


**BOARD INDEPENDENCE AND FINANCIAL PERFORMANCE: EMPIRICAL EVIDENCE
ON MEDIATING ROLE OF MARKET COMPETITION FROM THE VIETNAMESE
MARKET**

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 20 February 2023</p> <p>Accepted 08 May 2023</p>	<p>Purpose: The aim of this study is to examine the effect of board independence on the financial performance of companies listed on the Vietnamese stock exchanges with the mediating role of market competition.</p> <p>Theoretical framework: The topic is based on agency theory, resource dependency theory and stewardship theory. The independence of the board of directors (BOD) is measured in two aspects: the duality and the non-executive members of BOD. This study approaches the measurement of market competition according to the Herfindahl-Hirschman index (HHI). After calculating the HHI, the study will classify companies in a highly competitive market or a low competitive market.</p> <p>Design/methodology/approach: The study uses secondary data from the financial statements of companies listed on the Vietnamese stock market with the collection period from 2016 to 2020. The data analysis methods comprise of Pooled ordinary least squares (OLS), Fixed effects model (FEM), Random effects model (REM) and Generalized method of moments estimation (GMM).</p> <p>Findings: The results of GMM showed that CEO duality is found to have a negative effect on the financial performance of listed firms. Meanwhile, the statistical evidence shows that the percentage of non-executive board members and market competition positively affect the financial performance. In addition, the evidence showed that market competition could reduce the positive influence of the percentage of non-executive board members on financial performance of listed companies.</p> <p>Research, Practical & Social implications: The study has proposed some governance implications to improve the financial performance of listed firms such as limiting CEO duality, increasing the percentage of non-executive board members and empower the management board in a highly competitive market and choosing the appropriate size of the board.</p> <p>Originality/value: The value of the study is to provide more scientific basis for policy makers in Vietnam and help listed companies choose and make decisions related to BOD to improve financial efficiency.</p> <p>Doi: https://doi.org/10.26668/businessreview/2023.v8i5.1498</p>
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INDEPENDÊNCIA DO CONSELHO E DESEMPENHO FINANCEIRO: EVIDÊNCIAS EMPÍRICAS SOBRE O PAPEL MEDIADOR DA CONCORRÊNCIA DE MERCADO DO MERCADO VIETNAMITA

RESUMO

Objetivo: O objetivo deste estudo é examinar o efeito da independência do conselho sobre o desempenho financeiro de empresas listadas nas bolsas de valores vietnamitas com papel mediador da concorrência de mercado. Estrutura teórica: O tópico é baseado na teoria da agência, teoria da dependência de recursos e teoria da administração. A independência do conselho de administração (CA) é medida em dois aspectos: a dualidade e os membros não executivos do CA. Este estudo aborda a mensuração da competição de mercado segundo o índice de Herfindahl-Hirschman (HHI). Após o cálculo do HHI, o estudo classificará as empresas em um mercado altamente competitivo ou em um mercado pouco competitivo.

Desenho/metodologia/abordagem: O estudo usa dados secundários das demonstrações financeiras de empresas listadas no mercado de ações vietnamita com o período de coleta de 2016 a 2020. Os métodos de análise de dados compreendem mínimos quadrados comuns agrupados (OLS), modelo de efeitos fixos (FEM), Modelo de efeitos aleatórios (REM) e Método generalizado de estimação de momentos (GMM).

Resultados: Os resultados do GMM mostraram que a dualidade do CEO tem um efeito negativo no desempenho financeiro das empresas listadas. Entretanto, a evidência estatística mostra que a percentagem de administradores não executivos e a concorrência de mercado afetam positivamente o desempenho financeiro. Além disso, as evidências mostraram que a competição de mercado poderia reduzir a influência positiva do percentual de conselheiros não executivos no desempenho financeiro das companhias listadas.

Implicações de pesquisa, práticas e sociais: O estudo propôs algumas implicações de governança para melhorar o desempenho financeiro de empresas listadas, como limitar a dualidade do CEO, aumentar a porcentagem de membros do conselho não executivos e capacitar o conselho de administração em um mercado altamente competitivo e escolher o tamanho adequado da placa.

Originalidade/valor: o valor do estudo é fornecer mais base científica para os formuladores de políticas no Vietnã e ajudar as empresas listadas a escolher e tomar decisões relacionadas ao BOD para melhorar a eficiência financeira.

Palavras-chave: Independência do Conselho, Desempenho Financeiro, GMM, Concorrência de Mercado, Tobin's Q.

INDEPENDENCIA DE LA JUNTA Y DESEMPEÑO FINANCIERO: EVIDENCIA EMPÍRICA SOBRE EL PAPEL MEDIADOR DE LA COMPETENCIA DEL MERCADO DEL MERCADO VIETNAMITA

RESUMEN

Propósito: El objetivo de este estudio es examinar el efecto de la independencia de la junta en el desempeño financiero de las empresas que cotizan en las bolsas de valores de Vietnam con el papel mediador de la competencia en el mercado.

Marco teórico: El tema se basa en la teoría de la agencia, la teoría de la dependencia de los recursos y la teoría de la administración. La independencia del consejo de administración (BOD) se mide en dos aspectos: la dualidad y los miembros no ejecutivos del BOD. Este estudio aborda la medición de la competencia en el mercado según el índice de Herfindahl-Hirschman (HHI). Después de calcular el HHI, el estudio clasificará a las empresas en un mercado altamente competitivo o en un mercado poco competitivo.

Diseño/metodología/enfoque: el estudio utiliza datos secundarios de los estados financieros de empresas que cotizan en la bolsa de valores vietnamita con un período de recopilación de 2016 a 2020. Los métodos de análisis de datos comprenden mínimos cuadrados ordinarios agrupados (OLS), modelo de efectos fijos (FEM), modelo de efectos aleatorios (REM) y método generalizado de estimación de momentos (GMM).

