



**Does corporate governance structure matter for firm financial performance?
A system GMM panel analysis for Vietnam**

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Abstract

This paper investigates the impact of governance characteristics on financial performance of companies listed on the Ho Chi Minh Stock Exchange. By employing the system generalized method of moments estimator and a panel dataset covering 152 firms over the period from 2011 to 2016, our results indicate that corporate governance characteristics namely the size of board and block-holder ownership, affect the financial performance of Vietnamese firms. Surprisingly, no statistically significant evidence is found concerning the impact of other characteristics such as board gender diversity, CEO duality and non-executive director representation on firm performance.

Keywords: Corporate governance, Firm performance, Board of directors, System GMM

1. Introduction

Corporate governance has been an issue of great interest to academics worldwide, particularly after the collapse of major global corporations and international banks such as WorldCom and Commerce Bank due to weaknesses in corporate governance. The question arises as to whether and by what means corporate governance structures affect firm performance. Among the typical measures of corporate governance, board characteristics and ownership structure are deemed to be the most important.

So far, studies on the impact of board characteristics and ownership structure on firms' financial performance have taken into account factors including board size, CEO duality, female representation on the board, the presence of independent directors, or blockholder

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ownership. For instance, Campbell and Minguez-Vera (2008) and Pham and Hoang (2019) find a significantly positive correlation between the number of female directors on the board and firm performance, while others report a negative relationship (Adams and Ferreira, 2009) or find no evidence for such a relationship. Likewise, empirical works associated with other aspects have yielded mixed results. This study, therefore, seeks to investigate the role of governance structure in boosting the business performance of Vietnamese firms over the period of 2011-2016.

Our notable contributions to the literature are three-fold. First, a new case study like Vietnam for the time being is expected to reinforce the growing literature on the corporate governance–performance nexus. Second, unlike most previous studies for the case of Vietnam with the employment of traditional performance measures based on book values, for example, return on total assets (ROA) in Vo and Phan (2013), or return on equity (ROE) in Doan and Le (2014), this research presents new perspectives on the governance - performance nexus through the use of the market-based indicator - Tobin’s Q as a proxy for performance. An advantage of Tobin’s Q is that it helps to predict the future performance of a firm since this indicator is reflected by the market value of firm’s share, thereby implying a market assessment of the potential profitability of the firm. Last, with reference to the agency theory, we find that block-holder ownership exhibits a positive impact on firm performance, while no effect is found related to board gender diversity, CEO duality and non-executive director presence. This also sheds new light on the literature regarding the link between governance structure and firm performance in emerging market economies.

The remainder of this paper proceeds as follows. Section 2 recaps the theoretical background and empirical literature on the effectiveness of governance characteristics. Section 3 presents data and econometric approach used in this research. Section 4 discusses main findings. Section 5 concludes the paper.

2. Literature review

2.1 Theoretical background

2.1.1 Agency theory

Agency theory is the grounding theoretical perspective in corporate governance studies. According to Daily *et al.* (2003), the dominance of agency theory in governance research could be due to two main reasons. First, it is just a simple theory, in which large corporations are reduced to two participants - managers and shareholders - and the interests of each are assumed to be both clear and consistent. Second, agency theory holds that both groups of participants tend to be self-interested instead of sacrifice individual interests for the interests of others. While shareholders expect managers to act in the best interests of the business, managers might not necessarily make decisions for the goal of shareholder wealth maximization, instead, they can act in their own self-interest. This may lead to the reality that managers would take self-interest, not for the sake of the owner. Since the issue of conflicts of interest is likely to occur in joint stock companies, it might create “agency costs”. Thus,

a key issue posed by agency theory is how to guarantee the interests of a company's owners while reducing agency costs. Hillman and Dalziel (2003) suggest that the board of directors is the key to reconciliation of benefits between shareholders and managers. Accordingly, among the most urgent measures in today's corporate governance is to devise an effective board structure.

