

Impact of Ownership Structure and Corporate Governance on Capital Structure: The case of Vietnamese Firms

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ABSTRACT

This article attempts to explore how corporate governance and ownership structure affect capital structure in the context of an emerging economy like Vietnam by considering impact level of three groups of factors which are corporate governance, ownership structure and firm elements. Method of Multivariable Regression Analysis used with cross-panel data collected from non-financial firms listed on Ho Chi Minh Stock Exchanges in the period 2009-2012 shows that corporate governance measures have a significant impact on decision of capital structure, while ownership structure has not given evidences with statistical significance of its impact on capital structure choice, except the fact that managerial ownership has negative impact on capital structure of State-owned Enterprises (SOEs). Especially, the study shows that characteristics which cause effects on corporate governance measures of Vietnamese SOEs include Board size, Non-executive Directors (NEDs), CEO duality and corporate ownership structure. Besides, pecking – order theory can explain basically the impact of classical firm elements such as growth, profitability, tangibility and firm size on capital structure of Vietnamese firms. Finally, our research concludes that ownership structure and corporate governance have a certain impact on decisions of capital structure.

Keywords: Ownership structure; Corporate Governance; Capital Structure; “Doi Moi”; Vietnam.

1. INTRODUCTION

Since the implementation of the nation-wide renovation “Doi Moi” policy in 1986, with a series of economic reform policies, Vietnam has gained significant achievements in constant high economic growth unrecorded by any country in the world. Especially, after the introduction of SOEs Reform Program, Vietnamese firms gained remarkable achievements in firm size expansion and growth which showed that the issue of corporate governance has been the top priority with careful consideration. Accordingly, the issue of ownership in firms was thoroughly analysed and diversified. Regarding relation between corporate ownership and capital structure, Nguyen and Ramachandran (2006) show that state ownership has a significant impact on the leverage. The higher the level of state ownership, the easier for those firms to access loans.

A question raised: How does corporate governance affect capital structure? Today, most of scholars think that corporate governance and capital structure are attracting public's interest because they are considered to be instruments for socio-economic development. Good corporate governance and capital structure present legitimacy and efficiency in corporate management. In contrast, bad ones will create risks and considerable impact on related firms, as well as considerably negative effect on capital market and moreover, threaten the economy. Expression of that phenomenon is weak corporate structure, weak and loose internal control system, lack of regulations in labor control and management (Geniyu and Abiodun, 2012). Previous researches on the relation between corporate governance and capital structure state that corporate governance has significant impact on capital structure, because loans in a firm's capital structure is based on the Board of Directors' decisions (Fama and Jensen, 1983; Jensen, 1986; Friend and Lang, 1988; Berger et al, 1997; Wen et al, 2002, Abor, 2007; Hasan and Butt, 2009).

In Vietnam, after the implementation of SOEs Reform Program in 1992 in which equitization policy plays the core role, firms which used to be in the only ownership form of state ownership, could be rapidly diversified in various forms such as state ownership and private one; investors' ownership and managers' ownership, domestic ownership and foreign one, etc... This trend matches current modern firms. Corporate ownership right experienced ups and downs, despite the fact that those changes were different in developed, developing and emerging economies in the past 2-3 decades. Like some African and South-East Asian countries, especially China, the situation in Vietnam shows that, state ownership in firms has been a topic of controversial debate.

Li.K et al (2009) describes that state ownership is suitable to the role of Chinese government who is controlling shareholders of SOEs and owner of Chinese Commercial Banks. It is reported that state ownership is in a positive correlation with long-term leverage and negative correlation with other leverage measures. Dewenter and Malatesta (2001) states that SOEs have higher leverage than private enterprises. Studying Vietnamese context, Nguyen and Ramachandran (2006) argue that in compare to private enterprises, SOEs use more long-term debts; the more state ownership, the more long-term leverage used. However, the result is in contrast in the case of short-term leverage.

