Influence of the Quality of Remuneration Committee on Management Compensation Plan Design and Performance

Mohammadreza Mehrabanpour*

This study examines the relationships between a certain corporate governance related mechanism i.e. the quality of remuneration committee, and management compensation plan design, and how performance-based management compensation affects firm performance in the main market of Bursa Malaysia, in 207 out of 828 companies from 2008 to 2010. Newey-West heteroskedasticity and autocorrelation consistent (HAC) Standard Errors and Covariance were used for the estimation of the ordinary least squares (OLS) regression. The results have shown that the quality of remuneration committee is found to have a significant positive impact on performance-based management compensation. Also, performance-based management compensation is found to have a significant positive impact on firm financial performance. Overall, the results of this study indicate that corporate governance related factors such as the quality of remuneration committee, have a significant influence on the design of management compensation plan, which in turn affects firm performance. The results of this study show that it is the quality of the remuneration committee rather than the existence of the committee that matters. This research empirically explores aspects of remuneration committee and performance-based management compensation that have, hitherto, not been much examined in the existing literature, especially in developing countries.

JEL: Key Words: Quality of Remuneration Committee (QRC), Management Compensation, Performance.

1. Introduction

The recent worldwide financial crisis which has been described by leading economists as the worst financial crisis since the Great Depression of the 1930s, has revived a deliberation on the question whether regulatory framework and corporate governance mechanisms such as management pay and rewards are effective and appropriate in the best interests of shareholders of corporations.

Moreover, Bogle (2005) cited a series of unresolved challenges facing capitalism that had contributed to financial crises but had not been sufficiently addressed. In particular, he raised the issue of “manager's capitalism”, which he argued had replaced “owner's capitalism”, and resulted in the management operating the firm for their benefits rather than for the shareholders’ interests. In June 2009, the President of United States, Barack Obama and his key advisers introduced a series of regulatory proposals. The proposals addressed many issues including executive pay (Geithner and Summers, 2009, Obama, 2009). The President believes that “executive compensation -unmoored from long-term performance or even reality-rewarded recklessness rather than responsibility. And this wasn't just the failure of individuals; this was a failure of the entire system. The actions of many firms escaped scrutiny”(Obama, 2009).

In other developed countries the situation is the same. For instance, the trends and regulations for management compensation towards a safer and sounder system in the UK are under the monitoring by the UK government. In February 2009, David Walker (2009) recommended some

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changes to corporate governance rules in the UK and improving the management compensation plan design. His report focuses on the practical steps, including structural and behavioural changes, that organisations would need to take.

The financial turmoils of the past several years have made the weaknesses of regulatory structure even more apparent and the economic challenges call for a careful assessment of current regulatory approaches. Many features of management compensation, such as high and increasing pay packages, large option holdings, and generous severance pay, are often cited as evidence that the present compensation practices and corporate governance are seriously flawed (Geithner and Summers, 2009, Walker, 2009). In a number of cases, the literature has been able to provide economic justifications as to why inefficient pay arrangements and inadequate incentives for professional managers (CEOs and senior executives) to operate the corporations efficiently might be related to low firm performance. Accordingly, management compensation issues can be assessed within the corporate governance framework.

Even in developing economies such as Malaysia, assessing management compensation within corporate governance framework, also the effectiveness of regulatory framework and corporate governance mechanisms are issues of interest that have been emphasized to be investigated in some previous studies (Abdul-Rahman et al., 2005, Rashidah et al., 2005, Talha et al., 2009, Talha and Sallehuddin, 2007).

The roles of corporate managers i.e. CEOs and senior executives and the board of directors have been frequently debated in corporate governance reports and forums. The role of corporate management is a topic of significant interest in numerous corporate governance studies worldwide (Cadbury, 1992, OECD, 2004). The roles and responsibilities of corporate management are important in the governance of companies and have gained central attention. Accordingly, only with the presence of proper and effective governance mechanisms can the CEO and the board of directors be able to successfully steer the direction that the firm takes (Daily et al., 2002). Capital markets worldwide are sensitive to issues related to the effective performance of CEOs and the boards of directors within corporate governance framework. Also, investors pay attention to the performance of corporate management in general and to the management compensation in particular. Moreover, many research studies investigate the relationship between corporate governance mechanisms and firm performance. Since CEOs and executive directors play a key role in corporate governance, a number of investigations focused on the CEOs and executive directors related issues, for instance, effects of CEO succession on the stock and financial performance of public corporations (Davidson et al., 1993). Prior studies such as Shleifer and Vishny (1989), indicated that executive surveillance can improve the performance of listed companies. Furthermore, study of the management compensation as a mechanism to monitor CEOs and executive directors for efficient functioning of a contemporary firm in a modern economy is necessary (OECD, 2004).

Also, some research studies showed that an effective board of directors could improve the performance of the company and increase shareholders’ wealth by monitoring corporate managers, in particular the CEO. The importance of corporate managers is due to the fact that they can act in the interests of shareholders by optimizing the use of business resources. The crucial role of the board of directors is therefore to ensure alignment of managers interests with those of the owners (Adjaou et al., 2007).

This study examines the relationships between a certain corporate governance related mechanism, the management compensation plan, and firm performance and how compensation might affect corporate performance.
2. Research Questions

This study aims to examine the relationship between management compensation and firm performance. Specifically the study attempts to answer the following questions:
1- What is the relationship between the quality of remuneration committee and performance-based management compensation?
2- What is the relationship between performance-based management compensation and firm performance?
3- What are the relationships between the quality of remuneration committee, and firm performance?

3. Objectives of the Study

The general objective of the study is to examine the relationship between performance-based management compensation and firm performance in Malaysian listed companies within corporate governance framework. Specifically, the study investigates:
1- The effect of the quality of remuneration committee on performance-based management compensation.
3- The effect of the quality of remuneration committee, on firm performance.