2.1.2 Resource dependence theory

As argued by Young *et al.* (2001), resource dependence theory is probably a more appropriate way of explaining board functions in Asian companies. Unlike agency theory, which concerns issues between ownership and management, the focus of resource dependence theory is on enterprises in association with external environments. Encompassing various different resources such as labour, equipment, raw materials and information, external environment plays an important role in decision-making process in an organization. Therefore, the board of directors acts as a bridge between an enterprise and the external environments, thus reducing the uncertainty in operations from external and non-controllable factors. According to Gabrielsson and Huse (2004), resource dependence theory proves rather useful in analyzing board functions.

Eisenhardt (1989) proposes that agency theory only explains part of the "big picture" of a business. In addition, this theory seems insufficient to mirror the reality of corporate governance in all contexts analyzed by differences in corporate characteristics in each country (Young *et al.*, 2008). Based on similar arguments, Hillman and Dalziel (2003) and Nicholson and Kiel (2007) suggest that agency theory should be supplemented by resource dependence theory in corporate governance studies.

In brief, our research model will be developed from the perspective of both agency theory and resource dependence theory, which provide us with a rich source of explanatory variables.

2.2 Empirical evidence

2.2.1 Impact of board diversity on firm performance

So far, there have been numerous studies on the role of women in strengthening firm performance. Empirical results seem inconsistent regarding the relationship between board gender diversity and business performance. Some studies find a positive association between board diversity and performance of firms (Erhardt *et al.*, 2003; Cambell and Minguez-Vera, 2008; Pham and Hoang, 2019), while others conclude that there is a negative link (Adams and Ferreira, 2009; Ahern and Dittmar, 2012; Cao *et al.*, 2017), or even no link (Rose, 2007).

Erhardt *et al.* (2003) conduct a study on the relationship between gender diversity in the boardroom and the performance of 127 major corporations in the US over the period of 1993-1998. By employing two dependent variables, namely return on total assets (ROA) and return on investment (ROI), to measure the performance of firms; the percentage of female directors on board to represent board diversity variable, research results reveal that the proportion of female directors on board appears positively correlated with both financial performance

indicators including ROA and ROI. This stresses that the board diversity has a positive impact on the firms' financial performance.

Campbell and Minguez-Vera (2008) study the relationship between gender diversity on board and the performance of 68 Spanish companies between 1995 and 2000 employing the fixed effect model and two-stage least squares (2SLS) approach to control for endogenous problems. Board diversity variable is measured by the percentage of female directors on board, Shannon index and Blau index, while business performance is proxied by Tobin's Q ratio. Research findings confirm that the board diversity positively affects firm performance; and the causal effects appear negligible.

Recently, in a study conducted on 170 non-financial listed companies in Vietnam over 2010-2015, Pham and Hoang (2019) also confirm that gender diversity measured by the proportion and the number of female directors on board exerts a significantly positive influence on firm performance. Such effects primarily derive from women directors' executive power and management skills rather than their independence status.

On the opposite direction, based on the dataset of major corporations in the US between 1996 and 2003, Adams and Ferreira (2009) find that gender diversity on board tends to strengthen monitoring functions, yet, empirical results point to a negative correlation between the percentage of female directors on board and Tobin's Q index.

Likewise, in a study on 248 enterprises in Norway over the period of 2001-2009, Ahern and Dittmar (2012) conclude that, as the proportion of female directors on board rises by 10%, firms' financial performance, measured by the Tobin's Q index, would be reduced by 12.4%. Cao *et al.* (2017), studying the impact of CEO's characteristics on the performance of 248 public firms in Hanoi and Ho Chi Minh City during 2011-2015, confirm that firms with female CEOs appear to have a markedly lower efficiency than those with male CEOs. Astonishingly, Rose (2007) finds no evidence of the impact of board gender diversity on the performance measured by Tobin's Q of Danish companies.

