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IMPACTS OF OWNERSHIP STRUCTURE ON FIRM PERFORMANCE: EVIDENCE FROM VN30 LISTED FIRMS

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ABSTRACT

The research uses data of 30 biggest listed companies in the Ho Chi Minh Stock Exchange (HOSE VN30 listed firms) to analyze the effects of ownership structure on the performance of these companies during the period of 2012-2018. After using the panel dataset, the findings show that foreign ownership has a positive impact on ROA and ROE. Also, financial leverage benefits in creating profits on equity while company size is only meaningful to ROE but does not create much impact. Besides, the state ownership and operational efficiency of the company have no relation, and the annual growth or company age is not meaningful for ROA and ROE. Based on these findings, the authors proposed some suggestions to enhance the performance of companies in emerging markets such as Vietnam.

Keywords: *ownership structure; foreign ownership; financial leverage; firm performance; listed firms*

INTRODUCTION

Equitization is known as the way to convert state-owned enterprises into joint-stock companies. In Vietnam, the regulations of these companies will be changed from operating under Law on State Enterprises to Enterprise Law. Under decision No. 202/CT in June 1992, the equitization plan was officially activated, showing the influence of shareholders on both the business performance and Vietnam's economy during the integration period.

There have been many research papers on the relationship between ownership structure and company performance so far. However, depending on the economic situation and many other factors of each stage of development, this relationship has certain changes from time to time. The purpose of this paper is to analyze the effects of the relationship between ownership structure and the performance of companies in the process of restructuring Vietnam's economy to 2020. According to that, the study focused on 30 blue-chips on Ho Chi Minh City Stock Exchange (HOSE VN30) after the restructuring plan was activated by the government in the period 2011-2020. VN30 is a market index of blue-chips with leading stocks in market

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capitalization and liquidity. These companies are high-value stock companies with a high level of transparency and plentiful capital base including government, foreign ownership, and private ownership. This research focuses on reflecting the reality of ownership structure's impact on company performance in recent years.

1. THEORETICAL FRAMEWORK

1.1. Ownership structure

1.1.1. The concept of ownership structure

Regardless of which company is established, it requires a certain amount of charter capital, which is made up of many different sources, the formation of that capital is like creating the ownership structure of that enterprise (Demsetz and Villalonga, 2001). On that basis, ownership structure reflects the overall ownership relationships with the parts of equity, thereby deciding relations in production and distribution of products as well as economic benefits brought about by the owner's equity (Madiwe, 2014).

1.1.2. Types of ownership structure

Theoretically, the company has *concentrated ownership* or *dispersed ownership* which can lead to the different decisions of the executive management of the enterprise (Madiwe, 2014). Concentrated ownership structure, which often referred to as the internal system, is also called centralized ownership structure where both ownership and control of the company focus on the hands of some individuals, families, management, or lending institutions (Goldberg et al., 2016). These individuals and groups often control and dominate how the company operates (Madiwe, 2014). These ownerships have the power and motivation to control the business closely, thereby minimizing misdemeanor or fraud in administration and administration. Moreover, because of the large ownership and control rights, these people tend to keep investment in the enterprise for a long time (Goldberg et al., 2016). As such, they will support decisions that will help to improve long-term performance rather than short-term decisions. However, this system also leads businesses to fail in governance. When executives are large shareholders or have large voting rights, they can use their rights to influence the Board's decision for self-interest.

In dispersed ownership structure, companies have many shareholders; each shareholder owns some shares of the company, control of the company's operations held by the Board of Directors. Small shareholders have little incentive to closely monitor activities and do not want to participate in operating the company (Madiwe, 2014). As such, they are called outsiders and the scattered structures are also called external systems. With the distributed structure system, the company operations manager does not necessarily have to contribute equity, so the separated management is relatively clear with the economic benefits they receive; enterprises with many shareholders require the operation process to be public and monitoring activities must be conducted strictly. However, this system has the disadvantage that small shareholders are less motivated to participate in managing the company, easily divesting and tend to support short-term decisions (Goldberg et al., 2016)

Additionally, a company can be owned and controlled by two different groups of people, but the non-independence or the existence of related relationships and links between these two

groups also causes problems that are similar to the problem of centralized structure. The most likely possibility is the existence of cross-ownership structures and pyramid structures among companies. These two forms of ownership are often found in member companies of corporations or groups of companies.

