



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



www.hrmars.com

ISSN: 2222-6990

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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v11-i9/10762>

DOI:10.6007/IJARBSS/v11-i9/10762

Received: 07 July 2021, **Revised:** 02 August 2021, **Accepted:** 22 August 2021

Published Online: 19 September 2021

In-Text Citation: (Azri et al., 2021)

To Cite this Article: Azri, N. F. A., Latiff, A. R. A., Osman, M. N. H., & Turmin, S. Z. (2021). Determinants of CEO Compensation in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 11(9), 1332–1344.

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Vol. 11, No. 9, 2021, Pg. 1332 - 1344

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Abstract

CEO compensation comprises of lucrative fees, salary, bonuses, and pension scheme. It is an important topic to be studied because evidence indicates that CEO compensation is positively associated with firm performance. Recently, the incidents of CEOs being paid excessively compared to services they do have been reported in both developed and developing countries. This motivates this study to examine the factors determining Malaysian CEOs compensation. The sample of this quantitative study is Top 80 Malaysia public listed companies based on market capitalization. The results of multiple regression analysis on data of 400 observations show that CEO compensation is negatively affected by the level of board of directors' independence, but not affected by firm performance, CEO ownership and leverage. Additionally, we detect that CEOs with high compensation and low compensation are different in term of their firms' board independence and leverage. We suggest future studies should at least examine the effect of CEO characteristics like tenure, education and family ownership on their compensation.

Introduction

CEO is a top decision maker appointed by a board of directors to oversee operation of a company (Alazzani, Hussin & Jones, 2019). CEO main roles entail from making a strategic decision for the company, responsible for implementing company's long term and short term goal as well as to become the middle person between board and management. With the huge amount of responsibilities entrusted to them, CEO deserves to be compensated well for their hard work. There is evidence that the more CEOs are paid the higher their firms performed (Ismail, Yabai, & Hahn, 2014). However, appropriate measurement must be made to make sure compensation is paid in the right amount and with the consent of shareholder as well. Issues of company's CEO compensation have attracted a great deal of attention from economist, politician, popular press and various stakeholder groups, in both developing and developed countries (Ming, Foo, Gul, & Majid, 2018). Shareholders and public suspect that executive might be getting extra pay compared to what they have been doing to the company (Yu, 2014). Although CEOs have been entrusted with huge responsibilities, their way of being compensated at the end of the day still raise a question to the public (Ismail et al., 2014). According to Hussain, Obaid, and Khan (2014) in business, due to greediness, executives might have spent they profit that the company earned to gain reputation from people within or outside from industry.

CEO and executive compensation was not seen as a major issue back in 1990s particularly in the US and UK. The issue emerged after 2000s when large corporations failed and the scandals revolve around their top executive get excessive amount of compensation despite company being underperformed. The collapse of large corporations such as Enron, Lehman Brother, and WorldCom sparked controversy over the failure of enforcing good corporate governance practice to protect various stakeholders interest (Petra & Dorata, 2008). According to research done by Lawrence and Davis (2015) for the past 30 years, executive compensation has increased tremendously, making 300 times as compared to typical worker. According to Bereskin and Cicero (2013) ratio of CEO pay to a worker in 1965 is 20 – 1 then increases to 303 – to – 1 in 2000 and latest on 2013 is 376 – to - 1 employee.

This scenario of CEOs being compensated way more than they deserve also happening in Malaysia. According to Haron and Akhtaruddin (2013) in Malaysia, a lot of company experience losses but they still pay a humungous amount of compensation to their top executive. For example, Sime Darby, world largest public traded palm oil producer reported losses amounting to RM964 million due to the incapability of executive management to control cost in several projects. The CEO at that time was Ahmad Zubir Murshid which was asked to leave the company before the expiration of the contract (Chew, 2010). It has been said that Ahmad Zubir Murshid was one of the government-linked company CEO with the highest pay amounting to RM2.08 million. Another one is Mycom's case which happened between 2002 – 2003 whereby the company suffering financial losses but executive compensation for the company were RM 2.62 million.

We deliberated above that (1) CEO compensation is an important domain and (2) there is an issue of excess compensations have been paid. This raised a question - How Malaysian CEO's are compensated? Accordingly, this study is conducted with the main objective is to examine factors determining CEO compensation. Specifically, factors that are tested in this study are firm performance, CEO ownership, board independence, and leverage.