Hallazgos: Los resultados de GMM mostraron que la dualidad de CEO tiene un efecto negativo en el desempeño financiero de las empresas que cotizan en bolsa. Por su parte, la evidencia estadística muestra que el porcentaje de consejeros no ejecutivos y la competencia en el mercado inciden positivamente en el desempeño financiero. Además, la evidencia mostró que la competencia en el mercado podría reducir la influencia positiva del porcentaje de miembros no ejecutivos de la junta en el desempeño financiero de las empresas que cotizan en bolsa.

Implicaciones de investigación, prácticas y sociales: el estudio ha propuesto algunas implicaciones de gobernanza para mejorar el rendimiento financiero de las empresas que cotizan en bolsa, como limitar la dualidad de directores ejecutivos, aumentar el porcentaje de miembros no ejecutivos de la junta y empoderar a la junta directiva en un mercado altamente competitivo y elegir el tamaño apropiado del tablero.

Originalidad/valor: el valor del estudio es proporcionar una base más científica para los responsables políticos en Vietnam y ayudar a las empresas que cotizan en bolsa a elegir y tomar decisiones relacionadas con la DBO para mejorar la eficiencia financiera.

Palabras clave: Independencia del Directorio, Desempeño Financiero, GMM, Competencia en el Mercado, Q de Tobin.

INTRODUCTION

The board of directors (BOD) is one of the important entities in an enterprise. Main duties of BOD is to decide on the strategy and policy for the company and to carry out supervisory activities of the company's board of management (Tricker & Tricker, 2015). According to the corporate governance scorecard project implemented by the Vietnam Institute of Directors (VIOD), in cooperation with the International Finance Corporation (IFC) and the State Securities Commission (SSC), Vietnam's governance score has made remarkable improvements from 2012 to 2019, from 28,4 in 2012 to 54,6 in 2019. However, compared to other countries in the ASEAN region, this rating is still lower than that of Thailand, Malaysia, Singapore, Philippines or Indonesia. Of which, the scores on the aspect of roles and responsibilities of Vietnam's BOD have also improved from 2012 to 2019, but are still low compared to neighboring countries (VIOD, 2020). Therefore, it is necessary to have more studies to enhance the effectiveness of corporate governance for the Vietnamese companies.

BOD is considered an internal governance mechanism. Many previous studies have shown that the independence of BOD has an influence on the performance of the company (Al-Matari, Al-Swidi, Fadzil, & Al-Matari, 2012; Fuzi, Halim, & Julizaerma, 2016; Huy, 2020; Liang, Xu, & Jiraporn, 2013; Shawtari, Mohamad, Rashid, & Moh'd Ayedh, 2017; Thuy, 2020). Board independence could be defined as the independence between BOD and board of management (Knyazeva, Knyazeva, & Masulis, 2013). Two aspects that are often used to measure board independence including CEO duality, the case of CEO being also the chairman of BOD, and the proportion of non-executive board members on the board.

In addition, market competition is one of the important factors affecting the company's performance (Giroud & Mueller, 2011). Randøy and Jenssen (2004) argued that the effect of the proportion of non-executive directors on financial performance is different in the cases of highly competitive industry and low competition industry. Besides, Mubeen, Han, Abbas, and Hussain (2020) that market competition acts as a positive mediator on the relationship between CEO duality and firm financial performance. In a highly competitive market, the duality will help the CEO having enough power to take the initiative, flexibly make competitive strategies,

make quick and effective decisions, thus positively impacting financial performance (Brown & Earle, 2000). Regarding the mediating role of market competition between board independence and the financial performance of the company, previous studies have only examined one aspect of the duality or the proportion of non-executive board members. Hence, the above relationship has not been comprehensively evaluated when these two aspects of board independence have not studied concurrently. As a result, it is interesting to explore the question is what the role of the market competition between board independence and the financial performance of the company in an emerging market like Vietnam is.

Therefore, conducting a study on the influence of two aspects of board independence on the financial performance with the mediating role of market competition could enrich the empirical evidence in this research field. In addition, the research results will provide more scientific references for policy makers in Vietnam and could help listed companies choose and make decisions related to BOD's structure to improve financial efficiency.

LITERATURE REVIEW

The Effect of CEO Duality on Financial Performance

Previous studies have shown that the relationship between CEO duality and firm financial performance is inconsistent. From the agency theory point of view, the duality weakens the board's oversight of corporate governance, leading to poor performance (Jensen & Meckling, 1976). Moreover, some empirical studies provided the empirical evidence that CEO duality has negatively affected the financial performance of the company (Gohar & Batool, 2015; Mubeen et al., 2020; Singla & Singh, 2019). The duality could make CEO have a lot of power, take over all the decisions, so sometimes because of being too confident and not accepting the opinions of experts, which could lead to wrong decisions.

Besides, the research in Vietnam by Thuy (2020) on the case of newly established companies and family companies showed that the duality will make good decision-making, especially in urgent circumstances. and thus help the chairman, also being CEO, to grasp information of the company in the fastest way and thus the duality could have a positive effect on financial performance. However, in the mature stage, companies will expand their business scale and increase senior staff for the executive board, so they will face more serious problems of agency problem. The duality could decrease the supervisory role of BOD, making them be difficult to resolve conflicts and thus the financial performance of the company could be negatively affected (Huy, 2020). Meanwhile, the majority of listed companies in Vietnam are

with the goal of expanding and developing business investment, so there is reason to expect that the duality negatively affects the financial performance of the company in the Vietnamese market. In addition, the current regulations in Vietnam also do not encourage the CEO duality. From August 1st, 2020, Vietnam officially stipulates the abolition of the duality of public companies (Clause 2, Article 275 of Decree 155/2020/ND-CP). From the above bases, the first hypothesis is put forth as follows:

H₁: CEO duality has a negative effect on the financial performance of listed company

The Effect of CEO Duality on Financial Performance: The role of Market Competition

