UNIVERSITY OF PÉCS

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Corporate Governance and Conglomerate Diversification Strategy – Evidence from Vietnam

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1.   Research background, motivation and objective

1.1   Research background

Over the past three decades, the relationship between corporate governance and diversification has been studied in different countries as well as periods by various authors such as Amihud & Lev (1981), Denis et al. (1997), Collin & Bengtsson (2000), Singh et al. (2004), Jiraporn et al. (2006), Goranova et al. (2007), Kim & Chen (2010), Lien & Li (2013) and Castaner & Kavadis (2013). Until now this topic is still attractive to researchers because of its importance to corporations when they have to face strong national and international competition in the context of globalization today.

Diversification strategy is a corporate strategy that a firm pursues through diversifying its business portfolio to allow revenue smoothing between different business lines (Castaner & Kavadis, 2013). The term of diversification has appeared since 1957 in the study of Ansoff (1957). He suggested that diversification is one of product – market strategies for business growth in which there is a combination of both market development and product development with new requirements of skills, techniques and facilities. Developing from the diversification definition of Ansoff (1957), a large number of subsequent researchers, such as Amit & Livnat (1988), Berger & Ofek (1995), Anderson et al. (2000), Wheelen & Hunger (2006), Kim & Chen (2010), and Lien & Li (2013) continued to divide diversification into two different categories including *related diversification* and *unrelated diversification. Related diversification*, or *concentric diversification*, happens when a firm expands its activities to related industries based on its current competitive position together with available bases (such as product knowledge, manufacturing capabilities or marketing skills). In the meanwhile, *unrelated diversification* strategy consists of diversifying a firm's business portfolio through participating in new industries that are unrelated to its core industries. *Unrelated diversification* can be called with different names: *conglomerate diversification* or *pure-financial diversification*.

In terms of the effectiveness of diversification strategy, it seems to be not a good strategy for the firm because there have been much more researches proving its disadvantages on not only firm performance but also firm value than researches disagreeing with these disadvantages or affirming its benefits; and it is noticeable that unrelated diversification was

proved to have more negative effects on firm value than related diversification. In fact, it is undeniable that high diversification level and weak corporate governance were important causes leading to the collapse of Enron Corporation in the United States in 2001. Therefore, several researches studied direct or indirect relationship between corporate governance and diversification in order to investigate whether good corporate governance can prevent firms from engaging in conglomerate diversification strategy.

In Vietnam, a typical example for the consequence of highly unrelated diversification that arose from poor corporate governance was the default of Vietnam Shipbuilding Industry Group (Vinashin) in 2010. It can be seen as a disaster for the economy of Vietnam. It showed the weaknesses in the management of Vietnamese government. It reduced the image of Vietnam in the international business market when all Vietnam's credit ratings were downgraded according to Moody's Investors Service, Standard & Poor's and Fitch Ratings (Hookway & Tudor, 2010). Furthermore, it retarded sea economic development of Vietnam as well increased the cost burdens for related organizations in the economy.

Contrary to the situation of Vinashin, Vietnam Dairy Products Joint Stock Company (its abbreviated name: Vinamilk) has achieved a remarkable success owing to its good corporate governance and reasonable diversification strategies. Vinamilk was established in 1976 under the name of Southern Coffee-Dairy Company, a state-owned company in Vietnam; then in 2003 it was transformed into a joint stock company with its official name, *Vietnam Dairy Products Joint Stock Company*, and to the year of 2006, it was listed on Ho Chi Minh Stock Exchange with the stock code: VNM. It is undeniable that owing to a strong corporate governance system and a really good design of diversification strategy, Vinamilk has grown over time. In 2015 Nikkei Asian Review put Vinamilk into a list of top 100 valuable enterprises in Asia with its market capitalization reaching to above 6.6 billion USD on 25th November 2015 (Minh Tri, 2015); and in the following year, Vietnam was the first time to have an opportunity to place a company in Fab 50 when Vinamilk was recorded as one of 50 Asia's best big public companies with its market value and sales being 9.2 billion USD and 1.8 billion USD respectively (Koppisch & Murphy, 2016).

The apparent failure of Vietnam Shipbuilding Industry Group (Vinashin) compared with the overwhelming success of Vietnam Dairy Products Joint Stock Company (Vinamilk) proved

the significance of diversification strategy in a corporation. It affect substantially on the existence as well as the growth of the firm. It can create opportunities for the firm to grow rapidly. In the meanwhile, it can also push the corporation to the brink of bankruptcy as the case of Vinashin. Thus, the firms should be very cautious in applying this strategy. Furthermore, weak internal corporate governance in Vinashin was the most important reason for executives in the firm to engage in financial diversification towards their self-interests. This fact draws attention to the importance of figuring out the unrelated diversification levels of firms in Vietnam as well as exploring the effects of corporate governance on diversification in this emerging market.

1.2 Research motivation

This research mainly investigates the effects of internal corporate governance mechanisms on the unrelated diversification level based on a balanced panel data set of listed firms in Vietnam, a developing country in Asia. In addition, the moderation of free cash flow on these relations and the effectiveness of diversification strategy to firm value are also tested. Internal corporate governance mechanisms are divided into two categories: interest alignment devices and control devices. Agency theory is considered as a basic theory to explain these relations.

There are four main motivations for conducting this research. Firstly, although there have been several different authors researching on the impact of corporate governance on diversification strategy, there was still no unification in results showing the relationships between corporate governance mechanisms and corporate diversification. For example, while Denis et al. (1997) found the negative relationship between managerial ownership and diversification, the study of Kim & Chen (2010) supported the positive effect of managerial ownership on diversification. Therefore, this study tries to examine the relations between internal corporate governance mechanisms and conglomerate diversification in Vietnam. Hopefully, it is a contribution to elucidate these relations that remain controversial nowadays.

Secondly, the default of Vietnam Shipbuilding Industry Group (Vinashin) in 2010 is a typical example to illustrate that executives in the firm abused bad corporate governance to implement pure-financial diversification strategy at a large scale that destroyed the firm's value. In the meanwhile, the continuous success of Vietnam Dairy Products Joint Stock

Company (Vinamilk) over time might result from a strong corporate governance system together with low levels of unrelated diversification the company pursued. This fact motivates the author to investigate the relationships between internal corporate governance mechanisms and conglomerate diversification level in order to reach general conclusions in case of Vietnam.

Additionally, Castaner & Kavadis (2013) seem to be the first researchers on these relationships with the moderation of free cash flow through developing the ideas of Jensen (1986) when he realized the role of free cash flow as the availability of financial resources in creating opportunities for managers to fund non-value creating projects rather than projects serving shareholders' interests. The research of Castaner & Kavadis (2013) was conducted on a sample of 59 publicly traded corporations in France, a developed country. This was the main reason why this paper also wished to test how free cash flow moderated the corporate governance's effect on diversification in Vietnam, an emerging market, and find out whether there were any differences in comparison with the findings of Castaner & Kavadis (2013).

Finally, because most previous studies discovered the ineffectiveness of diversification strategy, specially of unrelated diversification strategy, such as Morck et al. (1990), Comment & Jarrell (1995), Lang & Stulz (1994), Berger & Ofek (1995), Amihud & Lev (1999) and Martin & Sayrak (2003). Thus, in order to check the effectiveness of conglomerate diversification strategy in case of Vietnam, the author also tests the relationship between unrelated diversification level and firm value of listed companies in the research.

1.3   Research objective

-       Research idea: Examine the relationships between internal corporate governance mechanisms and unrelated diversification

-       Research question: Does good internal corporate governance prevent conglomerate diversification strategy?

-       Subsidiary objectives:

a.   What are the relationships between internal corporate governance mechanisms and unrelated diversification level?

b.   How does free cash flow moderate the effects of internal corporate governance mechanisms on diversification?

c.   How agency theory can be used to explain these relations?

d.   Is unrelated diversification strategy good or bad to firm value?

2.   Literature review and hypotheses development

2.1   Literature review

Direct relationship between corporate governance and diversification

There have been several researches on the relationship between corporate governance and diversification. Table 1 lists previous researches on this relationship with information of sample and chosen periods. It can be seen from the Table 1 that most studies were done in developed countries; few researches such as the studies of Kim & Chen (2010) and of Lien & Li (2013) were conducted in advanced emerging markets (Korea and Taiwan respectively). Table 2 is established to show prior findings on the relationships between each interest alignment device or control device and diversification under the explanation of agency theory. Table 2 shows that there was still no unification among results. Some results supported the argument based on agency theory, but some results did not support. For example, while Denis et al. (1997) found the negative relationship between managerial ownership and diversification that was suitable with the explanation from agency theory, the study of Kim & Chen (2010) supported the positive effect of managerial ownership on diversification that was contrary to the argument based on the agency theory.