In addition, Farrell and Herch (2005) suggest that women tend to be appointed to work for firms with higher performance. Specifically, based on a sample of 300 Fortune-500 companies from 1990 to 1999, they reveal that businesses with high level of ROA tend to appoint female directors to the board. If that is the case, board diversity should be treated as an endogenous variable in studies of the relationship between gender diversity and firm performance. There has been much debate in recent research Adams and Ferreira (2009) that gender diversity might only be an endogenous problem, implying that ignorance of the endogenous nature of such relationship may lead to unreliable estimates.

In the case of Vietnam, Nguyen *et al.* (2015) is the first to explore the relationship between board diversity and corporate performance based on a sample of 120 listed enterprises in Vietnam during 2008-2011. Employing the GMM estimation approach to control for potential sources of endogeneity, the results show that there emerges a positive correlation between board diversity and financial performance of firms in Vietnam. By and large, despite the inconclusive

empirical findings, most studies still work on the proposed hypothesis of a positive relationship between female representation on the board and firm financial performance. Thus, in pursuit of prior studies, we propose the first hypothesis as follows:

H1: Board diversity has a positive impact on the financial performance of Vietnamese listed firms.

2.2.2 Impact of board size on firm performance

The positive impact of board size on firm performance has been indicated in numerous studies. For example, Beiner *et al.* (2006) investigate the impact of corporate governance on firm value based on a dataset of 109 businesses in Switzerland, and found a positive relationship between board size and firm value measured by Tobin's Q index. This study also confirms that a large board would be beneficial to the management activities due to the complexity of the business environment as well as the diversity of corporate culture.

Meanwhile, other researchers find a negative relationship between board size and business performance. Based on a large sample of 452 major industrial enterprises in the US between 1984 to 1991 and Tobin's Q index as a measure of firm value, Yermack (1996) indicates that the size of board negatively correlates with the performance of firms, since the increase in the size of boards would create much more agency costs and difficulties in reaching uniform decisions. In addition, on investigating the effect of board size on firm value measured by Tobin's Q in Singapore and Malaysia, Mak and Kusnadi (2005) find an inverse linkage between the number of directors on board and business value. These findings seem in line with those in some other markets, such as the U.S market as in Yermack (1996). Such inverse correlation between the size of board and the performance of firms can be generalized for different corporate governance systems.

Besides the positive and negative relationship, Schultz *et al.* (2010), when examining the relationship between governance characteristics and business performance of firms measured by ASX 200 index during 2000-2007, find a statistically insignificant correlation between board size and firm performance after correcting for endogeneity issues.

In the case of Vietnam, the study of Vo and Phan (2013) on 77 enterprises listed on the Ho Chi Minh Stock Exchange over the 2006-2011 period affirm that there exists an inverse correlation between the size of board and firm value, or in other words, the more directors sitting in the boardroom, the worse the firm value is. Derived from the inconsistency between agency theory and resource dependence theory with regard to the link between board size and firm financial performance as analysed earlier and the findings of Vo and Phan (2013), the second hypothesis is formulated as follows:

H2: Board size has a negative impact on the financial performance of Vietnamese listed firms.

2.2.3 Impact of non-executive directors on firm performance

According to the agency theory, a perfect board should have a higher proportion of non-executive members who are believed to produce outstanding performance thanks to their independence of supervisory activities. Fama and Jensen's (1983) study show that non-executive directors have more motivation to protect the interests of shareholders, because of the importance of protecting reputation as well as their reputation on the external labor market. Nicholson and Kiel (2007) argue that if the supervisory functions of the board are implemented with performance, especially in the financial statements, it would minimize the opportunity for managers to make a profit for themselves at shareholders' costs, thus shareholders' benefits could be guaranteed. Therefore, the agency theory suggests that a higher proportion of non-executive directors would lead to better monitoring by the board.

Besides, the above consideration is consistent with the view of resource dependence theory. Daily *et al.* (2003) argue that non-executive directors provide access to important resources in accordance with business requirements. Thus, a higher proportion of non-executive directors could contribute positively to business performance improvement.

