Effectiveness, Efficiency and Executive Directors’ Compensation Among Listed Companies in Malaysia

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Abstract
This paper examines whether or not there is any relationship between executive directors’ compensation and the effectiveness and efficiency ratios of non-financial companies in Malaysia. Two variables are used in this study as independent variables (IVs), that is, company effectiveness ratio (return on equity) and company efficiency ratio (asset turnover); and six control variables, that is, firm visibility, liquidity, profitability, working capital, firm net-worth, and leverage. The executive directors’ compensation is the dependent variable (DV). Data are collected from 360 observations (120 companies’ annual reports for 3 years). STATA software analysis is used to examine the collected data. The results show that company effectiveness is one of the determinants of executive directors’ compensation but not company efficiency. Firm visibility, firm net-worth, and profitability also have strong relationships with executive directors’ compensation. However, liquidity and leverage do not show any significant relationship with executive directors’ compensation in Malaysian listed companies. This study focuses on Malaysia during the period of 2012 to 2014 because Malaysia is one of the developing countries in Asia, and in 2010, the Malaysian economy exhibited strong signs of recovery from the global financial crisis. However, the period between 2012 and 2014 was a critical period for the Malaysian economy; the Ringgit experienced depreciation and was devalued by more than 40%, which negatively affected the Malaysian economy as a whole. In addition, this study examines new variables in the Malaysian context, that is, firm efficiency, firm visibility, and firm net-worth.

Keywords
executive directors’ compensation, effectiveness, efficiency, Malaysia

Introduction
Of late, the continuous rise in the compensation of executive directors has become a matter of concern for not only the shareholders but also the stakeholders. This increasing board compensation is attracting the interest of researchers to investigate the factors associated with this phenomenon in countries, such as the United States (US) (Hong et al., 2015); the United Kingdom (UK) (McKnight & Tomkins, 1999); Japan (Kato & Kubo, 2006); Brazil (Pinto & Leal, 2013); Germany (Andreas et al., 2012); China (Adithipyangkul et al., 2011); Malaysia (Amin et al., 2014); Indonesia, Malaysia, and Thailand (Murugiah et al., 2013); and Kenya (Ruparelia & Njuguna, 2016). Previous studies have used different theoretical bases to explain their arguments, such as the managerial power theory (Pinto & Leal, 2013; Winter & Michels, 2019); tournament theory (Chen et al., 2011); and behavioral motivation theory (Ilies & Judge, 2005; Zhao, 2011). The agency theory is the dominant theory in the studies of Adithipyangkul et al. (2011), Ruparelia and Njuguna (2016), Kato and Kubo (2006), Amin et al. (2014), Cieslak (2018). However, the results of these previous studies are not consistent even for the same factors. For example, while Gregg et al. (1993) declared that there is no association between company performance and executive directors’ compensation, Conyon (1997), Kato and Kubo (2006), found a significantly positive association between the two (company performance and executive compensation). Further, Raithathaa and Komera (2016) who utilized the data of 21,834 observations collected from 3,100 firms for the period between 2002 and 2012, in order to examine the relationship between executive compensation and firm performance among Indian firms, found a positive relationship between the two factors. These inconsistencies extend to the outcomes of similar studies in Malaysia; for instance, Ibrahim

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et al. (2005) found no association between firm performance and board compensation, using the data of Malaysian companies between 1998 and 2001. Similar results were found by Ghaseimi and Ab Razak (2020), who analyzed the data of 267 companies during the period of 2006 to 2014, to examine the association between firm profitability (measured by Return on Assets (ROA) and Return on Equity (ROE)) and executive directors’ compensation. The results show that firm profitability has no relationship with executives’ remuneration. They concluded that there is a weak governance structure among listed companies in the Malaysian market. Hassan et al. (2003) found a weak but positive relationship between firm performance and board compensation when they analyzed the data of 100 companies during the period from 1996 to 1998; while Razali et al. (2018) found a strong and positive association between firm performance and board compensation, when they examined the data of 120 companies. Thus, inconsistencies make generalizing the findings across studies difficult.