1.1.3. Empirical results on the ownership structure

Research papers on international cases

Empirical research by Lauterbach and Vaninsky (1999) differentiates between a family company, a company controlled by the cooperation of individuals, companies controlling the company, and the company where the major shareholders have little more than 50% of Israeli voting rights. Results imply that companies where both managers and owners were less effective in generating net income than those managed by professional managers (Lauterbach and Vaninsky, 1999). Haldar and Rao (2010) conducted an empirical study of relationships on many aspects of the company's ownership structure and profits. Research results show that large foreign-owned companies directly proportional to efficiency indicators (Tobin's Q, ROA, and ROCE). In contrast, companies with no investment or little foreign investment have low operational efficiency (Haldar et al., 2010). Kang and Kim (2012) studied the relationship between ownership and firm performance. The author does not mention much about foreign ownership as China is one of the countries advocating for economic restructuring aimed at restricting foreign investment into the country. Positive financial leverage for companies with a lot of government shares means that these companies have a high borrowing index and take advantage of that benefit for profitability. It also indicated that the larger the domestic capital structure, the better the performance of the company in the country in the transition to a privatized economy (Kang and Kim, 2012). Suman et al. (2016) also investigate this issue with the case of the Indian economy in the period 2011-2015. The objective of the empirical investigation is to analyze the influence of ownership structure on specific industries such as textiles, oil, and gas, cinema, entertainment. In general, ownership structure in this period does not mean too much for the company's performance, the level of influence is kept at a certain low level (Suman et al., 2016). Ezeoha and Okafor (2010) define that the ownership structure made up of many investment channels such as managers, institutions, government, and foreign investors, which can affect the performance of a firm. In India, concentrated ownership brings high performance to the companies. Additionally, the impact of managerial ownership is based on many factors such as management, inter-departmental linkages (Ezeoha and Francis, 2010). Kamardin et al. (2016) studied the effects of different types of ownership structures on the business performance of listed firms based on data from Bursa Malaysia. Foreign investment will have a negative influence on the company's profitability. However, the company that links to government ownership has no effect on corporate profits, which is unlikely to happen. The reason is that the Malaysian government does not invest much in domestic businesses, low shares, low voting power, and almost trivial. The effect of director ownership on performance is negative (Kamardin et al., 2014). Klungland and Sunde (2009) conducted empirical investigations around the 2001-2007 global financial crisis with Oslo stock exchange-listed companies. The research results show that concentrated ownership companies have almost no relationship between proprietorship structure and profitability. Also, the results of this research show that Oslo securities companies have a large performance

proportional to foreign ownership. In contrast, the higher the state ownership rate negatively affects productivity (Klungland and Sunde, 2009).

Research papers on Vietnamese cases

The research by Thu Trang (2017) clarifies the influence of the ownership structure and the efficiency of Vietnamese enterprises after the implementation of the economic restructuring plan to 2020. The empirical results show that the shareholder structure makes a significant influence on the productivity of listed corporations in Vietnam and government ownership harms the performance of listed companies. Otherwise, foreign ownership has an optimistic influence on the profitability of listed companies, and the existence of major shareholders does not affect the performance of businesses with a significance level of 5%. Also, the research outcomes illustrate that the performance of listed companies on the Ho Chi Minh Stock Exchange (HOSE) is influenced by the ownership structure, which is influenced by the characteristics of the companies (Pham, 2017). Results confirmed the consistent phenomenon: when the proportion of state ownership is high, the ratio of debt is high, but it leads to low performance and vice versa. The results may prove to be in support of state management policies that tend to reduce state ownership and increase foreign ownership in companies in Vietnam and appear to be consistent with some other studies on the issue (Do and Wu, 2014; Nguyen and Dang, 2017)

Generally, many external factors affect business profitability, which is referred to as leverage, capital management (Wiwattanakantang, 1999), state ownership and growth opportunity (Nguyen and Ramachandran, 2006), firm size (Abor, 2005). Furthermore, State ownership has a positive impact on financing decisions by financial leverage of listed companies, while foreign ownership has the opposite effect. Specifically, the fact that a company with a large number of foreign shareholders will bring about organizational benefits, strategic visibility, and rapid response to market changes. In any organization, some final objectives and results have been defined according to which the duties of each one of the staff are specified (Pakdaman and Balideh, 2020). Every organization comes with a vision in the business (Sanna et al., 2019; Akbari et al., 2019; Abbasi et al., 2018).