Bhagat and Bolton (2008) conduct a study on the relationship between corporate governance and business performance using two different measures. Correlation between non-executive directors and firm performance are found negative in case of performance measured by ROA, yet insignificant in case of Tobin's Q.

In addition, Kiel and Nicholson (2003) investigate the relationship between board structure and the performance of 348 listed companies in Australia, and demonstrate that the number of non-executive directors on board shows no correlation in case of business performance measured by return on total assets (ROA). Nevertheless, the study finds a positive correlation in case of firm performance measured by Tobin's Q index. Meanwhile, Hermalin and Weisbach (1998) argue that board structure has no impact on the business performance; however, during the research process, they recognize that firm performance is mainly driven by managerial experience, but not by the proportion of non-executive board directors. In line with the above discussion, this study hypothesizes that:

H3: Non-executive directors have no impact on the financial performance of Vietnamese listed firms.

2.2.4 Impact of CEO duality on firm performance

Empirical research on the relationship between CEO duality and business performance yields conflicting results.

Some have pointed out that the relationship tend to be positive. Specifically, Donaldson and Davis (1991) observe 321 companies in the U.S and confirmed that CEO duality helps to improve business performance, accordingly, the benefits for shareholders would increase compared to the separation of board chair and CEO (average increase of 14.5% as measured by ROE). Meanwhile, in the East Asian context, Haniffa and Hudaib (2006) show a significant

negative relationship between duality and business performance measured by ROA, implying that the separation of positions of board chair and CEO could lead to better performance for firms. Nonetheless, the shortcoming of Haniffa and Hudaib (2006) is not considering the endogeneity problems linked with corporate governance characteristics, thus leading to less reliable estimates. It is argued that a high concentration of managerial function and monitoring function in a group of major shareholders (including members who are both board directors and senior executive managers) may pose serious challenges in terms of protecting the interests of other minority shareholders and maintaining an effective monitoring function. In other words, such a board leadership structure may facilitate self-interest behaviour among majority shareholders, which in turn may reduce firm performance as predicted by agency theory.

Despite mixed results on the relationship between duality and business performance, there still remains consensus of policy makers, investors and shareholders that managerial duties should separate from control decisions. In other words, a board chair should not act as the CEO of the company (non-CEO duality). In European countries, more than 84% of companies separate chairman of the board from the CEO (Heidrick and Struggles, 2007). In Vietnam, in accordance with the Clause 3, Article 10 of the Circular No. 121/2012/TT-BTC regulating corporate governance applicable to Vietnamese public companies: “The chairman of the board of management must not concurrently hold the position of chief executive officer (or general director), unless it is annually approved at the annual general meeting of shareholders”.

Based on the above discussion and agency theory perspectives, the fourth hypothesis of this study is as follows:

H4: CEO duality has a negative impact on the financial performance of Vietnamese listed firms.

2.2.5 Impact of block-holder ownership on firm performance

Agency theory suggests that concentration of ownership is one of the important mechanisms for monitoring managerial behaviour. The concentrated ownership by shareholders such as institutional and individual investors, and block-holders helps to mitigate agency problems arising from the separation of ownership and control (Shleifer and Vishny, 1986). Hence, it is argued that the larger the proportion of shares held by block-holders, the stronger the power they will have to make management work for their benefits. Furthermore, holding a large proportion of the company assets provides institutional investors and/or block holders with incentives to monitor managerial behaviour (Haniffa and Hudaib, 2006). Although block-holder ownership is regarded as a mechanism to reduce the conflict between shareholders and management, it may be a potential source of interest conflict between minority and majority shareholders.

