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THE IMPACT OF OWNERSHIP STRUCTURE ON EXECUTIVE COMPENSATION: EVIDENCE FROM VIET NAM

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The objective of this paper is to highlight the impact of ownership discrepancy and type (managers, chairman, state, foreign) on executive compensation (salary, bonus) in Vietnamese Listed Firms for period 2010 -2016. Based on a sample of Vietnamese listed firms and using panel data regressions, the results show that CEO ownership and Government ownership have significant positive impact on the level of total Executive cash compensation. Lack of control by ownership enables management to extract higher executive compensation. Identity of owners has a significant influence on the level of executive compensation. Furthermore, this study investigated the impact of other governance company (such as firm size, board size, non-executive directors…) determinants on the Executive compensation level for Vietnamese listed firms. In addition, we have found that executive compensation is higher among firms with higher growth opportunities.On the other hand, Our findings highlight the need for future research to control for possible simultaneous interdependencies when estimating the executive pay and performance link.

Keywords: *Board of Director, Executive compensation, impact, joint-stock company, managers, typology of shareholders, Viet Nam listed company.*

1. Introduction

A basic characteristic of Joint-stock companies is equity being owned by different shareholders,. Accordingly, each type of ownership could has the different impact on firm performance and Executive compensation... The purpose of this study is to investigate the relationship between the ownership structure of the company and the compensation paid to the executive board of the listed stock companies in Vietnam stock market. Before economic reforms began in 1986, Vietnam's State-owned Enterprises (SOEs) were solely state-owned proprietorships directly controlled by industry-specific government agencies. The SOE reforms decentralized business decision rights from government agencies to firm management and expanded enterprise autonomy without a fundamental change in state ownership. All economic organizations in all sectors were state economic sectors. Therefore, executive members in SOEs at all levels was recruited by state agencies and their income levels was determined by a government agency and through the National Wage Council. After 1990, Vietnam's economy began to enter a period of strong opening and reform with the rapid development of the financial market. That reform process is associated with a series of divestments from SOEs, namely the equitization process based on market rules. Therefore, researching on ownership structure in developing countries such as Eastern European countries, China or Vietnam has its own characteristics. State ownership in these countries often has a high proportion after the econ-

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omy is transformed from a centralized economy to a market economy. The purpose of this paper is to examine the impact of ownership structure (*typology of shareholders, especially government ownership*) on incentive pay schemes.

The study of the relationship between nature and executive compensation constitutes a privileged and recent topic in the economic literature. Many studies have been carried out in order to test the hypothesis that ownership structure affects executive compensation. These studies support or oppose the conclusion reached by Jensen and Meckling (1976). This confirms the theory of optimal contracts (Core and Larcker 2002). In contrast, the so-called managerial power (Bebchuk and Fried 2003) theory holds that managerial compensation is not a solution to the agency problem but may be the cause. Indeed, the manager could influence the decisions made by the board of directors, including those related to compensation. Hongxia Li and Liming Cui (2003) also pointed out that positive and significant correlation is identified between ownership concentration and the return-on-equity ratio. This is because the largest shareholders have a strong interest in firm performance and therefore a high ability to reduce agency costs. Our empirical results further illustrate that firms have inclination of refinancing through stock market and harm small shareholders' interest. In contrast, Ali Dardour and Rim Boussaada (2017) points out the non-linear relationship between government ownership and executive compensation. With heterogeneous results among countries on the relationship between ownership structure and executive compensation, this study is an additional evidence of this relationship within listed companies in Vietnam.

However, because information on this issue has not been available in Viet Nam, our knowledge of the political executive compensation system has been little studied in the Viet Nam context. Therefore, this article is designed to provide scientific and empirical evidence of the impact of capital ownership structure on executive compensation in Vietnam.

2. Literature review and Hypotheses development

According to Jensen and Meckling (1976), Fama and Jensen (1983), the agency problem may exist between the owner (shareholders) and the agencies (BoD and BoE) or even among BoD and BoE. This problem is clearly revealed when the independence and supervisory functions of the BoD turns out to be ineffective. The solution to limit the issue between shareholders and BoD is to increase the supervisory function of the BoD on the one hand and to complete the structure of income package for the BoE on the other hand so that the benefits of both parties could be harmonized. The conflict arises when there is moral hazard inside the firm, which is called the agency costs of equity. This agency problem can be solved by increasing management ownership because high management ownership aligns the interests of management and shareholders (Jensen, 1976). Other possibilities include monitoring of management by large shareholders (Shleifer, 1986), and the use of debt financing to discipline managers (Jensen, 1986; Stulz, 1990).

