

The Effects of Firm Performance and Earnings Management on Executive Compensation of Thailand Listed Company

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Abstract: This work aimed to examine the effect of Firm Performance (FP) and Earnings Management (EM) on Executive Compensation (EC) of Security Exchange of Thailand (SET) listed companies using secondary data of the annual data report (56-1 form) and annual reports between 2017 and 2019. The population consisted of 617 companies and the sample was selected by Purposive sampling methods with criteria from predetermined research samples 1) MAI-listed companies were excluded, 2) companies under rehabilitation, 3) companies in financial, trust or fund industries, 4) companies that did not close their account report on 31st December, and 5) companies with incomplete information. The sample group was 332 companies and the total data was 996 data year. Descriptive statistics and multiple linear regression were used for analysis. The result found influence of FP that used indicators from the ROA (Return on Assets), which had positive correlation with the EC. On the other hand, the FP that was indicated by the Economic Value Added (EVA) had negative correlation with the EC, in consistency with the Agency Theory that the management would maximize value for the owner and shareholders, in return for benefit as an agent. Appropriate executive compensation for performance will mutually enhance each other. Despite this study not finding the effect of EM on EC, but some negative correlation with EC were found. Although profit will lead to good executive compensation, earning management is still affected by the concept of Opportunistic Earnings Management that shows negative correlation with the firm value or firm size, which are the controlling factors and shareholder ratio with earning expectation.

Keywords: Executive Compensation, Firm Performance, Earnings Management, Economic Value Added

Introduction

Literature pertaining to executive compensation (EC) which is a management issue, covered analysis of the compensation structure that would build investment confidence especially listed companies. Sensitivity of compensation impacted management confidence, and consistency between firm performance and firm value, which were paid much attention by the investors (Farooque, Buachoom, & Hoang, 2019), as it could show firm success that could be measured in terms of money (Dias, Vieira & Figlioli, 2020). Profit information in the financial statement affected response to the capital market, and therefore the executive had to display their capabilities in profit generation (Fisch, Palia, & Solomon, 2018). Executive compensation is one controlling mechanism used by the firm to motivate the executive to deliver their performance. Regarding Firm Performance-based executive compensation in the employment contract (Guay, Kepler, & Tsui, 2019), the owner or shareholders monitored the executive through performance, and encouragement to change undesirable behavior. Appropriate executive compensation was vital for the firm (Liu & Sickles, 2021; Brahmadev & Leepsa, 2017; Rehman, Ali, Hussain & Waheed, 2021). Most studies on EC showed that most would define EC in the employment contract, based on accounting measures used for firm performance measurement (De Wet, 2012; and Buachoom, 2017). For this reason, profit reporting remained an important factor in executive compensation as it could measure the potential and in one way reflect performance of the firm (Sheikh, Shah, & Akbar, 2018; and Bumrungrat & Sutthachai, 2016). Nevertheless, there was no clear performance indicator selection for executive compensation in Thailand (Saechua & Boonmunewai, 2019; and Yodbutr, 2021). The data merely reported executive compensation policy to comply with good governance principles, and in some cases executive compensation was not consistent with performance (Buachoom, 2017; Farooque, et al, 2019; and Saechua & Boonmunewai, 2019). Dependence on accounting performance in executive compensation might lead to agency problem due to self-interest of the executive, which was one factor in introduction of Earnings Management (EM) that the executive might willfully intervene in writing of financial report that would be presented to the third party (Farooque, et al, 2019). Benefits of firm performance-based executive compensation that could motivate the executive to share the firm's goal (Saechua & Boonmunewai, 2019) and reduce conflict between the executive and shareholders in accordance with the agency theory had some support, but the firm's attention only to performance would excessively motivate the executive to focus on high-gain, short-term performance. (Strakova, 2021). Accounting principles might have alternatives for the executive to employ accounting policies to maximize the profit of that year for maximum compensation (Sheikh, et al, 2018; Okafor & Ezeagba, 2018) per the positive accounting theory in which the executive would maximize their self-interest through selection of accounting policies under different circumstances (Okafor & Ezeagba, 2018; and Strakova, 2021). This meant the profit on the financial statement would be skewed and not representative of the actual performance. Therefore, the Economic Value Added (EVA) was used in executive compensation due to its focus on long-term wealth for the shareholders (Sonia, 2020).