4. Literature Review

The literature showed that the main theory that used in majority of studies related to the management compensation is agency theory. The listed companies should set up a remuneration committee to provide greater objectivity, transparency and independence in setting remuneration. This fact has emphasised by majority of code of corporate governance. Remuneration should also be set to provide better reflection on directors’ performance and contributions to the company.

Johnson et al., (1996) classified responsibilities of directors into three largely defined roles, that is control, service and resource dependence. The control role entails directors monitoring managers as fiduciaries of shareholders. In this role, the responsibilities of directors include hiring and firing the CEO and other top managers, determining executive pay and otherwise monitoring managers to ensure that they do not expropriate Shareholder’s interests. The service role involves directors advising the CEO on executive and other managerial issues, as well as more actively initiating and formulating strategies. The resource dependence role views the board as a means for facilitating the acquisition of resources critical to the success of the company.

In most firms, the board of directors establish a committee of the board known as the remuneration committee. The main objective of remuneration committee is to develop a remuneration policy to attract, retain and motivate top management who have the skills needed to achieve the company's objectives year on year and which balances the interests of the shareholders, the company and its employees. Remuneration committee and its impact on the firm performance is one of the less investigated issues especially in the developing countries.

Even though the study of management pay has been dominated by US-based studies, the issue has also been researched in few other countries (Tyson and Bournois, 2005). Remuneration committees, however, only emerged as a topic of academic study in the UK as recently as the early 1990s (Main, 1993), although the topic compensation committee has a longer research pedigree in the USA (Braithwaite and Sommer, 1987, Harrison, 1987).
Conyon (1997) in an examination of the influence of remuneration committee adoption in UK companies found that, in some circumstances, the adoption lowers the growth rates in top director compensation. Conyon and Peck (1998) investigated the effect of outside directors in remuneration committee decisions, and report that they enhance the pay-for-performance sensitivity. However, studies in the US by Anderson and Bizjak (2003) and Vafeas (2003) reported insignificant results on the influence of remuneration committee independence towards level of CEO pay.

Sun and Cahan (2009) provided explanation for the mixed findings. Using a broader and richer measure of remuneration committee quality instead of just focusing on independence they show that the sensitivity of CEO compensation to accounting performance is related to the quality of the remuneration committee, for US companies with fully independent remuneration committees. According to the literature, there are two main methods to measure the quality of the remuneration committee. First, Sun and Cahan (2009) using a sample of 812 US firms, developed a broad and rich measure of compensation committee quality. They employed a composite score to comprehensively measure the multiple dimensions of compensation committee quality. Their findings imply that compensation committee quality depend on compensation committee characteristics. Six characteristics that they consider are as follows: 1) CEO Appointed Directors, using the proportion of CEO appointed directors on the compensation committee. 2) Senior Directors, using the proportion of directors on the compensation committee with 20 or more years of board service time for the current company. 3) CEO Directors, using the proportion of CEOs of other firms on the compensation committee. 4) Director Shareholdings, using the percentage of shares held by directors on the compensation committee. 5) Additional Directorships, the proportion of directors with three or more additional board seats on the compensation committee. 6) Committee Size, using the number of directors on the compensation committee. This method is widely used in developed countries mainly due to easy access to the required data.

Second, Standard and Poor's and Corporate Governance and Financial Reporting Centre of National University of Singapore (CGFRC) conducted academic research in the areas of corporate governance. Standard and Poor's and CGFRC introduced Corporate Governance Disclosure Scorecard (2009) for different countries to research, disseminate and promote best and high quality practices in different aspects of corporate governance. Standard and Poor's and CGFRC introduced "Remuneration Matters Disclosure Scorecard" (2009) to examine the corporate governance practices of Malaysian companies. The analysis is based primarily on the disclosures made in the latest annual report. Standard and Poor's has been engaged in developing criteria and a methodology for assessing corporate governance practices since 1998 and has been actively assessing companies’ corporate governance practices since 2000. The proprietary methodology is based on a synthesis of governance codes and guidelines of global best practices, as well as experience in conducting detailed reviews of individual companies. Remuneration Matters Disclosure Scorecard (2009) assesses the disclosures regarding remuneration committee practices among the listed companies in Malaysia. The scorecard items reflect principles and best practices embodied in international corporate governance codes, suitably modified for the Malaysian environment. Most important issues in the scorecard includes existence and disclosure of remuneration committee, full disclosure and independence of committee members, remuneration packages, link between compensation and performance. Due to availability of data this method is more suitable for developing countries.

Malaysian Corporate Governance Index in 2009 which introduced by minority shareholders watchdog group (MSWG, 2009), has been used the same methodology of Remuneration Matters Disclosure Scorecard (2009)developed by Standard and Poor's and Corporate Governance and Financial Reporting Centre of National University of Singapore (CGFRC).
Management compensation structure is a significant area of research in corporate governance studies. It relates to the incentives of managers to permute the efficiency and performance of the corporation. Management compensation including salary, other forms of cash payments (including stipends and allowances), vacation, leave with pay, employer-paid benefits, loans, use of car, car allowances, housing, tuition waivers, professional fees, and any other benefits received by a manager. A sound management compensation plan enhances firm's ability to attract, retain and motivate the key people responsible for company’s growth and success.

Research on management compensation has drawn a lot of attention from economists in the past two decades, but most studies on management compensation are conducted in developed countries like the USA and UK, mostly due to data availability (Kato and Long, 2004). The investigation on the relationship between companies’ financial performance and management compensation attracted much academic attention for a long time. As early as 1776 Adam Smith asked the query when he discussed that the separation of control and ownership in public listed companies had formed fewer incentives for expert managers to work efficiently in the companies. According to him, “the directors of such companies, however, being the managers rather of other people’s money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own” (Smith, 1904).

