

OWNERSHIP STRUCTURE AND CORPORATE DIVERSIFICATION DECISION: A STUDY OF VIETNAMESE LISTED FIRMS

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Abstract

This research examines the impact of the ownership structure on corporate diversification decision of listed firms in Vietnam over the period of 2007 and 2012. The empirical results from logit model show that while state ownership has positive impact on corporate diversification decisions of the firms, foreign ownership has negative impact on corporate diversification decision of the firms. This implies that government ownership tends to encourage corporate diversification strategy, while foreign ownership may play monitoring role and discourage corporate diversification strategy in emerging market context.

Keywords: Corporate Diversification, Vietnam, State Ownership, Foreign Ownership

1. INTRODUCTION

As an emerging market, Vietnam plays a considerable role in world economy. GDP growth rate of Vietnam is higher compared to the average growth rate of emerging and developing markets. (International Monetary Fund 2010). Before 1986, Vietnam was a centrally planned economy that is characterized by state ownership. However, the 1986 economic reform (known as Doi Moi) led to privatization of state owned enterprises. The privatization process has led to a gradual change in ownership structure of Vietnamese firms. There was appearance of private ownership and foreign ownership. Foreign ownership has become an considerable part of ownership structure in Vietnamese firms (Phung & Le 2013). It is observed that state ownership and foreign ownership contribute to more than a half of GDP of Vietnam (Vietnam General Statistics Office 2006, 2010, 2014). Thus, state ownership and foreign ownership are important in ownership structure of firms in Vietnam.

Corporate diversification is an expansion strategy adopted by many enterprises around the globe (Lin & Su 2008). With the encouragement of Vietnamese government since the 1990s, many Vietnamese firms, especially state-owned firms, have tended to diversify. Research on topic of corporate diversification is still unexplored in Vietnam. Identifying determinants of corporate diversification is crucial when examining effect of corporate diversification on firm performance. Agency problem is a main reason for corporate diversification (Martin & Sayrak 2003), and ownership structure is a major factor affecting a firm's propensity to diversify. Therefore, the purpose of this paper is to examine effect of ownership structure (state ownership and foreign ownership) on corporate diversification decision in the context of Vietnam.

Using data of Vietnamese listed firms over the period of 2007 and 2012, this paper finds that state ownership has positive effect on corporate diversification decision and foreign ownership has negative effect on corporate diversification decision. This implies a political and social goals of state ownership, and monitoring role of foreign ownership in firms. The results contribute to the literature of ownership structure in the context of emerging market.

The rest of the paper is organized as follows. Section 2 discusses literature review of relationship between ownership and corporate diversification. Section 3 develops hypotheses. Section 4 discusses research methodology. Section 5 discusses summary statistics and correlation matrix. Section 6 discusses empirical results and finally, section 7 concludes.

2. LITERATURE REVIEW

When there is existence surplus resources in current businesses, a firm is likely to diversify its operations. Corporate diversification is often considered as a strategy for firms in order to expand their operation and reach the goal of profit maximization. An explanation for corporate diversification is changes in economic or industry environments (Campa & Kedia 2002). Firms may escape from their current businesses when these businesses are not profitable. Firms may benefit from there multi businesses since they can survive longer even if a specific business fails (Bercovitz & Mitchell 2007).

From the perspective of agency theory, Aggarwal and Samwick (2003) reveal two arguments which may be used to explain firms' propensity to diversify. They are risk reduction and private benefit of firms' managers. When senior managers own shares in firms, they may bear idiosyncratic risk when the firms do not diversify. The higher managerial ownership is; the higher idiosyncratic

risk managers face and thus they try to conduct corporate diversification strategy for lowering the risk. As gaining more benefits such as reputation or compensation, managers may make investments in many new area. This give managers incentive to diversify firm's business.

Amihud and Lev (1999) inspect the effect of ownership structure on the corporate diversification strategy and find that the relation between corporate diversification and ownership concentration is negative. Denis, Denis and Sarin (1999) show evidence that there is a negative link between corporate diversification level and managerial ownership. They state that, as the managers own more shares, they do not tend to follow the diversification strategy. Chen, S-S and Ho (2000) find that the level of diversification has negative relation to outside block holder ownership, but it is unrelated to insider ownership. They find that diversified firms which have lower value than single segment firms, often associate with low managerial ownership.