From the issue of suitability of EC, as some cases EC was inconsistent with FP, theories, and between countries. Past studies still shrouded by uncertainties and differences, whether past data, compensation criteria, form of compensation and capital market development level (Wu, Sammy, Yingc, & Chen, 2018), along with the executive compensation contract that varied between countries

(Buachoom, 2017). The expectation placed on the executive was to have a professional operating the firm and the contract would be periodical (Al-Shaer, & Zaman, 2019). In Thailand, most listed companies came from family businesses and ended up as public companies (Baolorphet, Jarutakanont, & Tienpasakorn, 2020), therefore higher executives were influential and had free rein on compensation policies (Bumrunkyat & Sutthachai, 2016) and thus executive compensation and benefit were less transparent (Rehman, et al, 2021). In 2002, the Securities Exchange of Thailand mandated a good governance policy and improvement to international standards in 2012 (Sustainable Capital Market Development, 2020). At the same time, performance assessment found a better method by using Economic Value Added or EVA along with Return on Asset (ROA) (Sonia, 2020; Thi Thuy Linh, 2020; and Maeenuddina, et al., 2019). Therefore, the objective of this study covered EC of SET-listed companies by studying effect of Firm Performance based on ROA and EVA, and impact of Earnings Management (EM) on Executive Compensation (EC). This study collected and examined statistical data from annual reports and the Annual Report (Form 56-1) of SET-listed companies. It was expected that result of this study might be useful for compensation committee to define an appropriate executive compensation scheme and assessment, in order to maximize value for the shareholders. The SET also could use this result to monitor and assess suitability of executive compensation in accordance with the good governance principle.

Objectives

1. Investigate Earnings Management (EM) and its influence on Executive Compensation (EC) in SET-listed companies.
2. Investigate Firm Performance and its influence on Executive Compensation (EC) in SET-listed companies.
3. Investigate influence of Firm Performance and Earnings Management on Executive Compensation (EC) in SET-listed companies.

Literature Review and Hypothesis Development

Firm Performance and Executive Compensation

Firm Performance, both in the current and the year before, had positive effect on executive compensation (Sheikh, et al, 2018). Due to changing commercial circumstances, ownership and executive powers were separated, where owners might not have any executive power, instead there would be executives, in accordance with the agency theory. The executive and the board acted under expectation that they would maximize value for the shareholders in the long run (Poletti-Hughes & Briano-Turrent, 2020; and Vitolla, Raimo & Rubino, 2019). Motivation for executive performance was viewed as borne from executive compensation design (Dias, et al, 2020; Guay, et al, 2019; and Fisch, et al, 2018). Separation of executive power and ownership might cause a conflict of interest between the owner and executive, called “agency problem” (Liu & Sickles, 2021; and Brahmadev & Leepsa, 2017). Nevertheless, ambiguous relationship between performance and executive compensation as a management issue (Rehman, et al. 2021), while all firms that wanted to attract investors would want to have their economic value maximized (Poletti-Hughes & Briano-Turrent, 2020), the executive would need to show their capabilities to make profit for the firm, which would affect their compensation (Sheikh, et al, 2018). Thus, the question might be what should be a healthy relationship between the financial performance and accounting measures if they were used to evaluate executive compensation. (Raithatha & Komera, 2016)

Measurement of Firm Performance with Return on Assets (ROA) and Economic Value Added (EVA)