Firstly, chairman ownership and Executives compensation:

The empirical literature about the chairman ownership and executive compensation has received substantial interest and has resulted in different findings. While Cheng and Firth (2006) argued that the chairman's capital ownership ratio may affect managers' payments. Brick and authors (2006) have reported a significant negative association between the Chairman ownership and the payment for managers. When the chairman has more shares, they have more motivation to reduce agency costs. Rashid (2013) shows that Chairman has a significant negatively impact on the total compensation for executives. Thus, we can propose our first hypothesis:

Hypothesis 1*: The percentage of capital held by the chairman negatively affects executive compensation*

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Secondly, Shareholding Managers and Executive Compensation:

Many theoretical and empirical studies have shown that the other type of capital ownership structure on executives compensation. As part of the alignment hypothesis, the greater the share capital held by the manager is, the higher his interests may be aligned with those of other shareholders, thereby limiting the risk of opportunistic managerial behavior (Jensen and Meckling (1976)). Consequently, a greater involvement of the executive in capital holding should limit the risk of an excessive compensation policy, to the detriment of shareholders.

In the Anglo-Saxon context, Lambert et al. (1993) and Core et al. (1999) verify that the level of executive compensation is lower when the executives' participation in capital holding is larger. One can also assume that the manager more readily accepts a greater share of flexible pay linked to company performance. Shareholding management has both positive and negative characteristics. When managers hold a small percentage of securities, the increase of that percentage can better align their interests with those of outside shareholders. Otherwise, the managers eventually pursue only their own interests, regardless of outside shareholders. However, it should be noted that the inverse relationship could be observed under the guise of a rooting hypothesis manager. Indeed, the theory of the existence of rooting suggests an active behavior to take advantage of loopholes or neutralize controls. This behavior allows a transfer of wealth from shareholders in favor of managers, particularly in the form of wages (Shleifer and Vishny, 1989).

In other words, holding a large share of capital would allow the manager to compel the directors to accept a compensation policy favoring their self-interest. Roussel and Trepo (1999) observe that in France and in companies where managers act on their compensation, bonuses are less tied to the performance of the company. Barak et al. (2011) confirm this positive association stating that excessive compensation has the effect of deterioration in the value of the firm. We thus issue our second hypothesis:

Hypothesis 2*: The percentage of capital held by the manager positively affects their level of compensation.*

Thirdly, covernment ownership and Executive compensation:

This anecdotal evidence supports Murphy's (2013) assertion that, despite being largely ignored in the literature, government intervention has been a major influence on executive compensation over time. Although governments can pass legislation to broadly restrict executive pay, implementing regulations that cannot be effectively circumvented by firms' compensation committees remains a significant challenge. However, governments could directly affect executive compensation in a subset of firms in which governments themselves have voting power or influence. Government ownership is also an important factor affecting to the payment policy of joint stock companies, especially in the context of transition economies such as China and Vietnam. The impact of government ownership on executive compensation is inconsistent in previous studies. Some European governments followed suit and proposed regulating executive pay in firms that receive government aid or that are under some form of state control (Saltmarsh, 2009; Flynn and Vinocur, 2012). Depending on different research patterns in different countries, the government ownership may be positive or negative with executive compensation. While, Bos (1991) argues that in companies where the government owns the majority of share capital, the government has a efficient control of the company, thereby reducing the level of payment to managers. Zhaoyang GU (2010) pointed out that with strong government control, it was difficult to attribute firm performance to management effort as the government participated significantly in SOEs' operating, investing and financing activities. Managers were measured by how they implemented government designated plans rather than firm profitability. In contrast, Mak & Li (2001) argues that

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the government tends to be less proactive in controlling its investments, and also because of easier capital mobilization, leading to the phenomenon of companies owning houses. High countries have poorer control mechanisms, or in other words, increase compensation for the executive board. Two authors

In Vietnam, through a preliminary survey, the policy of paying managers to listed companies for companies with dominant state capital, with the payment policy is greatly affected by the scratch policy mechanism. By relying heavily on their position and seniority, having little impact on business results, many managers in state-owned joint stock companies still receive high levels of pay despite poor firm performance. Therefore, the research hypothesis poses:

Hypothesis 3*: The percentage of capital held by the government positively affects execuitve compensation.*