Chen, C-J and Yu (2012) state that most studies investigate the relationship between corporate diversification and ownership structure within the context of developed economies while there are few studies focusing on emerging markets. Their study examines the relationship between managerial ownership, corporate diversification, and firm performance in the context of Taiwan. They show that the relationship between managerial ownership and corporate diversification is not a linear relationship but a U-shaped relationship. This implies that higher managerial ownership leads to a decrease in diversification at a level, but after this point, higher managerial ownership leads to an increase in diversification.

Del Brio, Maia-Ramires and De Miguel (2011) argue that concentrated ownership is helpful in a weak investor protection market because large shareholders can monitor the managers. Ownership concentration can be considered as an alternative means for protecting investors in the context of poor investor protection civil law countries. They find a non-linear relationship between ownership concentration and corporate diversification for Spanish firms. Their results state that the concentration of ownership plays a monitoring role towards the manager's actions. However, when the concentration is too high, exceeding a breakpoint, controlling owners tend to follow diversification strategy that can expropriate the benefits of minority shareholders.

Ownership identity is also an element impacting the firm's diversification strategy. Government owners normally have dissimilar purposes compared to those of private owners because government owners have goals that regularly accompany political interests (Shleifer & Vishny 1994). Delios and Wu (2005) find that legal person ownership² concentration has negative effect on diversification activities. Delios, Zhou and Xu (2008) find that state ownership has a positive impact on diversification, and private ownership has a negative impact on diversification in China. Zhao (2010) indicates that business groups owned by the

government are inclined to increase their level of corporate diversification.

3. HYPOTHESES

Research findings reveal that ownership structure affects diversification (Bae, Kwon & Lee 2008; Chen, S-S & Ho 2000; Delios, Zhou & Xu 2008; Gomez-Mejia, Makri & Kintana 2010; Jiraporn et al. 2006; Kim et al. 2009; Lin & Su 2008; Lins & Servaes 2002). However, most studies focus on the ownership of large shareholders and managers, while there are few studies that examine state ownership and foreign ownership. Delios, Zhou and Xu (2008) shows that the identity of ownership structure may determine the decision of firms to diversify. Ownership identity can affect the ability and level of diversification of firms.

Differences in ownership structure may affect diversification decision of firms. For example, family owned firms try to diversify to spread risk and generation transition (Nachum 1999), while the propensity of state owned firms is driven by the social and political goals rather than the value maximization objectives (Wan et al. 2011). When controlling shareholders occupy a large fraction of total board seats, they have incentive to expropriate other shareholders through corporate diversification (Tsai, Young & Hsu 2011). Hence, it can be argued that when state ownership is controlling ownership in firms, those firms may have high level of diversification

In the case of Vietnam's market, although state ownership has decreased gradually due to privatization of state owned enterprises³, it can be seen that state ownership plays an important role in Vietnam (Nguyen, Oates & Dunkley 2014; Sjöholm 2006; Vietnam National Assembly 1992, 2013). State ownership on average accounts for around 46 percent of equity in privatized firms (Sjöholm 2006). Thus, this study proposes the following hypothesis:

H.1: when state ownership increases, listed firms are likely to conduct corporate diversification strategy.

Foreign ownership increasingly occupies a significant position in the ownership structure of listed firms in Vietnam. Foreign investment helps to provide investment capital, transform economic and labour structure, and promote technology⁴. There are few studies that examine the effect of foreign ownership on the level of corporate diversification. Ramaswamy and Li (2001) show that there is a negative relationship between number of foreign directors and unrelated diversification for Indian firms. This is due to the fact that foreign directors have knowledge and experience that can monitor and dampen corporate diversification strategy. Yoshikawa, Rasheed and Del Brio (2010) state that corporate diversification is not motivated by foreign shareholders because it is difficult to manage diversified firms. They argue that foreign ownership is considered as a means to monitor Japanese firms, and that foreign ownership restrain the firms' managers from engaging in corporate diversification strategies by decreasing managers' bonuses.

³ The privatization program was initiated in 1992 (Sjöholm 2006).