Separating the two top leadership positions of the enterprise, namely Chairman of CEO and CEO, is considered as good governance practice in the world. In Vietnam, the separation between these two titles have been implemented by listed firms. However, the stipulates on the abolition of the duality of public companies from August 1st, 2020 has caused listed companies to face with many difficulties. The most typical difficulty is finding qualified personnel to take on the role of business leadership, especially for companies that have been listed on the stock exchange. The appointment of a leader, if not conducted carefully, will affect investors' confidence in the business. Careless replacement of leadership titles also affects the operation of the business. In fact, as of July 2020, a number of companies have not yet abolished duality, such as DRH Holding Joint Stock Company, Pymephaco Joint Stock Company, Binh Duong Mineral Joint Stock Company, CIC39 Joint Stock Company, Hung Vuong Joint Stock Company or Tan Tao Investment and Industry Joint Stock Company... Hence, the question has raised is that compliance with regulations in the urgent time near the effective date (1 August 2020) is effective or just a form of dealing with businesses. Therefore, the government needs to consider and evaluate the effectiveness of the above regulation. This situation calls for more scientific evidence. The fact that the effect of CEO duality on financial performance could be examined under other relevant factors such as market competition. Although CEO duality is expected to have a negative effect on financial performance, in the case of highly market competition, the negative effect of CEO duality on performance is likely to be lessened (Moradi, Velashani, & Omidfar, 2017; Mutlu, Van Essen, Peng, Saleh, & Duran, 2018; Yang & Zhao, 2014). Some empirical studies have demonstrated the mediating role of market competition on CEO duality and financial performance (Moradi et al., 2017; Mubeen et al., 2020). Therefore, the next hypothesis expects that:

H₂: Market competition reduces the negative effect of CEO duality on financial

performance of listed companies

The Effect of the Proportion of Non-Executive Members on Financial Performance

According to the agency theory, BOD could executive their supervisory activities more effectively when many members of the board are not involved in running the business of the company (Jensen & Meckling, 1976). This could be because the members of BOD participating in the management board could have close relationships with managers, so it is difficult to fully promote their supervisory roles. Hence, in this case, the existence of these members is only a formality (Singh, Tabassum, Darwish, & Batsakis, 2018). Some previous studies showed that the proportion of non-executive directors has a positive influence on the financial performance of the company (Bansal et al., 2023; Islam et al., 2019; Knyazeva et al., 2013; Shawtari et al., 2017).

Currently, Vietnam also has many policies and regulations that are proposed to help BOD of public companies to operate effectively and promote their full roles, especially regulations on independent board member). According to Decree 155/2020/ND-CP, the board structure in a listed company is required as follows: (i) There must be at least 01 independent member, in case there are from 03 to 05 members on the board; (ii) Having at least 02 independent members, in case there are from 06 to 08 members on the board; and (iii) Having at least 03 independent members, in case there are from 09 to 11 members on the board. At the same time, an independent member on the board of a listed company must make a separate report on the operation of the company. This requirement may impose more responsibilities on an independent board member in a listed company. This shows that the Vietnamese law attaches great importance to the effectiveness and role of independent board members. Therefore, this study expects that non-executive board members will play an effective supervisory and advisory role for companies, thereby increasing the company's financial performance. Therefore, the third hypothesis is put forward as:

H₃: Percentage of non-executive members on the board positively affects the financial performance of listed companies

Influence of Non-Executive Board Members on Financial Performance with the Mediating Role of Market Competition

Regulations in Vietnam relevant to independent board member (Decree No. 155/2020/ND-CP) is believed to contribute to improve the governance quality and is a solution

to create transparency to help protect minor shareholders. However, in the integration period, the Vietnamese enterprises have to face a fiercely competitive environment, especially for some industries with highly competitive characteristics, the increase in the number of non-executive members of BOD could lead to a stricter supervision of BOD. This supervision may affect the processing time and flexibility and improvisation of the management board and thus could decrease the efficiency of the company's operations. The empirical study of Randøy and Jenssen (2004) shows that market competition plays a mediating role that negatively affect the relationship between the proportion of non-executive board members and the company's financial performance. In a low-competition environment, the percentage of non-executive members of BOD could positively affects financial performance, but in a highly competitive environment, the percentage of non-executive directors can hinder the ability of management board on improvising to the market, which can negatively affect financial performance (Randøy & Jenssen, 2004; Singla & Singh, 2019). Therefore, although the ratio of non-executive members on the board can positively affect the financial performance of the company, when considering the factor of market competition, the positive effect of the proportion of non-executive directors on financial performance may be impaired. From that basis, the study proposes the fourth hypothesis as follows:

H4: Market competition reduces the positive effect of the percentage of non-executive board members on the financial performance of listed companies.