Fourthly, foreign ownership and Executive compensation

This indicator is measured by the percentage of ordinary shares held by foreign shareholders. Toru Yoshikawa et al (2010) indicated that foreign ownership negatively moderates the relationships between the strategy variables and executive compensation, suggesting that foreign investors play an active monitoring role, reducing cash bonus payments when their invested firms choose to increase R&D or pursue diversification strategy. Xu, Zhu and Lin (2005) pointed out that the higher the proportion of foreign invests, the better the company controls and limit excessive payments to managers. Therefore, the research hypothesis is expected to be:

Hypothesis 4*: Foreign ownership rate negatively affects executive compensation*

Fifthly, Other factors

**** Firm Size***

Firm size is one of the key explanatory variables in determining income for managers. Typically, large-scale companies, in either of bookkeeping value or market value, tend to pay higher than small-scale companies because of their favorable conditions regarding to reputation and financial resources. Big companies have competitive advantage in hiring talented senior personnel into business executive position.

When examining listed companies on Switzerland Stock Exchange during the period from 2004 to 2008, Usman Tariq (2010) found out that income of Chief Executive Officer (CEO) was a decresing function in comparison with company's size. According to the researcher, the larger the company was, the higher they paid for the managers. Similarly, after conducting survey and collecting data from 114 listed companies in Pakistan during 2002-2006, Shah et al. (2009) clearly identified multiple factors that influenced pay rate for executives and one of which was firm size. This factor was also considered to have positive impact on the income of BoE.

In addition, Ryan and Wiggins (2004) paper about companies listed on the S&P 500 in 1997 concluded that CEO earnings would increase in larger companies. Results from Linn and Park (2005); Brick et al. (2006) also shared the same opinion after researching multiple companies in the United States.

Thus, the source to pay for managers in joint-stock companies is considered as a part of the business' expenses and could be deducted from the corporate income tax. Large enterprises will have financial power to provide good offers and attractive incentive policy. Since having complex operational models and high diversification, they also pay more for executives to handle complex tasks that require various skills. It can be seen that the majority of the studies suggested that company size has positive and significant impact on the BoE income. Following that stream of thinking, the next research hypothesis is:

Hypothesis 5*: Firm size has a positive impact on executive compensation*

**** Board Size***

Based on initial studies, the number of members in BoD is also an important explanatory vari-

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able in view of its impact on payment for BoE members. In specific, one important function of BoD is to set up the income policy for BoE members as well as to supervise all of their operational activities. However, these functions might be influenced by social factors such as friendship, family relationships and so on. Under that circumstance, a larger BoD could easily facilitate the manipulation of the BoE and it was suggested that the size of the smaller BoD would be more effective in controlling the BoE's actions (Jensen 1993). This view is also shared by Lipton and Lorsch (1992) as Yemack (1996).

When the scale of BoD reaches a certain level, unfavorable factors such as difficulty in coordinated decision-making or the dependence in supervision would appear (Jensen, 1993; Eisenberg et al., 1998). These difficulties are also known as barriers in surveillance. BoE are representatives for shareholders and are supposed to act for their common goals. Numerous studies have identified various results surrounding the relationship between BoD members and their financial decision outcomes. Dalton et al. (1999) conducted an analysis on 131 companies in the USA but found no evidence of the relationship between BoE composition and business financial - results. Another study by Hermalin and Weisbach (1998) pointed out the relationship between large BoD and company's operations. These studies not only dealt with the question about the correlation of BoD size and company's performance but also concerned about the number of BoD and its influence on how to provide compensation to BoE. Guest (2009) studied 1880 public companies in the United Kingdom from 1983-2002 concluded that when BoD size increased, BoE income also rose. Similarly, Core et al. (1999) conducted a study on 205 listed trading companies and found out that larger BoD would offer greater compensation to CEOs. Conyon and He (2004) also shown a similar correlation between BoD scale and BoE income.

In contrary with this point of view, when BoE are given more authority and become more independent in decision-making it is likely that the supervisory ability of BoD is declining (Hermalin and Weisbach, 1998). To a certain extent, managers would use their power to put pressure on salary and incentive policy to limit the supervisory ability of BoD. It also means that when the number and quality of BoD members are strong enough, they will supervise and limit the power of BoE; thereafter, it would cut down on BoE exceeding income. As a supportive point for this claim, study by Ryan and Wiggins (2004); Adams et al. (2009) concluded that BoD size negatively affected BoE income.