Table 1: A list of previous researches on the relationship between corporate governance and diversification strategy

Paper	Sample	Period
Amihud & Lev (1981)	309 largest industrial U.S. firms	A ten-year period from 1961 to 1970
Hill & Snell (1988)	94 U.S enterprises in research-intensive industries	In 1980
Denis et al. (1997)	933 U.S. firms	At year-end 1984
Collin & Bengtsson (2000)	72 listed Swedish companies	From 1988 to 1990
Singh et al. (2004)	777 large U.S. corporations	Over the two-year period between 1995 and 1997
Jiraporn et al. (2006)	1862 firm-year observations in the U.S.	1993, 1995 and 1998
Goranova et al. (2007)	231 U.S. firms	From 1994 to 1999

Kim & Chen (2010)	377 listed corporations in Korea	From 1999 to 2005
Castaner & Kavadis (2013)	59 publicly traded French corporations	From 2000 to 2006
Lien & Li (2013)	205 Taiwanese firms	From 1999 to 2003

(Source: own creation)

Table 2: A summary of previous research results on the relationship between corporate governance and diversification

Corporate governance devices	Corporate governance characteristics	Relationship with the extent of diversification	Author	Support agency theory
Interest alignment devices	Management stockholdings	Negative	Hill & Snell (1988)	Yes
	Managerial ownership	Negative	Denis et al. (1997)	Yes
	Inside ownership	Positive	Singh et al. (2004)	No
	Managerial ownership	Not associate	Goranova et al. (2007)	No
	Managerial ownership	Positive	Kim & Chen (2010)	No
	CEO variable compensation	Positive (At high levels of free cash flow)	Castaner & Kavadis (2013)	No
Control devices	Blockholder ownership	Negative	Denis et al. (1997)	Yes
	Management control	Positive	Amihud & Lev (1981)	Yes
	Finance group	Negative	Collin & Bengtsson (2000)	Yes
	Institutional ownership	Positive	Singh et al. (2004)	No
	Strength of shareholder rights	Negative	Jiraporn et al. (2006)	Yes
	Board size	Positive	Kim & Chen (2010)	No
	Outside director ratio	No statistical significance	Kim & Chen (2010)	No
	Institutional ownership	No statistical significance	Kim & Chen (2010)	No
	Chairman/CEO non-duality	Negative (At high levels of free cash flow)	Castaner & Kavadis (2013)	Yes
	Proportion of independent directors	Positive (At low levels of free cash flow)	Castaner & Kavadis (2013)	No
	Ownership concentration	Negative (At low levels of free cash flow) (Weak significant level)	Castaner & Kavadis (2013)	Yes

|	Controlling family ownership	Positive	Lien & Li (2013)	No
	Domestic bank ownership	Negative	Lien & Li (2013)	Yes

<div align="right">(Source: own creation)</div>

Relationship between corporate governance and diversification with the moderation of free cash flow

Jensen (1986) suggested that when a firm has substantial free cash flow, its payout policies might create severe conflicts of interest between shareholders and managers that lead to non-value-maximizing projects undertaken by the managers.

Developing from this idea of Jensen (1986), Castaner & Kavadis (2013) studied on the interrelationship among corporate governance, financial diversification and shareholders' value with the moderation of free cash flow based on a sample of 59 publicly traded corporations in France from 2000 to 2006 as the illustration in the Figure 1. They realized that financial diversification was a bad corporate strategy because it reduced shareholder return and firm value. However, only some control devices, namely *Chairman/CEO non-duality* and *Ownership concentration*, could reduce financial diversification under the influence of free cash flow levels. Specifically, the former control device decreased financial diversification when free cash flow was high whereas the latter control device lowered it at low levels of free cash flow. On the contrary, financial diversification would be increased not only by *independent directors* at low levels of free cash flow, but also by one of interest alignment devices, *variable compensation*, when free cash flow was high. Thus it was suggested that free cash flow regulated the effect of corporate governance on financial diversification.

Figure 1: Research idea of Castaner & Kavadis (2013)

<div align="right">(Source: own creation)</div>
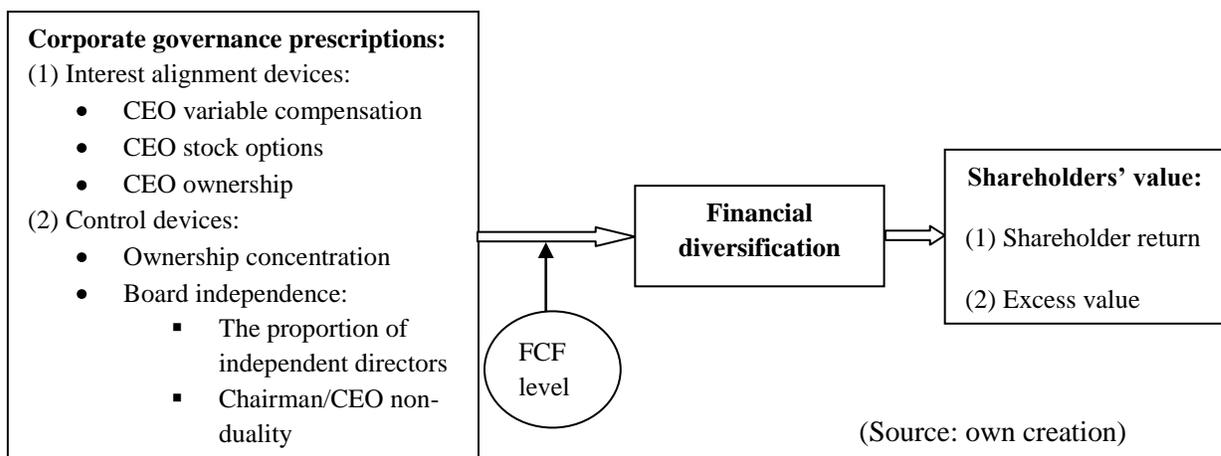
2.2   Hypotheses development

Two first hypotheses are made on the basic of the assumption about the ineffectiveness of conglomerate diversification strategy as the arguments of most previous researches. If we argue based on the agency theory with this assumption, good corporate governance should reduce diversification in the firm in order to avoid agency costs and increase shareholder value or firm value. In the meanwhile, a strong internal corporate governance system is normally represented by a large extent to which interest alignment devices as well as control devices are established. Thus, the unrelated diversification level is expected to be reduced more when the firm uses more interest alignment devices or more control devices because at this time, the interests between the principles and the agents would be more aligned, agency conflicts would be resolved, moral hazard problems would be prevented, and managers would be less likely to take value-reducing actions.

Hypothesis 1 and Hypothesis 2 are presented as follows:

Hypothesis 1: The more interest alignment devices are used, the lower the extent of conglomerate diversification will be.

In other words, the extent of diversification will be reduced when either more stock options are granted to executives or executive ownership is increased.

Hypothesis 2: The more control devices are applied, the lower the extent of conglomerate diversification will be.

Entering into details, the firm is expected to be less diversified when one of following situations happens: blockholders seize higher ownership, there is a larger number of independent directors in the Board of Directors of the firm, or the board independence becomes higher owing to the separation of positions between a board chairman of the Board of Directors and a CEO of the Executive Committee.

An interesting exploration of Castaner & Kavadis (2013) was the moderation of free cash flow in the impact of corporate governance on financial diversification when they tested the interrelationship among corporate governance, financial diversification and shareholders' value in France. Specifically, they found that the influence of corporate governance prescriptions (interest alignment devices and control devices) on financial diversification could be different according to the level of free cash flow (high or low). Castaner & Kavadis

(2013)'s research seems to be the first empirical one affirming this role of free cash flow, an availability of financial resources. Their finding was proved to be consistent with the circumstance of France; however, whether it is still true in other nations or not. Therefore, the next hypothesis is set in this study:

Hypothesis 3: The effect of each internal corporate governance mechanism on diversification level of a firm is different between high and low free cash flow.

The last hypothesis (Hypothesis 4) is put forward to test the effectiveness of conglomerate diversification strategy. Most researches proved the ineffectiveness of this strategy because its negative effect on firm financial performance such as profitability (Rumelt, 1982; Amit & Livnat, 1988; Hoskisson et al., 1993; and Berger & Ofek, 1995), abnormal stock returns (Comment & Jarrell, 1995) or cumulative abnormal return of acquisitions (Gleason et al., 2012) as well as firm value that was measured by or reflected in Tobin's q–ratio (Lang & Stulz, 1994), stock price (Morck et al., 1990), revenue based excess value (Anderson et al., 2000; Jiraporn et al., 2006; Hoechle et al., 2012; and Castaner & Kavadis, 2013), excess value based on assets, or excess value based on both sales and assets (Hoechle et al., 2012).

As regards explanations for the ineffectiveness of this conglomerate diversification strategy, poor corporate governance was asserted by several authors, for example: Amihud & Lev (1999), Hoechle et al. (2012), Gleason et al. (2012) and Salama & Putnam (2013), as a popular reason. It was argued that when a firm had an extremely high unrelated diversification level, normally it would have a weak corporate governance system with growing conflicts of interests between the principals and the agents. In that kind of company, managers would have incentives to take self-interested actions ignoring the benefits of shareholders; thus, agency costs would increase over time. That was the reason why the firm financial performance and firm value would reduce considerably.

From above empirical evidences and arguments, this study desires to test whether unrelated diversification is indeed a value-destroying strategy. Hypothesis 4 is formed as follows:

Hypothesis 4: The higher unrelated diversification level of a firm is, the lower the firm value becomes.

