

RELATIONSHIP BETWEEN DIRECTORS' BONUS AND SHAREHOLDERS' VALUE: A VIEW OF CORPORATE GOVERNANCE

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ABSTRACT

Directors' remuneration research has traditionally focused on total salary, cash compensation and long-term incentives plans. Consequently, a systematic study on short-term annual bonus is lacking. To address this omission, this study is conducted to investigate the trend of bonus received by the executive directors among Malaysian companies publicly listed on Bursa Malaysia in the current economic condition from 2008 to 2010. The study also examines the relationship between the executive directors' bonus and shareholders' value, specifically defined by firm performance, as measured using stock return (SR) and earning per share (EPS) and by firm size, as measured using the total number of employee, so as to test the practice of the principle corporate governance among the Malaysian listed companies from two different theories, i.e. agency theory and power theory. For firm performance, the findings support the agency theory since directors' bonus is found to be positively associated with firm performance, as measured by EPS. However, the findings found no significant relationship between directors' bonus and stock return. For firm size, the findings support both theories since directors' bonus is found to be positively associated with firm performance as measured by total sales and negatively associated with firm size as measured by total number of employee. Consistent with the previous studies on executive bonuses, this association remains weak. However, power theory revealed that weak governance may foster the rise of powerful directors and thus, weaken the corporate

governance value in a company. Therefore, it is suggested that close monitoring of directors' remuneration should continue and shareholders should remain extra vigilant.

Keywords: *Directors' remuneration, corporate governance, directors' bonus, shareholders' value, firm performance, firm size, agency theory, self-serving management perspective, power theory.*

Introduction

Many studies have been conducted to investigate the relationship between directors' remuneration and firm performance (eg: Conyon and Leech, 1994; Conyon and Sadler, 2001; Ibrahim et al., 2005; Abdul Rahman and Mohd Zawawi, 2005). Indirectly, firm performance seems to be the most likely capacity to measure shareholders' value. Some researchers claim that there is no significant relationship between directors' remuneration and firm performance (eg: Ibrahim et al., 2005; Abdul Rahman and Mohd Zawawi, 2005). According to Conyon and Leech (1994), public concern has been expressed that the compensation packages received by those at the head of the corporation are not justified by the underlying economic performance of the company. Hence, this study takes one step ahead to explore one neglected element of directors' remuneration i.e. annual bonus in examining the relationship between directors' bonus and shareholders' value in Malaysia.

A study on annual bonus is done by Jay Daniel Fattorusso (2006) for the award of Doctor of Philosophy at Loughborough University titled, 'UK Executive Pay: The Special Case of Executive Bonus'. The results of the study demonstrated that there is a positive association between bonus pay and firm performance, both using internal and external measurement; i.e. earnings per share (EPS) and total shareholders' return (TSR), respectively by using the *agency theory* approach to reflect the principal and agent connectivity. In addition, the study further explores the relationship from the *power theory (self-serving management)* approach as to cater the complexity of the different interests in ownership types. This resulted that bonus pay is negatively associated with firm performance from the *power theory* approach. On top of that, Fattorusso (2006) also discussed on the relationship between executive bonus and firm size as an extended view

of firm performance from both approaches mentioned earlier. Fattorusso (2006) found that bonus pay and firm size is not positively associated from the agency theory perception while it is positively associated from the power theory point of view.

On this note, it is crucial to investigate the relationship between directors' bonus, being part of an important element in the directors' remuneration and the shareholders' value represented by firm performance and firm size in the current economic condition on the fact that the stability of corporate governance is being practiced by most of the companies in Malaysia as compared to the time when corporate governance was at its initial stage back in the year 2000. Hence, based on a sample of 74 (from the total of 545 observations) companies listed on the Bursa Malaysia, this study investigates the relationship between directors' bonus and shareholders' value of the Malaysian listed companies for the year 2008 until the year 2010. The said period is deemed to be an appropriate period of study on the basis of readily available information and familiarity in the subject of corporate governance amongst the listed companies in Malaysia. For the purpose of the study, the sample is selected from the listed companies in all main industries on the Main Board of Bursa Malaysia. Directors' remuneration is further delved into directors' bonus portion while shareholders' value, which is represented by firm performance, is measured using stock return (SR) and earnings per share (EPS) while firm size is measured using total number of employee and total sales.