From the concept “The value of the company is the price a prospective buyer is willing to pay if the company is sold”, there was an assessment guideline through the new financial information developed for public financial performance measurement of firms that could be useful for investors. In this case, enhanced value added or EVA and Return on Asset or (ROA) were used (Sonia, 2020; Thi Thuy Linh, 2020; and Maenuddina, et al., 2019). It was found that high firm value would lead to high attractiveness for the owner, and high wealth for the shareholders. Wealth of both shareholders and the firm itself was reflected by stock value that was decided by investment, finance and asset management decision (Fajaria & Isnalita, 2018). In the past, more attention had been paid to financial performance measurement, and the result came in many forms of financial ratios in reports. Still, one shortcoming of profitability ratio is excessive emphasis on short-term earning and lack of coverage on risks. With the scope of sustainable earning, generally this ratio was represented by the Return on Asset. On the other hand, the Price/Earnings Per Share (P/E Ratio) had a new method of measurement as Economic Value Added (EVA), developed by Joel Stern. EVA was one widely-accepted KPI nowadays due to better coverage on performance data compared with the P/E Ratio. The Net Operating Profit after Taxes: NOPAT was deducted by Capital Charge that came from taking the capital to operate the firm (Invested Capital), multiplied by the Weighted Average Cost of Capital, or $EVA = NOPAT - (WACC \times IC)$. The firm that had EVA higher than 0 and increasing would mean cost-effective resources usage, successful operation, and good ability to generate addition earning and value for the capital owners (Wattanawilai, 2017). The EVA was an accounting profit measurement tool that focused on long-term wealth building for the capital owners, and used in connecting performance and executive compensation. (Wattanawilai, 2017; and Sonia, 2020).

Earnings Management and Executive Compensation

Many investors and stakeholders were interested in Business Earnings which was the most important data for assessment of the firm’s operational capability, thus the executive would be motivated to manage earnings through discretionary accruals, with connection from the overall accounting numbers to performance, which was found to be related with executive compensation (Okafor & Ezeagba, 2018). It was accepted and modified for appropriate compensation management (Strakova, 2021), under the context of management through agency. Occasionally, problems of conflict of interest and agency problem would arise, as the executive would have motivation to maximize their own interest through EC by manipulating EM or the firm’s financial report, or changing accounting structure or creation of business items to manipulate profit report (Bumrungrat & Sutthachai, 2016). The Modified Jones Model developed by Dechow, Sloan and Sweeney in 1995 could explain decision error based on earning perception, and cancelled the original hypothesis that the executive could not make decisions that affected the firm’s earnings management (Kothari, Leone, & Wasley, 2005). Nevertheless, the study by Okafor & Ezeagba (2018) found that higher Earnings Management had negative relationship with performance of mergers in the stock market. The consumer goods sector had significance on the firm’s value along with Pre-purchase abnormal accruals. Still, the study by Meechana, Petchchedchoo, & Kumsuprom (2019) found that the Non-Discretionary Accruals of SET50 and SET100 companies had lower stock liquidity, had dividend policy and would underperform in the long run, in concurrence with Okafor & Ezeagba (2018). The modified Jones

model was used in examination of the following variables: EM = f(Revenue), f(Property Plant and Equipment), f(Total Asset), f(Net Receivable) (Okafor & Ezeagba, 2018) presented a model for discretionary accrual analysis using a Modified Jones Model which included ROA as a control variable (Meechana, et al, 2019).

Good Practice of Executive Compensation under Good Governance

Executive relationship between the executive, board, shareholders, and stakeholders that made a framework of practical and assessment guideline to achieve to goal (Sustainable Capital Market Development, 2020). Good governance, or Corporate Governance was critical and could prevent damage. Many agencies later became more conscious and paid more attention to efficient, transparent, accountable governance that was mindful of all stakeholders. Thailand also saw importance in building confidence for the Thai capital market as seen in continuous efforts at good governance. In 2002, the Thai government declared the year as “the year of corporate governance” and established the National Corporate Governance Committee (NCGC) to implement good governance by presenting the 15-point of good governance to Thai registered companies. Later in 2012, the Securities Exchange of Thailand amended the good governance principle with five categories to comply with the ASEAN Corporate Governance Scorecard (ASEAN CG Scorecard): (1) Integrity (2) Fairness (3) Transparency (4) Responsibility (5) Accountability. In addition, there was assessment of corporate governance in registered companies by domestic agencies. Thus, the current reform of corporate governance emphasized roles and responsibilities, freedom, qualifications and diversity of the board, along with promotion of appropriate board compensation (Thai Institute of Directors Association, 2019; and The Stock Exchange of Thailand, 2006), as it was found that compensation for the board had positive relationship with performance (Dias, et al, 2020; Guay, et al, 2019; and Fisch, et al, 2018).