3. Research design and methodology

3.1 Sample description

Sampling frame

In order to select a sampling frame in accordance with the research objectives, it is important to have an overview of economic development in Vietnam at the beginning.

With the target of internationally economic integration in the period of *Economic Development*, in November 2005 Vietnamese National Assembly promulgated Enterprise Law No. 60/2005/QH11 that was applied for enterprises of all economic sectors when it replaced the previous laws on State Enterprises together with the Law on Enterprises No. 13/1999/QH10 in 1999. This new enterprise law took effect from July 2006; however, it was conjunctively replaced by Enterprise Law No. 68/2014/QH13 that was valid from 01 July 2015. Moreover, in the year of 2007, Vietnamese Minister of Finance announced the Decision No. 12/2007/QD-BTC on issuing Regulations on Corporate Governance applicable to companies listed on the Stock Exchange or Securities Trading Center. Therefore, the chosen sampling frame of this study is listed firms on the stock markets in Vietnam during the period from 2007 to 2014 that is suitable with the appearance and effectiveness of Enterprise Law No. 60/2005/QH11.

Data sources

In Vietnam there are two stock markets namely Ho Chi Minh Stock Exchange (HOSE) that was originally established in 2000, and Ha Noi Stock Exchange (HNX) that started operating in 2005. The data are collected directly from these two stock markets (http://www.hsx.vn and http://www.hnx.vn). In addition, in case the data are not available on the websites of these two stock markets, the author will collect the data from other sources such as BIDV Securities Company (BSC) (https://www.bsc.com.vn), Vietstock Company (http://vietstock.vn), FPT Securities Joint Stock Company (FPTS) (http://ezsearch.fpts.com.vn) or from the website of each listed company.

Description of the sample design

Nonprobability sampling based on judgment is applied in this research. The sequence of choosing suitable companies can be described into the following steps:

<u>Step 1</u>: Collect necessary available data including stock codes, names of the listed firms and dates when they took part in the stock markets on HOSE or HNX on January 27th 2015. This

time is chosen in order to guarantee that selected firms have operated in the stock markets in Vietnam until January 27th 2015.

Step 2: Marking companies that were listed from the year of 2006 onwards. The purpose of this step is to find out companies that were able to publish annual reports from 2007 to 2014 continuously.

From this step, it was found that there were 134 listed firms, that consists of 74 firms on HOSE and 60 firms on HNX, having listing dates from 2006 onwards

Step 3: Eliminate firms that did not publish enough annual reports from 2007 to 2014 or did not present complete data about corporate governance in their annual reports during this period.

After eliminating, the final sample was 70 firms in which 48 from HOSE and 22 from HNX.

3.2 Research models and variables

The idea of the relationships among corporate governance, diversification and firm value in the research are illustrated in the Figure 2. From that, three models with the total of 12 variables are established.

Figure 2: Research idea
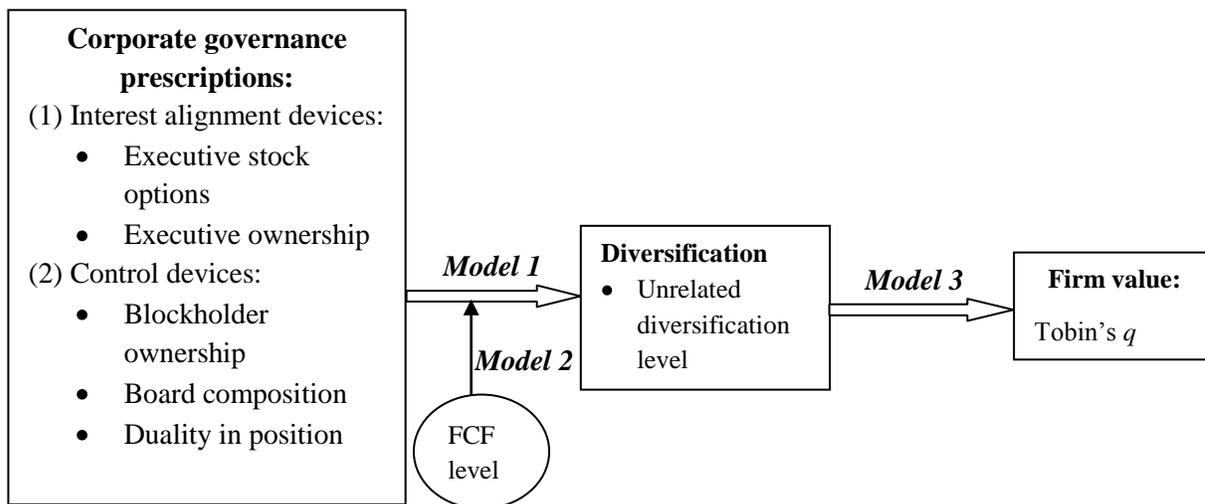
(Source: own creation)

Research models

Three main models are built in this research. Model 1 and Model 2 are functions of diversification level and Model 3 is of firm value.

Model 1 uses Corporate governance attributes (Executive stock options, Executive ownership, Blockholder ownership, Board composition and Duality in position), Availability of resource (Free cash flow) and Firm-specific control variables (Firm accounting performance, Firm size, Firm leverage and State ownership) to determine Firm diversification level. Model 2 is similar to Model 1 but interactions between free cash flow dummy and corporate governance variables are added into this model to test whether Free cash flow moderates the influence of corporate governance mechanisms on diversification level. Then, Model 3 also comprises Corporate governance attributes (Executive stock options, Executive ownership, Blockholder ownership, Board composition and Duality in position), Availability of resource (Free cash flow) and Firm-specific control variables (Firm accounting performance, Firm size, Firm leverage and State ownership) after adding Firm diversification level in order to test the impact of diversification level on firm value.

Three models can be written as the following equations:

Model 1 (Firm Diversification Equation without interactions):

$Firm\ Diversification\ level_{it} =$

$\beta_{0it} + \beta_1 \text{Executive stock options}_{it} + \beta_2 \text{Executive ownership}_{it} +$
$\beta_3 \text{Blockholder ownership}_{it} + \beta_4 \text{Board composition}_{it} + \beta_5 \text{Duality in position}_{it} +$
$\beta_6 \text{Free cash flow Dummy}_{it} + \beta_7 \text{Firm accounting performance}_{it} + \beta_8 \text{Firm size}_{it} +$
$\beta_9 \text{Firm leverage}_{it} + \beta_{10} \text{State ownership}_{it} + u_{it}$

$FDiv_{it} =$

$\beta_{0it} + \beta_1 ESO_{it} + \beta_2 EXO_{it} + \beta_3 BLKO_{it} + \beta_4 BCOM_{it} + \beta_5 DUAL_{it} + \beta_6 FCFDum_{it} +$
$\beta_7 ROA_{it} + \beta_8 SIZE_{it} + \beta_9 LEV_{it} + \beta_{10} StaO_{it} + u_{it}$

Where i represents the cross-section unit, t stands for the time

$\qquad i = 1,2,\dots,70; \quad t = 2007,2008,\dots,2014$

and the error term (u_{it}) is assumed to follow the normal distribution with zero mean and constant variance: $u_{it} \sim N(0, \sigma^2)$

Model 2 (Firm Diversification Equation with interactions):

$Firm\ Diversification\ level_{it} =$

$\beta_{0it} + \beta_1 \text{Executive stock options}_{it} + \beta_2 \text{Executive ownership}_{it} +$

$\beta_3 \text{Blockholder ownership}_{it} + \beta_4 \text{Board composition}_{it} + \beta_5 \text{Duality in position}_{it} +$

$\beta_6 \text{Free cash flow Dummy}_{it} + \beta_7 \text{Firm accounting performance}_{it} + \beta_8 \text{Firm size}_{it} +$

$\beta_9 \text{Firm leverage}_{it} + \beta_{10} \text{State ownership}_{it} +$

$\beta_{11}(\text{Free cash flow Dummy x Executive stock options})_{it} +$

$\beta_{12}(\text{Free cash flow Dummy x Executive ownership})_{it} +$

$\beta_{13}(\text{Free cash flow Dummy x Blockholder ownership})_{it} +$

$\beta_{14}(\text{Free cash flow Dummy x Board composition})_{it} +$

$\beta_{15}(\text{Free cash flow Dummy x Duality in position})_{it} + u_{it}$

$FDiv_{it} =$

$\beta_{0it} + \beta_1 ESO_{it} + \beta_2 EXO_{it} + \beta_3 BLKO_{it} + \beta_4 BCOM_{it} + \beta_5 DUAL_{it} + \beta_6 FCFDum_{it} +$

$\beta_7 ROA_{it} + \beta_8 SIZE_{it} + \beta_9 LEV_{it} + \beta_{10} StaO_{it} + \beta_{11} FCFESO_{it} + \beta_{12} FCFEXO_{it} +$

$\beta_{13} FCFBLKO_{it} + \beta_{14} FCFBCOM_{it} + \beta_{15} FCFDUAL_{it} + u_{it}$

Where i represents the cross-section unit, t stands for the time

$i = 1,2,\dots,70; \quad t = 2007,2008,\dots,2014$

and the error term (u_{it}) is assumed to follow the normal distribution with zero mean and constant variance: $u_{it} \sim N(0, \sigma^2)$