1.2. Company performance

The performance of the company is assessed by many indicators. Some mentions about the operational efficiency, which is regarded as an economic category that reflects the usage of resources to achieve a defined goal. Operational efficiency is enhanced in the case of increased results, reduced costs, and in the case of increased costs, but the rate of increase in results is faster than the cost increase spent to achieve that result (Selvam et al., 2016).

However, this study uses two simple ways to effectively measure the company: return on assets (ROA), return on equity (ROE), Tobin's Q, Earnings per share, etc. (Selvam et al., 2016). Specifically, ROA is a measure to assess the management capacity of that company and ROE indicates the net income of shareholders' equity. These indicators are often paid special attention by investors as well as shareholders.

1.3. Determinants of ownership structure and company performance

The objective of this paper is to analyze the impact of ownership structure on firm performance. As such, the paper includes factors that demonstrate company performance such as Return on assets (ROA) and Return on equity (ROE). Also, other independent variables affecting ROA and ROE include government ownership (GOV) and foreign ownership (FOR), in addition to variables like company size (Size), financial leverage (Lev), annual asset growth (Growth), and the age of business (Age).

ROA is calculated by profit after tax divided by total assets to calculate the profitability of a company's assets. Haldar et al. (2010) state that the relationship between ROA and promoters' holding is in the same direction. The report on the relationship between the ownership structure of Chinese enterprises from 1994 to 2002 and firm performance shows ROA is proportional to government ownership. Hence, the higher the ratio of government ownership, the better the ROA ratio can be found. The paper by Do and Wu (2014) gives support that government ownership has an optimistic effect on ROA. Also, the ROA is positively influenced by the concentrated ownership, institutional ownership, foreign ownership, and managerial ownership. **ROE** is measured by the efficiency of using shareholder's equity to make profits. The research by Do and Wu (2014) illustrates that government ownership has a positive impact on ROE. The paper by Levent (2011) using an econometrics panel analyzes the relationship between ownership structure and company profit via two quantities: ROE and MBV on the Istanbul stock exchange (2000-2004) giving the result that there is an insignificant relationship between ROE and ownership structure (Çitak, 2007). **The size of the company** is measured by the book value of the total assets (TA) including items such as cash, investment, loans, and even inventories, etc. used to calculate ROA and financial leverage. **Financial leverage** is the ratio of long-term debt and total asset value at the end of the year. On the other hand, the leverage ratio is also calculated as the liabilities divided by total assets. Iqbal and Usman (2018) studied the relationship between financial leverage and ROA, ROE on 16 Pakistani listed companies in 5 years from 2011. The contradictory result between the impact of financial leverage on ROA and ROE is that while ROA receives positive support from leverage ratio, ROE is the opposite (Iqbal and Usman, 2018). **Asset growth rates** indicate relative asset growth (in percent) annually. If a business uses unearned profits to reinvest, then asset growth often means that businesses want to expand production, and asset growth is often a good sign. In case enterprises use mainly loans, we need to be cautious. Since the loan will have to pay both interest and principal, the use of the loan to invest carries a lot of risks, and the decision to make a wrong investment can lead to heavy losses or bankruptcy (Maggina and Angelos, 2012). Pervan et al. (2017) said that the **number of years of business establishment** also plays an important role in efficiency in the profit of the company. The research shows that the company's age influences the company's performance adversely (Pervan et al., 2017). Empirical results in Vietnam show **government ownership** harms performance (Ngo et al., 2014). The result is also observed in the case of Kuwait listed companies (Alanezi et al., 2014). The article by Yu (2013) examines the relationship between government ownership and corporate activity of listed companies in one of the most developed countries today, such as China, which shows an interesting result. The relationship between these two variables is U-shaped, it means that this form of ownership initially has a beneficial effect on profitability, then decreases over time to a minimum effective point leading to an upward in performance of the company (Yu, 2013). The process of corporate restructuring is the process of state capital

