one of the prime internal governance mechanisms that can alleviate the conflict of interest between management and shareholders (Jensen and Meckling, 1976). Directorial stake in the total shareholdings accounts for a majority of the shareholdings, which is termed ownership concentration. Concentrated ownership, according to Burkart et al (2003), may encourage self-interested behaviour at the cost of minority investors. Large shareholders, however, should have the ability and incentive to monitor corporate management (Darko et al., 2016). Moreover, companies with concentrated ownership have fewer shareholders, which eventually minimises agency costs (Al-Najjar and Abed, 2014). Darko et al (2016) for the Ghanaian companies report that the organisational profitability is positively correlated with stock concentrated ownership. Rashid (2020) in another study reports that director shareholdings significantly and positively

affect both ROA (accounting measure) and Tobin's Q (market measure). Considering the review of the literature, the study conjectures that:

Hypothesis 2: There exists a positive relationship between the proportion of director shareholdings and organisational profitability.

Singh et al (2018) contend that shareholdings with the hands of a few could control the governance metrics, such as board independence among others, through its resource provisioning and board monitoring functions. According to the agency theory, directors can also be seen as effective watchdogs of managerial operations due to their substantial shareholdings' potential for increased rewards (Shleifer and Vishny, 1986). Following this, it has been noticed that these businesses are extremely careful in their decision-making because of the large investments made on the part of inside directors. Additionally, the combination of management and the owner may lessen managerial opportunism (Demsetz and Lehn, 1985), which in turn may lessen the negative effects of board independence and moderate this connection favourably. Therefore, the study further assumes that:

Hypothesis 3: The proportion of directors' ownership positively moderates the tie between the ratio of board independence and organisational profitability.

3.METHODOLOGY

3.1. Data

All of the firms in the sample are publicly traded on Bangladesh's premier stock market, the Dhaka Stock Exchange (DSE), between the years 2015 and 2019. Data of 173 firms about company boards, ownership structures, and accounting information, among other things, are extracted from annual reports. The DSE Monthly Review is the source of information on market capitalization and directorships as of the end of the year, while the DataStream database is used for daily stock price information.

3.2.Variables

3.2.1 Predictor Variable

An accounting performance metric, Return on assets (ROA), serves as a predictor of the study. There are various methods, like Tobin's Q, to gauge a company's success on the market. However, accounting measures, particularly ROA, are preferred to Tobin's Q as a measure of firm performance because agency theory suggests that managers spend more of the shareholders' money, which may affect the level of accounting profit in an organization. Therefore, ROA is used as the performance metric for this study in line with Mishra (2020) and Shan (2019). Earnings before interest and taxes (EBIT) are divided by the balance sheet figure of total assets to get the return on assets (ROA).

3.2.2 Independent Variables

To test the hypotheses outlined above, the proportion of independent board members is the main variable of interest. Board independence indicated as *BoardIND*, is the number of outside independent members who hold directorial positions in the board scaled by the total number of directors (Liu et al., 2015). The second explanatory variable of the study is directors' shareholding, denoted as *DirShare*, which is calculated as the number of shares owned by the directors of a company scaled by the total number of shares outstanding (Kanakriyah, 2021; Shukeri et al., 2012).

3.2.3 Control Variables

Several other predictors (also known as control variables) that impact corporate profitability have also been well-documented in CG studies. Following prior studies on CG research (Mishra, 2020; Muttakin et al., 2015; Pillai and Al-Malkawi, 2018; Rashid, 2018), the study includes FirmSize (natural logarithm of total assets), Leverage (total amount of debt divided by the book value of total assets), FirmAge (natural logarithm of the number of years since the firm is listed on the stock exchange), and Volatility (daily stock price volatility) as control variables. Lastly, industry and year covariates are incorporated into the models to account for the industry- and company-specific influences on profitability.