Literature Review and Theoretical Framework

CEO Compensation

Malaysia Institute of Chartered Secretaries and Administrator's manual guide stated that CEO compensation should comprise of annual compensation and long-term compensation. Annual compensation comprises of basic salary, payment made by the company into a personal pension scheme, the bonus which tied to company performance as well various benefits. While long-term compensation is more on share options or company shares. There also will be severance package arranged for the CEO to show a company is committed to giving the individual a minimum severance payment if they are forced to leave the company. Consistent with the above definition, previous studies held by Gray and Canella (1997) pointed out CEO compensation is a combination of cash compensation (salary and annual bonus), and long-term compensation (stock-based and option-based compensation). For the purpose of this study, CEO compensation is defined as fixed salary and variable CEO compensation such as utilities, car allowance, management allowance and others as it is presented in the annual reports of the company.

Factors Affecting Chief Executive Officer Compensation

Firm Performance

Firm performance can be described as a measure of the effectiveness and efficiency of a business operation (Neely, Gregory & Platts, 1995). Principal-agent theory explains that owners will encourage the CEOs to act in the shareholders' favor and use compensation to drive the CEOs in the preferred directions and to reward them with good result. If CEO acted in a way that will increase the firm performance, the principal (shareholder) will increase the compensation of the CEO. Hence, there is a mutual relationship, firm performance increases; the CEOs will get higher variable compensation (Jensen & Meckling, 1976).

The principal-agent theory's explanation that firm performance will positively affect CEO compensation is supported by one of the earliest studies conducted by (Jensen & Murphy, 1990). They empirically examined the relationship between firm performance and CEO compensation and found that there is a positive relationship between performance and CEO compensation. This is consistent with the findings of Sigler and Haley (1995) as they reported that firm performance has a positive impact towards CEO compensation. This also is supported with Hall and Liebman (1998) study found that there is a positive relationship between performance linked to CEO compensation.

However, there are also contradicting evidence. For instance, a study by Boschen and Smith (1995) found that performance has a significant impact in crafting compensation; however, the effect is not permanent. A study by Ozkan (2011) reported otherwise, stating that performance may have a positive relationship but does not necessarily impact the CEO compensation. A study done by Jeppson, Smith and Stone (2009) found that there is no significant relationship between firm performance and CEO compensation based on their observation. A study by Usman (2010) found that no significant relationship, but rather a negative significant relationship between CEO compensation and firm performance measurement in the same year. Given the inconsistent findings of previous studies, this study seeks answer for the following question:

RQ1 – What is the relationship between firm performance and CEO compensation?

CEO Ownership

Ownership is one important factor that shapes the corporate governance of a company. Owners could be an individual, organization, country or management and a significant and influential owner typically plays a huge role in a company's corporate governance. CEO ownership refers to the percentage of shares owned by CEO (Lu, Xu & Liu, 2009). CEO ownership may reflects the ability of the CEO to influence decision-making process in a company (Osman, Abdul Latiff, Mat Daud, & Muhamad Sori, 2018). CEO ownership might have an influence on CEO compensation based on managerial power theory. This theory indicates that if the firm is owned by shareholders, then CEO compensation will depend on the firm performance. CEO does not hold any power to decide his own compensation package. But, if the firm is owned by CEO, he possesses all the right to determine his own compensation package and the compensation will be higher than the firm that has many owners.

Several studies reported that there is a positive relationship between CEO ownership and CEO compensation. Specifically, a study by Cole and Mehran (2008) showed the positive relationship between CEO ownership and CEO compensation based on the sample of 4637 private companies in the US. A study conducted by Core, Holthausen, and Larcker (1999)

based on US companies from 1982 until 1984 also found a positive correlation between CEO ownership and CEO compensation.

However, there are also evidence of negative relationship between CEO ownership and CEO compensation. Allen (1981), for instance, documented that CEO ownership is negatively influence the CEO compensation. Lamber, Larcker and Verrecchia (1991) stated larger ownership resulted in less compensation received by CEO. However, Khan, Dharwadkar, and Brandes (2005) found that when CEO own a bigger percentage of shares in the company, they could easily have influence in deciding compensation package for themselves but this also leads to low compensation since the CEO already has higher ownership in the company. Due to inconsistent findings as reviewed above, the following question needs an answer:

RQ2 – What is the relationship between CEO ownership and CEO compensation?

Board Independence

Independent directors are board members who are sitting in a company's board but are not executive officers. In Malaysia, the definition of independent director relates to two concepts - free from management and from controlling shareholder. Malaysian Codes of Corporate Governance 2012 (MCCG, 2012) has outlined board shall comprise one third of independent director and these directors' tenure in serving the board is limited to a maximum of nine years. At the end of the year nine, the board can make the decision to re-assigned as not-independent directors or in certain situation shareholder can determine whether the independence director can remain in the same designation or not.