divestment, attracting **foreign investment.** This process is the key to opening a new page for the economy of developing countries like Vietnam, Turkey, Ukraine, etc. The positive influence of foreign investors on Ukrainian listed companies is witnessed in the early 20th century until the world financial crisis 2007 (Bilyk et al., 2011). For Turkey, foreign capital sources brought more positive effects to the company than state capital (Aydin et al., 2007). Another study for Turkish firms between At another stage 2009 and 2014, the relationship between foreign ownership and company profits is A-shaped. It means that foreign investment has positive company efficiency until a maximum point and then goes downward (Yavas and Erdogan, 2017)

2. AN OVERVIEW OF VIETNAMESE FIRM CHARACTERISTICS

According to Deloitte, 2018 there are some common types of business in Viet Nam as following:

(1) Limited liability company where the company owner and the company are two separate legal entities. A limited liability company has no more than 50 members who contribute capital to the establishment and the company is only responsible for debts and other financial obligations within the scope of its asset obligations. However, limited liability companies are not allowed to issue shares to raise capital. A business cooperation contract (BCC) is established in Vietnam by a combination of domestic and foreign investors. It is established in the form of a limited liability company.

(2) Joint-stock company is a company in which charter capital is divided into equal parts called shares that are established and exist independently. Shareholders are only responsible for the debts and other property obligations of the company to the extent of the capital contributed to the company, have the right to freely transfer their shares to others. Joint-stock companies have the right to issue securities outside according to the law on securities.

(3) Partnership is a company in which there must be at least two general partners who are the joint owners of the company, in addition to members of a partnership that may have capital contributing members. Partnerships are legal entities, members have the right to manage the company and conduct business activities on behalf of the company.

(4) Public-Private Partnership (PPP), was launched in 2014, which is a model of cooperation between the government and investors to coordinate the implementation of the infrastructure development project and providing public services based on project contracts.

2.1. Performance of VN30 companies (HOSE)

Table 1 represents the classification of VN30 companies while Table 2 and Table 3 refer to the performance of them. According to Table 2, it is easy to see that nearly two-thirds of companies without government ownership include those that have divested the government or established companies with only private or foreign capital. There are only 2 companies with no foreign investment. Table 3 represents the statistics of VNDIRECT in 2018, which indicates that real estate and banking are the two sectors with the largest number of companies with the highest value and transparency by 2018

Table 1: Classification of 30 companies VN30 (HOSE) until 2018

Branch	Number of firms
Banking industry	8
Real estate	5
Food and beverage	4
Construction and materials	2
Industrial goods and services	2
Medical	1
Resources	1
Chemistry	1
Personal and household items	1
Entertainment	1
Convenient service	1
Financial service	1
Retail service	1
Technology	1

(Source: Author's summary)

Table 2: Ownership structure of VN30 companies (HOSE) until 2018

Ownership structure	Number of firms
None of government ownership	19
None of foreign ownership	2
Having both government and foreign ownership	9

(Source: Author's summary)

According to Table 3, Vinhomes Joint Stock Company (VHM) has ROA of 12.8% and ROE of 31.7%, which is superior to the rest of the companies on HOSE. Vinhomes is a company that does not have any capital from the government, the ownership structure only includes foreign investment up to 49% (2018) and other private shareholders belonging to VinGroup, the largest multidisciplinary corporation in Vietnam currently. Hence, it is not surprising that the ROA and ROE of this company have reached such a positive level, especially making profits from their equity are highly effective. In 2018, most banks have an ideal ROE of over 15%. After collecting and synthesizing data, Vietnam Milk Products Joint Stock Company (VNM) is the company with the most ideal ROA and ROE among 30 companies with blue-chips on HOSE in 2018, in which ROA is 27.25 % and ROE is 38.76%. Therefore, the financial leverage index of this company is also pleasant, which means that their use of loans for profitability is extremely effective, unlike companies using loans to make up for losses such as production costs and inventory. With the outstanding development of the aviation industry in recent years, VIETJET Aviation Joint Stock Company also achieved remarkable achievements in operational efficiency with the most honest evidence that their ROA from 2016 to 2018, they all reached over 10%. Besides, their ROE index is always great, noticeably up to more than 50% in 2016.