3.3. Econometric Model

According to studies (such as Islam, 2020; Wintoki et al., 2012), the nexus between the governance components and firm profitability is dynamic. It implies, past performance as well as board, ownership, and corporate characteristics influence the profitability of the current year. This supports the assertion made by Blundell and Bond (1998) and Arellano and Bond (1991) that explanatory factors are not entirely independent of the dependent variable's historical value. To test the aforementioned hypotheses, the following empirical models have been developed:

$$ROA_{it} = \alpha + \delta ROA_{it-1} + \beta_1 DirShare + \beta_2 BoardIND + \beta_4 CEOdual + \beta_5 BoardSize + \beta_6 FirmAge + \beta_7 FirmSize + \beta_8 FiAGE + \beta_9 Leverage + \beta_{10} Volatility + year\ dummies + industry\ dummies + \eta_i + \nu_{it} \quad (1)$$

$$ROA_{it} = \alpha + \delta ROA_{it-1} + \beta_1 DirShare + \beta_2 BoardIND + \beta_4 DirShare*BoardIND + \beta_4 CEOdual + \beta_5 BoardSize + \beta_6 FirmAge + \beta_7 FirmSize + \beta_8 FiAGE + \beta_9 Leverage + \beta_{10} Volatility + year\ dummies + industry\ dummies + \eta_i + \nu_{it} \quad (2)$$

3.4. Study Methodology

This study employs the Generalised Method of Moments (GMM), a dynamic panel estimate method, to examine the relationship between CG practices and organisational performance. This econometric technique tackles the challenges emerging from any possible link between current and prior year CG practices and company performance. To eliminate the issue of static estimation, GMM employs lagged dependent variables as regressors. OLS and fixed effects have long been used to quantify performance in CG research. OLS is incapable of addressing any endogeneity variations (Schultz, et al., 2010). In addition, the coefficient of the lagged dependent variable is negatively skewed in fixed effect models due to their inability to account for all kinds of endogeneity (Hillier et al., 2011).

Utilizing instruments, the two-stage least square approach is a popular estimate methodology that addresses endogeneity. Nonetheless, it is extremely difficult, if not impossible, to locate applicable instruments for many variables. In the area of CG research, there remains a limited number of available instruments (Nguyen et al., 2014). In this line, Roodman (2009) demonstrates that GMM is effective when it is challenging to locate external instruments to address endogeneity. In addition, Schultz et al (2010) argue that the GMM estimator effectively controls the significant categories of endogeneity. It also successfully handles heteroscedasticity and autocorrelation (Singh et al., 2018), whereas typical error computations may have a downward bias (Roodman, 2009). In the equations, the 'small' sub-option of Windmeijer (2005) is used to adjust for the finite sample covariance matrix in order to account for any potential downward bias.

Two post-estimation tests, including the second-order autocorrelation, AR (2), and the Hansen J statistic of over-identifying restrictions, are performed after the regression is estimated using GMM. All of the test findings suggest that the models are generally accurate.

4. RESULTS AND DISCUSSION

4.1. Correlation Matrix

Pearson's pairwise correlation coefficient is presented in Table 1. From the table, it is found that BoardIND is positively and significantly related to DirShare and FirmSize, while it is negatively associated with CEODual, BoardSize, Leverage and Volatility. DirShare has a negative significant association with FirmAge and Leverage. It indicates that a larger proportion of independent directors can effectively minimise the dominance of dual leadership roles and can lessen the level of stock return volatility and debt burden. Moreover, outside directors dominate firms with higher directors' shareholdings. Moreover, Variance Inflation Factor (VIF) was also calculated as an alternative measure of multicollinearity. From the table, it is seen that the VIFs for explanatory variables span between 1.04 and 1.52. In order to avoid multicollinearity, according to Gujarati (2003), the VIF values should not exceed 10. Therefore, it can be argued that there is no concern about severe multicollinearity problems for the models.

Table 1. Pearson's Correlation Matrix

Variables	DirShare	BoardIND	CEOdual	BoardSize	FirmAge	FirmSize	Leverage	Volatility
DirShare	1.000							
BoardIND	0.139***	1.000						
CEODual	-0.041	-0.103***	1.000					
BoardSize	0.001	-0.183***	-0.033	1.000				
FirmAge	-0.159***	0.014	0.100***	-0.005	1.000			
FirmSize	0.003	-0.030***	-0.064**	0.289***	-0.297***	1.000		
Leverage	-0.047*	-0.137***	0.032	0.021	0.242***	-0.116***	1.000	
Volatility	-0.033	-0.278***	0.123***	-0.146***	0.142***	-0.4818***	0.1968***	1.000
VIF	1.06	1.20	1.04	1.17	1.22	1.52	1.11	1.45

4.2 Multiple Regression Results

Table 2 displays regression results using fixed effect and GMM estimation for two models, first without interaction effect and the other with it. For GMM models, 1-year lagging company performance is found to have a positive and statistically significant connection, suggesting that last year's profitability has a considerable effect on the current year's profitability.