Most of scholars show that there remains agency issue in ownership structure attached to corporate governance. The agency issue comes from conflict of interest among related parties: share holders and managers, share holders and debt holders. Jensen (1986) reasons that the optimal capital structure of a firm is defined by minimizing agency cost, which implies that agency cost is one of deciding elements of capital structure. Meanwhile, corporate governance is structured to decrease agency problem. Therefore, it can be said that corporate governance is linked to capital structure through agency cost.

This article examines the impact of corporate governance and ownership structure on decisions of capital structure in listed firms in Vietnam, an emerging economy in the transition process from a centralized economy into a market one. By research, we realize that there has not been any international specialized study in this topic in Vietnam so far. Like a study by Hasan and Butt (2009), this research looks into level of impact of 3 groups of variables on capital structure, the differences lie in the variables themselves. First, ownership variables including managerial ownership, state ownership; second, business governance variables represented by Board size, Non-executive Directors (NEDs), CEO duality; third, firm variables represented by growth opportunity, tangibility, profitability and firm size.

The rest of this research is structured as follows. Section 2 reviews research-related literatures and development of hypotheses. Section 3 introduces variables, data and research methodology. Section 4 presents findings and discussion. Finally, section 5 is conclusion.

2. LITERATURE REVIEW AND HYPOTHESIS

2.1. Ownership Structure

In this research, ownership structure is considered as managerial ownership. Jensen and Meckling (1976), Fama and Jensen (1983) and Jensen (1986) explain agency issue among related parties by arguing that business managers may try to expand firm size for their own interests. This means leverage is increased. They state that managerial ownership may reduce occupation of wealth from shareholders and bring about interest-related links between managers and investors. Friend and Lang (1988) show the existence of a negative correlation between leverage and managerial ownership level. It means that the lack of investor ownership will lead to low level of business's capital structure and higher level of debt concentration for managers. While studying impact of corporate governance on capital structure, Berger et al (1997) find out conservativeness level of Board of Directors keeping firms away from debts, which results in lower level of debts on assets in case there is no demand from owners. Contrary to Jensen and Meckling (1976), research by Wiwattankantang (1999) shows evidences of statistically significant positive correlation between managerial ownership and the selection of Debt – Equity at Thailand family firms. Hasan and Butt (2009) state that the concentration of managerial ownership would reduce leverage, which implies that it is in a negative correlation with capital structure. With this view, Brailsford (2002) find out non-linear relation between managerial ownership and leverage. Meanwhile, Short et al (2002) state the results of a positive relationship between managerial ownership and leverage, whereas the negative relationship between ownership of external major shareholders and financial leverage.

By above mentioned experimental evidences, it can be said that managerial ownership has an effect on agency costs of equities and debts. Accordingly, high debt ratio increases the risk of bankruptcy than managers' long-term self-interests and requires managers to decrease financial leverage. Meanwhile, large shares hold by investors helps firms increase their financing capability with suitable agency cost of debts. Therefore, we hypothesize the relationship between managerial ownership and capital structure as follows:

H₁: Managerial ownership is negatively corelated to capital structure

2.2. State Ownership

State ownership is a characteristic of firms in transitional economies, in which China and Vietnam are prominent cases. By our knowledge, there has not been any fundamental theory of the relationship between state ownership and capital structure. There have not been many experimental studies of this relationship with unclear results. Shleifer and Vishny (1994) indicate that state ownership is associated with the pursuit of political goals

in expenses of related parties in a company. Wiwattanankantang (1999) presents insignificant positive relationship of state ownership and leverage. Dewenter and Malatesta (2001) show that SOEs use greater leverage than private ones, in other words, there is a positive relationship between state ownership in firms and leverage measures.