Table 3: ROA and ROE ratio of firms in Real estate and Banking sector in 2018

Code	Branch	Year	ROA	ROE
CII	Real estate	2018	1.5%	4.2%
VHM	Real estate	2018	12.8%	31.7%
VIC	Real estate	2018	3.0%	8.9%
VRE	Real estate	2018	6.3%	8.5%
NVL	Real estate	2018	4.7%	16.2%
CTG	Banking	2018	0.5%	8.0%
EIB	Banking	2018	0.4%	4.4%
HDB	Banking	2018	1.5%	19.0%
MBB	Banking	2018	1.7%	18.1%
STB	Banking	2018	0.4%	7.3%
TCB	Banking	2018	2.6%	16.4%
VCB	Banking	2018	1.4%	22.9%
VPB	Banking	2018	2.3%	21.2%

(Source: Authors' summary)

3. METHODOLOGY

3.1. Data collection

This research uses a database of listed companies that have been released on the Ho Chi Minh stock exchange (HOSE). The data is collected over 7 years from 2012 to 2018 from annual reports, balance sheets, financial statements of 30 listed companies on VN30 of HOSE through cafef.vn, cophieu68.com, hsx.com includes indicators of total assets, total liabilities, net income, established year, government ownership and foreign ownership.

3.2. Variables in the research

3.2.1. Dependent variables

Company performance is measured by two variables: Return on assets (ROA) and Return on equity (ROE). The calculation of these ratios is as follows:

$$Return\ on\ Assets = \frac{Net\ income}{Total\ Assets}$$

$$Return\ on\ Equity = \frac{Net\ income}{Average\ Shareholders'Equity}$$

3.2.2. Independent variables

Government ownership is measured by the proportion of government ownership on total (written as GOV). The government ownership ratio is the ratio of shares held by the government or the state representative on the total number of shares issued. Foreign ownership is measured by proportion on total besides private ownership and government ownership (written as FOR). The size of the company (written as SIZE) is measured by the book value of the company's total assets. The financial leverage ratio of the firm (written as LEV) is measured by the debt ratio of the company. The debt ratio is determined by the total liabilities divided by the total assets of the company. Moreover, the growth rate of the company (written as

GROWTH) is measured by annual total assets growth. The company's age (written as AGE) is measured from the established year to the year from 2012 to 2018.

3.3. Research models

Most previous studies used panel data when examining this topic because of small cross-sectional data, applying techniques for processing data is the model of fixed effects (FEM) and the random-effects model (REM). This study tested Breusch-Pagan and Hausman to conclude that FEM is the most reasonable model to analyze the effect of ownership structure on ROA and ROE. Following is the empirical model:

Empirical model:

- $ROE_{i,t} = C_{i,t} + \beta_1 GOVi,t + \beta_2 FORi,t + \beta_3 SIZEi,t + \beta_4 LEVi,t + \beta_5 GROWTHi,t + \beta_6 AGEi,t + u_{i,t}$

- $ROA_{i,t} = C_{i,t} + \beta_1 GOVi,t + \beta_2 FORi,t + \beta_3 SIZEi,t + \beta_4 LEVi,t + \beta_5 GROWTHi,t + \beta_6 AGEi,t + u_{i,t}$

In which:

ROEi,t is the return on equity of firm i at time t
ROAi,t is the return on assets of firm i at time t
GOVi,t is the proportion of government ownership of firm i at time t.
FORi,t is the proportion of foreign ownership of firm i at time t.
SIZEi,t is the total assets of firm i at time t.
LEVi,t is the leverage ratio of firm i at time t.
GROWTHi,t is the annual growth rate of total assets of firm i at time t.
AGEi,t is the age of firm i at time t.