Moreover, there are a number of arguments that predict a positive relationship between financial performance and compensation. For example, the reward argument states that managers are rewarded with ownership stakes when corporations have performed well in the past. A further model is the insider investment argument stating that managers with favourable expectations about future stock performance to capitalize on their knowledge to increase their ownership stakes today (Clarkson et al., 2005, Crespi and Gispert, 1998, Jensen and Murphy, 1990, Miller, 1995, Tosi et al., 2000).

Using 120 Malaysian public listed companies, Talha, Salim, and Masoud (2009) reported that “there was a positive relationship between directors’ remuneration with board remuneration committee and corporate governance committee. Their result also indicated a negative relationship between directors’ remuneration with employees share option scheme committee. This result prompts a need to re-examine the effectiveness of corporate governance practice through establishment of board committee in determining directors’ remuneration”.

Brennan (1994) opined that incentives in monetary form are not adequate to certify complete coherence among goals of shareholders and managers. Mathiesen (2002) investigated performance monitoring system and incentive based compensation and reported that better performance monitoring systems could improve the effect of the remuneration systems. He argues that with accurate performance measurement the implied reward and punishment of the remuneration systems will be less arbitrary.

Since the effect of the quality of remuneration committee and performance-based management compensation on the firm performance is a less explored issue, this study is focused on the effects of the corporate governance on the performance-based management compensation and corporate performance within the agency theory and corporate governance framework. Generally, two strains of literature relate to the topic. Corporate governance literature in the principal-agent tradition has focused on the impact of type of management compensation on firm value in general and effects of specific corporate governance factors (the quality of remuneration committee, firm size, and board size on firm performance) in particular.

Denis and McConnell (2003) opined that the interrelationship between management compensation and corporate governance mechanisms remains a rich area for research worldwide. Bruce, Buck and Main (2005) suggested that country-level institution should be factored into when analyzing management pay. Furthermore, Kabir (2008) observed that not
much is known about how firms across the world reward their management outside the US, primarily due to the lack of publicly available information on management compensation pay and the intensive data collection requirements. Malaysia provides a unique setting for examining principal-agent views in the determination of management compensation. The introduction of the Malaysian Code on Corporate Governance (MCCG) in 2000 (MCCG, 2001), companies listed on Bursa Malaysia are required to publish the Statement of Corporate Governance that discloses directors’ remuneration. The MCCG emphasizes the certain principles for determining directors’ remuneration. Firstly, remuneration of executive directors should be structured so as to link rewards to corporate and individual performance. Secondly, companies should establish a formal and transparent procedure for developing policy on executive remuneration and for fixing the remuneration packages of individual directors, and thirdly, company’s annual report should contain details of the remuneration of each director. Under the best practices in corporate governance, the MCCG recommends companies to establish a remuneration committee consisting of wholly or mainly non-executive directors. The committee is allowed to get advice from consultants relating to executive directors’ remuneration and recommend to the board an appropriate remuneration for the executive directors.

5. Hypothesis Development

In this section, the development of the hypotheses are discussed. First hypothesis postulates the relationship between the quality of remuneration committee and performance-based management compensation. To enhance the quality of remuneration committee, “the role and function of the committee are described in Part 2, Section AA, Paragraph 23 of the Malaysian Code of Corporate Governance” (MCCG, 2001). According to MCCG “the members of remuneration committee shall consist wholly or mainly of non-executive directors. The primary role is to recommend to the board the appropriate remuneration packages for the executive directors. Also MCCG allows the members to seek external opinion like industry experts or human resources consultants in preparing the remuneration proposals of executive directors”. “This is essential to ensure that the board offers competitive packages in order to retain the excellent directors or to attract qualified candidates from outside. The paragraph also expresses the need of executive directors to not being the member of the committee, in order to avoid potential conflicting interest like taking part in decisions on their own remuneration. It also explains that the remuneration for committee members should be discussed at board level as a whole, including remuneration for non-executive chairman”. Also there are other functions, tasks and roles for remuneration committee and its members described in MCCG.

The study is based on period after the implementation of the Malaysian Code of Corporate Governance (MCCG, 2001) as amendments to the Bursa Malaysia Listing Requirements, as announced in 2001. After the implementation of the code with various best practices and recommendations, the listed companies in Malaysia, are shown to have improved their corporate governance environment (Haniffa and Hudaib, 2006, KLSE-PricewaterhouseCoopers, 2002). Although some researchers reported different results that shows less discloser on remuneration committee and compensation packages. On disclosure of management remuneration, “Rashidah, Yoosuf, and Muhaideen (2005) indicated that in 2002 only 8.9 percent or 22 companies disclosed the exact amount of individual directors’ reward in 2002, while the figure in 2001 settled at only 8 percent! But the study showed that a majority disclosed the aggregate remuneration of directors in successive bands of RM 50,000, in accordance with Bursa Malaysia’s requirements”. Abdul Rahman et al., (2005) then
revealed that “only 56 of the 246 listed firms disclosed executive directors’ remuneration from 2000 to 2002”.

The other survey by Kaur et al., (2006) showed that “only a small portion of public listed companies were transparent in 2005, while some had remained consistent during the last couple of years in disclosing their directors’ remuneration. However, some companies demonstrated transparency in one year, and secretive in the following year”.

One of the less explored issues in developing countries is regarding to remuneration committee in listed companies. Especially research around the quality of remuneration committee and executive remuneration, and more specifically performance-based management compensation is very rare. The need to set up a high quality remuneration committee has been discussed in chapter two. Some of the key measures of high quality remuneration committee are introduced by Standard and Poor’s (2009). It is also being recommended in other reports like the principle of corporate governance practice by OECD (OECD, 2004).