Research Hypotheses

H1: EM and ROA, EVA have positive correlation with EC of SET-listed companies.

H2: EM and ROA, EVA have positive correlation with EC of SET-listed companies when firm size and growth are controlled.

Research Framework

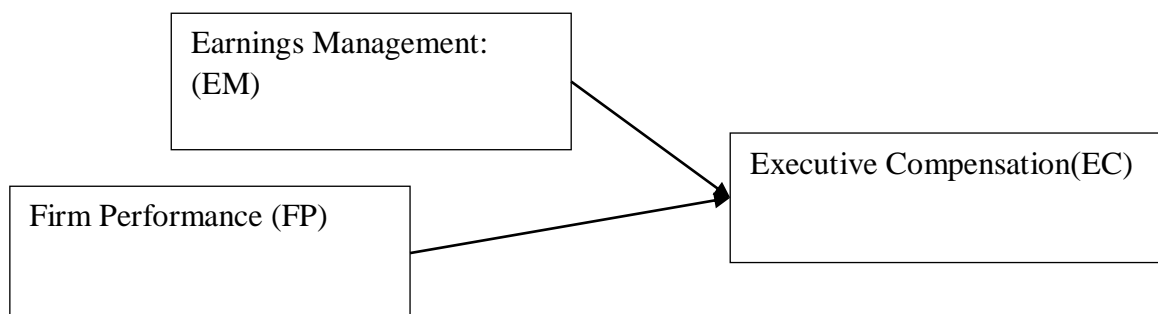


Figure 1 Research Framework

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Research method

Population and Sample

This study used 617 listed companies between 2017 and 2019 as listed on the Securities Exchange of Thailand's website as of 30 September 2020. The sample group size was 332 and the samples were selected by purposive sampling method and then screened whether they met the criteria from predetermined research samples (Susanti, Latifa, & Sunarsi, 2020), which were 1) MAI-listed companies were excluded, 2) companies under rehabilitation, 3) companies in financial, trust or fund industries, 4) companies that did not close their account report on 31st December, and 5) companies with incomplete information. 996 sample-years were collected.

Data collection

This study used secondary data from 56-1 reports. The indicator variable was Executive Compensation (EC: Dependent Variable), calculated from the sum of all compensation to all executives. Independent variables were Return on Asset (ROA), Economic Value Added (EVA). The profit was calculated from Net Operating Profit after Taxes: NOPAT deducted by Capital Charge (Wattanawilai, 2017). The Earnings Management was based on the Modified Jones Model (Kothari et al. (2005)) due to good ability to detect profit manipulation (Kumawat, & Soral, 2020; Bouaziz, Salhi, & Jarboui, 2020; Acar & Coskun, 2020; Reguera-Alvarado, Fuentes & Laffarga, 2020; and Wongyim, 2018).

Data analysis

Analysis of the data from the annual performance report (56-1 form) and annual report was done on the SPSS Version 23 (licensed). Descriptive analysis was used to explain the general data of the performance, Earning Management, Executive Compensation, Firm Size and Growth. Pearson Correlation was used to calculate correlation between each pair of independent variables. Multiple linear regression analysis was used to analyze influence of performance and earning management on executive compensation in the following equations:

$$EC = \alpha + \beta_1 ROA + \beta_2 EVA + \beta_3 EM + \varepsilon \quad (1)$$

$$EC = \alpha + \beta_1 ROA + \beta_2 EVA + \beta_3 EM + \beta_4 FIRMSIZE + \beta_5 GROWTH + \varepsilon \quad (2)$$

As:

- EC = Executive Compensation
- ROA = Return on Assets
- EVA = Economic Value Added
- EM = Earnings Management
- FIRMSIZE = Firm Size
- GROWTH = Sales growth

Research Result

Summary of the Annual Registration Statement / Annual Report (Form 56-1) and annual firm report posted on the SET website between 2017 and 2019 showed that descriptive statistics such as maximum value, minimum value, mean and standard deviation were as shown in Table 1