However, the empirical evidence on the relationship between concentrated ownership and firm financial performance is unclear and inconclusive. For example, some studies have found no statistically significant relationship between ownership concentration and firm

performance. When testing 511 large enterprises in the US under different forms of ownership structure (including ownership by individual investors, ownership by institutional investors and ownership by top five shareholders), Demsetz and Lehn (1985) conclude that there is no link between ownership structure and business performance. In addition, others found a positive relationship – for instance, Xu and Wang (1999) conduct a study of 300 Chinese listed enterprises during 1993-1995 and find a positive correlation between centralized ownership structure and profitability of the enterprise.

Despite conflicting results as discussed above, the importance of block-holder ownership in improving the financial performance of firms is undeniable. As indicated by Haniffa and Hudaib (2006), possessing a large proportion of the firm assets could provide investors and block-holders with better incentives to monitor managerial behaviours and financial activities. As a result, agency costs could be alleviated. Accordingly, we propose the fifth hypothesis as follows:

H5: Block-holder ownership has a positive impact on the financial performance of Vietnamese listed firms.

3. Research methodology

3.1 Sample and data

Consistent with most of previous studies, financial companies and banks are excluded from our sample since their liquidity and governance are deemed to be affected by different regulatory factors (Mak and Kusnadi, 2005; Nguyen *et al.*, 2014; Schultz *et al.*, 2010). Due to the availability of companies' annual reports and corresponding financial data over the period of 2011–2016, a sample of 152 enterprises which are listed on the Ho Chi Minh Stock Exchange (HOSE) is considered. Therefore, a panel dataset comprising a total of 912 firm-year observations, which have complete information on key corporate governance is used as the preliminary dataset. In the next stage, to guarantee that our findings are not driven by the outliers of Tobin's Q, as guided by Balatbat *et al.* (2004) and Cornett *et al.* (2007), we continue removing 18 firm-year observations within the first and beyond the 99th percentiles. As a result, we obtained the final sample including 894 firm-year observations.

All data were collected from annual reports, management reports and board of directors' resolutions of sampled companies published on *finance.vietstock.vn*. Data on market capitalization (market value of firm's equity) and stock held by the 10 largest shareholders (*blocktop10*) were provided exclusively by Tai Viet Corporation (the owner of *vietstock.vn* financial data website). Where necessary, the data are supplemented and verified with reference to the annual reports and the websites of sampled companies.

3.2 Description of variables

Dependent variable: firm performance

In line with the previous studies (e.g., Coles *et al.*, 2012), this study employs Tobin's Q as a dependent variable to measure the business performance.

$$\text{Tobin's } Q = \frac{\text{Market Value of Equity} + \text{Book Value of Liabilities}}{\text{Book Value of Total Assets}}$$

Explanatory variables: governance characteristics

Explanatory variables in this study encompass:

- The percentage of female directors on board (Female), representing board diversity;
- The percentage of non-executive directors on board (Nonexe);²
- The percentage of independent directors on board (Indep);
- CEO duality (Dual), a dummy variable, taking the value of 1 if the board chair is also CEO, and 0 otherwise;
- Board size (Bsize), indicating the total number of directors on board;
- The percentage of ordinary shares held by shareholders with at least 5% holding to the total number of ordinary shares of a company (Block);
- The percentage of ordinary shares held by ten largest shareholders to the total number of ordinary shares of a company (Blocktop10).

Besides, the one-year lagged Tobin's Q is used as an independent variable to control for the dynamic nature of the governance characteristics - business performance nexus.

Control variables

Control variables include: (1) firm size (Fsize), measured by the natural logarithm of the book value of total assets; (2) firm age (Fage), indicating the number of years since the time a company listed on the HOSE; (3) leverage (Lev), calculated as the ratio of the company's debt divided to its total assets.

3.3 Model specification

Following Wintoki *et al.* (2012)'s research, our baseline model which illustrates the impact of governance characteristics on the performance of firms is constructed as follows.

$$\ln Q_{it} = \alpha + \gamma \ln Q_{it-1} + \beta \text{Governance} + \delta \text{Control} + \eta_i + \varepsilon_{it} \quad (1)$$

where:

Q: Tobin's Q, denoting firm performance (dependent variable). In order to mitigate the possible effects of outliers the natural logarithm of this index is taken as recommended by Nguyen *et al.* (2014).