⁴ <http://www.investinvietnam.vn/In/2/detail/2752/Foreign-Investment-in-Vietnam.aspx> retrieved on 30 Jan. 15.

² Legal person ownership exists in China.

Therefore, the following hypothesis will be tested in order to examine the link between foreign ownership and corporate diversification.

H.2: when foreign ownership increases, listed firms are less likely to conduct corporate diversification strategy.

4. RESEARCH METHODOLOGY

4.1. Empirical model specification

In order to test the hypotheses of the propensity of corporate diversification in Vietnamese listed firms (H.1 and H.2), this thesis employs the following empirical model:

$$DIV_{it} = \alpha + \beta_1 OWN_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad (1)$$

where DIV_{it} is a binary variable representing whether firm i is undergoing a corporate diversification strategy at time t , OWN_{it} is firm's ownership structure (state or foreign), X_{it} s are control variables of firm i at time t , and ε_{it} is an error term.

Since the dependent variable is binary, a logit model is used for the estimation. The logit model allows for estimating the probability that firms diversify or not by predicting the outcome of the binary dependent variable from independent variables. The general logit model is as follows:

$$p_i = E(y_i = 1|x_i) = \alpha + \beta x_i \quad (2)$$

$$p_i = \frac{e^{\alpha + \beta x_i}}{1 + e^{\alpha + \beta x_i}} \quad (3)$$

$$\ln \left[\frac{p_i}{1 - p_i} \right] = \alpha + \beta x_i \quad (4)$$

where y_i is a binary dependent variable, x_i is an independent variable, α is a constant term, and p_i is the probability of undertaking corporate diversification (odds ratio).

In order to estimate the parameters in equation (4), maximum likelihood estimation is used (Czepiel 2002; Lin & Su 2008). The likelihood function and log likelihood function are expressed as follows:

$$\mathcal{L} = \prod_{i=1}^n p_i(x_i)^{y_i} (1 - p_i(x_i))^{1-y_i} \quad (5)$$

$$\ln \mathcal{L} = \sum_{i=1}^n y_i \log[p_i(x_i)] + (1 - y_i) \log[1 - p_i(x_i)] \quad (6)$$

$$\ln \mathcal{L} = \sum_{i=1}^n -\log[1 + e^{\alpha + \beta x_i}] + \sum_{i=1}^n y_i (\alpha + \beta x_i) \quad (7)$$

In order to find the parameters from the log likelihood function, we differentiate the log likelihood with respect to each parameter and set the outcome to zero.

$$\frac{\partial \ln \mathcal{L}}{\partial \beta} = - \sum_{i=1}^n \frac{1}{1 + e^{\alpha + \beta x_i}} e^{\alpha + \beta x_i} x_{ik} + \sum_{i=1}^n y_i x_{ik} \quad (8)$$

Percent correct prediction statistic is a measure of goodness of fit for logit model. This measure shows how well the model predicts the probability

(Wooldridge 2011). The percent correct prediction statistic assumes that if the estimated p_i (odds ratio) is greater than or equal to 0.5 then the event is expected to occur, it is not expected to occur otherwise.

4.2. DATA AND VARIABLES

4.2.1. Data

The data used to examine the effect of ownership on firm's decision to diversify and the effect of corporate diversification on firm performance is by Vietstock⁵ which provides data of all listed firms in Ho Chi Minh Stock Exchange and Hanoi Stock Exchange. The data initially includes 4014 firm-year observations of listed firms on the two stock exchanges. The study excludes financial firms such as banks, security companies, insurance companies in accordance with earlier studies (Chen, C-J & Yu 2012; Dastidar 2009; Hann, Ogneva & Ozbas 2013; Jiraporn, Kim & Davidson III 2008; Lien & Li 2013; Lin & Su 2008; Lins & Servaes 2002). The financial firms are subject to regulation and financial information that are different to other firms (Jiraporn, Kim & Davidson III 2008). The information of sales segments is collected from annual explanations of financial statement and annual reports of listed companies. The sales segments of each company are classified into industries based on Vietnam Standard Industrial Classification 2007 (VSIC 2007). Because of availability of data, this study only focuses on unrelated diversification for which information is available. Consequently, the final data is a dataset of 2,696 firm-year observations spanning from 2007 to 2012 of Vietnamese listed firms.