Model 3 (Firm Value Equation):

$Firm\ value_{it} = \beta_{0it} + \beta_1 Firm\ Diversification\ level_{it} + \beta_2 \text{Executive stock options}_{it} +$

$\beta_3 \text{Executive ownership}_{it} + \beta_4 \text{Blockholder ownership}_{it} + \beta_5 \text{Board composition}_{it} +$

$\beta_6 \text{Duality in position}_{it} + \beta_7 \text{Free cash flow Dummy}_{it} +$

$\beta_8 \text{Firm accounting performance}_{it} + \beta_9 \text{Firm size}_{it} + \beta_{10} \text{Firm leverage}_{it} +$

$\beta_{11} \text{State ownership}_{it} + u_{it}$

$Tobinsq_{it} = \beta_{0it} + \beta_1 FDiv_{it} + \beta_2 ESO_{it} + \beta_3 EXO_{it} + \beta_4 BLKO_{it} + \beta_5 BCOM_{it} +$

$\beta_6 DUAL_{it} + \beta_7 FCFDum_{it} + \beta_8 ROA_{it} + \beta_9 SIZE_{it} + \beta_{10} LEV_{it} + \beta_{11} StaO_{it} + u_{it}$

Where i represents the cross-section unit, t stands for the time

$i = 1,2, \dots ,70; \quad t = 2007,2008,\dots,2014$

and the error term (u_{it}) is assumed to follow the normal distribution with zero mean and constant variance: $u_{it} \sim N(0, \sigma^2)$

Variables

There are different types of variables used in the research. In particular, there are 1 dependent variable, 5 independent variables, 1 moderator, and 4 control variables in Model 1 while Model 3 comprises 1 dependent variable, 6 independent variables, and 5 control variables. Actually, Model 2 is the Model 1 after adding 5 interaction terms. Table 3 summarizes all types of variables corresponding to their significance; and Table 4 gives a summary of all proxy variables utilized in this study with necessary information about their measurement scales, their similarity to the measures in previous researches, and various reliable sources to collect the data.

Table 3: A summary of all types of variables being utilized in the study corresponding to their significance

Significance		Observed variable	Abbreviation	Type of variables	In model
Diversification level		Firm diversification	FDiv	Dependent variable	1, 2
				Independent variable	3
Firm value		Tobin's q	Tobinsq	Dependent variable	3
Internal corporate governance	The extent to establish interest alignment devices	- Executive stock options - Executive ownership	ESO EXO	Independent variables	1, 2, 3
	Effectiveness of control devices	- Blockholder ownership - Board composition - Duality in position	BLKO BCOM DUAL		
Availability of resources		Free cash flow	FCFDum	Moderator	1, 2
				Control variable	3

Firm characteristics	- Firm accounting performance (Return on assets) - Firm size - Firm leverage - State ownership	ROA SIZE LEV StaO	Control variables	1, 2, 3

(Source: own creation)

Table 4: A summary of 12 used proxy variables in case of Vietnam

N o.	Variables	Proxy Variables		Measur ement Scales	Consistent with authors	Source to collect data
1	Firm diversification	$FDiv = 1 - \dfrac{\sum P_i^2}{(\sum P_i)^2}$ where Pi: proportion of the segment i's sales to total sales		Ratio	Amit & Livnat (1988), Goranova et al. (2007) and Kim & Chen (2010)	Audited Consolidated Financial Statements of firms from 2007 to 2014
2	Firm value	Tobins q =	(Number of outstanding shares in year t * Closing price of shares on the last trading day of the year t) + Total liabilities at end of year t	Ratio	Lang & Stulz (1994), Kim & Chen (2010) and Lien & Li (2013)	- Annual Reports together with Audited Consolidated Financial Statements of firms from 2007 to 2014
			Total assets at end of year t			- Published data by BIDV Securities Company
3	Executive stock options	ESO = 1 if the executives had stock options in the year t, and 0 otherwise		Nomin al	Castaner & Kavadis (2013)	Annual reports of firms from 2007 to 2014
4	Executive ownership	EXO = Percentage of shares owned by the executives to the total number of shares issued in the year t		Ratio	Hill & Snell (1988), Goranova et al. (2007) and Castaner & Kavadis (2013)	Annual reports of firms from 2007 to 2014
5	Blockholder ownership	BLKO = Percentage of shares owned by the blockholders, who are shareholders with total ownership equal to or greater than 5% of total number of shares issued, in the year t		Ratio	Bethel & Liebeskind (1993), Denis et al. (1997), Singh et al. (2004), Goranova et al. (2007) or Samaha et al. (2012).	Annual reports of firms from 2007 to 2014

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6	Board composition	BCOM = Ratio of the number of independent directors to the total number of registered directors in the year t	Ratio	Berger & Zajac (1994), Singh et al. (2004), Goranova et al. (2007), Kim & Chen (2010), Samaha et al. (2012) and Castaner & Kavadis (2013)	Annual reports of firms from 2007 to 2014
7	Duality in position	DUAL = 1 if company's CEO serves as a board chairman in the year t, and 0 otherwise	Nominal	Goranova et al. (2007) and Samaha et al. (2012)	Annual reports of firms from 2007 to 2014
8	Free cash flow	FCFDum =1 if its value is greater than zero, and 0 otherwise Where FCF (in VND) = Net cash flow from operating activities − Cash Dividends − Capital Expenditures FCF is calculated in the year (t-1)	Ordinal	Singh et al. (2004) and Castaner & Kavadis (2013) (in terms of the way to measure FCF)	Audited Consolidated Financial Statements of firms from 2007 to 2014
9	Firm accounting performance	Return on assets (ROA) in the year (t-1) = Net income in year (t-1) / Average assets of year (t-1) and year (t-2)	Ratio	Amit & Livnat (1988), Hoskisson et al. (1993), Bergh (1997), Bergh & Lawless (1998), Anderson et al. (2000), Ramaswamy et al. (2002), Goranova et al. (2007), Kim & Chen (2010), or Salama & Putnam (2013)	Consolidated Income Statements and Consolidated Balance Sheets of firms from 2007 to 2014
10	Firm size	SIZE = Natural logarithm of total assets at the year (t-1)	Ratio	Denis et al., 1997; Anderson et al., 2000; Campa & Kedia, 2002; Ramaswamy et al., 2002; Singh et al., 2004; Villalonga, 2004; Jiraporn et al., 2006; Gleason et al., 2012; or Salama & Putnam, 2013	Consolidated Balance Sheets of firms from 2007 to 2014

11	Firm leverage	LEV = Ratio of total debt to total assets in the year (t-1)	Ratio	Amit & Livnat, 1988; Singh et al., 2004; Kim & Chen, 2010; and Salama & Putnam, 2013	Consolidated Balance Sheets of firms from 2007 to 2014
12	State ownership	StaO = Percentage of shares owned by Vietnamese State to the total number of shares issued at year t	Ratio	Delios et al. (2008)	Annual Reports of firms from 2007 to 2014

(Source: own creation)

3.3 Method of data analysis

Because the dataset in the research is a balanced panel data and dependent variables such as firm diversification (FDiv) and Tobin's q (Tobinsq) are scale variables, three regression methods consisting of Pooled OLS regression, Fixed effects model and Random effects model, are, in turn, applied for Model 1, 2 and 3 thanks to *Stata 12.0*. Among these three methods, Fixed effects model is divided into two techniques: *least squares dummy variable (LSDV) estimator* and *fixed effects (within- group) estimator*. After that, F test and Hausman test are used to find out the most preferable method to each model. While F test is used to check whether the Fixed effects model is better than the Pooled OLS regression, the purpose of Hausman test is to examine whether Random effects model is more proper than Fixed effects model by comparing the coefficient estimates of Random effects model with those of Fixed effects model. After choosing which method is the most appropriate for each model to report the results, different tests will be applied to check multicollinearity, heteroscedasticity, autocorrelation and endogeneity in the model. Books of Wooldridge (2009), Gujarati (2011), Hill et al. (2011) and working paper of Park (2011) are invaluable sources of reference for the methodology applied in this study.

4. Empirical results and analysis

4.1 Summary of corporate governance characteristics of listed companies in Vietnam

In Vietnam, one noticeable and important feature of the ownership setting of listed companies is that Vietnamese State exists in the role of a large shareholder in a majority of firms. It is not surprising when the average blockholder ownership of listed firms in the

sample was really high (at 49 percent of the total shares), when there were more than two third of these companies where Vietnamese State was one of the blockholders, and when the average percentage of shares owned by Vietnamese State for each firm was 29.4%. This fact results from characteristics of the economic development in Vietnam. With the target of internationally economic integration in the era of economic development, the process of equitization was extended more and more in Vietnam from the year of 2000 onwards after its first presentation in mid-1992. However it was argued that this process had a lot of inadequacy during the time it happened. Most equitized State-owned enterprises were small enterprises and still let the State possess a controlling share (Sjöholm, 2006 and Nguyen Duc Do, 2016). It is undeniable that these problems constrained economic growth in Vietnam because the growth rate of State sector was proved to be much lower than most other sectors such as private sector and foreign investment sector (**Table 5**).