² According to the Clause 2, Article 2 of the Circular No. 121/2012/TT-BTC, non-executive director of the board of management is defined as a member of the board who is not the director (general director), deputy director (deputy general director), chief accountant or any other manager appointed by the board of management.

Governance: corporate governance variables including the percentage of female directors on board (Female), the percentage of non-executive directors on board (Nonexe), CEO duality (Dual), board size (Bsize), and the percentage of shares held by block-holders (Block);

Control: control variables including firm age (Fage), firm size (Fsize), and leverage (Lev);

η_i : represents unobserved time-invariant firm effects;

ε_{it} : is a random error term.

Theoretically, for estimation of dynamic longitudinal data, either pooled ordinary least squares (OLS), fixed effect or random effect approach could be a viable solution. However, as pointed out by Wintoki *et al.* (2012), endogeneity concerns might exist when examining corporate governance characteristics. So far, endogeneity issues arise from two main sources: unobservable characteristics across enterprises and simultaneity. To cope with endogeneity problems, Arellano and Bond (1991) propose the two-step generalised method of moments (GMM) approach. By and large, the GMM estimation method consists of two main types, namely difference generalized method of moments (DGMM) and system generalized method of moments (SGMM). According to Hermalin and Weisbach (1998), since firm's current performance and governance characteristics are influenced by their previous financial performance, the relationship between corporate governance and firm performance appears dynamic in nature. As recommended by Blundell and Bond (1998), if there exists a correlation between the current and previous value of the dependent variable, and simultaneously, the number of years is relatively small, then the DGMM model is no longer effective in estimation. Therefore, the SGMM estimator is chosen for this study.

The SGMM model approach is briefly defined as a system of two simultaneous equations: one in levels and the other in first differences. While lagged levels of explanatory variables are treated as instruments in the first-differenced equation, their lagged first differences could be employed as instrumental variables for the level equation (Nguyen, 2015). As highlighted by Roodman (2009), the SGMM estimator allows to harness internal instruments available within the panel and address the combination of a short panel, a dynamic dependent variable, fixed effects and a shortage of good external instruments.

4. Results

4.1 Descriptive statistics

Table 1 presents summary statistics for the key variables used in this study. As can be seen, the mean Tobin's Q of 1.04 shows that the sampled companies have relatively high performance. In terms of board diversity, the mean percentage of female directors on board is approximately 16%, which is far higher than that of the Asian region (6%), as in Sussmuth-Dyckerhoff *et al.* (2012), Singapore (6.9%) and China (8.5%), according to Catalyst statistics (2012). Subsequently, considering the independence of the board, about 62.24% of board directors are non-executive, and 15.25% are independent directors. Regarding duality, about 31% of the chairpersons concurrently hold the CEO positions.

Table 1. Descriptive statistics

Variable	Mean	Median	Std. Dev.	Min	Max
Tobin's Q	1.04	0.94	0.45	0.34	5.83
The percentage of female directors (Female)	15.98	16.67	16.39	0.00	80.00
The percentage of non-executive directors (Nonexe)	62.24	60.00	16.71	0.00	100.00
The percentage of independent directors (Indep)	15.25	16.67	16.40	0.00	80.00
CEO duality (Dual)	0.31	0.00	0.46	0.00	1.00
Board size (Bsize)	5.75	5.00	1.21	4.00	11.00
Block-holder ownership (Block)	50.70	51.53	17.70	10.49	97.07
Block-holder ownership top 10 (Blocktop10)	56.84	58.50	16.89	20.00	98.00
Firm age (Fage)	5.84	6.00	2.76	1.00	15.00
Firm size (Fsize)	27.82	27.68	1.23	25.57	32.61
Leverage (Lev)	46.79	49.54	20.41	0.26	87.41

Notes: Number of firm-year observations: 912

Source: Authors' calculation

In terms of board size, the mean number of directors on board is about five. Finally, as for the concentration of ownership, the mean value of the percentage of stock held by shareholders owning at least 5% of the common stock (Block) is about 50.7%, while 56.84% is the percentage of shares held by ten largest shareholders. Hence, it can be concluded that the concentration of share ownership in Vietnamese firms appears rather high.