BoardIND was significantly associated with ROA at $p<0.05$ across all the models, demonstrating a negative effect. This outcome is at par with the earlier research of Fan et al. (2020) and Goel et al. (2022) who tested a similar connection and reported that the ratio of board independence had a negative influence on organisational performance. The outcome thus supports the stewardship

view that inside directors perform better than outsiders in attaining firm profitability. They claim that an unqualified outside director is one of the plausible reasons that thwart the benefits of board monitoring. It indicates that the dominance of large shareholders and with less stringent professional qualifications required for the IDs decrease firm profitability in Bangladesh. Therefore, hypothesis 1 relating to *BoardIND* is supported.

On the contrary, *DirShare* was found significantly positive with respect to the profitability of the firms at $p<0.01$ for all the models. Therefore, the outcome of this research is consistent with the verdicts of Darko et al (2016) for the corporate firms of Ghana that directorial ownership positively affects organisational performance. Thus, hypothesis 2 is supported.

In a study on listed companies on the bourse of Hong Kong, Cheng et al (2012) claim that the moderating role of higher ownership concentration and board independence jointly influence ROA positively, although the impact of *BoardIND* solely demonstrated a negative association with profitability. Therefore, this moderation effect offsets the negative impact of the outside directors and the joint effect of both becomes positive. This finding is similar to the claim of Singh et al. (2018), who found the same for another developing nation.

Table 2. Regression Results

Variables	Fixed Effect		GMM	
	(1)	(2)	(3)	(4)
DirShare	0.121***	0.071***	0.058***	0.047***
	(3.34)	(4.15)	(9.038)	(5.575)
BoardIND	0.022**	-0.087***	-0.048***	-0.072***
	(2.47)	(-2.66)	(-3.669)	(-3.587)
DirShare*BoardIND		0.041***		0.092**
		(3.89)		(2.465)
CEODual	-0.021***	-0.018***	-0.006**	-0.005*
	(-4.10)	(-3.44)	(-2.239)	(-1.880)
BoardSize	0.030	0.004	0.020***	0.021***
	(1.58)	(1.32)	(3.973)	(4.732)
FirmAge	0.004**	0.003	0.001	0.002
	(2.16)	(0.53)	(0.715)	(1.214)
FirmSize	0.008***	0.008***	-0.000	-0.001
	(3.86)	(5.61)	(-0.273)	(-0.689)
Leverage	-0.070***	-0.072***	-0.019***	-0.021***
	(-3.09)	(-12.65)	(-4.270)	(-5.359)
Volatility	0.001**	-0.018**	-0.021***	-0.020***
	(2.10)	(-2.49)	(-3.773)	(-3.940)
L.ROA			0.727***	0.728***
			(39.605)	(38.670)
Specification tests				
AR (2)			0.150	0.144
Hansen test (*p-value*)			0.121	0.209

4.3.Sensitivity Analysis and Robustness Checks

A couple of other tests are conducted to investigate the impact of the explanatory power of the explanatory variables. *First,* an OLS estimation was conducted to validate the test results of the base models. The results for independent directors, directors' ownership, and the moderation effect between these two were qualitatively and quantitatively similar. *Second,* this study further

estimates the initial outcomes by employing an alternative proxy of board independence. In this instance, the number of independent directors. The results reported in this case are identical to the prior models that used proportionate independent directors both in terms of magnitude and level of significance.

5. CONCLUSION

The research adds to the limited body of work on the moderating effect of the ratio of outside independent directors and ownership of directors, particularly in a context of a developing economy. Moreover, only a handful of studies use the GMM estimation to address the moderation agenda on firm profitability. Therefore, the results of this study can be used as a template for other emerging markets with similar institutional dynamics.

This research investigates the directors' independence, director ownership and organisational profitability as measured by ROA. In finding this association, the study employs both static and dynamic estimation. It finds that outside directors had an adverse impact on ROA, which is congruous to the assumptions of stewardship theory and supports the hypothesis. This outcome of the research implies that inside directors are more capable of contributing to the performance of the companies than the companies having more outside independent directors. Moreover, appointing IDs based on familial relationships, and in some instances, political considerations may jeopardise companies' goals. Therefore, appointing board members who are not connected to family might work as a panacea in this case (Islam et al., 2022). The study additionally reports that directorial ownership positively and significantly affects firms' profitability. Further to this, the interaction effect board independence and directors' shareholdings positively and significantly affect firm performance. It indicates that the negative effect of outside directors can be moderated positively by directorial ownership. Supplementary consideration should also be given to measuring the moderating influence of ownership concentration and other CG characteristics, such as board size, CEO duality, and audit quality, on other company outcomes, such as firm value and firm risk.