Table 5: Growth rate of economic sectors in Vietnam during the period 2005-2015 (%)

	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**Average**
Total	7.55	6.98	7.13	5.66	5.40	6.42	6.24	5.25	5.42	5.98	6.68	6.24
State sector	7.37	6.17	5.91	4.36	3.99	4.64	4.79	5.80	4.76	4.05	5.37	5.20
Non-public sector	6.03	5.29	6.03	5.82	6.63	7.08	7.93	6.01	4.73	5.85	6.32	6.15
Collective sector	3.98	3.51	3.32	3.01	2.85	3.32	4.83	4.38	4.63	4.58	5.97	3.96
Private sector	14.01	14.85	15.73	10.97	9.43	8.46	8.44	8.02	6.05	6.75	8.42	10.10
Individual sector	4.63	3.30	3.92	4.79	6.40	7.27	8.21	5.77	4.45	5.80	5.97	5.50
Foreign investment sector	13.22	14.33	13.04	7.85	4.81	8.07	7.69	7.42	7.86	8.45	10.71	9.40

(Source: General Statistics Office of Vietnam cited in Nguyen Duc Do, 2016)

Because State ownership exists in the ownership structure of the majority of listed companies in Vietnam, corporate governance systems of the firms will be affected. The principals in the firms with large State ownership usually have psychological dependence on the State; they think that whatever they do will receive the support for the State. That is the reason why the principals in these companies are expected to make decisions towards

protecting their own interest through increasing control devices in corporate governance system to monitor self-interested actions of the agents or prevent moral hazard problems rather than adding devices to align their interest with the interest of the agents. This expectation is confirmed by the results about corporate governance features of Vietnamese listed companies during the period from 2007 to 2014 in the sample.

First of all, interest alignment devices of corporate governance, including *Executive ownership* and *Executive stock options*, were not favored by most listed companies. The study results showed that most firms in the sample limited the ownership of the executives by providing the number of shares to the executives less than 5% of the total issued shares in order to avoid the situation that the managers would abuse their power to pursue value-reducing strategies. In addition, the *Stock options* tool seems to be not applied popularly with the role of an interest alignment device of corporate governance to align the interests between the principals and the agents in listed firms in Vietnam when the proportion of observations with Executive stock options in the sample was almost similar to that without Executive stock options.

Contrarily, most listed companies in Vietnam put an emphasis on control devices of corporate governance. They preferred the separation of the CEO position from the role of the chairman to promote board independence. Furthermore, they allowed blockholder ownership reaching at very high levels (greater than 50 percent of total shares).

However one shortcoming of internal corporate governance system of listed firms in Vietnam might be the less conformity of regulations governing corporate governance from listed firms in the article of independent directors. Although the Circular No. 121/2012/TT-BTC of Vietnamese Ministry of Finance regulated that at least one-third of the total members in the Board of Directors must be independent, most listed firms in the sample did not comply with this regulation. This results in a doubt about the effectiveness of this control device in the firms.

4.2   Summary of applied level of conglomerate diversification strategy and firm value, measured by Tobin's *q*, of listed companies in Vietnam

On the average, diversification level of Vietnamese listed firms in the sample was quite low at less than 0.2. Only three among 70 companies had unrelated diversification level greater than 0.5. Moreover this figure was rather stable over time when it fluctuated in a small range between 0.155 and 0.180 during 8 years from 2007 to 2014. This shows a good signal for Vietnam's economy with high concentration in business lines of listed shareholding companies. The firms preferred concentric diversification strategy to conglomerate diversification strategy. Interestingly, this fact seems to similar to the United State in the period 1994 – 1999 or Korea over the years from 1999 to 2005 when the extents of unrelated diversification calculated by Berry Herfindahl index were also relatively low (0.25 and 0.1831 correspondingly).

In terms of firm value, measured by Tobin's q, of listed companies in Vietnam, it can be seen that nearly 70% of the companies in the sample were over-valued with 8-year average Tobin's q ratios larger than 1; and the average Tobin's q for each company was 1.271. This might be a good signal promising the potential growth of Vietnam's economy and encouraging new investments from entrepreneurs.

Unfortunately, one discovered disadvantage was that there has been no unification in disclosing information on industrial taxonomy of listed companies in Vietnam. Different sources (Decision No. 10/2007/QĐ-TTg of the Prime Minister, Ho Chi Minh Stock Exchange – HOSE and Ha Noi Stock Exchange - HNX) have different classifications. This leaded to difficulties for researchers who wanted to investigate the application of diversification strategy of Vietnamese corporations according to a unified industrial taxonomy compared with the popular industrial taxonomies in the world. Thus, in order to create an integrated business environment, decision-makers of HOSE and HNX should change their current industrial taxonomies for listed firms towards the classification as Decision No. 10/2007/QĐ-TTg of the Prime Minister regulated.

4.3   Findings

On the relationship between corporate governance mechanisms and unrelated diversification level in Vietnam

The results related to the determinants of diversification levels of Vietnamese listed firms are shown in Table 6.

Table 6: Results from running regression with Driscoll-Kraay standard errors for Firm diversification function

Regression with Driscoll-Kraay standard errors					Number of obs = 560	
Method: Fixed-effects regression					Number of groups = 70	
Group variable (i): Id					F(10, 7) = 1039.46	
maximum lag: 1					Prob > F = 0.0000	
					within R-squared = 0.0708	

Fdiv	Coef.	Drisc/Kraay Std. Err.	t	P>|t|	[95% Conf. Interval]	
ESO	0.014	0.009	1.57	0.161	-0.007	0.035
EXO	-0.425	0.042	-10.11	0.000	-0.524	-0.325
BLKO	0.084	0.015	5.46	0.001	0.047	0.120
BCOM	-0.045	0.046	-0.98	0.360	-0.155	0.064
DUAL	-0.007	0.012	-0.61	0.563	-0.036	0.021
FCFDum	0.003	0.007	0.36	0.729	-0.014	0.020
ROA	-0.005	0.033	-0.15	0.886	-0.084	0.074
SIZE	0.001	0.005	0.27	0.797	-0.010	0.013
LEV	-0.016	0.025	-0.67	0.524	-0.075	0.042
StaO	-0.224	0.043	-5.24	0.001	-0.325	-0.123
_cons	0.184	0.136	1.35	0.218	-0.137	0.505

(Source: Stata 12.0 Output File)

It can be seen from Table 6 that among 10 regressor variables, only three explanatory variables (EXO, BLKO, and StaO) have statistically significant coefficients at less than 5% level of significance. Among them, there is a negative strong relationship between Executive ownership (EXO) and Firm diversification (FDiv) with the coefficient around − 0.4 at less than 0.01 significance level. State ownership also correlates with the extent of diversification negatively but at a lower level as the correlation coefficient is nearly -0.2 at the significant level of under 0.05. On the other hand, there is a positive relation between Blockhoder ownership (BLKO), a control device of corporate governance, and diversification level as its coefficient is 0.084 at significance level less than 0.05.

On the moderation of free cash flow on the relationship between corporate governance and diversification in Vietnam

Despite we select which model (FEM or REM), all five interaction terms between free cash flow dummy and five internal corporate governance mechanisms (FCFESO, FCFEXO, FCFBLKO, FCFBCOM and FCFDUAL) are insignificant statistically at the 0.1 level of significance.

Furthermore, a Wald test of block exclusion of interaction terms indicated that the coefficients for five interactions can be simultaneously equal to zero 5% significance level.

Therefore the effect of each internal corporate governance mechanism on diversification of a listed firm in Vietnam is expected to be not impacted by the level of free cash flow, high or low.

On the relationship between diversification level and firm value in Vietnam

This research did not find the significant relationship between unrelated diversification level and firm value at 5% level of significance when the correlation coefficient of FDiv and Tobinsq was 0.492 with p-value at 0.18 (Table 7).

Table 7: Results from running regression with Driscoll-Kraay standard errors for firm value function

Regression with Driscoll-Kraay standard errors					Number of obs = 560	
Method: Fixed-effects regression Group variable (i): Id maximum lag: 1					Number of groups = 70 F(11, 7) = 28.95 Prob > F = 0.0000 within R-squared = 0.3773	
Tobinsq	**Coef.**	**Drisc/Kraay Std. Err.**	**t**	**P>|t|**	**[95% Conf. Interval]**	
FDiv	0.492	0.330	1.490	0.180	-0.289	1.273
ESO	-0.017	0.052	-0.330	0.750	-0.141	0.107
EXO	5.363	2.997	1.790	0.117	-1.723	12.449
BLKO	0.366	0.216	1.690	0.134	-0.145	0.877
BCOM	0.226	0.186	1.210	0.264	-0.214	0.667
DUAL	-0.023	0.058	-0.390	0.706	-0.160	0.115
FCFDum	0.077	0.078	0.980	0.358	-0.108	0.261
ROA	2.351	1.242	1.890	0.100	-0.587	5.289
SIZE	-0.781	0.153	-5.110	0.001	-1.142	-0.420
LEV	1.659	0.454	3.650	0.008	0.585	2.734
StaO	3.113	1.827	1.700	0.132	-1.207	7.434
_cons	19.867	3.272	6.070	0.001	12.131	27.604

(Source: Stata 12.0 Output File)

Although insignificant p-value existed, this positive correlation coefficient raises the doubt about the negative effect of conglomerate diversification on firm value as several authors mentioned in the literature. Thus, this study continues to run regression for two sets of data. The first set of data consists of 30 companies having 8-year average diversification levels greater than the average diversification level of total beginning sample (0.164). The second set comprises 40 remaining companies corresponding to 320 observations with low 8-year average diversification levels. Three regression methods (Pooled OLS regression, FEM

and REM) are applied for each set of data to test the effect of diversification on firm value. The results are shown in the Table 8.