As the committee is responsible to propose the competitive remuneration packages in order to retain the well performing directors and also to attract potential nominees to sit in the board, it is expected that the high quality remuneration committee leads to better management compensation package which is performance-based management compensation. Thus, to investigate this issue, the hypothesis 1 states as:

**Hypothesis 1: There is positive relationship between the quality of remuneration committee and performance-based management compensation.**

According to the literature, there are a number of arguments that predict a positive relationship between financial performance and management compensation. For example, “the reward argument states that managers are rewarded with ownership stakes when corporations have performed well in the past. A further model is the insider investment argument stating that managers with favourable expectations about future stock performance increase their ownership stakes today in order to capitalize on their knowledge” (Clarkson et al., 2005, Crespi and Gispert, 1998, Jensen and Murphy, 1990, Miller, 1995, Tosi et al., 2000).

In this study, it is expected that performance-based management compensation has an effect on the corporate performance. Based on the agency theory, suitable and performance-based management compensation packages which were determined by high quality remuneration committee reduces the agency conflicts and that is expected to increase the corporate performance.

Abdul Rahman et al.,(2005) reported that “Malaysian directors receive benefits like employer’s contribution, medical, company car, stock options or profit sharing, life insurance, gratuity, housing loan and others”. In a study of 2000 Chief Executive Officers (CEOs) listed in Forbes magazine from 1974 to 1986, Jensen and Murphy (1990) reported that “there was a significant association between directors’ pay to firms’ performance”. Similar findings were reported by Tosi et al.,(2000), Crespi and Gispert (1998), and Miller (1995). Also Clarkson et al., (2005) found a significant positive relationship between CEO compensation with firm performance.

The employees share’ option scheme is becoming a common practice in emerging markets in Asia. In some companies, share option scheme is introduced for employees of the company, including the directors. Moreover, it is a common trend where the company reduces monetary payment to directors and replaces them with share option scheme. “It is expected that the remuneration committee, in deciding the distribution of share options among directors would rely on best corporate governance principle”. As mentioned in the literature review earlier, there is positive relationship between stock options and firm performance (Martins and Alves, 2009).

In sum, performance-based management compensation relates company performance with management compensation and is a good incentive to encourage executive managers to perform better (Mathiesen, 2002). Accordingly the hypothesis 2 is as follows:
Hypothesis 2: There is a positive relationship between performance-based management compensation and firm performance.

When according to the previous theoretical foundation and practical evidence it is expect performance-based management compensation positively affect corporate performance, factors that have positive relationship with performance-based management compensation is expect to affect directly or indirectly corporate performance as well. Based on the agency theory, effective and performance-based management compensation packages which were determined by high quality remuneration committee reduces the agency conflicts and that is expected to increase the corporate performance, therefore the quality of remuneration committee can positively affect corporate performance. Consequently, the relationship between the quality of remuneration committee as a corporate governance mechanism and firm performance is investigated in the hypothesis 3 as follows:

Hypothesis 3: There is a positive relationship between quality of remuneration committee and firm performance.

6. Research Methodology

In this study, the quality of remuneration committee is independent variables. Performance-based management compensation is mediator. Firm size, and board size are control variables and firm performance is dependent variable. The quality of remuneration committee measured by an index adopted from Corporate Governance 2009 Scorecard of Standard and Poor's (2009) and The Malaysian Corporate Governance Report 2009 introduced by The Minority Shareholder Watchdog Group (MSWG, 2009) for Malaysian listed companies. The data on the quality of remuneration committee was collected from different sections of annual reports of companies include: directors’ profile, corporate governance statement, nomination committee, audit committee, remuneration committee, directors’ remuneration, employees’ share option scheme, and notice of nomination of auditors. Performance-based management compensation in this study is measured by percentage of performance-based compensation divided by total salary, bonuses and other privileges awarded to the CEO and the executive directors. Performance-based management compensation data were collected from two sections of annual reports of companies include: directors’ profile and directors’ remuneration. There were very few cases (less than five percent of companies) that performance-based and non performance-based management compensation was not clearly separated. In those companies, management compensation was considered as fixed (non performance-based) salary. This study measured performance-based management compensation in percentage because we are able to compare companies. Also companies with different number of directors can significantly pay more or less salary and bonuses, and the study uses percentage based compensation to make comparable results.

Firm performance is measured by three indicators namely, return on assets (ROA), return on equity (ROE).

This study, using the Microsoft Office Excel software, randomly selected 207 companies that were listed on the main market of Bursa Malaysia (Kuala Lumpur stock exchange) as at 31 December 2010. The sample selected represents 25 percent of the total listed companies which covered more than 56% of the total market capitalisation in Bursa Malaysia.
7. Hypotheses Testing

The regression analyses employed to study whether the hypothesized relationships among the constructs are supported by the data. Multiple regression is used to determine whether the variation in performance-based management compensation is explained by the independent and control variables in the study. The multiple regression model is used to test the collective impact of the independent, and control variables on performance-based management compensation. Hypothesis 1 was tested with multiple regression model 1. It is expressed as follows:

**Model 1:**

$$PB_{MC_{it}} = b_0 + b_1 (QRC)_{it} + b_2 (FSIZE)_{it} + b_3 (BSIZE)_{it} + e_{it}$$

Where:
- $PB_{MC} =$ Performance-based management compensation
- $i = 1, 2, 3, ..., M$, (Number of companies)
- $t = 1, 2, 3, ..., N$, (Year)
- $b_0 =$ Constant (Intercept)
- $b_1, b_2, b_3 =$ Estimates (Regression coefficients)
- $QRC =$ The quality of remuneration committee
- $FSIZE =$ Firm size
- $BSIZE =$ Board size, and
- $e =$ Error