This study is not only significant to ascertain the relationship between the directors' bonus and shareholders' value, but further to reveal what are the patterns of the bonus received by the executive directors for Malaysian listed companies in the current economic condition. The most important thing is to discover whether the board of directors is mindful of enhancing shareholders' value, a cornerstone of corporate governance by implementing the agency theory approach or are they still mindful of enhancing their own wealth, as argued by the power theory. The findings from this study will contribute to the literature on the correlation or relationship between directors' bonus and firms' performance as well as firms' size, which indirectly represent the shareholders' value.

Agency Theory

The idea of agency theory has been long discussed by scholars in various fields specifically accounting (eg: Garen, 1994; McColgan, 2001). In fact, literature on agency theory have been explored during the 1960s and 1970s describing the risk-sharing problem as one that arises when co-operating parties have different attitudes toward risk (Clarke, 2007). Subsequently, agency theory had broaden this risk-sharing concepts by including the '*agency problem*' that occurs when the co-operating parties have different goals. Jensen and Meckling (1976) in their article mentioned that the concern of agency theory lies in the incentive problems that arise when the decision making in a firm falls on managers who are not the firm's shareholders. Given the various versions of agency theory definition, it is well understood that the principal or shareholders are given no option than to partly (to some extent, mostly) delegate the decision making process to the agents or directors who run the company despite the divergence desires and risk-attitude between them, i.e. *agency conflicts*.

Agency theory is also best explained in the form of corporate governance. This is because the theory holds that managers will not act to maximize the returns to shareholders unless appropriate governance structures are implemented as a mechanism to safeguard the interests of shareholders (Donaldson and Davis, 2001). Furthermore, the definition of corporate governance suggested by the High Level Finance Committee Report on Corporate Governance (1999) obviously implies the similar direction with agency theory. This is supported by McDonald et al. (2008) in which corporate governance factors can also be employed to remedy the agency problem, at least in part and thereby reduce the agency costs to increase the alignment of managers' personal interest with the core interest of shareholders.

Power Theory

Power theory emphasizes the fundamental misalignment of interests between the principal and the agent (Fattorusso, 2006). From the word 'power theory' itself, it is understood that the managerial power is heavily associated with the separation of ownership referring to a situation where

power and control of the corporation has been shifted away from the common stockholders (Fattorusso, 2006). However, the managerial power perspective does not assume that directors seek to get the best deal for shareholders (Bebchuk and Grinstein, 2005). This is because power can also be abused when executives are self-serving and being opportunistic towards the undaunted power given by the shareholders. Additionally, management may pursue its own interest obliviously to the welfare of the owners (Werner and Tosi, 1995).

Based on the above, with the directors having most of the power, it is important that the shareholders have the power in the company as well. In order to prevent directors from straying shareholders' interest, shareholders should proficiently make use of such power (Bebchuk, 2003). For example, should the shareholders not be satisfied with the action of their elected representatives, they have the power to turn the board out. As a result, power plays a central role in various aspects of corporate governance. This is proven by Finkelstein and D'Aveni (1994) who discussed managerial power and how it is dependent with the ownership structure of the firm, the board composition as well as its duality.

Directors' Remuneration and Firm Performance

Studies on correlation of personal returns received by directors to the returns received by shareholders have been extensively discussed by Western researchers especially in the US and UK. Many of the debates in those countries revolve around the linkage of directors' remuneration and firm performance from the various researchers' perspectives in defining directors' remuneration as well as firm performance. No matter how diversify the arguments are, the result of the discussion is biased towards the existence of the relationship between directors' remuneration and firm performance at a very small substance (eg: Conyon, Gregg and Machin, 1995).

Jensen and Murphy (1990) prove that there is a positive relationship between cash compensation and firm performance in a well-known study on 2,213 CEOs in the US for the periods of 1974 to 1986. Researchers in the UK also found a very small sensitivity between directors' remuneration and firm performance. In the same vein, the issue on relationship between directors' remuneration and firm performance does receive much attention in other

countries than the US and UK since the interests on directors' compensation are a world-wide surge that investors, analysts, policy makers, journalists and the public are always keen on. However, less research has been conducted in other countries as the disclosure of the directors' remuneration do not go far enough in those countries (Kabir, 2008).

In the Malaysian context, Dogan and Smyth (2002) have made an attempt to fill the gap in the Asian literature by conducting a research on the determinants of board compensation in Malaysian firms listed on the Kuala Lumpur Stock Exchange over the periods of 1989 to 2000. Dogan and Smyth (2002) however found that directors' remuneration is positively correlated with stock market performance but negatively correlated with accounting measures. On top of that, Ibrahim et al. (2005) has further explored the relationship between directors' compensation and firm performance among companies in Malaysia using data from 1999 to 2001. The study intends to see the relationship subsequent to the announcement of the new ruling on corporate governance by the Kuala Lumpur Stock Exchange in 2000 which was predicted to be stronger in 2001 as compared to the pre-implementation period. However, the findings show that there is a non-significant relationship between pay and performance in 2001 and instead, Malaysian companies tend to link directors' remuneration with growth and size rather than performance.