4.2.2. Variables

Corporate diversification is measured by the dummy variable which equals one if a firm diversifies, and otherwise zero (Chen, S-S & Ho 2000). Firms are considered diversified if at least one segment's sales account for at least 90% of total sales (Lin & Su 2008; Lins & Servaes 2002).

Ownership structure in recent studies, is insider ownership, outside ownership (Chen, S-S & Ho 2000), institution ownership (Villalonga 2004), concentrated ownership (Bae, Kwon & Lee 2008), family ownership (Gomez-Mejia, Makri & Kintana 2010) and state ownership (Delios, Zhou & Xu 2008). This study focuses on state ownership and foreign ownership, measured as fraction of shares held by the state and by foreign investors.

In accordance with Campa and Kedia (2002) and Dastidar (2009), this study uses various control variables to investigate the impact of ownership on the likelihood of taking corporate diversification i.e. firm characteristics such as firm size, firm leverage, book to market ratio, firm age, profitability; and industry and economy characteristics such as fraction of diversified firms in industry and GDP growth rate.

Firm size is a factor that impacts on corporate diversification. It can be argued that when its size increases, a firm tends to diversify its business because it has more resources for expanding. Singh, Mathur and Gleason (2004) indicate that firm size

⁵ <http://vietstock.vn/>

and corporate diversification have a positive relationship. In this study, firm size is measured by taking the logarithm of total assets (Berger & Ofek 1995; Chen, S-S & Ho 2000; Çolak 2010; Dastidar 2009).

Firm leverage refers to financial leverage used by the firm, which shows to what extent the firm's assets are financed by debt. Firms with high debt ratio may have ability to access more funds for business expansion (Chen, R, Dyball & Wright 2009). He (2009) shows that diversified firms are likely to have higher firm leverage. Mishra and Akbar (2007) contend that it is easier for diversified firms to raise funds from debt. Besides, ability of raising debt funds also help firms to invest more into new industries. Firm leverage is ratio of total debt over total assets (Chen, C-J & Yu 2012; Chen, R, Dyball & Wright 2009; David et al. 2010).

Book to market ratio is a proxy for growth opportunity (Singh, Mathur & Gleason 2004). Firms with low growth opportunities tend to expand their operations through diversification and firms with high growth opportunities have low level of corporate diversification. The book to market ratio is calculated by taking book value of firm's equity (or book value per share) divided by market value of firm's equity (or market value per share) (Hann, Ogneva & Ozbas 2013).

Firm age represents the number of years that a firm exists. It can be argued that firms with long history may have capacity to do business in new industries. Besides, old firms may have less growth opportunities, and then they tend to diversify their businesses. Evidence shows a positive effect of firm age on corporate diversification in developed market (Denis, Denis & Sarin 1997) and emerging market (Chen, C-J & Yu 2012; Lien & Li 2013). In this study,

firm age is measured by the number of years since a firm registered as corporation (Choi, Sul & Min 2012).

Profitability is a firm characteristic that affects corporate diversification decision. It is argued that firms with low profitability tend to expand their businesses through corporate diversification in order to find profitable opportunities (Campa & Kedia 2002). Profitability influences the way that firms with high profitability tend to be less diversified (Campa & Kedia 2002). It is also found that multi-segments firms are likely to have poor profitability (Claessens et al. 1999). In this study, profitability is measured by the ratio of earnings before tax and interest to sales (Campa & Kedia 2002; Dastidar 2009).

Industry characteristic is a factor that influences firm's corporate diversification decision (Maksimovic & Phillips 2002). Fraction of diversified firms in industry represents for industry characteristic as it shows corporate diversification's trend in industry where firms operate. This variable indicates attractiveness of an industry which implies that a firm which operates in an industry that has a high fraction of diversified firms is likely to diversify (Campa & Kedia 2002). GDP growth rate indicates macro economic situation of market. It is argued that high GDP growth encourages firms to diversify businesses (Campa & Kedia 2002).

5. SUMMARY STATISTICS AND CORRELATION MATRIX

Table 1 illustrates the summary statistics of variables used in this study over the period 2007 to 2012.