Also simple regression used to determine whether the variation in firm performance is explained by the independent variables in the study. The regression model is used to test the impact of the independent on firm performance. Hypothesis 2 was tested with model 2. Model 2 was run with ROA, ROE and Tobin’s Q as dimensions for firm performance separately. It is expressed as follows:

**Model 2:**

$$FP_{it} = b_0 + b_1 (PBMC)_{it} + e_{it}$$

Where:
- $FP =$ Firm performance
- $PBMC =$ Performance-based management compensation
- $i = 1, 2, 3, ..., M$, (Number of companies)
- $t = 1, 2, 3, ..., N$, (Year)
- $b_0 =$ Constant (Intercept)
- $b_1 =$ Estimates (Regression coefficient)
- $e =$ Error

Hypotheses 3 was tested with model 3. Model 3 was run with ROA, ROE and Tobin’s Q as dimensions for firm performance separately. Model 3 is expressed as follows:

**Model 3:**

$$FP_{it} = b_0 + b_1 (QRC)_{it} + b_2 (FSIZE)_{it} + b_3 (BSIZE)_{it} + e_{it}$$

Where:
- $FP =$ Firm performance
- $i = 1, 2, 3, ..., M$, (Number of companies)
- $t = 1, 2, 3, ..., N$, (Year)
- $b_0 =$ Constant (Intercept)
- $b_1, b_2, b_3 =$ Estimates (Regression coefficients)
- $QRC =$ The quality of remuneration committee
- $FSIZE =$ Firm size
- $BSIZE =$ Board size, and
- $e =$ Error
8. Findings

Table 1 presents the descriptive statistics of variables in this study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of remuneration committee (score)</td>
<td>11.99</td>
<td>3.53</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Leverage (%)</td>
<td>21.47</td>
<td>17.17</td>
<td>0</td>
<td>76.69</td>
</tr>
<tr>
<td>Performance-based management compensation (%)</td>
<td>10</td>
<td>17</td>
<td>0</td>
<td>86</td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>0.77</td>
<td>0.670</td>
<td>0.002</td>
<td>7.49</td>
</tr>
<tr>
<td>Return on Assets (%)</td>
<td>3.19</td>
<td>5.78</td>
<td>-33.8</td>
<td>26.5</td>
</tr>
<tr>
<td>Return On Equity (%)</td>
<td>6.88</td>
<td>13.356</td>
<td>-56.37</td>
<td>61.6</td>
</tr>
<tr>
<td>Firm size (total sales million Malaysian Ringgits)</td>
<td>1572.81</td>
<td>4075.50</td>
<td>20.7</td>
<td>34044.7</td>
</tr>
<tr>
<td>Board size (Number of directors)</td>
<td>7.83</td>
<td>2.13</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

In this study the data of a sample of 207 companies listed in the main market of Bursa Malaysia for 2008 to 2010 are analysed. Even though the data is panel data but most of the data showed not significant changes, with minimum differences during three years. For instance, the quality of remuneration committee score has not changed significantly during the 3 years. Similarly, the ownership structure of listed companies remained the same in the one category (i.e. family, institutional...) during the entire 3 years period of the study. It means that the data represent more like cross-section model rather the panel data model. Cross-sectional data are special cases of panel data that are in one-dimension only. Analysis of cross-sectional data consists of comparing the differences among the subjects (Gujarati and
Porter, 2008). Given that a panel is cross-sectional which is surveyed periodically over a given time span, the average of all data during three years was used as the sample mean as the data do not show meaningful variations from one year to another. Accordingly, the average of three years data as cross-sectional data was tested, by the econometric technique that is appropriate in the given situation (Wooldridge, 2002). Newey-West heteroskedasticity and autocorrelation consistent (HAC) Standard Errors and Covariance was used for estimation of the regression models. The estimator used to improve the ordinary least squares (OLS) regression when the variables have heteroskedasticity or autocorrelation.

A Newey–West estimator is used to provide an estimate of the covariance matrix of the parameters of the regression type model when this model is applied in situations where the standard assumptions of regression analysis do not apply. It was devised by Whitney Newey and Kenneth West in 1987 (Gujarati and Porter, 2008). The estimator is used to try to overcome autocorrelation, or correlation, and heteroskedasticity in the error terms in the models. This is often used to correct the effects of correlation in the error terms in regressions (Newey and West, 1994).

This study measures ownership structure using four dummy variables. If four dummy variables are use, there will be an exact multicollinearity since D1+D2+D3+D4 will always be equal to 1, and therefore they will form an exact linear relationship with the constant β1. This known as “dummy variable trap” (Asteriou and Hall, 2007). To avoid this, the rule is to introduce a dummy for each category and omit the intercept term (Gujarati and Porter, 2008). There is no longer a problem after omitting the intercept term because there is no longer an exact linear relationship linking the variables.

The first multiple regression model is used to determine whether the performance-based management compensation is related to the independent (the quality of remuneration committee, the four types of ownership i.e. family, government link, institutional, and dispersed and firm leverage) with firm size and board size as control variables in the model. The regression model is used to test the collective impact of the independent, and control variables on performance-based management compensation. Hypotheses 1 was tested in the first model. Table 2 summarizes the regression results of relationship between the quality of remuneration committee (QRC), with performance-based management compensation (PBMC).

The quality of remuneration committee is found to have a moderately significant positive impact on performance-based management compensation (p-value = 0.053); therefore hypotheses 1 is moderately supported.