Effect of Market Competition on Financial Performance

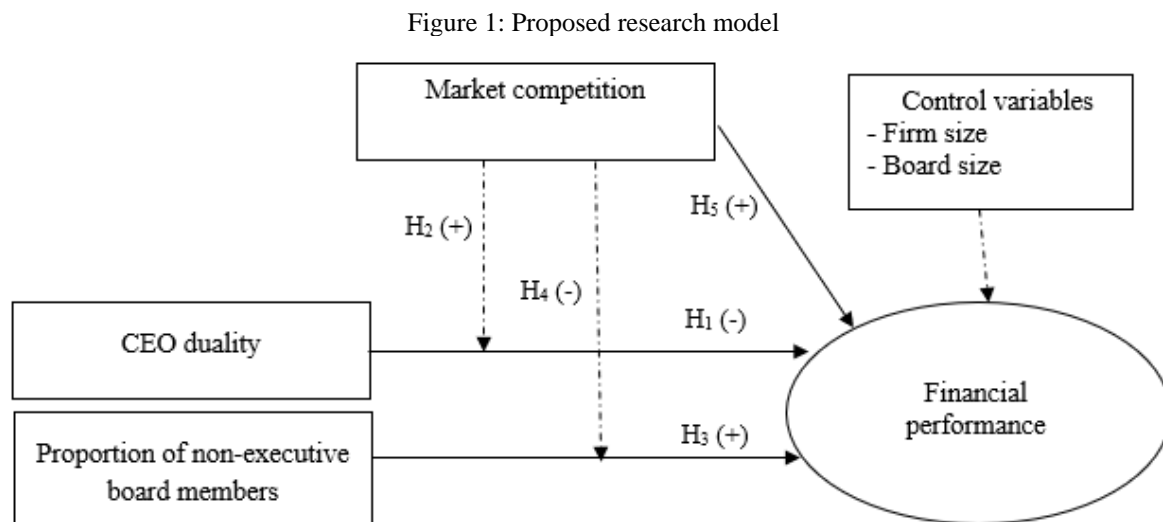
Market competition is an important factor influencing a company's financial decisions and financial performance (Ko, Tong, Zhang, & Zheng, 2016). In a competitive environment, businesses have optimized the input factors of production and business and have to thoroughly and continuously innovate, thereby leading to better operational efficiency. Market competition is the driving force that makes executives constantly strive to maximize their capacity to achieve high results to avoid bankruptcy and create optimal profits (Brown & Earle, 2000; Giroud & Mueller, 2011). Most of the empirical studies on the relationship between market competition and financial performance of companies have shown a positive influence of market competition on financial performance such as Brown and Earle (2000) in Russia, Grosfeld and Tressel (2002) in Poland or Pant and Pattanayak (2010) in India.

Currently, Vietnam's economy is in the integration period. The participation of Free Trade Agreements (FTAs) creates many opportunities, helping the import and export market to

expand and diversify. The financial services market is more developed with the participation of many foreign investors. The institutional and policy system has also been gradually improved to meet the requirements of integration and implementation of commitments in FTAs. However, integration will create opportunities and will come with challenges. One of the challenges for Vietnamese businesses is to compete in the product market. According to the General Statistics Office, the Gross Domestic Product (GDP) in the fourth quarter of 2021 was estimated to increase by 5.22% over the same period last year. The total retail sales of consumer goods and services in the third quarter of 2021 was estimated at 1,312.6 trillion VND, up 28.1% over the previous quarter (GSO, 2021). This is a positive result which demonstrates the role of domestic goods supply in the context of unpredictable epidemics and at the same time the role and competitive strength of Vietnamese goods in the domestic market. This shows that in the context of integration and fierce market competition, the Vietnamese enterprises are still developing and achieving high efficiency. Based on the above, the study expects that market competition will positively affect the financial performance of companies listed on the Vietnamese stock market. Therefore, the final hypothesis is put forward:

H₅: Market competition has a positive effect on financial performance

Based on the proposed hypotheses, the proposed research model is detailed in Figure 1 as follows:



Source: Prepared by the authors (2023)

MATERIALS AND METHODS

Approach to Measuring Market Competition and Financial Performance

Approach to measuring market competition

The level of competition of enterprises in the market is usually measured by indicators belonging to two groups, including indicators reflecting market structure (CI, CR, HHI, E) and those reflecting firm's behavior responding to market competition (Lerner, Rents, H, Boone). Some relevant studies in this research field have measured the competitiveness of enterprises by the Herfindahl-Hirschman Index (HHI) such as Giroud and Mueller (2011), Tian and Twite (2011), Ammann, Oesch, and Schmid (2013) or Mubeen et al. (2020). Market competition is measured by a dummy variable that takes the value of 1 if the company operating in a highly competitive market and takes the value of 0 vice versa. This study also approaches to measure market competition using HHI. According to research by Ammann et al. (2013), Moradi et al. (2017), Singla and Singh (2019), Mubeen et al. (2020) Ammann et al. (2013), Moradi (2017), Singla & Singh (2019), Mubeen et al. (2020) and Sattar, Javeed, and Latief (2020), HHI is calculated following the formula:

$$HHI = \sum (S_i)^2$$

Where HHI is the sum of squares of the firms' market shares in the industry, S_i indicates the market share of the i th company which is the ratio of its total sales over total industry sales.

On the Vietnamese stock market, there is still no official government organization that arranges listed companies into specific sub-sectors. This activity has only been carried out by a few securities companies and investment funds with inconsistent standards, most of which are based on ICB (The Industry Classification Benchmark developed by Dow Jones and the Financial Times Stock Exchange - FTSE), GICS (The Global Industry Classification Standard developed by S&P Dow Jones Indices) or NAICS (The North American Industry Classification System developed by the statistical agencies of Canada, Mexico and the United States).

Ho Chi Minh City Stock Exchange uses GICS, a 4-level classification system that includes 10 sectors, 24 industry groups, 68 industries and 154 sub-sectors. On the other hand, the Hanoi Stock Exchange does not use this standard classification. This research topic analyzes data that includes companies on the Vietnamese stock market, so a unified industry classification system is needed. In order to have a consistent and complete database, the classification system of NAICS 2007 is applied because of its popularity and highly

comprehensiveness, supported by many international organizations. This classification has many similarities with VSIC 2007 - Vietnam economic sector system, issued together with Decision No. 10/2007/QD-TTg dated 23/01/2007 including 21 level 1 industries, 88 level 2 industries, 242 level 3 industries, 437 level 4 industries and 642 level 5 industries.

Data in this study is collected across 24 industries including Wholesale; Insurance and related activities; Real estate; Stock; Technology and information; Retail; Manufacture of drugs and pharmaceuticals (Health care); Extractive; Bank; Agroforestry; Manufacture of equipment and machinery; Manufacture of household goods; Rubber products; Production of plastics and chemicals; Food and beverage; Seafood processing; Building materials; Utilities; Transportation, warehousing; Build; Accommodation, food and entertainment services; Ancillary production; Electrical equipment ; Support consulting services.