Higher board independence may positively associate with CEO compensation. This is because firstly independent board should have the capability to adjust the compensation given to CEO and secondly companies with independent board typically perform better financially compared to ones with less independent board thus they are able to compensate CEO with higher pay. Capezio, Shields, and O'Donnell (2011) found board independence has a positive relationship towards CEO compensation. According to Ozdemir and Upneja (2012), they also find that board independence has a positive influence on CEO compensation. Furthermore, research conducted by Ryan and Wiggins (2004) found CEO compensation is higher when the number of the independent directors is higher.

However, there are several contrary evidences. Boyd (1994) found that director independence has a negative impact towards CEO compensation and this is supported by the findings of Core et al (1999) who discovered that CEO compensation is lower when board independence is high. Mohammed, Che Ahmad and Malek (2019) contended that a highly independent board is very effective in monitoring top management of a company. Based on the review of the past literature, no certain relationship between board independence and CEO compensation:

RQ3 – What is the relationship between board independence and CEO compensation?

Leverage and CEO Compensation

Leverage refers to use of debt to acquire additional assets, operate a company or acquire other company. Firm leverage level is determined by firm cash flow and their capability to meet company obligation. When the firm has higher leverage level, its capital is tied up with long-term debts, hence investment cash flow, dividend, and operating expenditure will be cut. Thus, the higher the leverage, the lower executive compensation will be (Haron & Akhtaruddin, 2013). This argument is supported by the findings of Ning, Hu and Garza-Gomez

(2012) who discovered a significant negative relationship between leverage and CEO compensation.

However, Shin, Kang, Hyun, and Kim (2015) proposed that leverage of a firm will have a positive relationship with executive compensation. This is maybe because a company with high leverage would pay high reward to CEO to compensate the later's willingness to manage a problematic company. This argument is supported by the findings of Chemmanur, Cheng and Zhang (2013) that there is a positive relationship between leverage and CEO compensation. Apart from that, this could be justifiable to compensate the CEO higher due to the probability of bankruptcy. As a leader of the company, they should be compensated higher since they have worked hard to make sure the company would not collapse. Given the contrary arguments, in this study forwards the following research question:

RQ4 – What is the relationship between leverage and CEO compensation?

Research Methodology

Data Collection

The population of this study is Malaysian companies listed in Bursa Malaysia. The sample is top 80 public listed companies in Malaysia in the period of 5 years from 2011 until 2015 (80 companies * 5 years = 400 observations). These large companies are identified based on the market capitalization. Large companies are chosen as the sample because they are a great source of information and thus they should have detail disclosure about their CEOs' compensation. Data is collected from secondary sources namely Bursa Malaysia Database, DataStream, and companies' annual report. Detail about the sample is as follows:

Table 1. Sample selection process

	Sample size
80 top companies in FTSE Bursa Malaysia EMAS Index	80
minus Finance companies and REITS	(12)
minus Companies with untraceable annual reports and/or data	(15)
TOTAL USEABLE SAMPLE	53
Total observation (53 companies * 5 years)	265

Data Analysis

The following regression model is used to determine factors that can affect the CEO compensation:

$$\text{CEOCOMP} = b_0 + b_1\text{FMPEFF} + b_2\text{CEOOWN} + b_3\text{BOARDIND} + b_4\text{LEVERAGE} + b_5\text{COMPSIZE} + b_6\text{CEOAGE} - b_7\text{BOARDSIZ} + e$$

where,

CEOCOMP = CEO compensation

FMPEFF = Return on assets (net income over total assets)

CEOOWN = CEO ownership (CEO ownership/ total ownership)

BOARDIND = Board independence (percentage of independent directors in the board)

LEVERAGE = Leverage (total debts/total equity)

COMPSIZE = Firm size (total asset)

CEOAGE = CEO age (in years)

BOARDSIZE = Board of director size (number of directors in the board)

The dependent variable of the study is CEO compensation (CEOCOMP). Many companies in the sample of the study have not clearly disclosed about the total and detail of their CEO compensations. For this reason, we used total executive directors' compensation as a proxy for this CEOCOMP variable. This figure is clearly disclosed in the Director's Report in company's annual reports. This measurement is not less valid given that logically a high total compensation to all executives would reflect a high compensation to CEOs, vice versa.