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1Even though the regression results usually reports with intercept (constant) term in academic writing, but in case of using dummy variables, all of dummy variables can not be include in the model, because there will be an exact multicollinearity. According to majority econometric books GUJARATI, D. & PORTER, D. (2008) Basic econometrics, Boston, McGraw-Hill., there are two way to avoid multicollinearity problem. First, is to introduce (n − 1) dummies + the intercept term and second, to introduce n dummies and no intercept term. In both these cases there will be no linear relationship among the variables. Hence, “the n dummies and no intercept term approach” is the most advised approach to form the regression modelGUJARATI, D. & PORTER, D. (2008) Basic econometrics, Boston, McGraw-Hill.
Table 2. Results of relationship between the quality of remuneration committee and performance-based management compensation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>QRC</td>
<td>0.114</td>
<td>0.059</td>
<td>1.945</td>
<td>0.053</td>
</tr>
<tr>
<td>FSIZE</td>
<td>0.026</td>
<td>0.008</td>
<td>3.122</td>
<td>0.002</td>
</tr>
<tr>
<td>BSIZE</td>
<td>0.011</td>
<td>0.005</td>
<td>1.959</td>
<td>0.051</td>
</tr>
</tbody>
</table>

R-squared 0.142  F-statistic 4.709
Adjusted $R^2$ 0.112  $P$-value 0.000

The second regression model is used to analyse the relationship between performance-based management compensation and firm performance (with three measures i.e. ROA, ROE and Tobin’s Q) and control variables (firm size and board size). Hypothesis 2 was tested with second regression model.

Table 3 has shown the results of regression of performance-based management compensation on firm performance with measures of ROA, ROE and Tobin’s Q. The results of regression model shows no significant relationship between performance-based management compensation and Tobin’s Q ($p$-value = 0.628), while the results of regression model of relationship between performance-based management compensation and ROA ($p$-value = 0.009) and ROE ($p$-value = 0.002) are significant, therefore hypothesis 2 is supported.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-value</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-value</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBMC</td>
<td>-0.006</td>
<td>0.384</td>
<td>-0.017</td>
<td>0.987</td>
<td>5.589</td>
<td>2.124</td>
<td>2.631</td>
<td>0.009</td>
<td>18.588</td>
<td>6.107</td>
<td>3.044</td>
<td>0.003</td>
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<tr>
<td>C</td>
<td>0.858</td>
<td>0.109</td>
<td>7.842</td>
<td>0.000</td>
<td>2.603</td>
<td>0.483</td>
<td>5.391</td>
<td>0.000</td>
<td>3.602</td>
<td>1.761</td>
<td>2.046</td>
<td>0.042</td>
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<tr>
<td>R-squared</td>
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<td></td>
<td></td>
<td></td>
<td>R-squared</td>
<td>0.029</td>
<td></td>
<td></td>
<td>R-squared</td>
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<tr>
<td>Adjusted R²</td>
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<td></td>
<td></td>
<td></td>
<td>Adjusted R²</td>
<td>0.024</td>
<td></td>
<td></td>
<td>Adjusted R²</td>
<td>0.022</td>
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<td></td>
</tr>
<tr>
<td>F-statistic</td>
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<td></td>
<td></td>
<td></td>
<td>F-statistic</td>
<td>6.106</td>
<td></td>
<td></td>
<td>F-statistic</td>
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<td></td>
<td></td>
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<tr>
<td>P-value</td>
<td>0.989</td>
<td></td>
<td></td>
<td></td>
<td>P-value</td>
<td>0.014</td>
<td></td>
<td></td>
<td>P-value</td>
<td>0.018</td>
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</tr>
</tbody>
</table>
The third multiple regression model is used to determine whether the firm performance (with three measures i.e. ROA, ROE and Tobin’s Q) is related to the quality of remuneration committee. Table 4 has summarized the regression results of relationship between the quality of remuneration committee (QRC), and firm performance (measure by ROA, ROE and Tobin’s Q). The results of regression model show that there is no significant relationship between the quality of remuneration committee and firm performance with ROA (p-value = 0.355), ROE (p-value = 0.826) and Tobin’s Q (p-value = 0.825). Therefore hypothesis 3 is not supported.
### Table 4. Results of relationship between the quality of remuneration committee, and firm performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-value</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-value</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobin's Q</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ROA</td>
<td></td>
<td></td>
<td></td>
<td>ROE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QRC</td>
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<td>0.344</td>
<td>0.222</td>
<td>0.824</td>
<td>-1.786</td>
<td>1.928</td>
<td>-0.926</td>
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<td>-0.948</td>
<td>4.304</td>
<td>-0.220</td>
<td>0.826</td>
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<tr>
<td>FSIZE</td>
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<td>0.029</td>
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<td>0.053</td>
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<td>0.000</td>
<td>3.484</td>
<td>0.581</td>
<td>5.998</td>
<td>0.000</td>
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<tr>
<td>BSIZE</td>
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<td>0.047</td>
<td>0.897</td>
<td>0.371</td>
<td>0.061</td>
<td>0.170</td>
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<td>0.671</td>
<td>0.664</td>
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<td>R-squared</td>
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<td></td>
<td></td>
<td>R-squared</td>
<td>0.236</td>
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<tr>
<td>Adjusted R²</td>
<td>-0.012</td>
<td></td>
<td></td>
<td></td>
<td>Adjusted R²</td>
<td>0.229</td>
<td></td>
<td></td>
<td>Adjusted R²</td>
<td>0.209</td>
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<tr>
<td>F-statistic</td>
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<td></td>
<td>F-statistic</td>
<td>9.781</td>
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<td>F-statistic</td>
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<tr>
<td>P-value</td>
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<td></td>
<td></td>
<td>P-value</td>
<td>0.000</td>
<td></td>
<td></td>
<td>P-value</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. Discussion

As already discussed, during the last two decades, the relationships between management compensation, corporate governance related issues and firm performance have been a persistent focus in the corporate governance studies. The present study examines the relationship between the quality of remuneration committee, performance-based management compensation and firm performance, with particular reference to the certain corporate governance and organisational factors in Malaysia.