Effectiveness and efficiency are subjective and depend on evaluations. Such evaluations are based on an individual’s knowledge, understanding, and interpretation of a specific context. It has been argued that efficiency means doing things right, while effectiveness means getting things done. Based on this understanding, a manager who uses the firm’s assets without wastage to produce more outputs (revenue), is using the firm’s assets efficiently; while a manager who uses shareholders’ equity to generate desired returns, is effectively using shareholders’ equity. The behavioral motivation theory proposes that positive feedback (i.e., rewards) leads to higher performance (Gray, 1990). Based on this theory, when the executive directors are being paid well, they will motivate employees in the organization to increase their productivity and firm efficiency. Previous studies have examined the impact of efficiency on different aspects, such as organizational performance, firm characteristics, capital structure, managerial ability, etc. These studies have used different perceptions of efficiency (e.g., evaluating efficiency, economic efficiency, profit efficiency, cost efficiency, technical efficiency, productive efficiency, etc.), and different analyses methods of the data collected, such as data envelopment analysis and financial analysis, in different countries around the world, such as in the European Union (Mihaiu et al., 2010); Turkey (Aksat & Unal, 2015); Czech Republic (Repková, 2015); Malaysia (Chuweni, 2019); Mohd Noor & Siang, 2014); the US (Baik et al., 2013; Barr et al., 2002; Greene & Segal, 2004); the UK (Rashid, 2018); Italy (Santosuosso, 2014); and Gaganis et al. (2013). All these researchers have examined the relationship between efficiency news and stock market performance in listed insurance firms in 52 countries. In addition, different measurements have been used to measure the effectiveness and efficiency of companies. For example, Khatekhate (1988) measured efficiency as the incremental output-capital ratio (IOCR); Trofimov et al. (2018) measured cost efficiency as the ratio of operating cost to operating income; and Alarussi and Ahdaderi (2018) measured efficiency as asset turnover ratio. Therefore, having the same understanding of a context (which the measurements are relative to), is fundamental when defining effectiveness and efficiency measurements in non-financial companies.

Moreover, most of the previous studies have focused on developed countries and very little is known about developing countries compared to developed countries, especially the Asian countries. Thus, due to the inconsistent results on board compensation studies in Malaysia and lack of studies on the impact of efficiency and effectiveness ratios in Asian countries, this study attempts to fill this gap by examining the relationship between efficiency and effectiveness and executive directors’ compensation in Malaysian companies. Malaysia is widely recognized as an emerging market. The Malaysian economy showed strong signs of recovery from the global economic crisis in 2010 (Datamonitor, 2010). Malaysian firms have been showing continuous growth amongst seven Asian developing nations (Glen et al., 2003). This has placed Malaysian companies in a competitive environment with others, that has led to more challenges that have to be faced. However, currently, achieving stability, sustainability, and competitiveness are the main challenges faced by Malaysian companies. Nonetheless, it is crucial and necessary that companies continuously strive to be more efficient and effective in their operations. In order to achieve this, it is important that efficiency and effectiveness are linked to directors’ compensation as a way to successfully achieve the companies’ goals. This is very essential for Malaysian firms if they wish to continuously play a significant role in the emerging market.

The current study differs from previous studies in a number of aspects: first, this study sheds light on the executive directors’ compensation and its relationship with the effectiveness and efficiency of the companies’ operations, by using financial analysis ratios. This issue is very significant in helping stakeholders and other related parties, specifically, creditors, investors, management and shareholders, in their decision-making process; second, this study uses the salary base (cash remuneration) to measure executive directors’ compensation, similar to Adut et al. (2003), Leone et al. (2006), and others. It has been found that there is a negative relationship between salary base and earnings management (Nelson & Rahim, 2018; Xu & Chang, 2017); therefore, this study hopes to obtain more robust results without using earnings management practices; third, this study examines new variables in the Malaysian context, that is, firm visibility (number of shareholders), firm effectiveness (return on equity) and firm net-worth (total equity); and fourth, the study focuses on the period of devaluation of the Malaysian currency. Hence, based on the above explanation, this study answers the following question: Is there any relationship between effectiveness and efficiency and executive directors’ compensation in non-financial listed companies in Malaysia?
In the next section, the literature review and hypotheses development are presented, as well as the research methodology and data collection in section 3. Section 4 provides the results of the analysis, followed by a concluding section.