Table 1 Descriptive Analysis

	Variable	N	Minimum	Maximum	Mean	Std.
Independent Variable	ROA (%)	996	-45.50	53.90	5.04	8.20
	EVA (Million baht)	996	-8574.96	180.52	-223.09	706.93
	EM	996	-44.87	7.22	-0.16	1.46
Controlling Variable	Firm Size	996	12.45	20.26	15.74	1.49
	Growth	996	-1826.19	1236.57	1.98	73.90
Dependent Variable	EC (Million Baht)	996	2.12	425.94	46.07	50.24

Table 1 showed that the ROA on average was 5.04% (SD = 8.20; Min = -45.50%; Max = 53.90%), indicating difference between the ROA in each year. On the other hand, average EVA was -223.09 million (SD = 706.93; Min = -8,574.96; Max = 180.52). Earnings Management was different between the firms, as most of them had an average of -0.16 million baht (SD = 1.46; Min = -44.87; Max = 7.22). The average Firm Size was 15.741 million baht (SD = 1.49; Min = 12.45; Max = 20.26) that had growth of 1.98 million baht (SD = 73.90; Min = -1,826.19; Max = 1,236.57). Executive compensation was 46.07 million baht (SD = 50.24; Min = 2.12; Max = 425.94) on average.

Result of Pearson correlation analysis was shown in Table 2.

Table 2 Pearson Correlation

Variables	ROA	EVA	EM	Firm Size	GROWTH
EVA	-.049				
EM	-.009	-.008			
Firm Size	.051	-.598**	.038		
Growth	.097**	-.013	-.015	.000	
EC	.093**	-.545**	.006	.649**	.024

**Significance of 0.01

Table 2 showed the highest correlation between independent variables as .649**. As the correlation value or R-value did not exceed .75, there was no multicollinearity. The result of multiple linear regression analysis was shown in Table 3.

Table 3 Multiple Linear Regression Analysis

Variables	Model1			Model2		
	Beta	t	sig	Beta	t	sig
Independent						
ROA	0.067	2.530	0.012**	0.055	2.338	0.020**
EVA	-0.542	-20.397	0.000**	-0.242	-8.327	0.000**

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EM	0.002	0.076	0.939	-0.015	-0.630	0.529
Control						
Firm Size				0.502	17.242	0.000**
GROWTH				0.015	0.642	0.521
R ²			0.302			0.463
Adjusted R Square			0.300			0.460

**Significance level of 0.05

Table 3 showed that Model 1 was analysis of correlation with Executive Compensation, 30.2% of which could be explained ($R^2 = .302$), and the positive effect of Return on Asset (ROA) was found (0.067) and negative effect of Economic Value Added (EVA)(-0.542) with statistical significance of 0.05. Positive effect significance of 0.002 was found but there was inadequate information to conclude correlation between Executive Compensation and Earnings Management.

Model 2 is analysis of correlation between Executive Compensation through control variables such as Firm Size and Growth. 46.3% of the correlation with EC could be explained ($R^2 = .463$). Positive correlation was found with Return on Asset (0.055), while negative correlation was found from Economic Value Added (-0.242). The control variable (Firm Size) was at (0.502) with statistical significance of 0.05. Correlation between Earnings Management (-0.015) and Growth (0.015) could not be concluded, but negative and positive correlation were found.

Conclusion and Discussion

Study on effect of Firm Performance as indicated by Return on Asset and Economic Value Added, and Earnings Management on Executive Compensation of SET-listed companies could be discussed below:

Effect of Firm Performance on Executive Compensation

Study on effect of Firm Performance on Executive Compensation revealed that both variables had effect on Executive Compensation in agreement with Sheikh, et al, (2018), the Agency Theory, and Poletti-Hughes & Briano-Turrent (2020), all of which proposed that the executive represented the firm owner or shareholders, and was obligated to maximize value for the owner/shareholders in return for benefit as a representative. This also concurred with Sheikh, et al, (2018); Okafor & Ezeagba, (2018); and Strakova, (2021) which proposed that the owner and shareholders must propose the executive attractive compensation to achieve the expected performance or fulfill the objective, and to limit undesirable management behavior. SET-listed companies in Thailand were also consistent with Farooque, et al (2019) which found that appropriate level of executive compensation to firm performance would, aside from having mutual positive correlation with each other, express continuity of good governance and performance. From the study of data between 2011 and 2019, Farooque, et al (2019) added that the direction was similar to developed countries.