Table 1. Descriptive statistics of variables

<i>Variable</i>	<i>Observations</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
<i>DDIV</i>	2696	0.331	0.471	0.000	1.000
<i>STATE</i>	2678	0.251	0.237	0.000	0.782
<i>FOREIGN</i>	2679	0.076	0.119	0.000	0.490
<i>SIZE</i>	2678	26.715	1.291	24.353	29.191
<i>PROF</i>	2678	0.097	0.096	-0.052	0.345
<i>LEV</i>	2678	0.522	0.212	0.134	0.845
<i>AGE</i>	2696	6.352	2.952	0.000	19.000
<i>BM</i>	2684	1.366	0.906	0.272	3.491
<i>NDIV</i>	2696	33.086	20.515	0.000	100.000
<i>GDP</i>	2696	5.924	0.577	5.250	7.130

The table reports the summary statistics of variables over the period 2007 to 2012 for Vietnamese listed firms. *DDIV* is a dummy variable of corporate diversification. Dummy equals one if a firm diversifies; otherwise it is zero. *STATE* is state ownership, i.e. stock held by government. *FOREIGN* is foreign ownership, i.e. stock held by foreign investors. *SIZE* is firm size, i.e. natural log of assets. *PROF* is firm profitability, i.e. the ratio of operating income and sales. *LEV* is firm leverage, measured as the ratio of total debt over total assets. *AGE* is firm age, the natural log of number of years since a firm registered as a corporation. *BM* is the book to market ratio. *NDIV* is the fraction of diversified firms in an industry. *GDP* is GDP growth rate.

The mean value of corporate diversification variable is 0.331 which indicates 33.1 percent of observed firms diversify. State ownership has a mean value of 25.1 percent which is lower than the state ownership value of 34.59 percent in China (Lin & Su 2008). Foreign ownership has a mean value of 7.6 percent which is considerably smaller than that of 20.97 percent in India (Ramaswamy & Li 2001). The average value of firm size (natural log of assets) is 26.715 and its standard deviation is 1.291. Profitability of listed firms in Vietnam has an

average value of 9.7 percent, with a standard deviation of 0.096. The mean value of profitability is slightly higher than that of 6 percent in the U.S. (Çolak 2010). Leverage variable shows a mean value of 52.2 percent and a standard deviation of 0.212. The mean value of 52.2 percent is higher than those of 33.2 percent in Japan (Fukui & Ushijima 2007), and 48 percent in Australia (Chen, R, Dyball & Wright 2009), but similar to value of 52.1 percent in China (Chen, S 2010). The average firm age of Vietnamese listed firms is 6.352, which is

considerably lower than that of 21.63 in the U.S. (Çolak 2010). The mean value of book to market ratio is 1.366, with a standard deviation of 0.906. The mean value of book to market ratio implies a market to book ratio of 0.732 which is relatively lower than that of the U.S. (2.933) (Franco, Urcan & Vasvari 2010). The average value of fraction of diversified firms in industry is 33.086 percent. This value is lower than that of 59.48 percent in China (Lin & Su 2008), and 68 percent in Singapore (Chen, S-S & Ho 2000). The average GDP growth rate of

Vietnam over the period from 2007 to 2012 is 5.924 percent.

Table 2 illustrates the correlation matrix of variables. Level of corporate diversification is positively correlated with state ownership (STATE), and negatively correlated with foreign ownership (FOREIGN). Level of corporate diversification is positively correlated with a firm's size, leverage, investment, age, book to market ratio and the fraction of diversified firms in industry, and negatively correlated with profitability, dividend yield and GDP growth rate.

Table 2. Correlation matrix of variables

	DDIV	STATE	FOREIGN	SIZE	PROF	LEV	AGE	BM	NDIV	GDP
DDIV	1.00									
STATE	0.03	1.00								
FOREIGN	-0.06	-0.12	1.00							
SIZE	0.09	0.01	0.34	1.00						
PROF	-0.05	0.04	0.21	0.16	1.00					
LEV	0.06	0.07	-0.23	0.32	-0.21	1.00				
AGE	0.08	-0.17	0.12	-0.07	-0.07	-0.16	1.00			
BM	0.11	-0.08	-0.14	-0.01	-0.29	0.08	0.24	1.00		
NDIV	0.44	-0.02	-0.14	0.07	-0.08	0.18	0.04	0.20	1.00	
GDP	-0.01	0.03	0.02	-0.03	0.10	-0.02	-0.19	-0.23	-0.03	1.00