After calculating the HHI, the classification of companies in the highly competitive market or the low competition market will be made. According to Chikoto, Ling, and Neely (2016), in the case of HHI in the range [0-0.25], the market is considered to have a moderate to high level of competition. If HHI has a value in the range [0.25-1.00], the company will be considered to operate in a low-competition market. As a result, listed firms with the value of HHI in the range [0-0.25], market competition variable will receive the value of 1. This variable receives the value of 0 if HHI of the company has a value in the range [0.25-1.00].

Approach to measuring financial performance

Following most of the studies related to this research topic, Tobin's Q is used to measure corporate financial performance (Bhargave & Tandon, 2023; Duc & Thuy, 2013; Huy, 2020; Randøy & Jenssen, 2004; Singh et al., 2018; Singla & Singh, 2019). The accounting criteria such as ROA or ROE only reflect information in the past. Profitability ratios can be adjusted according to the wishes of the listed company to beautify the financial statements, so the reliability is not high (Hakimi, Rachdi, Mokni, & Hssini, 2018). Meanwhile, for listed companies, Tobin's Q is very common, considered a good assessment tool and represents the performance of the business. This indicator can tell the future performance of the enterprise because it shows the market's assessment of the business's growth prospects through the stock price (Mubeen et al., 2020; Thuy, 2020). The use of Tobin's Q allows to explain the investment behavior of enterprises and investors' reactions to the company in the market, which helps the analysis and assessment of financial performance in connection with the market.

Tobin's Q is calculated as the ratio between the market value of assets (market value of

equity plus estimated market value of debt) and the book value of assets (Tobin, 1969). However, the market value of debt is difficult to determine in Vietnam, so in this study Tobin's Q is calculated by the market value of the stock and the book value of debt divided by the book value of total assets (Zeitun & Tian, 2007). Tobin's Q may be greater than, equal to or less than 1. In case Tobin's Q is greater than 1, the business is highly appreciated by the market. Thus, the stock price is likely to increase and investors also expect a positive future of the business. Conversely, if Tobin's Q is less than 1, the business is undervalued relative to its asset value (Tobin, 1969).

Data Collection

The study uses secondary data collected from the financial statements and annual report of companies listed on the Vietnamese stock market in the period 2016 - 2020 with the following criteria: (i) Having sufficient information about BOD, especially information to calculate parameters such as the percentage of non-executive members on the board, market competition and financial performance, (ii) The financial year of the company ends on December 31 of each year and there is no change in the financial year during the research period and (iii) The process of operation was not interrupted during the study period.

As of September 2021, the total number of companies listed on the Vietnamese stock exchange is 747 across all industry groups. The Ho Chi Minh City Stock Exchange (HOSE) has 404 listed companies and the Hanoi Stock Exchange (HNX) has 343 listed companies. After excluding listed companies that did not disclose sufficient information according to the sampling criteria, the total number of listed companies included in this study was 558. Thus, the total number of firm-year observations in the sample is $558 \times 5 = 2790$.

Data Analysis

The study first uses Pooled OLS regression, FEM and REM estimation methods. Then, relevant tests for multicollinearity, autocorrelation and heteroskedasticity are used to consider the appropriateness of the estimates. Finally, GMM (Generalized method of moments estimation) was used to estimate the model to overcome autocorrelation and heteroskedasticity if they exist. The proposed estimation model is as follows:

$$FP_{it} = \beta_0 + \beta_1 Duality_{it} + \beta_2 BI_{it} + \beta_3 MC_{it} + \beta_4 FSize_{it} + \beta_5 BSize_{it} + \varepsilon_{it} \quad (1)$$

$$FP_{it} = \beta_0 + \beta_1 Duality_{it} + \beta_2 BI_{it} + \beta_3 MC_{it} + \beta_4 (Duality_{it} \times MC_{it}) + \beta_5 (BI_{it} \times MC_{it}) + \beta_6 FSize_{it} +$$

$$\beta_7 BSize_{it} + \varepsilon_{it} \quad (2)$$

Where model (1) is the case that does not consider the mediating role of the market competition variable, while the model (2) is the case including the market competition variable. The dependent variable is financial performance (FP) measured by Tobin's Q. The independent variables include CEO duality (Duality), percentage of non-executive board members (BI) and market competition (MC).

The study also adds two control variables including firm size (Fsize) and board size (Bsize). Some previous empirical studies showed that company size had an influence on financial performance (Huy, 2020; Thuy, 2020). Forbes Vietnam has announced the list of 50 best companies in 2021, led by large corporations and companies in the industry, typically Vietnam Petroleum Group, Vingroup, Mobile World, Hoa Group Phat, MASAN Group, Vietnam Gas Corporation, Vietcombank, BIDV, Vietinbank... Fsize represents company size measured by the natural logarithm of total assets. Firm size is an important factor in company performance. Some previous studies showed that firm size had a positive effect on financial performance (Knyazeva et al., 2013; Mubeen et al., 2020; Sattar et al., 2020). This is explained that the increase in scale could help companies gain a competitive advantage over their competitors by reducing production costs and increasing market share.

Bsize represents the board size measured by the total number of members on the board. This is also a feature of BOD that is empirically proved to have a positive effect on the financial performance of the company (Randøy & Jenssen, 2004; Sattar et al., 2020; Thuy, 2020). It is explained that the large-sized BOD could provide better support and advice to managers and better supervision.

RESULTS AND DISCUSSION

Analysis of the Situation of Board Independence and Market Competition of the Vietnamese Listed Firm

The statistics of CEO duality and percentage of non-executive members of BOD of 558 companies listed on HOSE and HNX are presented in Table 1 and Table 2, respectively.