Clearly, it can be seen that although all p-values are insignificant, the correlation coefficient of FDiv and Tobinsq changes from positive direction in the sample of 40 firms with low diversification level to negative direction in case of companies with high diversification level. This change happened in all three applied methods. This proves that the negative impact of unrelated diversification on firm value seems to be true only when unrelated diversification reaches to a certain level. In this study, the direction of its effect changed when diversification level was over the sample mean (0.164).

Table 8: Regression results on the relationship between diversification and firm value for two set of data (30 firms with high diversification levels and 40 firms with low ones)

FDiv → Tobinsq	Case 1: Firms with low diversification level			Case 2: Firms with high diversification level		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Coef.	0.893	2.288	1.108	-0.189	-0.348	-0.257
Std. Err.	0.792	0.885	0.855	0.256	0.315	0.275
p-value	0.260	0.010	0.195	0.461	0.271	0.350
Number of obs	320	320	320	240	240	240

(Source: own creation thanks to Stata 12.0)

4.4 Confirmation of hypotheses in the research

Two tables (Table 9 and Table 10) are created to light up main results of the study.

Table 9: Confirmation of hypotheses in the study

Hypothesis	Accept/Reject
Hypothesis 1: The more interest alignment devices are used, the lower the extent of conglomerate diversification will be	- Accept if the interest alignment device is increasing executive ownership - Reject if the interest alignment device is providing stock options
Hypothesis 2: The more control devices are applied, the lower the extent of conglomerate diversification will be	Reject
Hypothesis 3: The effect of each internal corporate governance mechanism on diversification level of a firm is different between high and low free cash flow	Reject
Hypothesis 4: The higher unrelated diversification level of a firm is, the lower the firm value becomes	Reject

(Source: own creation)

Table 10: Comparison between anticipated relations and results in the study

Relation between			Anticipated	Actual
Diversification level	and	Firm value through Tobin's q	Negative	Not significant
Corporate governance	and	diversification	Negative	Negative / Positive / Not significant depending on the type of interest alignment device or control device
Corporate governance devices	Corporate governance characteristics			
Interest alignment devices	*Executive stock option (ESO)*	*and*	*diversification*	*Negative*	*Not significant*
	Executive ownership (EXO)	*and*	*diversification*	*Negative*	*Negative*
Control devices	*Blockholder ownership (BLKO)*	*and*	*diversification*	*Negative*	*Positive*
	Board composition (BCOM)	*and*	*diversification*	*Negative*	*Not significant*
	Duality in position (DUAL)	*and*	*diversification*	*Negative*	*Not significant*

(Source: own creation)

Among four hypotheses, the testing result of Hypothesis 4 seems to be most noticeable in this study. Hypothesis 1, 2 and 3 were established based on the support of agency theory and the assumption that unrelated diversification is indeed a value-reducing strategy as the arguments of several previous researchers such as Berger & Ofek (1995), Amihud & Lev (1999) or Martin & Sayrak (2003). However, in fact, when testing on a sample of listed firms in Vietnam during the period from 2007 to 2014, there were no statistical evidences to assert the negative relationship between unrelated diversification level and firm value through Tobin's q at 5% significant level. Hypothesis 4 is rejected. The reason may be that during these periods, unrelated diversification levels of listed companies were too low with the average diversification level for each company at 0.164. With such low levels of unrelated diversification at the present, it may be not absolutely bad, or even good, for the firms if they decide to be diversified more into new unrelated industries. Therefore, agency theory can not be used to explain the relationship between corporate governance and diversification in case of Vietnam currently because we are not sure about non-benefits of unrelated diversification strategy.

Returning to the first three hypotheses, the acceptance or rejection of Hypothesis 1 depends on which interest alignment device the firm applied. The results show that if the interest alignment device is increasing executive ownership for CEOs, this hypothesis will be accepted. Nonetheless, it will be rejected when considering stock options as an interest alignment device.

Regarding Executive ownership (EXO), a negative relationship between executive ownership and diversification level was found in the research that is consistent with previous empirical studies in the U.S. of Hill & Snell (1988) and of Denis et al. (1997). The higher the percentage of managerial ownership becomes, the less likely managers are to pursue conglomerate diversification strategy. It can be explained that executives are responsible for managing the firm according to the tasks that the Board of Directors assigned in limitative resources such as capital and labor resources; so they would know perfectly well about the strengths as well as weaknesses of the company. They might understand that if they make investments in various unrelated business fields under a limitation of resources, it will be hard for them to succeed in assigned tasks. Therefore, executives would tend to prefer concentration strategy and concentric diversification strategy to conglomerate diversification strategy. This trend is more confirmed when managers receive higher ownership because at that time, their benefits are more attached to the benefits of the whole company.

Considering Executive stock options (ESO), the research found an insignificant relationship between executive stock options and diversification level at 5% level of significance. This result is consistent with the researches' results of Goranova et al. (2007) in the U.S. and Castaner & Kavadis (2013) in France. In general, the *Stock options* tool was not applied popularly in listed firms in Vietnam. This might be the reason why this tool could not fulfil its role as a corporate governance mechanism influencing diversification levels of the firms.

Hypothesis 2 is not supported for all three control devices: level of blockholder ownership (BLKO), board composition (BCOM), and separation in duality in position (DUAL) in this study because a positive connection between blockholder ownership and diversification, and insignificant relations between two other control devices (Board composition and Duality in position) and the extent of diversification were realized at 0.05 level of significance.

Before mentioning the link between blockholder ownership and diversification, the author will analyze the effect of State ownership (StaO) on diversification because among 70 listed companies, Vietnamese State was one of the blockholders in 54 firms during eight years, from 2007 to 2014. This study discovered the negative relationship between State ownership and diversification. Holding other explanatory variables constant, when State ownership rose by 1 percent, the diversification level was expected to decrease by around 0.2 at less than 0.05 level of significance. This result is opposite to the suggestion of Delios et al. (2008) when they argued that Chinese government preferred product diversification to give loss-making corporations more opportunities as well as to keep down unemployment in China. Contrary to the circumstance of China, State enterprises in Vietnam might be very cautious about expanding their business and product lines. A negative connection between State ownership and Diversification showed that in order to avoid risks, firms had a large amount of shares owned by the State tended to adopt other growth strategies such as vertical growth, horizontal growth or concentric diversification instead of conglomerate diversification strategy.

Interestingly, blockholder ownership affected diversification level positively in the sample of Vietnam. On the average, the blockholder ownership in each firm accounted for 49 percent of the total shares whereas the percentage of State ownership was 29.4. This fact reflected that beside the State, there were other types of large shareholders in firms such as individual and institutional investors. These large shareholders took risks by confronting moral hazard problems as favoring unrelated diversification strategy. Perhaps they expected to the growth of the firms through this strategy in the future in a developing market like Vietnam.

Next proxy of control device is Board composition (BCOM). Similar to the researches of Singh et al. (2004), Kim & Chen (2010) and Goranova et al. (2007), this study found the statistically non-significant affect of board composition on diversification. In terms of the remaining variable reflecting the effectiveness of control devices on diversification, Duality in position (DUAL), it was found that although Goranova et al. (2007) and Castaner & Kavadis (2013) proposed positive impact of CEO duality on total diversification, there were no evidences to confirm this relationship in this research because p-values in the models were all larger than 0.1.

As regards Hypothesis 3, all coefficients of five interaction terms (FCFESO, FCFEXO, FCFBLKO, FCFBCOM and FCFDUAL) in Model 2 were insignificant at 0.05 level, and Wald test proved that the coefficients for these five interactions could be simultaneously equal to zero, would be accepted at 5% significance level. Thus, there were no evidences to support the argument that at high free cash flow, the effect of each internal corporate governance mechanism on diversification level was different from that at low free cash flow. Hypothesis 3 is also rejected in the study.

5.   Conclusions

In conclusion, this research concentrated on the relationships between internal corporate governance mechanisms and diversification level in Vietnam. From the research's results, it is expected that in order to reduce diversification level of shareholding firms in Vietnam, the principals can increase ownership of executives, decrease blockholder ownership, or rise the shares the State owned in the firms. Interestingly, the agency theory could not be used to explain the relationship between corporate governance and diversification in case of Vietnam because we were not sure about disadvantages of conglomerate diversification strategy. From 2007 to 2014, the average diversification level for each listed firm in Vietnam was quite low, less than 0.2. Thus, diversifying into new industries that are rather different from the core industries can bring not only challenges but also opportunities for the firms in this country in the current era of globalization. Furthermore, when looking at the negative direction of the correlation coefficients of firm diversification and Tobin's q to the sample of 30 firms with high diversification levels in comparison with positive correlation coefficients in the sample of 40 firms with low extent of diversification, it is recommended that implementing conglomerate diversification strategy of a company should be revised when unrelated diversification level reaches to a certain maximum amount that will make this strategy become counter-productive as the expectation of the principals.