This issue is of major importance to corporate governance effectiveness as it relates to the incentives for managers to enhance the efficiency and performance of the corporation. A sound management compensation plan enhances firm’s ability to attract, retain and motivate the key people responsible for company’s growth and success. In this part, the results are discussed.

The literature showed that the main objective of remuneration committee is to develop a remuneration policy to attract, retain and motivate top management who have the skills needed to achieve the company’s objectives year on year and which balances the interests of the shareholders, the company and its employees(for instance see Sun and Cahan, 2009, Talha et al., 2009).

The impact of the quality of remuneration committee on performance-based management compensation is a less investigated issue especially in the developing countries. In this study the quality of remuneration committee is found to have a moderately significant positive impact on performance-based management compensation. This finding suggests that high quality of remuneration committee is associated with more extensive use of performance-based management compensation in Malaysian listed companies.

This finding is consistent with the study by Sun and Cahan (2009) which used a broader and richer measure of remuneration committee quality instead of just focusing on independence. Sun and Cahan showed that the sensitivity of CEO compensation to accounting performance is related to the quality of the remuneration committee in United States of America.

The finding is consistent also with a study in Malaysian context. Based on 120 Malaysian public listed companies, Talha et al.,(2009) found that “there was a positive relationship between overall directors’ remuneration with establishment of board remuneration committee”.

Furthermore, the finding also emphasises on the importance of remuneration committee, as already has emphasized in some studies. For instance, Baron and Kreps (1999) opined that “while remuneration committees were once seen merely as an arms-length managerial mechanism to ensure an adequate degree of integrity in the setting of management reward, they are now seen as key agents in the corporate governance process of choosing a remuneration package and arranging that it is calibrated in a way that make sure that it motivates the management”.

Management compensation and its impact on the firm performance is one of the issues investigated by a number of studies, and in this study performance-based management compensation is found to have a significant positive impact on firm performance. This finding is consistent with a number of previous studies. Performance-based management compensation is an important mechanism that can be used effectively to
align the interests of stockholders and managers (Mathiesen, 2002). Prior studies (Davis and Shlor, 1995, Finnerty and Park, 1993) found that there was a positive relation between managerial compensation and firm performance. The finding is consistent also with the study by Florackis (2005) which found that there was strong evidence that performance-based management compensation acts as an mechanism in mitigating agency problems and generating good performance.

As previously discussed in literature section (See for instance Clarkson et al., 2005, Crespi and Gispert, 1998, Jensen and Murphy, 1990, Miller, 1995, Tosi et al., 2000), there are a number of arguments that predict a positive relationship between financial performance and compensation. For example, “the reward argument states that managers are rewarded with ownership stakes when corporations have performed well in the past. A further model is the insider investment argument stating that managers with favourable expectations about future stock performance increase their ownership stakes today in order to capitalize on their knowledge” (Mathiesen, 2002). In fact, performance-based management compensation aligns the interest of managers with those of shareholders.

Furthermore, diverse versions of the economics of the natural selection argument have been used to assert that there is no correlation between management compensation and performance in companies that do not use performance-based remuneration system, because firms with ineffective compensation structures become bankrupt and subsequently exit the marketplace so that only the firms performing equally well will remain (Murphy, 1999).

To explain importance of different incentives, Brennan (1994) argued that fix monetary incentives are not sufficient to ensure complete coherence between manager’s goals and shareholders. Mathiesen (2002) investigated performance monitoring system and incentive based compensation and discussed that better performance monitoring systems could improve the effect of the remuneration systems. For instance, with accurate performance measurement the implied reward and punishment of the remuneration systems will be less arbitrary. To study incentive based compensation and financial performance, Hart and Holmstrom (1987) discussed that remuneration systems that correlate the management’s salary with financial performance may motivate them to increase financial performance.

Moreover, Mathiesen (2002) investigated incentive based compensation and financial performance and cited that “higher managerial compensation result in higher financial performance because higher wages are able to attract the most competent managers. All these studies emphasized on the impact of effective management compensation on the firm performance”.

In this study, the quality of remuneration committee is found to have no significant impact on firm performance. The relationship between the quality of remuneration committee and firm performance has not empirically investigated. Moreover, Talha et al., (2009) highlighted “the prompt need for the examination of the effectiveness of corporate governance practices through the establishment of remuneration committee in determining management remuneration in Malaysian companies”. Furthermore, even though the relationship between management compensation and firm performance has been investigated by some researches, there was a gap on the effect of corporate governance practice on firm performance.

This study examined the impact of the quality of remuneration committee on firm performance to investigate direct or indirect relationship between the quality of remuneration committee and firm performance. There was not direct relationship
between the quality of remuneration committee and firm performance. Therefore, there is indirect relationship between the quality of remuneration committee and firm performance. In other words, the quality of remuneration committee positively affects performance-based management compensation and performance-based management compensation positively affects firm performance. Therefore, the quality of remuneration committee indirectly affects firm performance.

10. Implications of Findings

Management compensation is a key element of corporate governance mechanisms that have been emphasized in a majority of corporate governance codes in developed and developing countries. Effective and performance-based management compensation plan design aligns interest of managers with those of shareholders. This study focuses on the contemporary academic debates on the independence of the pay setting process; the extent to which the quality of remuneration committee; and the impact of ownership structure and leverage has impact on performance-based executive remuneration. In structuring the research, consideration was given how to maximize optimize the resulting contribution to the literature.