Table 1: Situation of CEO on the Vietnamese stock exchange by year (2016-2020) (over the total number of companies is 558)

Stock exchange	2016		2017		2018		2019		2020	
	No.	% (of 558)	No.	% (of 558)	No.	% (of 558)	No.	% (of 558)	No.	% (of 558)
HOSE	74	13	69	12	69	12	61	11	3	1
HNX	64	11	73	13	66	12	57	10	8	1
Total	138	25	142	25	135	24	118	21	11	2

Source: Data processing results from 558 companies listed on Vietnam stock exchange (2016-2020)

Table 1 shows that in the period from 2016 to 2019 the number of companies with CEO duality in the sample tends to decrease, especially from 2019 to 2020. In 2016, listed firms with CEO duality accounted for 25% of the sample. However, in 2020, there is 2% of listed firms having CEO duality. This decrease of CEO duality in 2020 can be explained by the Vietnamese Government's regulations on abolition of CEO duality. As of January 1, 2021, Clause 2, Article 275 of Decree 155/2020/ND-CP takes effect (replacing Decree 71/2017/ND-CP) still stipulating that the Chairman of BOD cannot concurrently hold the position of CEO of 01 public company.

Table 2 show that companies listed on the Vietnamese stock exchange in the period 2016-2020 have the average percentage of non-executive board members on the board is 67%. The difference of this ratio between the two exchanges HOSE and HNX is not much. These statistics demonstrates that the percentage of non-executive board members in the period 2016-2020 is relatively high compared to current regulations under Clause 2, Article 276 of Decree 155/2020/ND-CP and that listed companies on the Vietnam stock exchange tend to apply good governance practices to attract domestic and international investors.

Table 2: Average percentage of non-executive board members of listed companies by year

Stock exchange	2016	2017	2018	2019	2020	Unit: %
						Average
HOSE	67	68	70	71	74	70
HNX	62	63	63	65	67	64
Total	65	65	67	68	71	67

Source: Data processing results from 558 companies listed on Vietnam stock exchange (2016-2020)

Analysis of Market Competition of Listed Companies

Table 3 show that the majority of companies listed on the Vietnam Stock Exchange are in a highly competitive industry with 421 companies (accounting for 75% of the total sample). In which, HOSE has 219 out of 286 companies operating in a highly competitive market (accounting for 77%). The HNX also has more than 70% of companies in a highly competitive industry. This can be explained by the majority of companies listed on Vietnam's stock market

operating in three areas that account for a large proportion of market capitalization, which are finance and banking, real estate and essential consumption. These three groups account for 70% of the market capitalization (An, 2021). These industries are all highly competitive industries.

Table 3: Market competition of listed companies (2016-2020)

Market competition		HOSE	HNX	Total
Highly competitive industry	No.	29	202	421
	%	77	74	75
Low competitive industry	No.	67	70	137
	%	23	26	25
Total	No.	286	272	558
	%	100	100	100

Source: Data processing results from 558 companies listed on Vietnam stock exchange (2016-2020)

Descriptive Statistics

Table 4 shows the results of descriptive statistics of the variables in the research model. The Tobin's Q of companies listed on Vietnam's stock market in 2016-2020 has the smallest value of 0.145, the highest value of 9.044 and the average value of 1.132 (close to 1). This implies that the market value of companies listed on Vietnam's stock market is still low and investors have not yet set high expectations.

Table 4: Descriptive statistics of variables in the research model

Variable name	Code	Mean	S.E	Min	Max
Financial performance	Tobin's Q	1,132	0,665	0,145	9,044
CEO duality	Duality	0,195	0,396	0	1
Percentage of non-executive board members	BI	0,672	0,184	0	1
Market competition	MC	0,754	0,431	0	1
Firm size (million VND)		10.191	74.900	15,1	1.341.436
Ln(firm size)	Fsize	27,575	1,734	23,440	34,832
Board size	Bsize	5,504	1,267	2	11

Source: Data processing results from 558 companies listed on Vietnam stock exchange (2016-2020)

Table 4 also show that the average value of CEO duality is 19.5%, which means that the research sample has 19.5% listed firms having CEO duality. In other words, more than 80% of the listed companies in the sample have these two positions separated. The percentage of non-executive board members has an average value of approximately 67%. The lowest value of this variable is 0 which indicates that all members of BOD participate in management board of the company. There are very few listed companies in this case (For example, Nam Viet Joint Stock Company in 2016 and Vietnam Construction and Electrical Engineering Joint Stock Company in 2017). In addition, there are cases where all members of the Board of Directors are not involved in running the company. In this case, most of them are typical large corporations such

as VINGROUP, Saigon Beer - Alcohol - Beverage Joint Stock Corporation, FPT Joint Stock Company, Vietnam Import-Export Commercial Joint Stock Bank, ... These companies are all oriented towards modern management to create trust for investors, thereby attracting domestic and foreign investment capital.

The market competition variable in Table 4 has an average value of 75.4%, which means that more than 75% of the listed companies in the sample belong to highly competitive industries. In addition, the size of the company by asset value (VND billion) has an average value of VND 10,191 billion, the smallest value is VND 15.1 billion, the largest value is VND 1,341,436 billion. The size of the company has a large difference between the companies listed on the exchange.

The average board size of companies listed on the Vietnam Stock Exchange (2016-2020) fluctuates around 5 members. The minimum value is 2 (The company has only 2 members, which is Vegetable Port Joint Stock Company in 2017. The reason is that as of December 2017, most of the members have resigned, only 2 members left. The company commits that after major shareholders select suitable personnel, they will add enough members to BOD in accordance with current regulations) and the maximum value is 11 (that is the case of Bao Viet Group, Gemadep Joint Stock Company, Military Commercial Joint Stock Bank). The board size of listed firms on the Vietnamese stock market is quite uniform and complies with regulations on corporate governance in Vietnam.