Bonus – based Incentives

There has been little research on split directors' remuneration between base salary and bonus. One of the obvious reasons is because both are rarely broken down separately. Veliyath (1999) has defined salary as cash compensation that is determined at the beginning of an annual pay cycle, while annual bonus is defined as cash compensation that is determined at the end of an annual pay cycle and is based on only one-year's worth of performance information. Hence, annual bonus seems to be an important component in directors' remuneration as it reflects short-term performance of a company (Holthausen et al., 1995; Fattorusso, 2006).

Subsequent to the corporate scandals i.e. Enron and WorldCom that relates to the proliferation of stock options in the CEO pay, the bonus is likely to

become an even more important component of CEO compensation (Sheikh, 2008). Studies that specifically examine the executive bonuses are found to be positively, though weakly, associated to shareholders' value and thus, no evidence of bonus being a purely manager-serving device (Bruce et al., 2007). However, this result is in contrast with that of Healy (1985) who concluded that bonus schemes create incentives for managers to select accounting procedures and accruals to maximize the value of their bonus awards.

Value of the Annual Bonus and Firm Performance

Agency theory is based on the premise that the principal (shareholders) delegate duties to the agent (the board and CEO) who is expected to act in the best interest of the shareholders. As such, it is the boards' responsibility to design compensation schemes that provide managers with efficient incentives towards maximizing shareholders' value (Bebchuk, 2003). Hence, based on the empirical evidence from those studies, agency theory assumes that the board will design bonus schemes based on performance targets that contribute to the shareholders' wealth.

Existing literature that exclusively examine the short-term annual bonus and firm performance include Bushman et al. (1995), McKnight (1996), Fattorusso (2006) and Bruce et al. (2007). For example, Bushman et al. (1995) found that 33.7% of the average division CEO's annual bonus in 246 public domestic firms in the US are based on group level or corporate level performance measures. Similar relationship is found in Fattorusso's (2006) study that supports the agency theory's views as the bonus amount is positively associated with financial performance, both measured using EPS and TSR. Hence, the first hypothesis for the study under the agency theory is as follows:

H_{1a}: The value of directors' bonus is positively associated with firm performance, as measured by stock return and EPS.

As for the power theory, the conflict of interest between principal and agent is due to the self-serving executives with opportunistic behavior who will participate in dysfunctional conduct when given necessary latitude

(Canyon and Sadler, 2001; Fattorusso, 2006). Moreover, since ownership and control have become more dispersed due to the separation of control between shareholders and executives, the power theory suggests that executives are able to fully entrench themselves in the entire company and extract greater rents through their compensation arrangements, oblivious to the welfare of the owners (Bebchuk and Fried, 2003). In addition, Choi (2008) comments that as CEO's power becomes stronger, he may be free to undertake excessively high risk projects for personal gain, potentially resulting in large losses for the firm. Hence, it is assumed that under this theory, the following hypothesis is as follows:

H_{1b}: The value of directors' bonus is negatively associated with firm performance, as measured by stock return and EPS.

Value of the Annual Bonus and Firm Size

Although the relationship between directors' compensation and firm size provides less attention as compared to firm performance, there have been a number of researches conducted on this for the past five decades (eg: McGuire et al., 1962; Lewellen and Huntsman, 1970). Using more current evidence, Bebchuk and Grinstein (2005) found an interesting evidence that the increase in firm size is followed by higher CEO pay but the decrease in firm size is not followed by lower CEO pay. This implies that firm size expansion is not motivated by the maximization of shareholders' wealth but is associated to the increase in CEO's compensation (Bebchuk and Grinstein, 2005). However, there is not much attention that focuses specifically on directors' bonus with firm size. Due to the limited literature, researches that concluded on directors' compensation (cash compensation) and firm size are being considered to develop the hypothesis.