**Literature Review**

**Previous Empirical Studies**

Over the last decade, it has been argued that top management is overpaid (Martin et al., 2019); and that the compensation package may be designed to motivate executive directors to work in the interest of shareholders and discourage them taking any risky activities that may negatively affect the firm’s position or performance (Malik & Shim, 2019). Many studies have examined the association between directors’ compensation and a number of factors. Much attention has been given to the relationship between compensation of directors and firm performance. For example, in the UK, some studies have concluded a positive association between company performance and directors’ compensation (Conyon, 1997; McKnight & Tomkins, 1999). Similar results have been found in Japan by Kaplan (1994). Gregg et al. (1993) conducted a similar study but the results show a weak relationship between board of directors’ compensation and companies’ financial performance. According to Gregg et al. (1993), the link between directors’ compensation and company performance is very weak in the US; while Kato and Rockel (1992) found no relationship between executive directors’ compensation and shareholders’ returns. Hong et al. (2015) reported a positive association between corporate governance and managerial incentives for non-financial performance. A more recent study by Patel et al. (2018) aimed to find out whether or not there is any relationship between shareholder dividends, financial performance and firm size and executive compensation. By collecting data of listed companies in Pakistan, they found that market capitalization and ROA are determinants of executive compensation but not shareholder dividends. Kato and Kubo (2006) examined whether or not executives’ compensation is related to performance of firms listed on the Shanghai and Shenzhen Stock Exchanges in China. They found a positive relationship between shareholder value, ownership structure, and sales growth and executive directors’ compensation. However, state ownership of China’s listed firms weakens the top managers’ compensation. Kirsten and Du Toit (2018) found no direct relationship between executive directors’ compensation and profitability or size in South African companies.

In the Malaysian context, a number of studies have considered board compensation. For example, Ibrahim et al. (2005) found no relationship between firm performance and directors’ compensation in Malaysia. Amin et al. (2014) also empirically examined factors that influence directors’ compensation in Malaysia. They collected data from 845 companies for 3 years (2009–2011), and found that firm size and profitability are the determining factors of board compensation but not leverage and growth level. These results are supported by the latest study by Zandi et al. (2019), that found a positive relationship between firm performance and CEO compensation when the data of 96 companies in Malaysia was examined. Talha et al. (2009) found a significant relationship between ownership structure and directors’ compensation. Chu and Song (2012) investigated the inter-relationship between executive directors’ compensation and earnings management and over-investment. By using the data of 196 Malaysian public listed companies, they found a positive relationship between executive directors’ compensation and over-investment; however, earnings management does not explain executive directors’ compensation. Razali et al. (2018) found a positive relationship between directors’ compensation of the consumer product firms and firm performance, after controlling for board size, Chief Executive Officer’s (CEO) duality, firm size, firm age, and leverage. However, the current study examines the association between company efficiency (measured by asset turnover ratio), company effectiveness (measured by ROE), and the executive directors’ compensation. It is argued that if the asset turnover ratio and the ROE in a company are high, this will lead to a greater demand by executive directors for higher compensation that will be an inducement for them to stay. Other control variables also considered in this study are firm visibility (measured by the number of shareholders), liquidity (measured by current ratio), profitability (measured by earnings per share (EPS) ratio), working capital (measured by the difference between current Asset and current liabilities), company net-worth (measured by total equity), and leverage (measured by the leverage ratio).