Estimated Results

To choose the appropriate analytical method, models (1) and (2) are estimated by Pooled OLS, FEM and REM. The results of the estimates are shown in Table 5. The results of the Pooled OLS model in Table 5 show that there are 3 estimated coefficients with statistical significance. Next, model (1) is estimated by fixed effects model (FEM) and random effects model (REM) models. The result of Hausman test shows that the FEM model is considered more suitable. The estimated results of the FEM model are different from the Pooled OLS model. The coefficients of CEO duality and the proportion of non-executive members all have $p\text{-value} > 0.1$, so there is no statistical significance. Then, the post tests of multicollinearity, heteroskedasticity and autocorrelation are performed to choose a suitable estimation method and overcome the panel data regression violations (if any).

Table 5: Estimation results by Pooled OLS, FEM, and REM (n=2790)

Variable name	Code	Pooled OLS	FEM	REM
CEO duality	Duality	-0.065**	-0.014	-0.009
Percentage of non-executive board members	BI	0.359***	0.0025	0,076
Market competition	MC	0.018	0.102***	0.096***
Firm size	Fsize	0.009	-0.121***	-0.014
Board size	Bsize	0.044***	0.008	0.021**
Constant		0.401**	4.353***	1.293***

Source: Data processing results from 558 companies listed on Vietnam stock exchange (2016-2020)

Note: *, **, *** represent for the levels of statistical significance at 10%, 5%, 1%, respectively.

To check whether multicollinearity is violated, the correlation coefficient between the independent variables in the model is calculated. The results show that the correlation coefficients are all less than 0.8. The VIF of the variables in the model is also less than 10 and the tolerance value is less than 1 E. Hence, the estimated model may not face with the multicollinearity.

The p-value of Wooldridge test is 0 so the estimated model could encounter the autocorrelation. In addition, the Breusch-Pagan test to check for heteroskedasticity was also performed. The results show that the model has faced with the heteroskedasticity. Thus, the model encounters both the heteroskedasticity and the autocorrelation, which is also a common drawback of panel data with a large number of observations in a short time series, hence FEM and REM estimates is no longer effective. To overcome these problems, GMM estimation method is used. This is a fairly common estimation method to overcome the phenomenon of variable variance and autocorrelation (Roodman, 2009).

The results of GMM estimation are shown in Table 6. Model (1) does not have a moderating variable of market competition (MC). Model (2) has the variable MC as the moderator for the influence of CEO duality and the ratio of non-executive directors (BI) on financial performance.

Table 6: Estimation results of by GMM

Variable name	Code	(1)	(2)
CEO duality	Duality	-0.065**	-0.006
Percentage of non-executive board members	BI	0.358***	0.549***
Market competition	MC	0.018	0.201**
Firm size	Fsize	0.009	0.009
Board size	Bsize	0.437***	0.043***
MCxCEO duality	MCxDuality		-0.080
MCxBI	MCxBI		-0.251*
Constant	_cons	0.404	0.280
Hansen's J		p-value = 0.1383	

^E Due to the space limitation, the results of post tests are not shown. They will be provided according to the request

AR (1)	p-value= 0.0010
AR (2)	p-value=0.0789

Source: Data processing results from 558 companies listed on Vietnam stock exchange (2016-2020)

Note: *, **, *** represent for the levels of statistical significance at 10%, 5%, 1%, respectively.

The GMM estimated results in Table 6 show model (1) has three independent variables including CEO duality, percentage of non-executive board members, market competition and board size all have significant influences on financial performance of listed companies with significance level from 1% to 5%. The results of the analysis of model (2) also show some differences from those of model (1). The market competition variable is statistically significant; however, the significant coefficient of CEO duality is dismissed. In addition, the results in model (2) show that market competition has a moderating role in the relationship between board independence and financial performance of listed companies.

* *CEO duality*

The results of model (1) provide the statistical evidence that CEO duality has a negative effect on financial performance, so hypothesis H1 is supported. This relationship is in line with initial expectations and is also consistent with the results of previous studies such as Gohar and Batool (2015), Singh et al. (2018) Gohar & Batool (2015) or Mubeen et al. (2020). The duality will create centralized power for CEO to take over all decisions. However sometimes because of overconfidence, the company's head does not accent the opinions of functional experts. Thus, this will likely have a negative impact on the financial performance of the company. The results of this study also reinforce empirical evidence supporting the agency theory that the duality weakens the board's oversight of corporate governance, which in turn leads to a decrease in financial performance (Gohar & Batool, 2015; Huy, 2020; Singh et al., 2018). The actual situation in Vietnam also shows the reasonableness of this research result. According to the current regulations of the Government of Vietnam on the separation two positions, namely CEO and the Chairman of BOD. The listed companies in this research sample in the 3-year roadmap to prepare for the abolition of the duality. According to the descriptive statistics of this study (Table 1), in 2017 the number of listed companies with CEO duality accounted for 25% of the total number of listed companies in the sample, but by 2020 this proportion decreased to only 2%.

* *Percentage of non-executive board members*

The results in Table 6 show that the percentage of non-executive board members positively affects the financial performance of the company. This problem can be explained from the point of view of agency theory that these member supervises the activities of

management board more effectively when many members of BOD do not participate in managing the business activities of the company (Knyazeva et al., 2013; Liang et al., 2013; Shawtari et al., 2017). In addition, from the point of view of the resource-based theory, the independent board could enrich the sources for the company by their social relationship. This result is similar to the previous study of Knyazeva et al. (2013) in the US, Liang et al. (2013) in China and Shawtari et al. (2017) in Malaysia.

*** *Market competition***

The estimated results of model (2) show that market competition has a positive effect on financial performance with the regression coefficient of 0.020 and is statistically significant at 1% significance level. This result is consistent with previous studies by Brown et al. (2000) in Russia; Grosfeld & Tressel (2002) in Poland, Pant & Pattanayak (2010) in India. This may be because market competition is the driving force that makes the CEO constantly strive to maximize his capacity to achieve high results to avoid bankruptcy, layoffs, thereby creating optimal profits. The fact also shows that the companies listed on the Vietnamese stock market in the period 2016-2020 are mostly in the highly competitive market (accounting for 75%). Despite operating in a fiercely competitive environment, most of the large, listed companies on the exchange have continued to develop and achieved high efficiency.