Thus, although there are various results that have been shown to prove the correlation between the number of BoD members and BoE incomes from previous empirical studies, this study would suggest that in Vietnam, the number of BoD members has significant and positive impact on the management's remuneration policy. The next hypothesis of this study is:

Hypothesis 6*: Board Size has a positive impact on executive compensation*

**** Growth***

Another criterium that is also often used to determine managers' earnings is the level of firm's added value, which is represented by the increase of stock price. Stock value reflects the information about business potential in both short and long term. Furthermore, the objective of investors is to maximize the value of the company. Associating managers' income with the increase of stock prices would help unify the goals of managers and investors and thereafter reduce the cost of representatives. However, the mechanism of earnings associated with stock prices also has limitations. Stock value is influenced by many factors, which are out of managers' control. For example, the volatility of the economy could drive business stock value fluctuated, the imperfection of stock market makes stock price reflect value of the business inaccurately or the problem of stock prices speculation in a market segment. In other words, stock value is not a perfect metric for manager effort.

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Growth or investment opportunities are measured by the difference between the market value and the book value of the business. Company market value is calculated by the market capitalization of current outstanding stocks (stock market price at the end of the year multiplied by the number of outstanding stocks at the end of the year) while the book value is taken from firm Total assets in the balance sheet at the end of the year. The company's ability to grow over years will also be a condition for the BoD to consider raising salary and bonus for BoM. The hypothesis is:

Hypothesis 7*: Firms with high growth potential (the increase in stock price) has a positive impact on executive compensation*

**** Firm Performance - Return on Equity (ROE)***

As discussed above, the representative problem arises when the information state is disproportionate, which makes it impossible for the investors to observe effort of BoM. When investing capital, shareholders try to encourage managers towards the direction of maximizing shareholders' benefits. However, managers may have individual goals and pursue personal motivations when running a company. According to Jensen and Murphy (1990), the main solution to benefit conflicts was to propose shareholder's income - based - regulations for BoM's returns. If payment policy is summed up based on company performance, it would encourage BoM to perform well in management role to maximize company value and shareholder benefits (Dhaouadi, 2012). Other studies have also shown that there is a positive relationship between firm performance and BoM income (Barontini & Bozzi, 2009; Andreas et al., 2010). Some relevant researches have revealed the existence of a strong positive correlation between financial results and salary of BoM in joint-stock companies. If in Belliveau et al. (1996) the correlation is 0.41, Finkelstein and Boyd (1998) presented a lower correlation of 0.13 and Johnson's (1982) shown the lowest of 0.003.

In contrast, the study by Brick et al. (2005) pointed out that there is a strong negative correlation between management compensation and company performance. Focusing on the same subject, Zhou (2000) also examined operations of multiple companies in Canada and found out that CEOs salary was inversely related to firm size and the level of reimbursement was significantly relied on company performance.

In addition, Hempel and Fay (1994) concluded that there was no relationship between BoE income and company performance while Dogan and Smyth (2002) acknowledged an unclear relationship between executive income and business performance.

Although there are still numerous heterogeneous opinions about the influence of company performance on BoM earnings, most conclusions from empirical studies have acknowledged the positive effect between company performance and BoE income. Sharing the same point of view with most of these studies, this article attempts to show the correlation between BoE earnings and the performance of listed companies in Vietnam. The hypothesis is:

Hypothesis 8*: Firm performance has a positive impact on executive compensation.*

3. Research Methodology

This study uses quantitative methods to estimate the factors that influence income of BoE. Basing on the survey of relevant theories, data collection and regression model, random-access model (REM) and fixed- Fixed Effects Model (FEM).

3.1. Data considerations

Secondary data on financial status, listed stocks, dividends and dividends are available at cophieu68.vn and vietstock.vn.

Research database is manually collected from the prospectuses, financial statements and annual reports of 228 companies listed on the Ho Chi Minh Stock Exchange (HOSE) and Ha Noi Stock Exchange (HNX). The data for all the variables were extracted from the published annual reports and financial statements of the listed companies in the HOSE and HNX covering the years 2010-2016.

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The internal financial indicators of enterprises are regularly calculated once a year. However, as secondary data from listed companies in Vietnam's stock market (HOSE) is corporate data from 2005 to 2016, actual data is inconsistent and lack of availability. Over the period of 6 years (2005 - 2009), the income of the Board of Management was not widely publicized among companies, so the sample was reduced to 228 companies listed on HOSE and HNX period 2010 - 2016. With 1596 observations during the period from 2010 to 2016 and applying means of random analyses.