**Selection of Variables and Formulation of Hypotheses**

**Company effectiveness.** Effectiveness is defined as the ability to produce the desired results (Magnus et al., 2018). The effectiveness of a company is measured by the difference between what the company obtained as an income and the resources that have been used (Argandoña, 2008). In other words, it more or less refers to the returns it makes in comparison to the resources employed. Consistent with the agency theory, O’Reilly et al. (1988) argued that since the executive directors are responsible for the overall performance of the organization, their rewards should be congruent with the level of performance, and the relationship between the directors’ compensation and firm performance is apparent. Despite the logical argument of O’Reilly et al. (1988), many empirical studies have found mixed and inconclusive results. The majority of the existing studies have reported a positive relationship between performance and directors’ compensation; however, the strength of the association varies. For instance, in the US, while Abowd (1990) reported a
weak but positive relationship between firm performance and directors’ remuneration. Mehran (1995) reported a strong and positive relationship. In Spain, Crespi-Cladera and Gispert (2003) reported a strong and positive relationship between board remuneration and company performance; they also reported that the positive association is only with changes in performance of Spanish listed companies. In Australia, Matolcsy (2000) and Merhebi et al. (2006) reported a significant relationship between performance and directors’ compensation; while others have reported conflicting results (Izan et al., 1998; O’Neill & Iob, 1999). In Malaysia, Ibrahim et al. (2005), Amin et al. (2014), Razali et al. (2018), reported mixed results. In this study, ROE is the measurement of management’s effectiveness as a firm’s management invests its owner’s capital (Herciu et al., 2011). It includes the earnings from invested equity capital, or alternatively, the percentage returns to owners on their investment in the firm (Jacek, 2010; Lesáková, 2007; Singh & Yadav, 2013). It has been argued that higher ROE is considered as a good achievement for executive directors, who in this case, deserve more compensation and vice versa. Therefore, this study examines whether or not there is a relationship between company effectiveness and directors’ compensation. Thus, based on this discussion, the first hypothesis is stated as follows:

H1. There is a positive relationship between company effectiveness ratio and executive directors’ compensation.

Company efficiency. Magnus et al. (2018) defined efficiency as the ability to do something or produce something without wasting materials, time or energy, that is, the quality or degree of being efficient (technical). Efficiency in business means to make the best use of resources to generate more income. There is no doubt that efficiency is the key to achieving better performance. Efficiency has not typically been used in compensation research for large publicly traded companies, but total asset turnover has been used to measure how efficiently a firm uses its assets to get sales revenue. Shahwan and Hassan (2013) argued that the higher the profitability, the higher the efficiency in the firm and its management team as they must have exerted sufficient effort to efficiently manage the firm’s assets. Ang et al. (2000) argued that managers may increase the agency cost by making poor investment decisions, and/or exert insufficient effort that leads to lower revenues due to lower efficiency in handling the firm’s assets. Very few studies have discussed the association between company efficiency and other variables, although increasing the efficiency in companies has been of the greatest concern in academic studies. One of these studies is by Kumbhakar et al. (2012), which examined the relationship between corporate research and development (R & D) and firm efficiency. The researchers reported a positive relationship between the two variables. Lin et al. (2009) collected data from 461 publicly listed manufacturing companies in China between 1999 and 2002; they examined the association between corporate governance and firm efficiency, and found that firm efficiency is adversely associated with state ownership and positively to public and employees’ share ownership. They also found that board independence is positively linked to firm efficiency. In other words, corporate governance reforms have improved firm efficiency. Based on Gray’s (1990) behavioral motivation theory, the management has the power to motivate and demotivate a firm’s employees, and if the executive directors are being paid well, this will push them to encourage employees in the organization to increase their productivity and maintain higher efficiency. Farrell and Winters (2008) reported a positive relationship between executives’ remuneration and total asset turnover. They argued that by establishing a relationship between efficiency ratio and compensation, owners may be able to mitigate some agency costs. In an earlier study, Ang et al. (2000) argued that the differences in total asset turnover among companies are due to the variations in agency costs that result from the loss in revenues attributable to inefficient asset utilization. This study examines the association between efficiency ratio (total assets turnover) and executive directors’ compensation. Thus, the second hypothesis is presented as follows:

H2. There is a positive association between efficiency ratio and executive directors’ compensation.