4.2 Results and discussion

Table 2 presents the SGMM estimation results based on Equation (1). To identify the role of different aspects of governance in promoting firm performance, the baseline specification is split into two sub-models:

- Model (1) tests the effects of governance characteristics through the percentage of female directors on board (Female), the percentage of non-executive directors (Nonexe), CEO duality (Dual), board size (Bsize), the block-holder ownership (Block) to the performance of the firm;

- Model (2) re-estimates Equation (1) by replacing 'Nonexe' with 'Indep' representing the independence of the board; 'Block' with 'Blocktop10', which is a proxy for concentrated ownership structure to check robustness of our results to alternative proxies for corporate governance structures.

It is clear from Table 2 that our findings remain robust after replacing the variable of block-holder ownership with block-holder ownership top-10. While no evidence is found related to the role of non-executive directors (Nonexe) in business performance (see Model (1)),

the presence of an independent directors (Indep) appears significantly positively correlated with Tobin's Q (see Model (2)). In general, the coefficients of the other corporate governance characteristics remain unchanged, except for duality. Therefore, our regression results are robust to alternative proxies for corporate governance structures. In addition, statistical test results indicate that Hansen's over-identification and AR (2) conditions are satisfactorily met. This means our estimation results with SGMM approach are reliable.

Table 2. SGMM estimation results of the relationship between governance characteristics and firm performance

Regressant: lnQ	Model (1)	Model (2)
lnQ(-1)	0.377*** (0.001)	0.362*** (0.001)
Female	0.079 (0.767)	0.085 (0.716)
Indep	-	0.736*** (0.002)
Nonexe	-0.293 (0.380)	-
Dual	-0.023 (0.798)	0.099 (0.202)
lnBsize	0.743*** (0.001)	0.517** (0.010)
Blocktop10	-	0.493* (0.084)
Block	0.708** (0.017)	-
Fage	0.089*** (0.001)	0.062** (0.018)
Fsize	0.066* (0.081)	0.043 (0.308)
Lev	0.379 (0.135)	0.413 (0.188)
Intercept	-3.660*** (0.001)	-2.873** (0.016)
Observations	760	760
AR(1) (p-value)	0.110	0.113
AR(2) (p-value)	0.169	0.168
Hansen test (p-value)	0.482	0.529

Notes: p-values in brackets; ***, **, * indicate significance at 1%, 5% and 10%, respectively.

Source: Authors' calculation

Research results in Table 2 suggest that the correlation coefficient between one-year lagged Tobin's Q and its current value is 0.377 at a 1% significance level. Accordingly, sample enterprises's past performance might have a positive impact on their current performance. This finding appears consistent with recent studies such as Wintoki *et al.* (2012), suggesting that past performance should be recognized as an important variable to control for the relationship between corporate governance and business performance of firms.

The study finds no evidence that the gender diversity in the boardroom exerts a positive influence on the performance of firms. This result supports Rose's (2007) view that high level of gender diversity in the boardroom does not guarantee that companies could achieve better performance. Despite a positive correlation between board diversity and firm performance, this appears insignificant after fully controlling for the contemporaneous causality.