3.2. Emprical research model

In this study, in order to be able to examine the impact of ownership structure and coporate governance on the total level of Excutive compensation of the listed company, this research applied regression models for data tables based on overviewed economic models. This regression analysis aims to find the impact of variables: Ownership structure, firm size, board size, growth and financial performance of the firm to the total executive cash compensation. The objective of this study is to invesgate the influence of capital ownership structure on the level of executive compensation. The model that was used to test the hypothesis was:

$$LNTCOM_t = \alpha + \beta_1 CEO\_OWN_{it} + \beta_2 CHAIR\_OWN_{it} + \beta_3 FR\_OWN_{it} + \beta_4 GOV\_OWN_{it} + \beta_5 ROE_{it} + \beta_6 LNFSIZE_{it} + \beta_7 BSIZE_{it} + \beta_8 GROWTH_{it} + \beta_9 NEDS_{it} + \varepsilon_{it}$$

In which:

- *it* = The value of company i at time t

i = 1, 2, 3, 4, ..., 228 and t = 1, 2, 3, 4, 5, 6, 7 (2010-2016)

- $LNTCOM_{it}$ is the dependent variable - total compensation paid to the board of executives in the Vietnam listed company, including salaries, bonuses and other allowances.

- CEO_OWN: CEO ownership ratio
- CHAIR_OWN: Chairman ownership ratio
- FR_OWN: Foreign ownership ratio
- GOV_OWN: Government ownership ratio
- LNFSize, Growth, BSize, Performance are independent variables

Through the process of reviewing related studies, the study synthesized and constructed a hypothetical framework with details about variables and the expected correlation hypotheses among observed variables and company's stock market prices as the following table.

Table 1: *Summary of variables*

Symbol	Variables	Content	Expected Correlation
Independent variables			
CEO_OWN	CEO ownership ratio	` The percentage of capital held by the CEO	(+)
CHAIR_OWN	Chairman ownership ratio	The percentage of capital held by the chairman	(-)
FR_OWN	Foreign ownership ratio	The percentage of capital held by the foreign investor	(-)
GOV_OWN	Government ownership ratio	The percentage of capital held by the government	(+)
Control variables			
ROE	Firm performance	Percentage of operating profit to equity	(+)
GROWTH	Growth	in terms of market to book value	(+)
FSIZE	Firm Size	Natural log of company market capitalization	(+)
BSIZE	BoD Size	Total number of directions on BoD	(+)
NEDs	Non-executive Directors	Percentage of non -executive directors to total number of directors on a board	(-)
Dependent variables			
LNTCOM	Executives compensation	Natural Log of (1+ BoE's total income)	

4. Empirical Results

After studying relevant theoretical frameworks, the next step is to build up research model, setup the

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implementation of necessary tests and run model regression with the appropriate method.

4.1. Descriptive Statistics

The basic criteria described in Table 2 and Table 3, which were used in statistics, included: mean value, standard deviation, maximum value and minimum value.

Table 2: *Details of variable*

	N	Minimum	Maximum	Mean	Std. Deviation
LNTCOM	1596	18.09	25.23	21.27	0.870
ROE	1596	-7.836	0.783	0.111	0.267
LNFSIZE	1596	21.82	32.82	27.06	1.359
BSIZE	1596	3.000	11.00	5.443	1.056
NEDS	1596	1.000	10.00	3.176	1.229
CEO_OWN	1596	0.000	85.39	9,520	12.43
CHAIR_OWN	1596	1.000	85.390	21.306	16.059
FR_OWN	1596	0.000	55.570	7.4088	11.711
GOV_OWN	1596	0.000	87.380	26.702	24.172
GROWTH	1596	0.000	14.820	0.9423	1.0144

Source: Author calculation results

It could be seen from the calculated results in table 2 that:

It could be referred that the average value of LNTCOM is approximately 21,27 , the variation from the minimum value of 18.09 to the maximum of 25.23. It could be concluded that the distribution of the variable is standard deviation (Kurtosis at 4.19 and skewness at 0.28) and positively impact on the research process.

The average CEO ownership ratio is 9.52%; The average Chairman ownership ratio is 21.3%; The average foregin ownership ratio is 7.41%, and 26.7% for state ownership.

Based on the results of statistical analysis described above, financial results of companies in terms of ROE also present a strong variation among companies over years. In particular, The average ROE of companies in the period 2010 to 2016 is approximately 10.9%. The average rate of ROE is 13.5% and ranges from the minimum value of -7.836 up to the maximum value of 0.783. This indicates a large degree of volatility in terms of ROE among companies in the study area over examined periods.

4.2. Correlation matrix

In this section, we will analyze the correlation matrix between variables in the sample to solve the limitations of analyzing each variable by showing a more detailed view through the relationship between the dependent variable and the explanatory variables in the regression model, while showing a preliminary picture of the correlation between explanatory variables.