Control Variables

Firm visibility. Visibility shows how a firm is observed by investors. Firm visibility has been involved in a number of studies, such as Kadlec and McConnell (1994), Henriques and Sadorsky (1996), Baker et al. (2002). Firm visibility has been measured in prior studies by different measurements; however, this study uses the number of shareholders, consistent with other study measurements, such as Baker et al. (2002), Kadlec and McConnell (1994), Beneish and Gardner (1995). Generally, the number of shareholders has rarely been included in academic studies although the results have shown significant relationships with different aspects. For example, in Japan, Amihud et al. (1999) examined the relationship between number of shareholders and stock price, and found a positive and significant association between the two. Mukherji et al. (1997) in the US, found a positive relationship between number of shareholders and stock splits. In Malaysia, Alarussi et al. (2009) examined the association between number of shareholders and the extent of internet financial disclosure (IFD) and internet environmental disclosure (IED), and reported a significantly positive association between number of shareholders and both IFD and IED. In relation to directors’ compensation, Dyl (1988) who studied US companies, found that the level of executive directors’ compensation is generally related to the number of shareholders. It has been argued that as the number of
shareholders increases, different individuals’ interests comes to the surface. These lead to higher agency cost (Hope, 2013), which in turn, lead to the increased burden on directors, who will then claim for more compensation. In addition, as the ultimate goal of any business organization is to increase its shareholders’ wealth, the existence of a large number of shareholders may add more pressure on the executive directors to achieve the organization’s goals. This type of pressure has to be compensated with higher rewards and remuneration provided to them (Prowse, 1994). Ertimur et al. (2011) found that shareholders are in favor of being involved in determining the CEO’s compensation process. Several studies have considered the number of shareholders as a proxy for firm visibility (Faulkender & Petersen, 2006; Kadlec & McConnell, 1994; Santos & Winton, 2006). This study controls for firm visibility (measured by the number of shareholders) to examine the determinants of executive directors’ compensation.

Profitability. Many studies have tried to link directors’ compensation and profitability, but the results have been inconsistent (Bruce et al., 2005; Bussin & Blair, 2015; Bussin & Modau, 2015; Duffhues & Kabir, 2008), which has paved the way for more studies to investigate this relationship. The profitability of a firm depends on the firm’s investment opportunities. Firms can invest using total debt, equity or a combination of debt and equity. Profitability is measured in this paper by EPS ratio. Profitability is the top priority of any company and Malaysian companies are not the exception. Many studies conducted in Malaysia have used profitability to examine its relationship with other factors, such as liquidity, firm size, capital structure, and effectiveness and efficiency of the firm’s operations (Alarussi & Alhaderi, 2018; Narware, 2010; Ramasamy, 2005; Salim & Yadav, 2012; San & Heng, 2011; Zaid et al., 2014). This study examines whether or not there is a relationship between profitability and directors’ compensation; it is expected that higher EPS is a good achievement for the executive directors, who under such circumstances, deserve more compensation and vice versa.

Firm net-worth. Shareholders’ equity is defined as the balance between total assets and total liabilities. Shareholders’ equity is the total amount that shareholders contribute to finance a firm’s assets. In other words, it mostly represents the firm’s net-worth, which includes the share capital retained in the firm, in addition to the retained earnings minus treasury shares (Armenter & Hnatkovska, 2012). Total equity has been examined by many studies to see the impact of capital structure on firm performance (Basit & Irwan, 2017; Amraoui et al., 2017; Vătăvu, 2015). It has been argued that the more the equity that the executive directors manage, the higher the agency cost (Ang et al., 2000); and the more the burden for the directors, the higher the directors’ compensation (Bebchuk & Fried, 2003). This study controls this variable to examine the directors’ compensation determinants.

Working capital. Working capital refers to the balance between short-term assets and short-term liabilities. It is a measure of both a firm’s operational efficiency and its short-term financial health (Sagan, 1955). Grinyer and McKiernan (1991) argued that working capital is a major player in explaining corporate profitability. This argument is supported by the findings of Chowdhury and Amin (2007), Alarussi and Alhaderi (2018). Based on that, every company should have appropriate arrangements for adequate funds to meet the day-to-day expenditure. However, in most of the cases, due to poor planning, working capital is often insufficient for meeting all needs or exceeds the needs (Ismail, 2017). In addition, it is not always advisable for firm owners or entrepreneurs to mobilize funds from their personal resources, and in this case, managers have to seek other external resource options (Gupta & Sharma, 2003). This will increase the burden on the executives, who will demand more compensation equivalent to this responsibility. In addition, it has been argued that based on the agency theory, if the working capital is large, it will lead to more conflict between management and shareholders, which in turn, will lead to higher agency cost (Alarussi et al., 2013; Alarussi and Selamat, 2009; Boshkoska, 2014; Hall, 1998). The more the burden on the directors, the more the compensation that is awarded (Liu et al., 2012). In this study, working capital is a control variable.