When studying impact of firm elements on capital structure, Huang and Song (2006) do not find statistical significant impact of state ownership on capital structure. Meanwhile, Li.K et al (2009) find out that state ownership is an important factor in decisions of Chinese firms' capital structure. They concluded that state ownership is positively proportional to long-term leverage and negatively proportional to short-term leverage. Studies in Vietnamese context have the same result that is SOEs use greater leverage than non-state-owned enterprises; and there remains a positive relationship between leverage and state ownership (Nguyen and Ramachandran, 2006). They all argue that the positive relationship exists because of their previous relations with debt holders before privatized, so debt holders are willing to give loans to SOEs. Managers tend to make decisions deflected from the goal of maximizing firm values because company's resources are used for their own interests, therefore high debt ratio is a tool for behaviour moderation of management. For that reason, we hypothesize the relationship between state ownership and capital structure as follows:

H₂: State ownership is positively related to capital structure

2.3. Board Size

There are many studies on corporate governance and performance effectiveness, yet, there have not been many researches on its relationship with capital structure. In theory, firms' loans are based on decisions of the Board of Directors, which means that if corporate governance is good, the Board will make a good decision for company's loans. Pfeffer and Salancick (1978), Lipton and Lorsch (1992) find a significant relationship between capital structure and Board size which implies that decisions on corporate governance affects decisions on capital structure of a business. Berger et al (1997), Abor (2007), Hasan and Butt (2009) and Ganiyu and Abiodun (2012) provide evidence of a negative relationship between leverage and firms who have large Board of Directors. They argued that a large Board will be more effective in pressuring managers to pursue lower leverage level and improve business performance.

On the other hand, Wen et al (2002) show a positive relationship between the the Board size and capital structure in Chinese context. They argue that firms with large board usually pursue higher leverage level to enhance corporate values; and it would be more difficult for the Board to reach consensus in final decisions, thus may lead to higher financial leverage level. This result is consistent with statement by Jensen (1986) that firms using high leverage level have larger Boards. Regarding the relationship between Board size and capital structure, we hypothesize that:

H₃: Board size has a negative relationship with capital structure.

2.4. Non-executive Directors

In fact, in Boards of Directors of Vietnamese listed firms, there can be individual members or members who do not participate in running the firms. Previous researches on the relationship between element of composition of non-executive board and financial decisions state that this element does not have dramatic impact on the firm's funding decisions. Pfeffer and Salancick (1978), Jensen (1986) and Berger et al (1997) report that firms who have high level of presentation of NEDs suffer higher debt rate and vice versa. Abor (2007) states that small and medium enterprises (SMEs) in Ghana have more external Board of Directors' members and a positive relationship between capital structure and Non-executive directors. In contrast, Wen et al (2002) provide evidences of a statistically significant negative relationship between leverage level and presence of NEDs. They argue that more highly effective monitoring of NEDs forced managers to borrow less but still achieve good business performance.

We believe that the presence of NEDs provides a good signal that the firm is being effectively controlled, thus easily creates trust for debt holders. Therefore, we assume:

H₄: NEDs is in a positive relation to capital structure.

2.5. CEO duality

In agency theory, if a person concurrently holds positions of both Chief Executive Official (CEO) and Board Chairman, it will be easy for agency problem to appear which results in lack-of-control decisions, thus may cause harmful impact to financing decisions. Fama and Jensen (1983) propose to separate administrative and controlling functions, decision-making and decision-controlling functions. This separation is ensured through an internal control section. This internal control system will help ensure a more reasonable and effective use of company resources. This means Fama and Jansen (198) recommend separating between roles of the highest

decision-making manager (CEO) and the highest decision-making controller (Board Chairman). Abor (2007) provides evidences of a positive relationship between financial leverage and CEO duality. Meanwhile, Hasan and Butt (2009) state that CEO duality does not create significant impact on financial leverage of a firm. Ganiyu and Abiodun (2012) show a negative relationship between CEO duality and leverage in Nigeria. We believe that the CEOs who are closely controlled would reduce opportunity behaviours in management which lead to a lower level of leverage. Therefore we hypothesize that:

H₅: CEO duality is positively associated to capital structure

2.6. Growth opportunities

Jensen and Meckling (1976) state that firms with high growth opportunities use less debt to reduce agency problem. Miller (1977) suggests that leverage is negatively related to growth opportunity because firms with high growth opportunities will have more investment choices for future than those of low growth opportunities. However, empirical researches bring different results. While Titman and Wessels (1988), Rajan and Zingales (1995) and Huang and Song (2006) provide evidences of a negative relationship between growth opportunity and long-term leverage, Nguyen and Ramachandran (2006) point out a positive relationship between growth opportunity and debt on asset ratio and short-term debt on asset ratio. We provide a hypothesis of a positive relationship between growth opportunity and capital structure, because in fact, in Vietnamese firms, short-term debt is used mainly for financing business activities which is more suitable.

H₆: Growth Opportunity is positively related to capital structure

2.7. Tangibility

Firms with more tangible assets is expected to have higher capital structure because of low debt cost, less debt-related agency cost and more tangible assets which can provide more collateral assets (Jensen and Meckling, 1976; Myers and Majluf, 1984, Harris and Raviv, 1991). In contrast, the higher tangible asset ratio is the lower information asymmetry. This will result in a trend of equity issuance by firms thus lower debt, therefore tangibility is negatively related to leverage. Titman and Wessels (1988), Rajan and Zingales (1995), Wiwattanakantang (1999), Huang and Song (2006) provide empirical evidences on a positive correlation between tangibility and leverage level. While Booth (2001) and Nguyen and Ramachandran (2006) mention a negative relationship. In Vietnamese context where short-term debt is accounted for a major proportion of debt financing activities of a firm, we hypothesize that:

H₇: Tangibility is negatively related to capital structure

2.8. Profitability

In pecking – order theory, profitable firms tends to raise more funding from internal than external resources. Highly profitable firms, in need of capital, usually give priority to the use of available internal resources (Myers and Majluf, 1984). Therefore, profitability and capital structure are expected to be negatively correlated. Experimental results support the pecking – order theory when all find a negative relationship between profitability and capital structure (see Titman and Wessels, 1988; Rajan and Zingales, 1995; Wiwattanakantang, 1999; Booth et al, 2001; Huang and Song, 2006). Regarding this relationship, we have a hypothesis which supports precedent studies:

H₈: Profitability is negatively related to capital structure

2.9. Firm size

Some previous experimental researches have the same result of the relationship between firm size and leverage in two different directions. Friend and Lang (1988), Rajan and Zingales (1995), Huang and Song (2006) and Nguyen and Ramachandran (2006) show positive impact of firm size on capital structure. In contrast, Titman and Wessels (1988), Booth et al (2001) find evidences of a negative association between firm size and leverage. Also in the pecking – order theory, larger firms expect less information asymmetry which leads to the attraction of more equities. At the same time, information asymmetry will enable smaller firms to use more debt in financing mobilization with high transaction costs. We hypothesize:

H₉: Firm size is positively related to capital structure

3. DATA DESCRIPTION AND METHODOLOGY

3.1. Description of variables

(1) *Capital Structure*. According to modern finance theory, capital structure refers to the way a firm finances its operations through a combination of ownership capital, debts and trade credits. In this paper, capital structure is a dependent variable which is measured by debt on asset ratio based on book value. Leverage can be calculated by using total debt or long-term debt as described in many previous international researches in developing countries. In fact, Vietnamese firms mainly use short-term debt to finance their assets, thus in this study, the proportion of total debt in total assets is used as a representative measure of capital structure.

This is not different from studies in developing countries or emerging economies when long-term debt which is still a limitation in mobilization of corporate debts in these economies. Explanation for this issue in Vietnam can be as follows: first, commercial banks tighten lending conditions of long-term credits; second, corporate bond market is embryonic; third, firms do not have enough good brand and reputation for long-term loans. Therefore, as above argued, we believe that it would be wise to take total debt data to measure the proportion of debt ratio in total corporate assets.