This study used ROA to measure the first independent variable i.e. firm performance which is a commonly used in the literature. ROA is known as one of several accounting-based measures of firm financial performance and it is widely acceptable and understandable (Brahmana, Mohd Razali, & You, 2017; Saidin, Malek, & Saidin, 2013). The second independent variable is CEO ownership (CEOOWN) and it is measured as the percentage of shares owned by CEO over the total number of outstanding shares. The third independent variable is board independence (BOARDIND) and it is measured as the number of independent directors over the total number of the board of directors which is consistent with Ibrahim and Abdul Samad (2011) and Ozdemir and Upneja (2012). Leverage (LEVERAGE), the fourth independent variable, is measured as total liabilities/total equity. Three variables controlled in this study are company size (Nulla, 2013), CEO age (Decktop, 1988) and board size (Cai, Jo, & Pan, 2011).

Findings and Discussion

Descriptive

Data have been winsorized at 1% level to remove potential outliers. Table 2 below illustrates the minimum, maximum, mean and standard deviation for all variables tested in the study:

Table 2. Descriptive Analysis (N = 265)

Variables	Min.	Max.	Mean	Standard Deviation
CEOCOMP	241000	126.7680 mil.	13.1194 mil.	23.1072 mil.
FMPERF	0.0018	0.5518	0.0996	0.0901
CEOOWN	0.0000	0.7109	0.0486	0.1287
BOARDIND	0.3000	0.7500	0.4771	0.1177
LEVERAGE	0.0500	4.1000	1.1381	0.9667
COMPSIZE	107.0977 mil.	89432.5000 mil.	14900.0000 mil.	19140.0000 mil.
CEOAGE	35	75	56.0380	8.7307
BOARDSIZ	6	13	8.7210	1.8600

Multivariate Analysis**Correlation Analysis**

Table 3 present the Spearman correlation matrix for all variables:

Table 3. *Correlation Matrix (N = 265)*

	1	2	3	4	5	6	7	8
CEOCOMP	1							
FMPERF	-.151*	1						
CEOOWN	-.026	.120	1					
BOARDIND	-.034	-.029	-.058	1				
LEVERAGE	.028	-.166**	.106	-.119	1			
COMPSize	.460**	-.370**	-.115	.161**	.245**	1		
CEOAGE	.251**	-.270**	-.116	-.035	-.037	.136*	1	
BOARDSIZ	.130*	-.203**	-.055	-.326**	.213**	.278**	.021	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

No multi-collinearity problem is expected as there is no correlation greater than 0.70 appeared in the table above (Anderson, Sweeney, & Williams, 1996).

Multiple Regression Analysis

The result of the multiple regression analysis is presented in Table 4:

Table 4. *Multiple Regression Results (N = 265)*

RQ and Variables	Coefficient (t-statistic)	Prob.
Intercept	-11043226.1 (-0.784)	
<u>Independent variables</u>		
RQ1 FMPERF	15819525.31 (1.031)	
RQ2 CEOOWN	8917604.285 (.910)	
RQ3 BOARDIND	-23957478.9 (-2.060)	*
RQ4 LEVERAGE	-2268106.220 (-1.668)	
<u>Control variables</u>		
COMPSize	0.001 (8.184)	**
CEOAGE	521005.721 (3.517)	**

BOARDSIZ	-253539.988 (-0.335)	
R ²	0.272	
Adjusted R ²	0.253	
F Value (Sig.)	13.743**	

** . Significant at the 0.01 level (2-tailed).

* . Significant at the 0.05 level (2-tailed).

The independent and control variables are statistically significant in predicting the CEO compensation, $F(7, 257) = 13.743$, $p < 0.01$, $R^2 = 0.272$; showing that the regression model is good fit of the data. The above regression output (Table 4) provides answers to all research questions of the study:

Firm Performance and CEO Compensation (RQ1)

As we can see from the regression output, there is no significant relationship between firm performance and CEO compensation ($p > 0.05$). The findings is consistent with Ozkan (2011) based on UK large companies from year 2004 until 2005 that there is no significant relationship exist between CEO firm performance and CEO compensation. But the findings are contradicting with studies conducted by Cordeiro and Veliyath (2003) that found firm performance have a positive effect on CEO compensation. This shows that in Malaysia, high performing firms are not associated with paying high compensation package to their CEOs.

CEO Ownership and CEO Compensation (RQ2)

We do not found any relationship between CEO ownership and CEO compensation ($p > 0.05$). This result is inconsistent with the findings by Cole and Mehran (2008) that CEO ownership has a negative relationship with and CEO compensation. At the same time, the result of this study is also inconsistent with Buigut, Soi, and Koskei (2015) that found that CEO compensation is an increasing function of CEO ownership. The contention that - if a CEO holds certain percentage of shares in a company then he might be able to influence the compensation decision making process - may not applicable in Malaysia.