ROA and EVA as performance indicators affecting EC.

- 1) ROA as performance indicator showed positive effect on Executive Compensation, in concurrence with studies by Buachoom (2017) and Farooque, et al, 2019 that reflected efficiency of reported executive compensation. Through benefits appropriate for performance of the executive and organization, the owner or organization could motivate the executive of SET-listed companies to generate wealth for the owner and shareholders (Saechua & Boonmunewai, 2019; and Yodbutr, 2021). Still, when control variables such as Firm Size were taken into account, the positive correlation between ROA and EC was reduced. Sheikh, et al (2018) explained that Firm Size used ROA and total asset value as positive correlation with Executive Compensation. The issue was that larger firms tended to be more complex and difficult to manage, thus requiring high-quality and highly-capable executives with higher compensation. Firm Size therefore became the most common variable for EC worldwide.
- 2) Economic Value Added (EVA) measured by NOPAT deducted by Capital Charge ($WACC \times IC$), should have EVA over zero or steady increase to be deemed cost-effective. In case of SET-listed companies, the overall average was negative (-223.9 million baht) while it was found that EVA had negative correlation with EC. The study by Nutrujiroj & Srijunpetch (2020) found that EVA had negative correlation because if the ratio of shareholding public sector agencies (including state enterprises) increased, accounting performance of the firm would worsen. Wattanawilai (2017) added that public agencies or state enterprises might not give as much attention as the private sector. Prachuabmoh, Meejaisue, Sakulitsariyaporn, & Jarupathirun (2018) suggested a possibility that the ROA and ROE were based on past financial data, which could be adjusted or manipulated by accounting methods, but the Return on Investment (ROI) could not be concluded, in contrast with the EVA which was a tangible cash profit that also took opportunity cost into account. The negative effect of Firm Size on Economic Value Added was also found by Prachuabmoh, et al (2018). Subedi & Farazmand (2020) proposed that aside from shareholder ratio, the EVA also varied between size and type of industries. Thus, looking at the overall image of the market might not translate into accurate estimation.

Effect of EM on EC

Due to positive relationship of EM and EC, despite not being able to conclude relationship significance on EC, such relationship showed that ability to deliver good performance would lead to good executive compensation. This conflicted with Ngamchorn (2018) which stated that earnings management was influenced by the ratio of managing directors with financial and accounting proficiencies, which reduced earnings management. Another issue was Opportunistic Earnings Management, which depended on the management's discretion, had an opposite trend of Firm Value. This was consistent with the result if the control variable like Firm Size was included, despite the relationship not being able to be concluded, the trend would go against executive compensation.

Effect of FP and EM on EC

Overall, SET-listed companies have effect from FP, as indicated by effect on ROA and EVA on EC, as ROA has a positive effect, and EVA has a negative effect on EC. This showed that the higher the executive could utilize assets to generate profit, the compensation would be high accordingly. EM had no effect on EC, but Firm Size resulted in difference in executive compensation. Wongyim

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(2018), showed that larger firms, with lower EM level, had higher profit quality than smaller firms. Another issue was that shareholders which were state enterprises or government agencies might not be as profit-driven as other shareholders.

Suggestion for future research

This suggestion aimed to promote SET-listed companies to inspect and assess suitability of Executive Compensation. Most companies in Thailand used performance indicators based on annual firm performance. This study would be useful for measurement of good governance within the firm, or the compensation board to consider compensation scheme for the executive, to be consistent with value maximization and increase of fairness for all stakeholders, especially shareholders.

Future studies that use the increasingly-trending EVA as performance indicator still need comparative studies of Firm Size, industry type, good governance, and guideline for executive compensation.

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