Studies that specifically examine the relationship between directors' compensation and firm size include McGuire et al. (1962), Tosi et al. (2000) and Ibrahim et al. (2005). Most of these studies use total sales, market value, net assets and number of employee as a measure of firm size. However, The Central Bank and The Financial System in Malaysia Report (1999) states that executives are expected to maximize the shareholders' value through raising a company's share price, which is consistent with the

agency theory (The Central Bank and The Financial System in Malaysia Report, 1999). As such, strategies to increase firm size that are considered to be non-maximizing would be avoided as a course of action (Fattorusso, 2006). Consequently, this has led to the following hypothesis:

H_{2a} : The value of directors' bonus is negatively associated with firm size, as measured by total number of employee and total sales.

Power theory, on the other hand has the mirror image of this hypothesis on the argument that directors who possess self-serving management behavior will focus on self-interested objectives rather than on the shareholders. Generally, the relationship between directors' compensation and firm size supports the power theory as it is less sensitive to performance and more sensitive to firm-size expansion (Choi, 2008). Therefore, directors under the power theory are more inclined to grow the firm size rather than stock return and EPS. This may be due to the positive affirmations associated with running large corporations (Fattorusso, 2006). Consequently, it is hypothesized as follows:

H_{2b} : The value of directors' bonus is positively associated with firm size, as measured by total number of employee and total sales.

Sample Selection and Data Collection

The companies included in the sample are drawn from all main industries listed on all boards of Bursa Malaysia. This contradicts that of Ibrahim et al. (2005) who excluded all financial companies listed at Bursa Malaysia. However, there are also considerably numbers of studies that do not exclude the finance sectors as part of the sample in addressing the same issue (eg: Tosi et al., 2000; Fattorusso, 2006). The sample selection from 8 main industries namely consumer products, industrial products, construction, trading or services, properties, plantation, technology, and finance is important to reflect the Malaysian emerging capital market as a whole.

Besides, the sample must have all required accounting data, shares price and total number of employees that are available for the year 2008 until the year 2010 to estimate the relationship between directors' bonus and

shareholders' value as used by Fattorusso (2006). The said period is deemed to be appropriate on the basis of familiarity and awareness on corporate governance amongst the listed companies in Malaysia.

Only secondary data are needed for this study and the data include the stock prices, EPS, total number of employee and total sales which are collected from DataStream International which is a comprehensive database, containing financial information of companies listed on the exchanges and over the world. For the purpose of this study, companies that separately disclosed their directors' bonus amounts are selected and the data are specifically extracted from companies' audited report available on the Bursa Malaysia website. Companies with incomplete data are excluded.

After taking into consideration on all the sample selection criteria, a total of 74 companies are used for the study. In addition, the samples are further corroborated with the samples of companies in the joint survey between the Minority Shareholder Watchdog Group (MSWG) and local university, Universiti Teknologi Mara (UiTM), namely "Directors' Remuneration Survey" done in 2007 to enhance the value. This is because the survey was performed on the top 500 PLCs based on market capitalization as at 31 December 2005. Due to a small sample size used in this study as compared to previous studies on these issues, the result of these findings is more appropriate to represent the companies within the sample instead of generalizing it to represent the public listed companies in Malaysia.

Measurement of Variables

Dependent Variable

Information on total directors' remuneration is clearly detailed in a firm's financial statements. However, information specifically on annual bonus required considerably more time to decipher, primarily because of the confusion surrounding when earned annual bonuses were actually reported as paid (McKnight, 1996). This is because some firms reported annual bonuses in the year paid (i.e. subsequent year) rather than in the year ended (i.e. current year) and this represents a potential timing problem (McKnight, 1996). For the purpose of this study, the bonus amount stated in the audited report is considered current unless mentioned otherwise.

In most of the financial statements of public listed companies in Malaysia, the annual bonus information normally forms a part of the 'other short-term benefit' such as directors' fee, emolument, allowances and estimated monetary amount of benefits-in-kind rather than presented individually as directors' bonuses. In fact, there are a great number of financial statements that lump the bonus figures with the basic salary as part of the directors' remuneration. Using the sample employed by the Directors' Remuneration Survey in 2007 by MSWG and UiTM, the number of companies that lump the bonus figure is 447 (89%) leaving the remaining 11% of companies that are included in this study's sample size. Apparently, this might be the main reason for a limited data in this study.

As such, extracting the particular bonus amount from the annual reports of all companies listed on the Bursa Malaysia website for the three years period from 2008 to 2010 is meticulous, thus requiring extra cautious. Since bonus is the distinctive value in this study, any vague information in the financial statements on directors' bonus will be excluded from the sample. However, bonus with nil amounts during the year will still be included in this study.