The research makes several invaluable contributions to the current literature on relationships among corporate governance, firm diversification, and value of diversified firms. Firstly, the link between corporate governance and diversification has been studied in some developed countries such as the U.S., Sweden and France, or in few advanced emerging

markets like Korea and Taiwan. This research can be considered as a contribution to the related topic with an example of Vietnam, a developing country in Asia.

Secondly, there was no unification in the results showing the relationships between corporate governance mechanisms and corporate diversification among previous studies (Table 2). This research continues to contribute to this non-unification when its results were also different from most prior studies. Table 11 shows a comparison of research results in this study versus in earlier ones. These dissimilarities can be explained by the differences in socio-political-economic conditions between different nations as well as the differences in selected measurements for variables from researchers.

Thirdly, it seems to be the second research that follows the study of Castaner & Kavadis (2013) on the moderation of free cash flow to the effects of corporate governance on diversification. Unfortunately, this moderation was not confirmed statistically in this study. This calls for studies afterwards continuing this research topic in other countries so that a general conclusion can be drawn in the future.

Moreover, it proves a fact that the agency theory is not always suitable to use in explaining the relations between corporate governance and diversification. Among prior studies on the effects of corporate governance mechanisms on diversification, some authors supported the application of the agency theory but some others did not. For example, while Denis et al. (1997) used the agency theory to explain the negative impact of managerial ownership on diversification, Kim & Chen (2010) ignored the theory to this relationship because of a positive connection they found; or in the study of Goranova et al. (2007), they could not support the agency theory to an insignificant link between board composition and diversification. In case Vietnam in the research, the agency theory can not be used to explain the relationship between corporate governance and diversification because despite a negative effect of executive ownership on the extent of diversification being discovered in listed firms in Vietnam, in-effectiveness of conglomerate diversification strategy did not confirmed.

Table 11: A comparison of research results in this study versus in previous studies

Dependent variable	Independent variable	Relationship	Country	Source
Diversification level	Managerial ownership	Negative	U.S	Hill & Snell (1988)
		Negative	U.S.	Denis et al. (1997)
		Positive	U.S.	Singh et al. (2004)
		Positive	Korea	Kim & Chen (2010)
		Negative	**Vietnam**	**This study**
	Executive stock options	Not significant	U.S	Goranova et al. (2007)
		Not significant	France	Castaner & Kavadis (2013)
		Not significant	**Vietnam**	**This study**
Diversification level	Blockholder ownership	Negative	U.S	Hill & Snell (1988
		Negative	U.S.	Denis et al. (1997)
		Not significant	U.S.	Singh et al. (2004)
		Positive	**Vietnam**	**This study**
	Board composition	Not significant	U.S.	Singh et al. (2004)
		Not significant	U.S.	Goranova et al. (2007)
		Not significant	Korea	Kim & Chen (2010)
		Positive (At low levels of free cash flow)	France	Castaner & Kavadis (2013)
		Not significant	**Vietnam**	**This study**
	Duality in position	Positive	U.S.	Goranova et al. (2007)
		Positive (At high levels of free cash flow)	France	Castaner & Kavadis (2013)
		Not significant	**Vietnam**	**This study**
Firm value	Diversification level	Negative	U.S.	Berger & Ofek (1995)
		Negative	U.S.	Amihud & Lev (1999)
		Negative	U.S.	Martin & Sayrak (2003)
		Not significant	**Vietnam**	**This study**

(Source: own creation)

Finally, the research makes a theoretical contribution to the topic of the effectiveness of conglomerate diversification strategy. Although most previous studies supported that unrelated diversification strategy was a value-reducing strategy, an insignificant relationship

between diversification level and firm value, measured by Tobin's *q,* was found in this study. However, one noticeable exploration was that the correlation coefficient of the extent of diversification and Tobin's *q* changed from positive direction in the sample of the firms with low diversification level to negative direction in case of companies with high diversification level. Achieved results were rather similar to the study of Lien & Li (2013) when they realized that a diversification strategy contributed positively to performance of Taiwanese firms until the diversification level reached to its peak; over this peak, the effect would be negative. From the evidences of this research and of Lien & Li (2013), it is suggested that there would be a certain level of unrelated diversification at which the direction of the effect would change from positive to negative. Hence, it would be important for a firm to catch this maximum level so that it can prevent counter-productive effects of the conglomerate diversification strategy.

In addition to invaluable contributions to the current literature on this topic, the research also can be a useful reference for not only investors, managers but also for policy makers in Vietnam. As far as the author knows, this study is the first one exploring the relations among corporate governance, diversification and firm value in Vietnam where the topics related to effectiveness of corporate governance mechanisms to public companies has been more and more attractive to researchers since the default of Vietnam Shipbuilding Industry Group (Vinashin) in 2010 happened and the Circular No. 121/2012/TT-BTC on 26th July, 2012 of Vietnamese Ministry of Finance was issued with regulations on corporate governance applicable to lists firms in this country.

It is noticeable that the research results can be helpful for all types of investors including individual, institutional and state investors, or domestic and foreign investors, who are interested in business environment of Vietnam. They can have an overview of diversification levels as well as corporate governance features of listed companies in Vietnam during the period from 2007 to 2014. Additionally, the investors and managers can understand the determinants of diversification level and particularly, the relations between corporate governance and diversification. From that, the investors or stockholders will be able to reach wise decisions in order to minimize agency costs and maximize their own benefits; and the managers can identify the purposes of the principals when these principals adjust diversification levels through internal corporate governance mechanisms.

The research results may be also important to policy makers in Vietnam as well. Vietnamese State was the large stockholder in the majority of listed firms. Thus the development of stock markets in Vietnam will mainly depend on State management. If the State does not manage effectively, other circumstances that are similar to the default of Vinashin will repeat. Hence, Vietnamese State should be very cautious in approving large-scale projects to the firms with high State ownership. Moreover, policy makers can realize less conformity of regulations governing corporate governance from listed firms in the article of independent directors when most firms had the number of independent directors less than one-third of the total number of directors in their boards. For that reason, policy markets should impose stricter sanctions for the firms that does not comply with the regulations on corporate governance as stated in the Circular No. 121/2012/TT-BTC with the aim of protecting outside investors in Vietnamese financial market.

6. References

Amihud, Y. & Lev, B. (1981). Risk reduction as a managerial motive for conglomerate mergers. *Bell Journal of Economics, 12*(2), 605 – 617.

Amihud, Y. & Lev, B. (1999). Does corporate ownership structure affect its strategy towards diversification? *Strategic Management Journal, 20*(11), 1063 – 1069.

Amit, R. & Livnat, J. (1988). Diversification Strategies, Business Cycles and Economic Performance. *Strategic Management Journal, 9*, 99 – 110.

Anderson, R. C., Bates, T. W., Bizjak J. M. & Lemmon, M. L. (2000). Corporate Governance and Firm Diversification. *Financial Management*, 5-22.

Ansoff, H. I. (1957). Strategies for diversification. *Harvard Business Review, 35*(5), 113-124.

Beatty, RP. & Zajac, EJ. (1994). Managerial incentives, monitoring, and risk bearing: a study of executive compensation, ownership, and board structure in initial public offerings. *Administrative Science Quarterly, 39*(2), 313 – 335.

Berger, PG. & Ofek, E. (1995). Diversification's effect on firm value. *Journal of Financial Economics, 37*(1), 39 – 65.

Bergh, D. D. & Lawless, M. W. (1998). Portfolio Restructuring and Limits to Hierarchical Governance: The Effects of Environmental Uncertainty and Diversification Strategy. *Organization Science, 9*(1), 87-102.

Bethel, JE. & Liebeskind, J. (1993). The effects of ownership structure on corporate restructuring. *Strategic Management Journal*(Summer Special Issue 14), 15 – 31.

Campa, J. M. & Kedia, S. (2002). Explaining the Diversification Discount. *The Journal of Finance, 57*(4), 1731-1762.

Castaner, X. & Kavadis, N. (2013). Does good governance prevent bad strategy? A study of corporate governance, financial diversification, and value creation by French corporations, 2000-2006. *Strategic Management Journal, 34*(7), 863-876.

Collin, S. O. & Bengtsson, L. (2000). Corporate governance and strategy: A test of the association between governance structures and diversification on Swedish data. *Corporate Governance, 8*(2), 154-165.

Comment, R. & Jarrell, G. A. (1995). Corporate focus and stock returns. *Journal of Financial Economics, 37*, 67-87.

Delios, A., Zhou, N. & Xu, W. W. (2008). Ownership structure and the diversification and performance of publicly-listed companies in China. *Business Horizons, 51*, 473 – 483.