Note: The table reports the correlation of variables over the period 2007 to 2012 for Vietnamese listed firms. DDIV is the dummy variable of corporate diversification. Dummy equals one if a firm diversifies; otherwise it is zero. STATE is state ownership, i.e. stock held by government. FOREIGN is foreign ownership, i.e. stock held by foreign investors. SIZE is firm size, i.e. the natural log of assets. PROF is firm profitability, i.e. the ratio of operating income and sales. LEV is firm leverage, measured as the ratio of total debt over total assets. AGE is firm age, the natural log of the number of year since a firm registered as a corporation. BM is the book to market ratio. NDIV is the fraction of diversified firms in industry. GDP is GDP growth rate.

Table 3. Logit estimation results of corporate diversification decisions

	(1)	(2)	(3)	(4)
	DDIV	DDIV	DDIV	DDIV
STATE	0.128*** (0.001)	0.122*** (0.001)		
FOREIGN			-0.276*** (0.003)	-0.277*** (0.003)
SIZE	0.041*** (0.000)	0.040*** (0.000)	0.052*** (0.000)	0.051*** (0.000)
LEV	-0.126** (0.017)	-0.134** (0.011)	-0.158*** (0.004)	-0.165*** (0.003)
AGE	0.015*** (0.000)	0.015*** (0.000)	0.016*** (0.000)	0.016*** (0.000)
BM	0.025* (0.058)	0.018 (0.166)	0.022* (0.089)	0.015 (0.239)
PROF	-0.215** (0.046)	-0.172 (0.107)	-0.168 (0.121)	-0.129 (0.229)
NDIV		0.010*** (0.000)		0.010*** (0.000)
GDP		0.053** (0.029)		0.060** (0.013)
Year controlled	Yes	Yes	Yes	Yes
Industry controlled	Yes	Yes	Yes	Yes
Observations	2591	2591	2592	2592
Log-likelihood value	-1408.704	-1377.096	-1410.372	-1378.890
Pseudo R-squared	0.149	0.168	0.148	0.167
Wald chi-squared	355.517	407.607	358.208	407.489
Percent correct prediction	73.215	73.447	72.415	73.264

Note: The table presents the average marginal effect of independent variables from the logit regression model. The dependent variable is the corporate diversification dummy (DDIV). STATE is state ownership, i.e. stock held by government. FOREIGN is foreign ownership and equals stock held by foreign investors. SIZE is firm size, calculated as the natural log of assets. LEV is firm leverage, measured by the ratio of total debt over total assets. AGE is firm age, the natural log of the number of year since a firm registered as a corporation. BM is the book to market ratio. PROF is firm profitability, and equals operating income over sales. NDIV is the fraction of diversified firms in the industry. GDP is GDP growth rate. p-value in parentheses. *, ** and *** represent significance at 10%, 5% and 1% respectively.

6. EMPIRICAL RESULTS

Table 3 reports the results of the logit models for the effect of ownership structure on corporate diversification decisions as per equation (1). Columns (1) and (3) report the logit models of corporate diversification decision, regressed on ownership structure (state and foreign ownership) and firm-specific characteristics. Columns (2) and (4) report the logit models of corporate diversification decision, regressed on ownership structure, firm-specific characteristics, and industry and economic characteristics. The table illustrates the average marginal effect of ownership structure and other independent variables on corporate diversification propensity of listed firms in Vietnam. The marginal effect is computed as the discrete change in the expected value of the corporate diversification dummy variable as it changes from 0 to 1.

In the columns (1) and (2) of the Table 3, the marginal effect estimates of state ownership are positive and significant. The result therefore supports the hypothesis one (H1) which indicates that firms with high state ownership are likely to diversify their businesses. This result may imply that representatives for the state in firms allow the firms pursue corporate diversification strategy in order to guarantee their jobs or self-benefits.

The foreign ownership variable indicates a negative and significant result. This means that the hypothesis two (H2) is confirmed. Foreign ownership in Vietnamese listed firms discourages corporate diversification decisions of firms. This may imply that foreign investors try to protect themselves from expropriation conducted by manager or insiders.