Board Independence and CEO Compensation (RQ3)

This study found a negative relationship between board independence and CEO compensation ($p < 0.05$). It indicated that when board independence increase, CEO compensation will be lesser. This shows that in the context of Malaysia, independent boards can curb the practice of granting excessive compensation CEO and executives. This result is contrasting the findings of a France study by Benkraiem, Hamrouni, Lakhali, and Toumi (2017) who found that in their context board independence is positively associated with CEO compensation.

Leverage and CEO Compensation (RQ4)

Result obtained from the analysis indicates that leverage has no significant relationship with CEO compensation ($p < 0.05$). This is not consistent with findings reported in Shin et al. (2015) and Chemmanur et al. (2013), stated that leverage has a positive relationship with CEO

compensation. The leverage effect on Malaysian CEO compensation cannot be detected in this study maybe because the sample is comprising of top Bursa Malaysia companies where companies are mostly performing very well. Maybe a difference can be detected in terms of CEO compensation if a study compares high leverage companies and low leverage companies. Finally, only control variable COMPSIZE and CEOAGE can significantly predict the Malaysian CEO compensation (both are at $p < 0.01$).

Additional Test (T-test)

Given that we discovered only one factor i.e. board independence can determine Malaysian CEO compensation, we ran a t-test for 2 independent samples (low compensation CEOs group vs. high compensation CEOs group) to seek for additional evidence:

Table 5. *T-test for two independent samples*

	Low compensation CEOs (N = 133)		High compensation CEOs (N = 132)		Low compensation VS High compensation CEOs	
Variables	Mean	Std. Dev.	Mean	Std. Dev.	t-stat	p-value
FMPERF	0.1050	0.0765	0.0942	0.1020	0.969	0.333
CEOOWN	0.0592	0.1615	0.0380	0.0829	1.351	0.178
BOARDIND	0.5028	0.1127	0.4512	0.1173	3.649	0.000
LEVERAGE	0.9836	0.9621	1.2938	0.9498	-2.641	0.009

As seen in the Table 5, no significant difference between low compensation and high compensation groups has been detected in terms of firm performance (FMPERF) and CEO ownership (CEOOWN). The t-test result, however, shows that there are significant differences in terms of board independence (BOARDIND) and leverage (LEVERAGE) at $p < 0.01$ respectively. Therefore, we found an additional evidence which is CEOs with high compensation and low compensation are different in term of their firms' board independence and leverage.

Conclusion, Contribution and Recommendation

This study is conducted mainly to investigate factors that can determine Malaysian CEO compensation. Four factors have been tested namely firm performance, CEO ownership, board independence, and leverage. The results of a multiple regression analysis show that only board independence has a significant and negative effect of the county's CEO compensation. However, in this country firm performance, CEO ownership and leverage are not related to CEO compensation. Upon further analysis using a t-test this study also found that CEOs with high compensation and low compensation are different in term of their firms' board independence and leverage. In conclusion, CEO compensation in the context Malaysia is determined by various factors and these factors may not similar to factors found by studies done in developed countries.

The findings of this study contribute to an advancement in knowledge, practice and policy for the context of Malaysia. In terms of knowledge, the findings of this study enhance our understanding about CEO compensation decision process in Malaysian context. For practitioners particularly investors, at least the findings of this study show that in Malaysia CEO high compensation is not related to firm performance. Therefore, investors should aware that companies with highly paid CEOs are not necessarily a good place to invest. For policy makers and regulators, the findings of our study can be taken as a justification for the introducing or enhancing requirements for companies to maintain an independent board. Apart from that, the difficulties faced during the conduct of this study to collect data related to CEO compensation in Malaysia point toward a need for law, regulation, or rules that required company to disclose such data fairly and transparently. The findings may also applicable to ASEAN context where member countries are rapidly integrating in terms of social and economy (Tullao et al., 2018).

The findings of this paper open ways for further studies. Firstly, future Malaysian studies can enhance the number and coverage of the sample. This would provide input about CEO compensation practice in medium and small companies. Future research could also compare CEO compensation in different sectors/industries to see whether different sectors has different practices in compensating CEOs. Secondly, to test other determinants such as CEO's family ownership, educational level, and tenure to get a better insight about the matter. Finally, this study also recommends for the conduct of qualitative as well as mixed method studies to gain deeper understanding about the practice of CEO compensation.

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