Independent Variables

For independent variables, shareholders' value will be explained in two perspectives, i.e. firm performance and firm size. Firm performance will be operationalized as stock return and EPS while firm size will be measured using total number of employee and total sales at the end of each financial year from 2008 to 2010. All four independent variables (stock return, EPS, total number of employees, and total sales) used in this study are taken from the companies' financial statements.

Stock performance is usually measured by the changes in stock price (Attaway, 2000). Benito and Conyon (1999) and Tosi et al. (2000) have used stock performance to measure the performance of firms' stock in their respective studies while McKnight (1996) employs shareholders' return in his study. For the purpose of this study, the variable used is consistent with that of Firth et al. (1996) i.e. stock return at the end of each financial year. Stock return is computed as changes in stock price (adjusted for capital changes) plus dividend per share.

This study further adopts EPS as the second independent variable to measure firm performance from the accounting-based measurement. EPS is widely used (eg: Randoy and Nielsen, 2002) in evaluating the operation performance and profitability of a company to justify the directors' compensation as it is a fair reflection of a firm's internal performance (Fattorusso, 2006). Basic EPS is computed using net income divided by the number of shares outstanding during the year.

Roberts (1956) in Fattorusso (2006) mentioned that despite using net sales as the index of corporate size, other measures of corporate size did not alter his conclusion significantly. Due to that, the third independent variable adopted in the study is the total number of employee standing at the end of each fiscal year for all companies listed in Bursa Malaysia from 2008 to 2010. This is in line with Tosi et al. (2000) who proposed that size is operationalized by firm sales, the square root of sales, the log of sales, the number of employees, total assets, and log of total assets. The number of employee considers all staff, including directors and other top management executives within the company.

The study employs total sales as the fourth independent variable to be an alternate measurement for firm size. This is because total sales have been widely used as to represent the firm size. McGuire et al. (1962) have used the revenue figure to determine the relationship between executive income, sales and profit. In more recent studies, McKnight (1996) also used total sales to represent firm size in providing the explanation of top executive pay in the UK. Hence, it is crucial to expand Fattorusso's (2006) study by including total sales as an additional independent variable to measure firm size in order to increase the reliability of the study.

Finally, this study employs leverage ratio to be a control variable in examining the relationship between the four independent variables and directors' bonus. This is similar with that of Duffhues and Kabir (2008) who assumed that companies with higher debts would be closely monitored by the creditors or debt holders. Hence, the companies thereby reduce the payment of any excess compensation to the directors. Apart from that, higher debts lead to higher risk, which necessitates the payment of higher compensation (Duffhues and Kabir, 2008). Leverage ratio is defined as total debts over total assets.

Results and Discussion for Hypotheses Tests

Descriptive Statistics of Dependent Variables

Table 1 presents the descriptive analysis for the annual bonus received by the directors of companies traded in Bursa Malaysia for the periods of 2008 to 2010. From the table, it is noticed that the highest and lowest annual bonus received by Malaysian directors among the public listed companies (within the samples selected) for the period between 2008 and 2010 are RM6,939,000 and RM5,000 respectively.

Despite that, it is also noticed that the average level of bonus received by directors decreased from RM411,292 in 2008 to RM370,790 in 2009 and this was subsequently followed by an increase to RM516,198 in 2010, evidenced by the mean amount presented in Table 1. Accordingly, the bonus growth in 2009 of 10% sharply increased to 39% in the 2010 bonus. McKnight (1996) too found that the bonus growth from 1993 to 1994 grew at an astonishing rate of 18.32% in his 3 years study from 1992 to 1994. Accordingly, the median bonus amount for this study also fluctuated by RM15,000 in 2009 and subsequently increased by RM53,000 in 2010. This seems to contradict the findings of Fattorusso (2006) in which the median bonus figure rose by 30% (£37,000) over the 2-year period from 2001 to 2003 among the FTSE 350 companies in the UK.

Table 1: Descriptive Statistics for Annual Bonus by Year

Year	N	Mean	Median	Std Dev	Min	Max
2008	66	411,292	164,975	712,059	9,000	4,098,000
2009	73	370,790	150,000	674,005	10,833	5,062,000
2010	71	516,198	203,150	1,001,032	5,000	6,939,000

Test of Normality

Test of normality is performed in order to determine the most appropriate statistical tool to be used in the correlation analysis. The results of the normality test are presented in Table 2. Table 2 shows the results of the One – Sample Kolmogorov-Smirnov Z normality test on all values used in the study. Hence, it is observed that all variables used are normally distributed based on the fact that $p > 0.01$. In addition, variables which are not normally

distributed have been transformed into log (similar with Conyon et al., 1995) using SPSS 12.0. Variables that have been transformed into log are bonus, total number of employee and total sales. Due to that, the Pearson correlation analysis which is a parametric statistical tool is used to examine the relationship between the directors' remuneration, i.e. $BONUS_{log}$ and the shareholders' value, i.e. firm performance, measured by SR and EPS_{log} and firm size, measured by $E'EE_{log}$ and $SALES_{log}$.