4. RESULTS OF REGRESSION MODELS AND DISCUSSION

4.1. Descriptive statistics

Table 5: Descriptive summary

	ROA	ROE	Equity	TL	Size	Net income	Age	Lev	Growth	Gov	For
Mean	.0758659	.172106	1.59e+07	9.52e+07	1.11e+08	2706878	20	.6002649	3.977359	.1670805	.2765348
Std. Dev.	.0774784	.1156397	1.60e+07	1.94e+08	2.06e+08	3106731	10.87643	.2547741	54.02877	.2921779	.1482723

Min	-.1652047	-.1712121	660	24	684	-113	1	.0350877	-.326875	0	0
Max	.3191886	.5453049	9.90e+07	1.10e+09	1.16e+09	1.53e+07	55	.973273	783.1775	.967	.5326
Observations	210	210	210	210	210	210	210	210	210	210	210

According to Table 5, the average ROA and ROE of 30 listed companies in VN30 (HOSE) are approximately 7.6% and 17.2%. Through the process of restructuring government enterprises 2011-2015, attracting foreign investment, peaking in 2015 with 220 companies restructured government capital. Indeed, VN30 companies had 16.7% government ownership and 27.7% foreign ownership on average.

On the other hand, the highest foreign ownership rate is 53.26% but the average figure is also nearly 30%, as evidenced by the fact that about 19 companies in VN30 do not have foreign ownership and 9 companies have both government and foreign ownership. The financial leverage index of VN30 companies averages 60%, with a maximum of 90% and a minimum of 3%, it can be concluded that companies often use debt as the main financial instrument to create profits. Besides, the annual asset growth index of VN30 companies is quite suitable for those companies, averaging nearly 400%.

4.2. Model 1:

To assess how these variables affect company performance, Stata14 will be selected to analyze the above two models. The first model is:

$$ROE_{i,t} = C_{i,t} + \beta_1 GOVi,t + \beta_2 FORi,t + \beta_3 SIZEi,t + \beta_4 LEVi,t + \beta_5 GROWTHi,t + \beta_6 AGEi,t + u_{i,t}$$

After running the above model using Stata14, the result is as following:

Table 6: Regression results of model 1

	(1)	(2)	(3)	(4)
	ROE (POLS)	ROE (FE)	ROE (RE)	ROE (Autocorrelation)
gov	0.2328***	-0.0239	0.2457***	0.2613***
	(0.0401)	(0.1764)	(0.0631)	(0.0579)
for	0.2939***	0.9678***	0.7560***	0.6535***
	(0.0574)	(0.0806)	(0.0733)	(0.0751)
size	-0.0000***	0.0000	0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
lev	0.0916*	0.2427***	0.1464**	0.1500**
	(0.0454)	(0.0508)	(0.0466)	(0.0482)
growth	-0.0003	-0.0001	-0.0001	-0.0001

	(0.0001)	(0.0001)	(0.0001)	(0.0001)
age	-0.0007	-0.0022	-0.0008	-0.0009
	(0.0008)	(0.0024)	(0.0015)	(0.0014)
Constant	0.0359	-0.2066**	-0.1505**	-0.1166*
	(0.0377)	(0.0652)	(0.0477)	(0.0473)
Observations	210	210	210	210
r2	0.2303	0.4943		
F	10.126	28.3514		

Standard errors in parentheses
* p<0.05, ** p<0.01, *** p<0.001

The table above describes the combined regression results of the first model, analyzes the effect of ownership structure and other factors on firm performance measured by ROE. After running 2 Fixed effect model (FEM) and Random effect model (REM) models, the Breusch Pagan test was performed to choose between REM and Pooled-OLS (POLS), obtained Pro> chibar2 = 0.0000 (small more than 5%), so choose RE. After that, continue to run the Hausman test to choose the better model between FEM and REM, Pro> chibar2 = 0.0000 (less than 5%). As a result, FEM is the most suitable model to run model 1. Firstly, Prob> F (FEM) of model 1 equals 0 meaning that this model is meaningful. The results show that only 3 of the 6 independent variables of this model are significant as FOR, SIZE, and LEV because the p-value of FOR and LEV are equal to 0% significant at 1% and p-value of SIZE = 5.3% significant at 10%. In detail, the coefficient of FOR is 0.967, meaning foreign ownership has a strong and positive effect on ROE. The use of equity, especially foreign capital brings positive influence to company profits. In addition, the LEV coefficient of 0.243 means that companies in this period use loans well to rise profits unlike companies that use loans to make up for the shortage. On the other hand, although the SIZE makes sense, the impact of SIZE on ROE is negligible (coefficient = 1.27e-10).