REFERENCES

Al-Najjar, B., & Abed, S. (2014). The association between disclosure of forward-looking information and corporate governance mechanisms: Evidence from the UK before the financial crisis period. *Managerial Auditing Journal*.

Arellano, M., & S.R. Bond (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations, *Review of Economic Studies*, 58, 277–297.

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87, 115–143.

Booth, J., & Deli, D. (1996). Factors affecting the number of outside directorships held by CEOs. *Journal of Financial Economics, 40*(1), 81–104.

Burkart, M., Panunzi, F., & Shleifer, A. (2003). Family firms. *Journal of Finance*, 58, 2167–2210.

Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, *30*(6), 749-778.

Cheng, P., Su, L., & Zhu, X. (2012). Managerial ownership, board monitoring and firm performance in a family-concentrated corporate environment. *Accounting & Finance*, *52*(4), 1061-1081.

Cho, D.-S., & Kim, J. (2007). Outside directors, ownership structure and firm profitability in Korea. *Corporate Governance: An International Review*, *15*(2), 239-250.

Darko, J., Aribi, Z. A., & Uzonwanne, G. C. (2016). Corporate governance: the impact of director and board structure, ownership structure and corporate control on the performance of listed companies on the Ghana stock exchange. *Corporate Governance*.

Davis, J.H., Schooram, F.D., & Donaldson, L. (1997). Towards a stewardship theory of management. *Academy of Management Review*, *22*(1), 20–47.

Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: causes and consequences. *Journal of Political Economy*, 93(6) 1155-1177.

Desender, K. A. (2009). The relationship between the ownership structure and board effectiveness. *University of Illinois at Urbana-Champaign, College of Business Working Papers*, 09-0105.

Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, *16*(1), 49-65.

Donaldson, L., & Davis, J. H. (1994). Boards and company performance—Research challenges the conventional wisdom. *Corporate Governance*, *2*(3), 151–160.

Fan, Y., Jiang, Y., Kao, M. F., & Liu, F. H. (2020). Board independence and firm value: A quasi-natural experiment using Taiwanese data. *Journal of Empirical Finance*, *57*, 71-88.

Fama, E. F., & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26, 301-325.

Goel, A., Dhiman, R., Rana, S., & Srivastava, V. (2022). Board composition and firm performance: empirical evidence from Indian companies. *Asia-Pacific Journal of Business Administration*.

Guizani, M. (2013). The moderating effect of large shareholders on board structure− firm performance relationship: an agency perspective. *Journal of Poverty, Investment and Development*, *2*, 64-73.

Heugens, P., van Essen, M., & van Oosterhout, J. (2009). Meta-analyzing ownership concentration and firm performance in Asia: Towards a more fine-grained understanding. *Asia Pacific Journal of Management*, 26(3), 481–512.

Hillier, D., Pindado, J., de Queiroz, V., & de la Torre, C. (2011). The impact of country-level corporate governance on research and development. *Journal of International Business Studies*, 42, 76–98.

Islam, M. T. (2022). Do Family Firms Outperform Nonfamily Firms: Case of a Developing Country. *International Journal of Management Sciences and Business Research*, *11*(5), 18–27.

Islam, M. T., Rahman, M., & Saha, S. (2022). Reforms of Corporate Governance Codes in Bangladesh: Developments and Future Directions. *Journal of Risk and Financial Management*, *15*(8), 347.

Jensen, M. C., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics,* 3, 305–360.

Kanakriyah, R. (2021). The impact of board of directors' characteristics on firm performance: a case study in Jordan. *The Journal of Asian Finance, Economics and Business*, *8*(3), 341-350.

Kao, M. F., Hodgkinson, L., & Jaafar, A. (2019). Ownership structure, board of directors and firm performance: evidence from Taiwan. *Corporate Governance (Bingley)*, 19(1) 189–216.