(2) *Board size* is an important variable to study the impact of corporate governance on capital structure. This variable is measured as the natural logarithm of number of Board members.

(3) *Non-executive Directors* is calculated by the ratio of total NEDs over total Board members.

(4) *The CEO duality* is a dummy variable, which is equal to 1 if the CEO is concurrently the Board Chairman and 0 conversely.

(5) *Managerial ownership* is calculated as ratio of ownership capital (shares) hold by Board members and published in annual reports.

(6) *State ownership* is a characteristic of listed firm on Vietnam stock market, where most firms are equitized from existing SOEs. In other words, in most listed firms, there remains state ownership of different degrees. We take ownership rate define a firm as an SOE if state ownership is $\geq 51\%$ and as non-state one if that figure is $\leq 51\%$ under Vietnamese Enterprise Law in 2005. Accordingly, state ownership is dummy variable which is equal to 1 if the proportion of state ownership is $\geq 51\%$ and 0 conversely.

(7) *Growth opportunity* is measured as the rate of change in total assets.

(8) *Tangibility* is measured by the ratio of tangible assets to total assets.

(9) *Profitability* is defined as the ratio of profit before tax to total assets.

(10) *Firm size* is measured by natural logarithm of total assets (unit: 10 billions Vietnamese Dong).

Measures of board size and firm size are converted to natural logarithms to achieve normal distribution and linear. Instead of using profit before tax and interest as described in many previous studies, profit before tax is used to calculate profitability because interest expense is not presented in financial statements in Vietnam.

3.2. Data Description

A set of panel secondary data is used in this study to analyze the impact of ownership structure and corporate governance on capital structure. Samples were taken from financial statements and annual reports in the period of 2009-2012 of 135 non-financial companies listed on Ho Chi Minh Stock Exchanges (HoSE), including 27 SOEs (under Vietnamese Enterprise Law in 2005 with state ownership ratio of 51% and above).

Many studies show that market value reflects better than book value because decisions on capital structure selection of a firm related to the optimal level of financial leverage is determined by cost – benefit ratio of borrowings. On the other hand, argument supporting the use of book value show that the main loan cost is the cost of estimated financial distress in case of bankruptcy, and values relating to debtor's obligations is book value rather than market value of the debt. However, contrast view says that market value is the real value of a firm. In fact, a firm may have negative book value of ownership capital while market value stays positive, because negative book value reflects previously cumulated losses, and positive market value reflects expectation of firm's future cash flows.

In this article, due to data limitations, we only use book value instead of both values as stated in many other international researches. In addition, we take trade credit to measure dependent variables, because in fact, trade credit is used as a financial tool.

3.3. Research Methodology

This study uses multiple regression analysis to test hypotheses mentioned above on a framework of cross-panel data collected from 135 listed firms in the period of 2009-2012. Analysis of panel data helps at the same time explore data horizontally and chronologically. Regression model measuring the relationship of capital structure and the independent variables is constructed as follows:

$$\text{LEV}_{it} = \beta_0 + \beta_1 \text{BSIZE}_{it} + \beta_2 \text{NED}_{it} + \beta_3 \text{DUAL}_{it} + \beta_4 \text{MaOW}_{it} + \beta_5 \text{STATE}_{it} + \beta_6 \text{GROW}_{it} + \beta_7 \text{TANG}_{it} + \beta_8 \text{PROF}_{it} + \beta_9 \text{FSIZE}_{it} + u_{it}$$

with $i=1,2,\dots,135$ and $t = 1,2,3,4$

Where:

LEV as Financial Leverage, BSIZE as Board size, NED as Non Executive Directors, MaOW as Managerial Ownership, STATE as State Ownership, GROW as Growth Opportunity, TANG as Tangibility, PROF as Profitability, FSIZE as Firm size, DUAL as CEO duality.

$u_{it} = \mu_{it} + \varepsilon_{it}$; where, ε as random error with $E(\varepsilon_{it}) = 0$ and $\text{Var}(\varepsilon_{it}) = \delta^2$; μ as panel data error; β_0 as constant; β_1, \dots, β_9 as estimated coefficients of the explanatory variables.