4.3. Model 2

Besides measuring company performance by ROE above, the second model has the dependent variable of ROA:

$$ROA_{i,t} = C_{i,t} + \beta_1 GOVi,t + \beta_2 FORi,t + \beta_3 SIZEi,t + \beta_4 LEVi,t + \beta_5 GROWTHi,t + \beta_6 AGEi,t + u_{i,t}$$

Table 7: Regression results of model 2

	(1)	(2)	(3)	(4)
	ROA (POLS)	ROA (FE)	ROA (RE)	ROA Autocorrelation
gov	0.1506***	0.139	0.1553***	0.1577***
	(0.0201)	(0.0934)	(0.0304)	(0.031)
for	0.1267***	0.4112***	0.3055***	0.3044***
	(0.0288)	(0.0426)	(0.037)	(0.0379)
size	-0.000***	0.0000	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)

lev	-0.0782***	-0.0221	-0.0680**	-0.0655**
	(0.0228)	(0.0269)	(0.0236)	(0.0241)
growth	-0.0001	0.0000	0.0000	0.0001
	(0.0001)	(0.0000)	(0.0000)	(0.0000)
age	0.0002	-0.0003	0.0002	0.0001
	(0.0004)	(0.0013)	(0.0007)	(0.0008)
Constant	0.0757***	-0.0429	0.0085	0.0099
	(0.0189)	(0.0345)	(0.0238)	(0.0244)
Observations	210	210	210	210
r2	0.5677	0.4097		
F	44.4384	20.1252		

Standard errors in parentheses
* p<0.05, ** p<0.01, *** p<0.001

In this model, we performed the Breusch Pagan test to choose between REM and POLS, Pro> chibar2 = 0.000 (less than 5%), so decided to choose REM. Thus, continue to apply the Hausman test to choose between REM and FEM, Pro> chi2 = 0.000. It can be concluded that FEM is the most suitable for the second model. With FEM, model 2 has only one significant independent variable (FOR), significant at a 1% level with a coefficient of 0.411. This means that foreign ownership has a positive impact on the company's profit created by total assets.

In general, FOR brings optimism in generating profits from the capital. Also, financial leverage brings positive signals to using the company's loans to make profits from equity. Also, for ROE, the company size still has meaning but not much impact. With previous studies, government ownership (GOV) has significance and tends to be negative for company performance. However, in this study, with the dataset of 30 VN30 companies (HOSE) in the period of 2012-2018, the relationship between government ownership and company performance is not meaningful in both aspects as ROA, ROE. Other independent variables such as annual growth rate (GROWTH) or the age of business (AGE) do not affect company performance.

4.4. Further discussion

In this study, the existence of state ownership does not make sense, which proves that the restructuring of the state structure (2012-2018) is effective but the response to this variable is unclear. This study shows that in both models measuring company efficiency by ROA and ROE, while state ownership is not meaningful, foreign ownership is significant at 1% level. For companies with foreign capital, facilities such as labor and management are modernized, the use of resources as well as assets to generate profits is also highly effective. Specifically, the coefficient of FOR in the first model is 0.96 and the second model is 0.41. Although capital use is more effective for foreign ownership on firm performance, both models show the positive of foreign ownership to Vietnamese listed companies.

In the first model, financial leverage is significant for ROE at 1%. This means that the use of financial leverage as a profit-making tool of Vietnamese listed companies goes in a positive direction because the coefficient of LEV in the first model is 0.24, it means that if the leverage ratio rises 1%, the ROE of firms will go up 0.24%. However, financial leverage does not make sense for ROA. Also, if the ratio of ROE is greater than ROA, financial leverage is used

positively, meaning that the company succeeds in raising shareholders' capital to earn profit with a rate higher than the rate of interest that the company has to pay shareholders.

In addition to ownership structure and financial leverage, the total size of the company measured by total assets is significant at 10% in the first model *(p-value = 0.53).* However, the impact of size on firm performance is modest (1.27e-10). This result is similar to the research results of Mawih (2014) and Oyelada (2019). The annual growth rate calculated by the year-on-year increase in assets is not significant for both models. Contrary to Maggina, Angelos (2012) research that annual growth assets can predict company profits, this case is impossible for the circumstance of Vietnamese listed companies. It can be concluded that despite being one of the factors affecting company performance, different environments and economic circumstances will produce various results.