After running eview, the results of correlation analyses among variables in research model are shown in the following table (table 3):

Table 4 below describes the correlation matrix among variables in researched samples and aims to solve the limitation in analyzing each variable by showing a more detailed view through the correlation among independent variables and dependent variables. Correlation coefficients are lower than 0.8 (maximum 0.6) means that the occurrence possibility of hyperbolic phenomena is negligible. The results of the pair correlation analysis between the explanatory variables show that there are no pairs of variables with the correlation coefficient rij> 0.8, while the majority of the linear relationship between The explanatory variables are just below 0.3. Thus, it can be affirmed that there is no strong autocorrelation between the explanatory variables in the model, so the possibility of multicollinearity is very low or absent, thus does not affect the main level corpses of estimates, supporting research can use these variables to analyze linear regression models.

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Table 3: *Correlation matrix among variables in research model*

	TCOM	ROE	FSIZE	BSIZE	NEDS	BOE_OWN	BOD_OWN	FR_OWN	GOV_OWN
TCOM	1.00								
ROE	0.18	1.00							
FSIZE	0.61	-0.01	1.00						
BSIZE	0.28	0.04	0.25	1.00					
NEDS	0.06	-0.04	0.11	0.07	1.00				
BOE_OWN	-0.06	-0.01	-0.01	-0.06	-0.24	1.00			
BOD_OWN	-0.08	0.04	-0.02	-0.09	-0.07	0.50	1.00		
FR_OWN	0.35	0.11	0.25	0.23	0.09	-0.05	-0.12	1.00	
GOV_OWN	0.02	0.08	0.00	-0.15	-0.06	0.02	0.11	-0.08	1.00
GROWTH	0.17	0.12	0.13	0.03	0.12	-0.06	0.00	0.00	-0.04

Source: researcher's caculation from research data

4.3. Heteroskedasticity Test and Serial Correlation LM Tests

Table 4: *Heteroskedasticity Test and Serial Correlation LM Test*

Table 4.A: White - Heteroskedasticity Test:			
F-statistic	6.175372	Prob. F(54,1541)	0.0000
Obs*R-squared	283.9300	Prob.Chi-Square(54)	0.0000
Scaled explained SS	484.2102	Prob.Chi-Square(54)	0.0000
Table 4.B: Breush-Godfrey - Serial Correlation LM Test			
F-statistic	610.2193	Prob(F-statistic)	0.0000
Obs*R-squared	694.5490	Prob.Chi-Square	0.0000

Source: researcher's caculation from research data

In Table 4, the results in Table 4.A show the White test (testing the variance of the variance error) and Table B presents the Breusch-Godfrey test - Serial Correlation LM Test (self-correlation test of the residual). Prob. Chi-square in both Table 4.A and Table 4.B are less than 5%. This result shows that the model have the variance of the change error and the self-correlation of the residual.

Thus, the least-squares POOL model is not usually appropriate to explain the regression result because there are no variance phenomena of change error and self-correlation of error. Therefore, the study continued to run two FEM and REM models on the same research model, and to choose one of these two models to estimate the regression model. The study will use Hausman (1978) test with hypothetical pair as follows:

H0: REM model is suitable

H1: FEM model is suitable

The results of the test of Hausman (1978) showed that the value of Chi-Sq (10) = 100.232058 was statistically significant with Prob = 0.0000 <5%, so it rejected the hypothesis H0 accepting hypothesis H1. Therefore, the FEM model is suitable to analyze the impact of factors on payment policies for managers of joint stock companies listed on the Vietnam Stock Market. In addition, when comparing R2 of two models FEM and REM, the coefficient R2 of the FEM model is greater than the R2 coefficient of REM. This further shows that the FEM model is usually appropriate to explain the regression result.

4.4. Result of Regression Executive Cash Compensation

The above test results shows that the FEM model is appropriate to explain the regression result. The FEM model is a suitable regression model to measure and evaluate the impact of factors on the total level of payment for managers. Therefore, the

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Table 5: *HausmanTest*

Correlated Random Effects - Hausman Test
Equation: EQ_TCOM
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	50.494457	9	0.0000

Source: researcher's caculation from research data

author uses the estimation results of REM model to discuss research results, research hypotheses, thereby giving assessments of various factors affecting the payment policy.