4. RESULTS AND DISCUSSION

Table 1 presents descriptive statistics. Results state that the rate of NEDs is accounted for 52.13% of the Board (the whole sample), while SOEs is accounted for 50.06% which proves rather good monitoring indicators. However, these figures do not ensure a full independence of NEDs. In addition, in Vietnamese firms, the rate of persons who do not help positions of both Board Chairman and CEO concurrently is 65% which is relatively high, that figure at SOEs is 76%. This is a good signal for activities of operating supervision in corporate governance because it reduces agency problem which may occur. Managerial ownership accounts for approximately 37.8%, especially in SOEs this rate reaches 58.60%. Reason for such high rate of managerial ownership in listed Vietnamese firms is that some Board members represent state capital in these firms, especially in SOEs with state ownership accounted for 51% or more. This result is not surprising. Rate of debt in total average assets of about 48%, business growth rate of 18.12% and average profitability rate of 8.77% are figures which prove rational development of listed Vietnamese firms. For SOEs, rate of debt in total assets and profitability are a little higher, yet, growth rate is significantly lower than that of firms of other types.

Table 1. Descriptive Statistics

	LEV	BSIZE	NED	DUAL	MaOW	GROW	TANG	PROF	FSIZE
Total Sample									
Minimum	0.0648	1.0986	0.0000	0	0.0187	-0.6742	0.0007	-0.6473	2.5275
Maximum	0.9406	3.5264	1.0000	1	0.8703	4.2976	3.3046	0.6089	8.6274
Mean	0.4807	1.7443	0.5212	0.350	0.3779	0.1812	0.2181	0.0877	4.6291
Std.Dev	0.2117	0.2117	0.2252	0.478	0.2000	0.3656	0.2377	0.1011	1.1496
SOEs									
Minimum	0.0942	1.3863	0.0000	0	0.3637	-0.2244	0.0238	-0.0216	2.6079
Maximum	0.8702	2.1976	1.0000	1	0.8703	1.1340	0.9275	0.3861	7.1940
Mean	0.4856	1.6731	0.5005	0.240	0.5860	0.1275	0.3100	0.0996	4.6632
Std.Dev	0.2348	0.1541	0.1983	0.430	0.0889	0.2049	0.2651	0.0891	1.1136

Table 2 presents correlation among studied quantities. It provides multi-dimensional information indicating that most of independent variables are not statistically significant correlated with leverage, except profitability (PROF) and firm size (FSIZE). Following specific analysis will show unique characteristics of Vietnamese firms:

- PROF is negatively related to leverage (LEV) which is similar to results of many researches in emerging economies (presented in Section 2.8). This relationship is consistent with pecking – order theory, when firms use internal funds are the first choice for financing activities.
- Firm size significantly correlated with leverage. This result is similar to findings of Nguyen and Ramachandran (2006) for the context of Vietnam. This is understandable, as in Vietnam, loans mainly use collateral assets. Therefore, firms of larger size have more assets for collateral purpose and ensure terms of their borrowing, especially long-term loans.
- Correlation matrix shows that managerial ownership (MaOW) is negatively correlated to Board size (BSIZE) and CEO duality (DUAL), but positively correlated to firm size (FSIZE) (with statistical significance). This is consistent with reality, because Board size may increase, but the actual shares hold by Board members do not significantly increase, even do not increase. The lower CEO duality is, the more possibility that CEOs are not Board members which means managerial shares will increase thanks to the increase of NEDs holding a certain number of shares. This is true in the case of Vietnam where NEDs proportion is relatively high and proportion of CEO cum Board Chairman is quite low. Meanwhile, the higher level of managerial ownership, the greater the concentration of ownership, thus managers are forced to develop business operation for their own sake, and obviously firm size will be expanded.
- However, correlation analysis shows that state ownership (STATE) is in a statistically significant correlation with management ownership, CEO duality and firm size. This shows that state ownership considerably affect corporate governance and ownership structure of a firm. In our opinion, this is not hard to understand that many Vietnamese listed firms are still monitored by the state or have their controlled shares, thus the state may regulate ownership structure and corporate governance. Specifically, the lower state ownership, the greater the Board size and higher rate of CEO duality. Certainly, agency of state ownership of some Board members leads to the fact that the higher the state ownership, the higher the managerial ownership (correlation coefficient is 0.552) which implies that the higher the state ownership, the higher the ownership structure.