*** *Control variables***

The results in Table 6 also show a positive influence of board size on financial performance of listed companies in model (1) and model (2). In other words, the larger the board size, the higher the financial performance. This may be due to BOD with a large scale will have more diversity, better support supervision and advice to the board of management, thereby improving the financial performance of listed companies (Sattar et al., 2020; Thuy, 2020). This result is also consistent with previous studies such as Randøy and Jenssen (2004) or Sattar et al. (2020).

*** *The mediating role of market competition***

In model (2), the regression coefficient of MCxBI is -0.251 and is statistically significant at 10%. This result implies that market competition plays a negative mediating role in the relationship between the percentage of non-executive board members and financial performance. In other words, the positive effect of the percentage of non-executive board members on financial performance is reduced in more competitive markets. Thus, hypothesis H₄ is supported. This evidence in the Vietnamese market is consistent with previous studies such as Randøy and Jenssen (2004) or Singla and Singh (2019). This can be explained that in a

highly competitive environment, the responding to market competition play an important role. Hence, the stricter supervision of a larger percentage of non-executive board members may hinder the response of management board. This could lead to a damage on firm performance. Besides, there is no statistical evidence in Table 6 on the moderating role of the market competition variable in the relationship between CEO duality and the company's financial performance. At the same time, the regression coefficient of CEO duality in model (2) turns insignificant. This result supports for practices of separating two positions of CEO and the Chairman.

CONCLUSION

In the fiercely competitive environment, the current integration period requires public companies to have a good governance control mechanism in order to survive and develop sustainably. Therefore, the issue of the characteristics of BOD and the independence of BOD has been interested by many researchers. In that trend, this study studies the influence of the independence of BOD on the financial performance with the mediating role of market competition. The data is collected from 558 companies listed on Vietnam's stock market in the period 2016-2020. The independence of BOD is considered in two aspects, including CEO duality and the percentage of non-executive members on the boards.

The statistical results show that the dual positions of Chairman of BOD and CEO in listed companies tend to decrease in the research period 2016-2020. The proportion of listed companies with CEO duality in 2017 was 25% of total sample, but by 2020 this rate was only 2%. In terms of the percentage of non-executive board members, the average value of this ratio of listed companies in the sample is quite high at 67%. The highest value is 71% in 2020; the lowest one is 65% in 2016 and 2017. In addition, the statistics also show that most listed companies are operating in highly competitive industries (accounting for 75% of the total sample).

The results estimated by the GMM method show that CEO duality negatively affects the financial performance of the company. In other words, the listed companies having the duality has got a lower financial performance. In addition, the percentage of non-executive directors was found to have a positive effect on the company's financial performance, meaning that the higher the number of non-executive directors on the board, the better the financial performance. Besides, the statistical evidence shows that the market competition variable has a positive effect on the financial performance of listed companies. This result implied that listed

firms in a highly competitive market will operate more efficiently. Moreover, the mediating role of market competition is also documented in this study. The GMM results show that the positive effect of the percentage of non-executive directors on the financial performance of listed companies will be lower in a highly competitive industry. As a result, these results indicate that market competition plays a positive mediating role between board independence in terms of the percentage of non-executive directors and the financial performance of the listed company in Vietnam. However, there is no statistical evidence on the mediating role of market competition in the relationship between CEO duality and the financial performance of listed companies. In addition, the statistical evidence shows that board size is found to have a positive effect on financial performance. In other words, a larger BOD will result in a better financial performance for listed firms.

On the basis of the research results, some governance implications related to the independence of BOD to improve the financial performance of listed companies are proposed as follows. First, listed companies should limit the duality. Research results show that CEO duality will negatively affect financial performance. The current regulation of the Vietnamese government also abolishes the duality, following the best corporate governance practices. This separation helps BOD to have better control over the management board. Listed companies need to strictly comply with the abolition of the duality to strengthen corporate governance structure, reduce risks for businesses, especially risks for shareholders due to the agency problem. This could result in a better financial performance for the company.

Secondly, listed companies should consider increasing the percentage of non-executive board members, however, should empower the management board in a highly competitive market. According to agency theory, board members will operate effectively when not participating in the executive board. Research results show that the higher the percentage of non-executive board members, the higher the financial performance. Members of BOD who do not participate in management board could executive a better advice and a better supervision on the activities of the board of management, avoiding the abuse of their powers of concurrently serving for personal purposes and the interests of a large group of shareholders. Therefore, listed companies should consider increasing the percentage of non-executive board members to improve the advisory and supervisory capacity of BOD, thereby improving the financial efficiency of the company. However, the empirical evidence shows that in a highly competitive market, the stricter supervision of non-executive board member may hinder the quick response of the company to the market. As a result, BOD could executive their roles suitably according

to the level of market competition. BOD could consider empowering the management board in case the firms faced with a tough market competition.

Finally, listed companies should choose the appropriate size of BOD. BOD is an important entity affecting the performance of the company. The research results show that the larger the board size, the better the financial performance. Although listed companies choose the size of the board in accordance with the company size and current regulations. For companies with large board sizes, it is advisable to take advantage of the social relationships and expertise of the board members to help enhance financial performance. For companies with a small board size, it is necessary to create cohesion among board members. They should work well together with mutual trust and understanding to achieve optimal efficiency.

Although a certain of new results were obtained, this study has faced some limitations. The study only considers companies listed on the stock market and ignores unlisted companies in the same industry. Market competition only considers HHI to classify companies into highly competitive industries (value is 1) and low competitive industries (value is 0), not applying the HHI index itself. Further studies can expand the scope of research not only to companies on the Vietnamese stock exchange but also to unlisted joint-stock companies or to other countries in the Southeast Asia. Subsequent studies may update or extend the study period.

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