Table 2: Test of Normality on Variable Values

Variables	Normal parameters	Most extreme differences		Kolmogorov – Smirnov Z	Asymp. Sig. (2-tailed)
	Mean	Positive	Negative		
$BONUS_{log}$	12.12	0.060	-0.048	0.517	0.952*
SR	0.15	0.117	-0.060	1.004	0.266*
EPS	0.16	0.118	-0.124	1.063	0.208*
$E'EE_{log}$	6.89	0.089	-0.076	0.768	0.597*
$SALES_{log}$	12.81	0.116	-0.062	0.996	0.275*
LEV	0.42	0.115	-0.058	0.993	0.277*

* Significant at the 0.01 level

Correlation Analysis

The results of the correlation analysis are shown in Table 3. Based on Table 3, there is a positive and significant (Sig. value = 0.046) though weak ($r = 0.233$) relationship between directors' bonus and stock return. For EPS, there is also a positive and significant relationship between directors' bonus and EPS. However, the strength of relationship between these variables is moderate as compared to stock return, based on the coefficient of correlation value of 0.419. The relationship between directors' bonus and firm size is found to be significant at any level of confidence (2-tailed), as evidenced by the Sig. value in the Table 2. However, the results show that total sales are more correlated to directors' bonus based on the coefficient r value of 0.527 as compared to total number of employee (coefficient r value = 0.337).

Table 3: Pearson Correlation between Directors' Bonus and Shareholders' Value

		Log bonus (BONUS _{log})	Stock return (SR)	Earning per share (EPS)	Log total number of employee (E'EE _{log})	Log total sales (SALES _{log})
Pearson Correlation	BONUS _{log}	1.000	.233	.419	.337	.527
	SR	.233	1.000	.323	.319	.399
	EPS	.419	.323	1.000	.581	.636
	E'EE _{log}	.337	.319	.581	1.000	.783
	SALES _{log}	.527	.399	.636	.783	1.000
Sig. (2-tailed)	BONUS _{log}	.	.046	.000	.003	.000
	SR	.046	.	.005	.006	.000
	EPS	.000	.005	.	.000	.000
	E'EE _{log}	.003	.006	.000	.	.000
	SALES _{log}	.000	.000	.000	.000	.
N	BONUS _{log}	74	74	74	74	74
	SR	74	74	74	74	74
	EPS	74	74	74	74	74
	E'EE _{log}	74	74	74	74	74
	SALES _{log}	74	74	74	74	74

Multiple Regressions Analysis

The hypotheses developed in the study are intended to explore whether there is any relationship between directors' bonus and shareholders' value variables. Once the relationships have been identified, regression analysis is used to explore the relationship in depth.

The relationship is expressed as an equation that predicts the dependent variable from a function of the independent variables (regressors) and a set of constants called the parameter. For the purpose of this study, the dependent variable is log directors' bonus (BONUS_{log}) and the independent variables are stock return (SR), earning per share (EPS), log total number of employee (E'EE_{log}), log total sales (SALES_{log}), and leverage ratio (LEV). Hence, the multiple regression equation model is as follows:

$$\text{BONUS}_{\log} = \beta_0 + \beta_1 \text{SR} + \beta_2 \text{EPS} + \beta_3 \text{E'EE}_{\log} + \beta_4 \text{SALES}_{\log} + \beta_5 \text{LEV} + e$$

As all variables are normally distributed, the regression analysis can be properly executed. In addition, several tests for auto-correlation and collinearity are also carried out. Hence, the Durbin–Watson test is used to test for auto-correlation, a condition in which a relationship exists between consecutive residuals (similar with that of Abdul Rahman and Zawawi, 2005).

The test indicates that there is no evidence of auto-correlation since the Durbin–Watson coefficient is 1.691 and it lies within the range of 1.69 and 2.31. Thus, there is no time effect of the performance of the companies on the directors' bonus over the observed period, i.e. 2008 to 2010. Furthermore, high tolerance levels (i.e. significantly different from zero) suggest that collinearity or multicollinearity is unlikely, based on the data shown in Table 4. Collinearity (or multicollinearity) is the undesirable situation where the correlations among the independent variables are strong.