Table 2. Correlation Matrix

	LEV	BSIZE	NED	DUAL	MaOW	STATE	GROW	TANG	PROF	FSIZE
LEV	1									
BSIZE	0.16	1								
NED	-0.076	-0.006	1							
DUAL	0.40	0.000	-	1						
MaOW	-0.002	-	0.258*	-0.100**	1					
STATE	0.12	-0.173*	-0.046	-0.177**	0.522*	1				
GROW	0.069	0.107**	-0.021	0.003	-0.027	-0.074	1			
TANG	0.005	0.042	-0.065	-0.110**	0.082	0.195*	-0.132*	1		
PROF	-	-0.056	-0.060	0.026	0.061	0.059	0.174*	-	1	
FSIZE	0.252*	0.263*	0.047	-0.023	0.138*	0.015	0.198*	-0.076	0.014	1

*, ** level of statistical significance is equal to 1% and 5% respectively.

Results of regression analysis are summarized in Table 3 for the two cases (total samples, SOEs). Hypotheses H_1 , H_2 , H_3 , H_5 , H_6 , H_7 , H_8 , H_9 are accepted, hypothesis H_5 is rejected for total samples. However, hypotheses H_1 , H_2 , H_5 and H_7 are not statistically significant. Results of regression analysis indicate that:

- Firm size and growth opportunity are in a positive relation of statistical significance with leverage for both cases. Meanwhile, an increase of 1% profit will lead to a decrease of 1.13% leverage for total samples and 1.83% for SOEs. These relations have economic meaning of 99%. The findings show empirical evidences which are consistent with the pecking – order theory assuming that firms prioritize using available internal resources (retained earnings) first to finance their operations, then comes debts and equities when needed. The findings also show that when a firm has high growth opportunity and large size, there will be more future investment opportunities and more assets to be used for collateral purpose, thus increase debt capability. Firm size and growth opportunity have a positive impact on leverage.

- Regression results of both cases of total samples and SOEs show that tangibility is negatively associated with leverage which is similar to findings of Booth et al (2001) in the context of 10 developing countries and Nguyen and Ramachandran (2006) studying Vietnamese SMEs. The relatively low tangible asset ratio in Vietnamese firms results in high information asymmetry, so the issuance of equities is not achieved as expected, the firms will choose loans to finance increased assets. However, the findings are not statistically significant.

Table 3. Multivariate Regression Analysis

Table 3: Multivariate Regression Analysis										
	CONS T	BSIZE	NED	DUA L	MaO W	STAT E	GROW	TAN G	PROF	FSIZE
Total Sample (135)										
Coefficient	0.554*	-0.089**	-0.097*	0.013	-0.012	0.223	0.010*	- 0.021	-1.129*	-0.047*
Sig.	0.000	0.022	0.006	0.430	0.800	0.314	0.001	0.528	0.000	0.000
	R=0.588; R ² =0.345; Adjusted_R ² =0.334; F=29.988; Sig=0.000									
SOEs (27)										
Coefficient	0.586*	0.070	-0.180**	-0.020	-0.369		0.251*	- 0.078	-1.834*	0.058*
Sig.	0.001	0.550	0.014	0.531	0.050		0.000	0.271	0.000	0.000
	R=0.850; R ² =0.723; Adjusted_R ² =0.700; F=31.369; Sig=0.000									

*, ** level of statistical significance is equal to 1% and 5% respectively.