Table 6: *Result of FEM regression*

Dependent Variable: LNTCOM
Method: Panel Least Squares
Date: 12/25/18 Time: 10:48
Sample: 2010 2016
Periods included: 7
Cross-sections included: 228
Total panel (balanced) observations: 1596

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNFSIZE	0.192320	0.034031	5.651353	0.0000
BSIZE	0.127031	0.020054	6.334352	0.0000
NEDS	-0.054454	0.016101	-3.382109	0.0007
ROE	0.128214	0.039820	3.219872	0.0013
CEO_OWN	0.003500	0.001250	2.799736	0.0052
CHAIR_OWN	-0.002223	0.001370	-1.622722	0.1049
FR_OWN	0.001860	0.001624	1.145748	0.2521
GOV_OWN	0.002649	0.001332	1.988607	0.0469
GROWTH	0.057690	0.013104	4.402348	0.0000
C	15.41554	0.925818	16.65072	0.0000

Cross-section fixed (dummy variables)
Period fixed (dummy variables)

R-squared	0.852291	Mean dependent var	21.27284
Adjusted R-squared	0.825872	S.D. dependent var	0.870177
S.E. of regression	0.363113	Akaike info criterion	0.951132
Sum squared resid	178.3949	Schwarz criterion	1.769545
Log likelihood	-516.0035	Hannan-Quinn criter.	1.255074
F-statistic	32.25993	Durbin-Watson stat	1.443761
Prob(F-statistic)	0.000000		

Source: researcher's caculation from research data
*Notes: *, **, *** denote significance at the 1%, 5% and 10% levels, respectively*

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Thus, the regression model has the following results:

$LNTCOM_t = 15.41554 + 0.0035CEO\_OWN_{it} + 0.002649GOV\_OWN_{it} + 0.128214ROE_{it} + 0.192320LNFSIZE_{it} + 0.127031BSIZE_{it} + 0.057690GROWTH_{it} + -0.054454NEDS_{it}$

5. Results Discussion

Before discussing the results, the study will summarize the expectations for the relationship between the independent variable and the dependent variable and the results of the study after estimating the regression model of the factors influencing the executive compensation… The summary results are presented in Table 7 below:

Table 7: *Result regression*

Observative variable	Expection	Regression result	Note
ROE	+	+	Match with expectation
LNFSIZE	+	+	Match with expectation
BSIZE	+	+	Match with expectation
NEDs	-	-	Match with expectation
CEO_OWN	+	+	Match with expectation
CHAIR_OWN	-	0	No meaning
FR_OWN	-	0	No meaning
GOV_OWN	+	+	Match with expectation
GROWTH	+	+	Match with expectation

Source: researcher's caculation from research data

The main purpose of this study is to examine the impact of ownership structure on executive compensation in joint-stock companies listed on centralised securities market in Vietnam

Based on the above results, after running the regression models with 4 explanatory variables, there are 7 factors that impact on the executive compensation in joint-stock companies listed on Ho Chi Minh Stock Exchange (HOSE) and Hanoi (HNX); in which, there are 6 statistically significant variables (p-value <5%), including: Return on equity (ROE), Board size (BSIZE), Firm size (LNFSIZE), Non-executive Directors (NEDs), Growth (GROWTH) and CEO ownership (CEO_OWN) and 1 variable are statistically significant (with p-value <10%) is government ownership ratio (GOV_OWN). The level of explanation of the three groups' factors is recognized at approximately 85% and this rate is considered to be not remarkable. However, it is suggested to be understandable as apart from those mentioned above factors, there are numerous not-yet-to-be-mentioned as well other qualitative factors that could not be quantified.

The results of the study also showed a different impact on the capital ownership ratio of different components to the total payment for managers of listed companies in Vietnam.

- *CEO ownership*: The research results show that CEO ownership has a positive effect on executive compensation with p-value <0.05. That means, the executive board with a high percentage of ownership often has a deep right to intervene in the formulation and implementation of payment policies. It is suggested that the executive board holds a large percentage of shares, the salary and bonus are also higher.

- *Chairman ownership*: The results of the regression model also show that the relationship between chairman ownership and executive compensation in Vietnam listed company is no meaning, with p-value >0.1.

- *Government ownership*: The results of the regression model show that the Beta coefficient represents a positive correlation between state ownership and executive compensation (β8> 0 and is statistically significant with p-value<0.05). This means, companies with higher levels of ownership by the state will pay more for the executive compensation. Because the key executive managers of these companies who usually represent state ownership tend to build prudent business plans, which leads to two issues: (i) The level of bonus payment to managers will tend to be higher than the actual performance of the company; ii) The board of executives could be lack of motivation.

- *Foreign ownership*: The research results show that the impact of foreign ownership factors on executive compensation of listed companies is not statistically significant, but the correlation coefficient between these two variables is still positive.