Table 4 contains the coefficient of determination (R-Square) that measures the degree of predictive accuracy of the regression model in explaining the variations in the dependent variable, i.e. directors' bonus. As such, it is noticed that the model explains 31% of the variation in directors' bonus based on the R-Square value. This means that there are other variables (consisting of 69%), not included in the model which are also related to directors' bonus. Furthermore, due to the small number of sample size in the study, it is believed that the regression results do not accurately represent the entire population of public listed companies. However, the sig. value of $0.000 < 0.01$ shows that there is enough evidence to reject the null hypothesis at the 1% level of significance or higher. Hence, the regression model used in this study is significant and can thus be used to explain or predict the bonus amount received by the Malaysian directors among the public listed companies within the sample selected.

In addition, the table shows that total sales seem to be the only factor that is significant to predict directors' bonus as proved by the sig. value of 0.002. This implies that there is also enough evidence to reject the null hypothesis at 1% level of confidence of higher. However, the remaining variables show slight or no significant effect to the variation of directors'

bonus. Surprisingly, the leverage ratio being the control variable in this model also has no significant influence to directors' bonus.

Table 4: Multiple Regression Analysis Results

	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.679	1.529		4.367	.000		
SR	.058	.476	.013	.122	.903	.828	1.207
EPS	1.068	.879	.170	1.215	.229	.515	1.941
E'EE _{log}	-.201	.146	-.231	-1.374	.174	.357	2.798
SALES _{log}	.520	.161	.597	3.225	.002	.297	3.372
LEV	-.029	.705	-.005	-.042	.967	.717	1.394
No. of observation			74				
R Square			.310				
Adjusted R Square			.259				
F			6.111				
Sig.			.000 ^a				

a. Predictors: Leverage ratio, EPS, stock return, log total no of employee and log total sales.

Directors' Bonus and Firm Performance

Looking back to the hypotheses, H_{1a} states that the value of directors' bonus is positively related to firm performance under the agency theory. In order to have a better discussion, the findings are separated into stock return and EPS in its respective paragraph as follows:

Based on the Sig. value of 0.903 in Table 4, the null hypothesis is accepted since there is no significant relationship between directors' bonus and stock return. This finding seems to be consistent with some of the earlier studies conducted on directors' remuneration (cash compensation) as limited studies were specifically conducted on directors' bonus. The study is supported by Greg et al. (1993) who initially found a weak correlation between directors' compensation and stock market valuation over the period of 1983 – 1988 but the link subsequently disappeared over the period of 1989 to 1991. Moreover, Dogan and Smyth (2002) suggested that the relationship between

board remuneration and firm performance is ambiguous in Malaysia, over a study period between 1989 and 2000.

For EPS, the study found a positive relationship between EPS and directors' bonus. This is consistent with that of McKnight (1996) who found a positive and statistically significant relationship between changes in EPS and changes in annual bonuses for the sample throughout 1992 until 1994 in the UK. On the contrary, Randoy and Nielsen (2002) found no significant relationship between CEOs' compensation and EPS in 224 companies from Norway and Sweden within the period from 1996 to 1998.

As such, the results of this study for both firm performance measures, i.e. stock return and EPS provide partial support for H_{1a} which states that the value of directors' bonus is positively related to firm performance, as measured by stock return and EPS under the agency theory. This is because H_{1a} is accepted when firm performance is measured using EPS while the null hypothesis is accepted when firm performance is measured using stock return. Since the results for firm performance seem to partly accept the H_{1a} , by implication the study also partly rejects H_{1b} .

Consequently, H_{1a} that states the value of directors' bonus is positively associated with firm performance, i.e. stock return and EPS under the agency theory is partly accepted. On a contradictive perspective, H_{1b} that states the value of directors' bonus is negatively associated with firm performance under the power theory is therefore partly rejected as well. In other words, the results of this study support agency theory when firm performance is measured using EPS while no significant pay – performance relationship is found in this study when firm performance is measured using stock return.

Overall, the results imply that Malaysian directors in the public listed companies (within the sample selected) are more transparent since the results show a positive relationship between directors' bonus and EPS (accounting – based performance measure). This is because Jensen and Murphy (1990) state that a positive sign of accounting base performance may yield information that is valuable in assessing an executive's unobservable actions.

Directors' Bonus and Firm Size

It is common knowledge that larger firms normally give higher compensation. This general argument seems to be inconsistent with the third hypothesis, H_{2a} which states that the value of directors' bonus is negatively associated with firm size, as measured by total number of employee and total sales under the power theory. For a better discussion of results, the total number of employees and total sales are separately discussed in the following paragraphs.