Denis, DJ., Denis, DK. & Sarin, A. (1997). Agency problems, equity ownership and corporate diversification. *Journal of Finance, 52*(1), 135 – 160.

Gleason, K. C., Kim, I., Kim, Y. H. & Kim, Y. S. (2012). Corporate Governance and Diversification. *Asia-Pacific Journal of Financial Studies, 41*, 1-31.

Goranova, M., Alessandri, TM., Brandes, P. & Dharwadkar, R. (2007). Managerial ownership and corporate diversification: a longitudinal view. *Strategic Management Journal, 28*(3), 211 – 225.

Gujarati, D. (2011). *Econometrics By Example (1st edition)*. Palgrave Macmillan, Great Britain.

Hill, C. W. L. & Snell, S. A. (1988). External control, corporate strategy, and firm performance in research-intensive industries. *Strategic Management Journal, 9*, 577 – 590.

Hill, R. C., Griffiths, W. E. & Lim, G. C. (2011). *Principles of Econometrics (4th edition)*. John Wiley & Sons, Inc., United States of America.

Hoechle, D., Schmid, M., Walter, I. & Yermack, D. (2012). How much of the diversification discount can be explained by poor corporate governance. *Journal of Financial Economics*, *103*, 41–60.

Hookway, J. &Tudor, A. (2010). Behind Firm's Default: Vietnam's Growth Mania. *The Wall Street Journal*, viewed 01 November 2016,

http://www.wsj.com/articles/SB10001424052970203568004576043180815719282.

Hoskisson, R. E., Hitt, M. A., Johnson, R. A. & Moesel, D. D. (1993). Construct validity of an objective (entropy) categorical measure of diversification strategy. *Strategic Management Journal*, *14*, 215–235.

Jensen, MC. (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review, 76*(2), 323 – 329.

Jiraporn, P., Kim, Y. S., Davidson, W. N. & Singh, M. (2006). Corporate governance, shareholder rights and firm diversification: An empirical analysis. *Journal of Banking and Finance, 30*(3), 947-963.

Kim, B. G. & Chen, K. C. (2010). The Relationships Among Corporate Governance Structure, Business Diversification and Corporate Value: Evidence from Korean Firms. *Journal of Emerging Markets, 15*(1), 7-22.

Koppisch, J. & Murphy, A. (2016). 2016 Fab 50: Asia's Best Big Public Companies. *Forbes*, viewed 08 May 2017, https://www.forbes.com/sites/johnkoppisch/2016/08/24/2016-fab-50-asias-best-big-public-companies/#3335520a1d15.

Lang, L. H. & Stulz, R. M. (1994). Tobin's q, corporate diversification and firm performance. *Journal of Political Economy, 102*, 1248-1280.

Lien, Y.–C. & Li, S. (2013). Does diversification add firm value in emerging economies? Effect of corporate governance. *Journal of Business Research, 66*, 2425–2430.

Martin, J. D. & Sayrak, A. (2003). Corporate Diversification and Shareholder Value: A Survey of Recent Literature. *Journal of Corporate Finance, 9*(1), 37–57.

Minh Tri (2015). Vinamilk entered ASEAN's top 100 valuable enterprises (Vinamilk vào top 100 doanh nghiệp giá trị nhất ASEAN). *Vnexpress,* viewed 08 May 2017, http://kinhdoanh.vnexpress.net/tin-tuc/doanh-nghiep/vinamilk-vao-top-100-doanh-nghiep-gia-tri-nhat-asean-3319491.html

Morck, R., Shleifer, A. & Vishny, RW. (1990). Do managerial objectives drive bad acquisitions? *Journal of Finance, 45*, 31 – 48.

Nguyen Duc Do (2016). Some challenges in the equitization of State-owned enterprises in Vietnam (Một số thách thức trong quá trình cổ phần hóa doanh nghiệp nhà nước tại Việt Nam). *Electronic Finance Journal,* viewed 18 May 2017, http://tapchitaichinh.vn/tai-chinh-kinh-doanh/tai-chinh-doanh-nghiep/mot-so-thach-thuc-trong-qua-trinh-co-phan-hoa-doanh-nghiep-nha-nuoc-tai-viet-nam-98426.html.

Park, H. M. (2011). *Practical Guides To Panel Data Modeling: A Step-by-step Analysis Using Stata*. Tutorial Working Paper. Graduate School of International Relations, International University of Japan.

Ramaswamy, K., Li, M. & Veliyath, R. (2002). Variations in Ownership Behavior and Propensity to Diversify: A study of the Indian Corporate Context. *Strategic Management Journal, 23*, 345-358.

Rumelt, R. P. (1982). Diversification Strategy and Profitability. *Strategic Management Journal, 3*, 359–369.

Salama, F. M. & Putnam, K. (2013). The Impact of Corporate Governance on the Financial Outcomes of Global Diversification. *The International Journal of Accounting, 48*, 364–389.

Samaha, K., Dahawy, K., Hussainey, K. & Stapleton, P. (2012). The extent of corporate governance disclosure and its determinants in a developing market: The case of Egypt. *Advances in Accounting, incorporating Advances in International Accounting, 28*(168–178).

Sjöholm, F. (2006). *State owned enterprises and Equitization in Vietnam*. Working Paper. Stockholm School of Economics, viewed 18 May 2017, http://swopec.hhs.se/eijswp/papers/eijswp0228.pdf.

Singh, M., Mathur, I. & Gleason, K. (2004). Governance and performance implications of diversification strategies: Evidence from large U. S. firm. *Financial Review, 39*, 489-526.

Villalonga, B. (2004). Does Diversification Cause the "Diversification Discount"?. *Financial Management, Summer 2004,* 5-27.

Wheelen, T. L. & Hunger, J. D. (2006). *Strategic Management and Business Policy (Tenth Edition).* United States of America: Pearson Prentice Hall.

Wooldridge, J. M. (2009). *Introductory Econometrics: A Modern Approach (4th Edition).* United States of America: South-Western Cengage Learning.

7.   List of Publications

Journal articles

Nguyen Thi Xuan Trang (2015), "A review of Societal Marketing", *The University of Danang, Journal of Science and Technology (ISSN 1859-1531)*, No. 12 (97), Vol. 1, pp. 90-93.

Nguyen Thi Xuan Trang (2016), "Design an ideal supply chain strategy", *Advances in Management (E-ISSN: 2278-4551)*, Vol. 9 No. 4, pp. 20-27.

Nguyen Thi Xuan Trang (2016), "Economies of Scope – An Advantage of Concentric Diversification Strategy", *Research in Social Change (ISSN: 1855-4202)*, Vol. 8 No. 3, pp. 81-95.

Nguyen Thi Xuan Trang (2017), "Conglomerate Diversification Strategy: good or bad? – Evidence from Vietnam", *The Hungarian Journal of Marketing & Management* (Under review)

Nguyen Thi Xuan Trang (2017), "Corporate Governance and Corporate Diversification – Evidence from Vietnam", *International Journal of Emerging Markets* (Under review)

Conference proceedings

Melina Manochin, Nguyen Thi Xuan Trang, Nguyen Lan Phuong, Doan Ngoc Phi Anh (2015), "Sustainable Development and Corporate Governance in Vietnam", *Proceedings of International Conference on Accounting 2015 (ISBN 978-604-84-0781-0)*, Danang, Vietnam, pp. 240-251.

Nguyen Thi Xuan Trang (2015), "A review on Strategies of Internationalization Process", *The 1ˢᵗ International Conference Proceedings for young researchers in Economics and Business (ICYREB 2015) (ISBN: 978-604-946-051-7),* The National Economics University, Hanoi, Vietnam, Vol.3, pp. 483-496.

Nguyen Thi Xuan Trang (2016), "Outsourcing: From a review of basic characteristics of outsourcing to an illustration with features of outsourcing market in Vietnam", *Global Business Conference 2016 Proceedings (ISSN: 1848-2252)*, Zagreb, Croatia, pp. 164-175.

Nguyen Thi Xuan Trang (2016), "Transfer pricing", *International Conference Proceedings for Management Accounting – International Experiences and Current Situations in Vietnam (ISBN: 978-604-79-1468-5)*, Hanoi, Vietnam, pp. 26-32.

Conference presentation

Nguyen Thi Xuan Trang, Nguyen Lan Phuong & Melina Manochin (2014), "Sustainable Development and Corporate Governance in Vietnam", *Management Accounting Research Group Conference*, Aston Business School, UK (20th – 21st November 2014).

Nguyen Thi Xuan Trang (2016), "The Impact of Internal Corporate Governance on Corporate Diversification with the Moderation of Free Cash Flow: The Case of Vietnam", *7th Annual Global Business Conference 2016*, Zagreb, Croatia (September 28th - October 1st 2016).

Nguyen Thi Xuan Trang (2017), "Development of competition regulation in Vietnam", *Workshop supported by the European Association for Comparative Economic Studies,* Szeged, Hungary (23rd – 24th March 2017).

Nguyen Thi Xuan Trang (2017), "Industrial Taxonomy: Inconsistency between Government Regulation and Factual Disclosure in Vietnam", *Interdisciplinary Doctoral Conference,* Pécs, Hungary (19th – 21st May 2017).