The age variable represents the company lifespan, in the first model, this variable is not significant for the company performance (ROE), and the same thing happens with the second model (ROA). Indeed, the age of the company has a negative impact or does not affect the company's performance.

CONCLUSIONS

The paper is based on research strands from previous studies on the effects of ownership structure on company performance in the case of Vietnam and developing countries like China, India, Malaysia, etc. Initially, the research objective aimed at the period from 2008 to 2018 because the scope of that period will clarify the ownership structure of Vietnamese firms after the global economic crisis of 2008.

Limitations

Due to the limitations of the disclosure and transparency of balance sheets and financial statements of listed companies on the HNX and HOSE, this paper has to narrow the scope into 30 companies VN30 of HOSE with the hope that the information obtained will be completer and more transparent. The progress of data collection is quite hard because the database is taken from various sources such as HOSE, CafeF, cophieu68, which have not been correctly verified. Therefore, the data in the research cannot be completely accurate. Besides, the narrowing of the research phase has made the paper unable to fully comprehend the relationship of ownership structure and company performance in the process of restructuring SOEs as well as before and after the financial global crisis. If there is a full set of data in that period, the paper will have a chance to go deeper in analyzing the differences in ownership and efficiency of the company into two separate scenarios from which to an overview of the development process of Vietnamese enterprises in particular and Vietnam's economy in general. Also, due to the lack of data, the research article had to ignore some variables related characteristics of the company such as dividend yield, turnover, coefficient of the market price on the firm's book value, etc. Moreover, the research results are not as expected, when the independent variable showing ownership structure (GOV) does not make sense on both ROA and ROE indicators.

Suggestions for the government and enterprises

In addition to large Vietnamese companies on the HNX and HSX, the restructuring process should continue to be promoted, especially companies with 100% government ownership by reducing their coating, increasing foreign ownership. To increase operational efficiency, companies need to implement ownership restructuring, especially companies with state ownership, towards reducing state ownership, increasing foreign ownership and decision-makers should come up with policies to encourage foreign owners and restrict state owners in companies. State companies are not proactive in mobilizing capital and not promoting financial autonomy in business. The system of state companies is not consistent with the objective economic law of the market. It is unclear between the state management function and the management of state owners; the quality of human resources and technology level is still low. Therefore, it is necessary to transform state-owned companies into joint-stock companies to improve the competitiveness of companies and economies. However, the quality of equitization in the past time has also had many shortcomings, the delay in equitization, the low rate of equitization, and the equitization is still formal and has not focused on foreign investors. On the other hand, when Vietnam enters the international market, compared to other companies in the same industry, many limitations need to be overcome such as financial constraints; corporate governance is not professional; high-quality human resources is still low; materials, machinery, and equipment also depend heavily on imports. Besides, companies need to increase the participation rate of foreign investors in the management and administration of production and business activities of companies so that foreign investors have the opportunity to directly participate in the company operations, help management capacity, the competitiveness of the company improved and help the company have the opportunity to access modern advances and machinery in the world, reaching out to the international market and increase capital mobilization. Foreign equitization will bring advantages in management, capital mobilization, human resources, and technology. The government needs to have market expansion policies. The first is to increase the limit of foreign ownership in listed companies. Secondly, the open sale of public securities to foreign investors to create an attractive environment to attract outside investment. For example, allowing foreign investors to issue a listed stock but limited their voting to avoid market domination. Thirdly, the government needs to strengthen the publicity and transparency in the market, improve the policy framework, management, and supervision capacity by developing the current relevant regulation to support the stock market grow smoothly. Also, it is necessary to improve connection and management among responsible departments in the process of equitization to help the process operates most effectively.

Besides, businesses also need policies to promote the equitization process. First of all, corporations should separate production and business tasks with political and public-utility tasks. Secondly, state-owned enterprises need to make transparent performance results. Besides, companies need to continue to expand the attraction of foreign investors by increasing the sale of company stock companies publicly. Moreover, companies have to comply with the state restructuring policies to catch up with the progress but to do that, there must be a close link between the parts of the company.

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