The study found a negative relationship between directors' bonus and total number of employee. As such, these results contradicted those of Fattorusso (2006) who suggested that firm size, as measured by number of employees was weakly but positively related to bonus pay. Besides, the findings generally did not agree with the assumption that bigger companies which had complex responsibilities tended to pay more to their directors due to the fact that they had more complex and demanding tasks (Ibrahim et al., 2005).

Total sales, however was found to be positively significant in explaining directors' bonus. This was consistent with that of McKnight (1996) who found an eminently strong and positive association between annual bonus and total sales which proposed that a 10% larger firm (using total sales) will pay its executives on average 11.2% greater in bonus. Perhaps, most of the public listed companies within the sample of the study strive to increase its sales as it has been said that increasing the volume of sales will achieve greater prestige and eventually lead to higher compensation (Murphy, 1985; Ibrahim et al., 2005).

Under the agency theory, any related effort to increase the firm size either by the total number of employee or total sales is considered contradicting in maximizing the shareholders' value. Therefore, the results of this study for both firm size measures provided partial support for hypothesis H_{2a} which states that the value of directors' bonus is negatively related to firm size, as measured by total number of employees and total sales under the agency theory. This is because H_{2a} is accepted when firm size is measured using total number of employees but is rejected when firm size is measured using total sales. Since the results for firm size seemed to partly accept the H_{2a} , thus by implication the study also partly accepted H_{2b} .

Consequently, H_{2a} states the value of directors' bonus is negatively associated with firm size, i.e. total number of employee and total sales under the agency theory is partly accepted. On a contradictive perspective, H_{2b} that states the value of directors' bonus is positively associated with firm size, i.e. total number of employee and total sales under the power theory is therefore partly accepted as well. In other words, the results support agency theory when firm size is measured using total number of employee while power theory is supported when firm size is measured using total sales.

Conclusions

The study performed descriptive, correlation and multiple regression analyses in order to achieve its objectives. The results from the descriptive analysis showed that trend of bonus received by the executive directors in the Malaysian listed companies (within the sample size) during the period of study from 2008 to 2010 fluctuated as evidenced by the average value of bonus from RM411,000 in 2008 which decreased to RM371,000 in 2009 and subsequently increased to RM516,000 in 2006. The results from the regression analysis provided that the directors' bonus was positively related to firm performance as measured using EPS while no significant relationship was found between directors' bonus and stock return. In addition, directors' bonus was also found to be positively related to firm size as measured by the total sales and negatively related to firm size as measured by the total number of employees.

Based on the overall findings, it is observed that the principle of corporate governance, particularly on directors' remuneration as exclusively represented by the directors' bonus is being well practiced in the Malaysian context, particularly for the public listed companies that fall within the sample of the study during the period between 2008 and 2010. This is because corporate governance, which is consistent with agency theory, seemed to be proven by the findings of this study.

At the very least, it is too soon to conclude on the basis of prior research. However, two out of four variables in this study i.e. EPS and total number of employee supported agency theory at best. Power theory, however was only supported by total sales while stock return did not support any of the theories due to no significant association with directors' bonus.

Even though the length of the study period was short and thus, provided a limited view on directors' bonus in Malaysia as a whole, it is believed that this study contributed to the existing knowledge on corporate governance, specifically in respect of directors' remuneration. Furthermore, this study had four characteristics that made it distinctive (replicated from Fattorusso, 2006).

This study distinguished itself from the others in ways that can be explained based on certain measures. First, many empirical studies on directors' remuneration conducted in the past had utilized data from the US and UK. Therefore, due to the shortage of research on directors' remuneration that utilized the Malaysian evidence, the present study focused on the Malaysian context, specifically on companies that were publicly listed on Bursa Malaysia. Secondly, much of the past research on directors' remuneration had focused on aggregate pay measures. As a result, a few studies had analyzed exclusively the relationship between bonus pay, as a single feature of directors' remuneration and shareholders' value, further defined as firm performance and firms' size. Third, the data were current and based on three consecutive years, i.e. 2008 – 2010, that is after the grace period of ten years from the year when The Committee carried out a study on corporate governance and Malaysian Institute of Corporate Governance (MICG) was established, i.e. in 1998. And finally, this study used two prominent theories in the executive pay literature, i.e. agency theory and power theory, in order to explain the relationship between directors' bonus and shareholders' value.

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