- NEDs is negatively related to leverage, although its impact is not high. Vietnamese firms tend to increase NEDs, while increase NEDs with high qualification and ability to monitor various aspects of executives including selection of capital structure, especially supervisory role of the Chairman – the top among supervisors when he becomes a NED. In current context, Vietnamese firms with relatively reasonable rate of NEDs have a

certain level of influence on corporate governance and dramatic impact on capital structure. The higher the NEDs rate, the greater the capability of independent monitoring over loans, which therefore partly affects managers' decisions of less debt while ensuring high business efficiency.

- Regression analysis shows that Board size is related negatively with statistical significance to leverage in total samples but positively without statistical significance in SOEs. Negative relationship shows that, the larger the Board, the lower the level of leverage. Previous studies explain that in Vietnam, large Board size will help enhance efficiency of monitoring work and create pressure on executives to ensure expected performance with low leverage. We believe it is highly possible for a firm with small Board size to face agency problem and limited ability to monitor funding activities then tends to frequently use debt to finance its operations which implies an increase in financial leverage.
- Although ownership structure is confirmed to have impact on capital structure, in the regression model, the impact is not yet clear. In other words, this economic relationship is not statistically significant. Managerial ownership is negatively related to leverage in the case of SOEs. Board has some members representing state ownership which leads to high level of managerial ownership implying high level of debt concentration. Therefore, the managers, for their own interest or interest that they represent, will prefer using. They argue that debt reaching high to a certain level will reduce profit because the debt cost will contribute to profit reduction and increase possibility of default. Positive correlation between state ownership and leverage is consistent to the studies by Nguyen and Ramachandran (2006) and research hypothesis, although this research has not provided convincing statistical evidences.
- This study has not given clear evidences of the impact of CEO duality on capital structure which is CEO duality is positively correlated to capital structure in the case of total samples but negatively in the case of SOEs (without statistical significance in both cases). Regarding this relationship, there should be further study in in-depth researches. However, it can be stated that duality CEOs in SOEs is lower, so the agency problem between CEOs and chairman of SOEs is minimized when these two titles are separated which may increase monitoring capability of the Board over managers.

5. CONCLUSION

Through empirical research of the relationship between ownership structure, corporate governance and capital structure of Vietnamese listed non-financial firms during the period of 2009-2012, we provide more information on corporate capital structure in the context of an emerging economy. Multivariable regression analysis with cross-panel data is used, with a secondary database collected from financial statements and annual reports of sampled firms randomly selected. The finding for Vietnam's context is that Board size and NEDs has a statistically significant impact on capital structure, while CEO duality, managerial ownership and state ownership affect without statistical significance capital structure of a firm in general. Correlation analysis shows that managerial ownership is related negatively to Board size and CEO duality, but positively to firm size. State ownership is correlated positively to managerial ownership and tangibility, but negatively to CEO duality and Board size.

Board size and NEDs which are negatively associated with capital structure affirm the Board's role in corporate governance and decisions of capital structure. In our opinion, this is consistent to current modern corporate governance views, when firms tend to increase their monitoring and internal control practices, especially in Vietnamese context – one of the emerging economies with constant high annual growth rate. An unique characteristic of Vietnamese listed firms is that state ownership has a certain level of control through some representatives in the Board. Therefore, it is understandable that this study provide evidences of a negative relationship between managerial ownership and capital structure in SOEs.

Besides, this study also provides evidences which support some previous studies of basic determinants affecting capital structure in the context of Vietnam. It also shows that the pecking – order theory is suitable to explanation of firm elements affecting capital structure such as growth, tangibility, profitability and firm size. This means that Vietnam firms tend to use financing funds from internal funds then external ones which are debts and equities. Finally, the study proves that the Vietnamese listed firms have adopted quite effectively corporate governance practices. Basically, they are operating in a market economy mechanism although Vietnamese economy is in transition process from a centrally-planned to a market economy.

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