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

Khatun, F. (2013). *State of the Governance in the Banking Sector: Dealing with the Recent Shocks,* Available from https://cpd.org.bd/wp-content/uploads/2014/09/FY2013_-State-of-Governance-in-the-Banking-Sector-Dealing-with-the-Recent-Shocks.pdf [accessed 26 November 2018].

Kouki, M., & Guizani, M. (2015). Outside directors and firm performance: The moderating effects of ownership and board leadership structure. *International Business Research*, *8*(6), 104.

Kyere, M., & Ausloos, M. (2021). Corporate governance and firms' financial performance in the United Kingdom, *International Journal of Finance and Economics*, 26(2), 1871-1885.

Lee, C.C., Chen, M.P., & Ning, S.L. (2017). Why did some firms perform better in the global financial crisis? *Economic Research [Ekonomska Istra_zivanja]*, 30(1), 1339-1366.

Liu, Y., Miletkov, M. K., Wei, Z., and Yang, T. (2015) Board independence and firm performance in China. *Journal of Corporate Finance,* 30, 223-244.

Mishra, S. (2020). Do independent directors improve firm performance? Evidence from India. *Global Business Review*, 0972150920917310.

Muttakin, M. B., Monem, R.M., Khan, A., & Subramaniam, N. (2015). Family firms, firm performance and political connections: Evidence from Bangladesh. *Journal of Contemporary Accounting and Economics*, 11(3), 215–230.

Nguyen, T., Locke, S., & Reddy, K. (2014). A dynamic estimation of governance structures and financial performance for Singaporean companies, *Economic Modelling*, 40, 1–11.

Pillai, R., & Al-Malkawi, N. (2018) On the relationship between corporate governance and firm performance: Evidence from GCC countries. *Research in International Business and Finance,* 44, 394–410.

Puni, A., & Anlesinya, A. (2020). Corporate governance mechanisms and firm performance in a developing country, *International Journal of Law and Management*, 62(2), 147-169.

Rashid, A. (2015) Revisiting agency theory: Evidence of board independence and agency cost from Bangladesh. *Journal of Business Ethics*, 130(1), 181–198.

Rashid, A. (2018) The influence of corporate governance practices on corporate social responsibility reporting. *Social Responsibility Journal*, 14(1), 20-39.

Rashid, M. M. (2020). Ownership structure and firm performance: the mediating role of board characteristics. *Corporate Governance: The International Journal of Business in Society*, *20*(4), 719-737.

Reguera-Alvarado, N., & Bravo, F. (2017). The effect of independent directors' characteristics on firm performance: Tenure and multiple directorships. *Research in International Business and Finance*, *41*, 590-599.

Roodman, D.M. (2009). How to do xtabond2: An introduction to Difference and System GMM in Stata. *The Stata Journal*, 9, 86–136.

Saravanan, P., Thenmozhi, M., & Sasidharan, A. (2021). Are independent directors enhancing value in the post mandate period?: Empirical evidence from India. *Journal of Public Affairs*, e2730.

Schultz, E. L., Tan, D. T., & Walsh, K. D. (2010). Endogeneity and the corporate governance - performance relation. *Australian Journal of Management,* 35(2) 145-163.

Shan, Y. G. (2019). Managerial ownership, board independence and firm performance. *Accounting Research Journal*.

Shleifer, A., & Vishny, R. (1986). Large shareholders and corporate control, *Journal of Political Economy*, 94, 461-488.

Shleifer, A., & Vishny, R.W. (1997). A survey of corporate governance, *The Journal of Finance*, *52*(2), 737-783.

Shukeri, S. N., Shin, O. W., & Shaari, M. S. (2012). Does board of director's characteristics affect firm performance? Evidence from Malaysian public listed companies. *International business research*, *5*(9), 120.

Singh, S., Tabassum, N., Darwish, T. K., & Batsakis, G. (2018). Corporate governance and Tobin's Q as a measure of organizational performance. *British Journal of Management*, 29, 171–190.

Windmeijer, F. (2005). A finite sample correction for the variance of linear efficient two-step GMM estimators. *Journal of Econometrics*, 126, 25–51.

Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics,* 105(3) 581-606.

Young, S. (2000). The Increasing Use of Non-Executive Directors: Its Impact on UK Board Structure and Governance Arrangements. *Journal of Business Finance and Accounting*, 29(9&10) 1311–1342.