- *Board Size*: The research results show that BoD size has a positive effect on BoD income and this

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result is consistent with both initial expectations and theory about representative costs. As BoD size increases, there might be an increase in potential representative issues such as the dependence in supervision, consensus and decision-making limitations (Jensen, 1993; Eisenberg, 1998). When the size of BoD increases, more members could involve in enterprise governance and this coul lead to the incease in payment for BoE. In order to minimize representative problem between BoD and BoE, BoM income is suggested to be an effective tool to engage the benefits of shareholders and managers, as well as enhance BoE responsibility, especially when they get good offers.

- *Firm Size*: has positive and statistically significant correlation (+) with BoE income. The study outcomes clarify a positive and significant effect of company size on BoE earnings, which align with the initial expectation. BoE earn more in larger companies. It is also understandable as larger market capitalization companies tend to pay BoM more. This conclusion is consistent with Baker et al. (1988) and Darmadi (2011) arguments that large companies have more financial resources to hire senior staff for management role and pay higher reimbursement. In addition, large companies have complex business models and high level of diversification so they pay higher salary and bonus to BoE to handle complex tasks that require advanced skills. Although large-scale companies pay BoE at high rate, this amount is negligible compared to the size of these firms (Firth et al., 1999). Moreover, the process of analysing data in research tables revealed that when using cross section weights to examine individual conditions of each company, if managers help increase company size in financial market it seams like there might be an increase in their income. However, this tendency is not quite clear as it did not happen with all research targets.

- *Firm Performance (ROE)*: According to Kubo (2001), shareholders do not have enough information and necessary insight to monitor BoE. Therefore, in order to increase the effectiveness of monitoring activities; shareholders, which are represented by BoD and Board of Supervisors should supervise BoE activities and at the same time associate company benefits (business performance) and BoM benefits (income paid). In addition, the "efficiency-based" payment model is the focal point of representative theory and thereby forming a correlative relationship between firm performance and income level which helps adjust the benefits between shareholders and BoE (Jensen, 1993). The research results were supported by representative theory and studies by Barontini and Bozzi (2009), Darmadi (2011).

6. Conclusion

There have been many research conducted concerning executive compensation in developed markets, however, not enough attention has been paid to emerging market like Viet Nam. This study contributes to the literature of the impact of capital structure on executive compensation.

Using a database on all listed companies in the Vietnamese stock market, this study has evaluated the extent and direction of impact of capital ownership structures on executive compensation in the period of 2010 - 2016. Furthermore, this study also examined the impact of governance factors and the financial performance on executive compensation in Vietnam. The research result shows that executive compensation tends to increase in large-scale companies and achieve higher financial performance

Economic reforms in China are still an ongoing process. Further decentralizing government control appears to be the direction that is likely to occur. Our results suggest that reducing the direct involvement in firms' business activities while allowing the government to retain the ultimate control of SOEs is likely to lead to better firm performance, especially when substituted with incentive pay schemes. Executive compensation in SOEs has received more stringent public scrutiny in recent years. Much of the controversy focuses on the rising level of compensation and a lack of strong tie to performance. Our study suggests a possible tendency of over-compensation when government ownership is higher. What appears to be important is to strengthen the tie between pay and performance. When setting compensation policies, the government should consider its involvement in the firms' business activities rather than simply issuing a "compensation limit" for all firms.

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Summary

Đã có nhiều các nghiên cứu lý thuyết và thực nghiệm liên quan đến thù lao ban điều hành trong các quốc gia có nền kinh tế thị trường phát triển, tuy nhiên, vẫn chưa có nhiều sự quan tâm chú ý đến vấn đề này ở các quốc gia có nền kinh tế thị trường chuyển đổi như Việt Nam. Do vậy, bằng việc sử dụng một cơ sở dữ liệu về các công ty niêm yết trên thị trường chứng khoán Việt Nam, nghiên cứu này đã cung cấp một tài liệu về tác động của cấu trúc sở hữu vốn đến thù lao ban điều hành của các công ty niêm yết Việt Nam trong giai đoạn từ năm 2010 đến 2016. Hơn nữa, nghiên cứu này cũng đã xem xét tác động của các yếu tố quản trị và hiệu quả tài chính của công đến thù lao ban điều hành của các công ty niêm yết tại Việt Nam. Kết quả kiểm định cho thấy thù lao ban điều hành có xu hướng tăng lên ở các công ty có quy mô lớn và đạt hiệu quả tài chính cao hơn.

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