Firm size variable indicates a positive and significant impact on corporate diversification. This result is consistent with Singh, Mathur and Gleason (2004) and Campa and Kedia (2002), which implies that large firms are likely to diversify their businesses. Leverage variable is negative and significant, which is consistent with Chen, R, Dyball and Wright (2009). Firm age variable shows a positive and significant result, indicating that old firms tend to diversify because they have less growth opportunities. This result is in accordance with previous studies (Denis, Denis & Sarin 1997; Lien & Li 2013; Lin & Su 2008). Book to market ratio indicates a positive and significant impact on corporate diversification (except for model (2) and (4)). This result implies that firms with low growth opportunities tend to expand through diversification (Singh, Mathur & Gleason 2004). Profitability variable shows a negative sign and is insignificant (except in model (1)). This result is consistent with Campa and Kedia (2002) which shows that profitability does not strongly affect a firm's corporate diversification decision. Industry characteristic variable (fraction of number of diversified firms in industry) is positive and significant. This implies that industry characteristic affects likelihood of taking corporate diversification strategy and indicates that firms which operate in industry which is dominated by diversified firms are likely to engage corporate diversification strategy (Campa & Kedia 2002). Macroeconomic variable (GDP growth rate) is positive and significant, showing that economy with high growth rate motivates firms to take corporate diversification strategy.

7. CONCLUSION

This paper investigates the impact of ownership structure (state ownership and foreign ownership) on corporate diversification decisions of listed firms in Vietnam over the period 2007 to 2012. The empirical results indicate that while state ownership encourages corporate diversification, foreign ownership dampens this strategy. In other words, these results are consistent with the proposed hypotheses.

In details, the findings of the model support the hypothesis 1, that state ownership encourages corporate diversification decision of firms. State ownership motivates corporate diversification strategy because it has different goals than other shareholders such as political or social goals rather than value maximization (Wan et al. 2011). When state ownership increases, the state becomes controlling shareholder and has incentive to expropriate other shareholders through corporate diversification (Tsai, Young & Hsu 2011). When the state is controlling shareholder, they appoint firm's managers who are likely to conduct diversification strategy to increase their power, warrant their jobs, or benefit themselves (Volkov & Smith 2014). State ownership is likely to encourage corporate diversification, expropriate minority shareholders, which leads to firm value erosion.

Foreign investors, acting as monitors, discourage corporate diversification strategy of firms. This outcome confirms the hypothesis 2. In emerging markets, minority shareholder protection mechanism is weak (Gibson 2003). In these markets, foreign investors are often considered as outside shareholders. They fear that managers or controlling shareholders can expropriate their wealth in firms through corporate diversification. Therefore, foreign ownership does not motivate corporate diversification strategy. Foreign investors can restrain firms' managers from conducting corporate diversification by reducing managers' bonuses (Yoshikawa, Rasheed & Del Brio 2010). Foreign ownership activates monitoring role in firms and thus improve firm performance. Foreign ownership monitors firms' managers or controlling shareholders, which dampens likelihood of taking corporate diversification strategy, and thus may improve firm performance. Foreign investors in Vietnam is often considered as important shareholders who provide large capital for firms' development and transfer managerial knowledge, that may dampen corporate diversification strategy of firms.

This study provides an empirical evidence on the impact of state ownership and foreign ownership on corporate diversification decision in firms. While literature reveals negative effect of corporate diversification on firm value (Bae, Kwon & Lee 2011; Berger & Ofek 1995; Boubaker, Mensi & Nguyen 2008; Chen, S-S & Ho 2000; Claessens et al. 1999; George & Kabir 2012; Lang & Stulz 1994), this study may practically contribute to policy makers and investors. The result may help policy makers in proposing policies which encourage or discourage corporate diversification strategy of firms in accordance with different ownership structure. The research also implies that investors, especially individual investors, should be aware of ownership structure when investing in diversified firms.

This research, however, has some limitations. While the study only examine effect of foreign ownership on corporate diversification decision, future research should further investigate effect of foreign institutional ownership and/or effect of foreign individual ownership on corporate diversification decision of firms. Because corporate diversification decision may be dynamic, future research may use a dynamic model specification such as system GMM to explore the impact of ownership structure on firm's corporate diversification.

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