The size of board is found to be positively correlated with firm performance at 1% significance level. This result is in line with the resource dependence theory, implying that a scale expansion of a board would help to fortify company's linkages with external resources, as well as bringing extra benefits for the company based on advantage of the capabilities, knowledge and experience of the board directors. In addition, this result is consistent with the research of Beiner *et al.* (2006), contending that a large board would benefit management of business performance a great deal through improved quality of support and counsel, complexity of the business climate and diversity of corporate culture. Compared with the board size ranging from 5 to 11 as stipulated in the Circular No. 121/2012/TT-BTC, the average number of directors on the board of sample companies as reported in Table 1, stands at merely 6, equivalent to the minimum threshold by law. Hence, in the future, it is crucial that Vietnamese companies raise the number of directors in the boardroom to help create greater shareholders' value.

Our results also indicate that the presence of non-executive directors on board has no impact on the performance of firms. According to Bhagat and Black (2002), there is no evidence that enterprises with numerous non-executive directors on board have better performance than the others. Besides, they argue that the performance of the enterprise does not depend on the number of non-executive directors on board, but each business has a distinct non-executive board structure, which largely depends on the size and growth of their business. We find no evidence that CEO duality has an impact on business performance. This finding is consistent with the research of Mak and Kusnadi (2005) for Singaporean market.

The concentration of ownership of block-holders measured by "block" variables shows a positive correlation with firm performance at 5% significance level. According to agency theory, ownership concentration is among the most important mechanisms for monitoring management behavior, helping reduce agency concerns arising from the separation between ownership and control decisions. Therefore, the higher proportion of stock held by block-holders, the greater the motivation for them to monitor the manager's performance in serving their interests (Shleifer and Vishny, 1986). This result is coincident with the research of Xu and Wang (1999), suggesting that the higher the ownership proportion of block-holders, the more likely it is to enhance firm performance.

In a concentrated ownership structure, both ownership and control of the company focus on a small group of individuals, families, management boards or lending institutions. Since these individuals and groups (also known as the “insiders”) always make every endeavour to intervene in the way the business operates, for example a centralized structure could also be likened to an internal control system. Accordingly, major shareholders take direct control of the company through their involvement in the board of directors and management. Major shareholders may not own the entire capital, yet have significant voting rights, hence, they still have control over the business. Conversely, the shortage of large shareholders can even jeopardize the existence of the company rather than just worsening corporate performance. For instance, in Vietnam, this could be expressed through the fact that managers make risky decisions such as writing more checks than usual, which might erode the equity capital of the company’s shareholders. However, this behaviour could also cause managers to lose their employment. Well aware of these risks through delegation of additional responsibilities to the managers, major shareholders would give priority for special control over strategic business activities such as making long-term investment decisions or writing a check in excess of a certain threshold. On the other hand, shareholders could provide managers with options to buy shares at a preferential price in the future plus annual bonuses to reach common motivation between managers and shareholders.

Concerning control variables, while financial leverage (Lev) shows no significant impact, both firm size (Fsize) and firm age (Fage) are positively correlated to firms’ business performance.

5. Conclusion

The paper empirically evaluates the relationship between governance characteristics measured by Female, Nonexe, Dual, InBsize, Block, and corporate performance measured by Tobin’s Q for a sample of 152 non-financial enterprises listed on HOSE over the period of 2011-2016. By employing SGMM estimation approach to control for endogeneity problems, then replacing necessary variables, namely ‘Nonexe’ and ‘Block’ with ‘Indep’ and ‘Blocktop10’, respectively, to check the robustness of the estimation model, research results reveal that the impact of governance characteristics on business performance is statistically significant. Specifically, board size and block-holder ownership exert a positive influence on firm performance. Accordingly, the study supports the views that: (i) A large board would be favourable to business performance management through improved quality of support and counsel, complexity of the business climate and diversity of corporate culture; (ii) the concentration of block-holder ownership could help alleviate agency issues arising from the separation between ownership and control decisions. Thus, an increase in the proportion of stock held by block-holders would bring greater motivation for them to monitor managers’ performance towards their best interests. It is recommended from our findings that enterprises attach great importance to corporate governance characteristics as a fundamental requirement, thereby creating fresh momentum for better financial outcomes in the short run, as well as sustainable development goals in the long run.

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