As the results of this study show that performance-based management compensation has positive effect on corporate performance, BODs of corporations and regulatory agencies should encourage the more extensive reliance of performance-based management compensation to align the interests of shareholders and corporate managers. The quality of remuneration committee is the key factor in enhancement of performance-based management compensation. Also the results of this study show that the quality of remuneration committee has an impact on performance-based management compensation in Malaysian listed companies. Thus highlighting related concepts could enrich and contribute to the body of literature on corporate governance and management compensation. Quality of remuneration committee, as measured by the 26 attributes, is associated with more extensive use of performance-based management compensation. Public listed companies should be encouraged to use the 26 attributes as guidelines in the selection of the remuneration committee members.

This study has presented a model for measuring the quality of remuneration committee. The criteria adopted from Corporate Governance 2009 Scorecard of Standard and Poor’s (2009) and The Malaysian Corporate Governance Report 2009 introduced by The Minority Shareholder Watchdog Group (MSWG, 2009) for Malaysian listed companies. In a previous study, Sun and Cahan (2009) employed a composite score to measure the multiple dimensions of compensation committee quality. They developed a measure of compensation committee quality with six characteristics. This study used a broad measure of the quality compensation committee with six comprehensive categories and twenty six dimensions.

This study has argued that the quality of remuneration committee can be enhance by conducting some of the specifications of board of directors such as developing a performance-based remuneration framework, independence of committee members, and endorsement of the remuneration committee’s recommendations by the entire Board. These criteria increase the quality of remuneration committee, make the committee more efficient.
When the average score of the quality of remuneration committee in sample firms is 12 out of 25, this study suggests that listed companies need to acquire more knowledge and understanding regarding the importance of their remuneration committee and its specification. To enhance the quality of remuneration committee and to make their contribution meaningful, the study suggests that performance-based management compensation should promote in listed firms, and the remuneration committee members should expand their activities regarding enhancement of quality of the committee.

This study shows that among the two models used by researchers, the model that used in this study is a good model for measuring quality of remuneration committee in developing countries due to availability of data. Therefore, the study suggests that board of directors should emphasis on the model, where this model encourages board of directors and committee members to participate directly and actively at the all levels from decision making to the evaluation of the compensation framework.

The findings of this study have important implications for promoting the quality of remuneration committee in companies. The result shows that the remuneration committee work good when the committee uses the suggested quality dimensions and involves in performance-based remuneration plan design. These results help shareholders, board of directors and committee members to understand their tasks and duties to enhance the performance of listed companies.

It is suggested that committee members and board of directors need to engage in various activities such as endorsement of the performance-based incentives and long term-oriented remuneration system, and being qualified and independent, to develop a good quality committee. Through involvement in activities of knowing quality dimensions, board of directors and committee members could monitor executives and control them in order to improve their performance.

The result of this study shows the importance of quality of the remuneration committee instead of only existence of the committee. Also the higher levels of quality of remuneration committee play an important role in increasing the level of performance based incentives, enhancing firm performance, and hence aligning interest of managers with those of shareholders.

This study contributes to the body of literature on the corporate governance structure and management compensation plan design by providing further insights into the nature of that relationship and the mediating role of performance-based management compensation.

The empirical findings of this study also highlight to BODs, investors, and regulators the importance of performance-based management compensation in aligning the interests of shareholders and managers to enhance corporate performance. In particular, regulators of the capital markets should encourage further information disclosure on the remuneration committee and management compensation in corporate annual reports to aid evaluation of effectiveness of corporate governance and enhance market confidence.

Findings from this study are relevant to regulators for future directions in developing corporate governance codes and standards. The results may be helpful to investors for understanding mechanisms in stock exchanges, and also provide insights to corporate governance setters and regulators. The more disclosure on the corporate governance and management compensation in Malaysia are useful for international investors because they use the information from financial statements to make decisions. Corporate governance setters and regulators who aim at improving the quality of
corporate governance information need to better understand how to aid listed companies to improve mandatory and voluntary disclosure of management compensation and the quality of remuneration committee information. Equally important, the empirical findings of this study should be of interest to corporate governance researchers because of the environment and the development of corporate governance reporting in Malaysia as a growing country in South East Asia region. In addition, the knowledge of management compensation in Malaysia provides important information to stock exchanges and regulators for policy makers on cross-listing requirements. This research has also empirically explored areas in remuneration committee and executive compensation that have, hitherto, not been exploited in the existing literature, especially in developing countries. This has resulted in a number of preliminary findings that warrant further examination. Certain insights have been made into the topics. Furthermore, following the exploratory work in this study it is hoped that future research might be guided along new lines of inquiry. Finally, this study designs to be a useful resource for practitioners and policy makers in the governance and remuneration setting, since the study emphasises on the performance-based management compensation. Consequently, an overview of Malaysia remuneration and governance arrangements was provided. If remuneration contracts are determined optimally i.e. on the performance-based remuneration basis, the structure and composition of the remuneration committee responsible for creating, observing and reviewing those pay arrangements should also be the optimal arrangement for the firm. Consequently, the directors serving on the board or the remuneration committee would be the optimal arrangement for the firm. The majority of reform efforts have sought to improve disclosure and transparency in the internal control and pay-setting processes. Yet relatively little attention has been given to the quality of remuneration committee and its potential to discipline the behaviour of the executives. If agency problems can be sufficiently mitigated via the incentive compensation, then policy makers may be prompted to focus their efforts more on remuneration packages. Further knowledge of the executive remuneration should empower practitioners and policy makers with a greater understanding of the key issues when setting remuneration policies. The investigation of the study into the quality of remuneration committee might be particularly useful for policymakers.

References