Liquidity. Liquidity ratio represents a firm’s ability to quickly convert a property of asset into cash and pay off its current financial obligations (Šarlija & Harc, 2012). Liquidity is essential to run the business appropriately and smoothly. A number of ratios have been used to measure liquidity, such as current ratio, quick ratio, and cash ratio. Many studies have also examined the relationships between liquidity and different aspects of the firm, such as stock returns (Akram, 2014); profitability (Alarussi & Alhaderi, 2018); and capital structure (Ghasemi & Ab Razak, 2016; Šarlija & Harc, 2012). Rarely have studies examined the relationship between liquidity and board compensation. Mehran (1995) found a negative relationship between liquidity and cash compensation. He argued that the firm is more likely to shift to stock compensation if it suffers liquidity problems. In this study, liquidity (measured by current ratio) is a control variable.

Financial leverage. Financial leverage is one of the capital structure components which is a result of management’s decision that balancing between cost and benefit of financial risk (Yazdanfar, 2013). A number of empirical studies examined leverage and board compensation however, they reported conflicting results, from a positive relationship (Bryan et al., 2000; Coles et al., 2006; Lewellen,
Dahiya et al. (2018) tried to explain these conflicting relationships; they argued that the relationship between leverage and fixed-compensation is positive in companies with low idiosyncratic uncertainty, as the CEOs are rewarded with more stock shares to motivate them to exert more effort, as firms with low risk can get more low cost credit supply from banks. However, the increased stock shares can discourage the CEOs from borrowing because they are concerned with the increased default loss associated with their stockholding. In this way, the shareholders in the companies with low uncertainty would also pay more fixed pay, to make the CEOs less risk-averse and borrow more low cost debt from the lenders. This study considers leverage as a control variable to examine the executive directors’ compensation determinants.

**Data Collection and Model Specifications**

**Data Description**

This study focuses on Malaysia as the Malaysian economy is ranked the sixth largest in Southeast Asia (International Monetary Fund, 2020). The data is secondary data based on 360 observations extracted from the annual reports of 120 non-financial companies on Bursa Malaysia (www.bursamalaysia.com) for the period of 3 years from 2012 to 2014. This period is selected because it was a critical period for Malaysia; in 2013, the gross domestic product (GDP) growth rate declined to 4.7% from 5.5% in 2012, which is the lowest since the global financial crises in 2008. In addition, the inflation rate also increased to 3.1% in 2014 from 1.7% in 2012, and the unemployment rate increased to 3.3% in 2013 from 2.9% in 2012 (International Monetary Fund, 2018). All these affected the value of the currency (Ringgit), and therefore, negatively affected the economic situation for the whole of Malaysia. The study examines the most important elements that theoretically play a role in determining the executive directors’ compensation, as have commonly been utilized in previous studies. In this study, cash remuneration (short-term remuneration) is used to measure the executive directors’ compensation, which excludes the long-term remuneration (executive stocks/share options; pension contributions, etc.). This study uses this measurement because a negative relationship between monetary remuneration and earnings management has been found (Xu & Chang, 2017), therefore allowing us to get robust results without the influence of earnings management. The variables and their measurements used in this study are listed in Table 1.

Pooled ordinary least squares (OLS) regression was utilized to examine the data and get the results. The model of the study that describes the executive directors’ compensation is as follows:

\[ EXDCOM = \alpha + \beta_1 ROE + \beta_2 ASTNRT + \beta_3 SNO SH + \beta_4 EPS + \beta_5 TOTEQU + \beta_6 WRCAPT + \beta_7 CURRITO + \beta_8 LEVRTO + \epsilon. \]

where:

- the dependent variable is Executive Directors’ Compensation (EXDCOM);
- \( \alpha \) and \( \beta_1 \sim \beta_2 \) are coefficients; Return on Equity (ROE) and Asset Turnover Ratio (ASTNRT) are explanatory variables; Number of Shareholders (SNO SH), Earnings per Share (EPS), Total Equity (TOTEQU), Working Capital (WRCAPT), Current Ratio (CURRITO), and Leverage Ratio (LEVRTO) are control variables; and \( \epsilon \) is the residual error term.

Table 2 displays the descriptive statistics of the sample. The mean (median) of absolute value for EXDCOM is 4549669 (1599033); the Table shows there is a variance amongst the
executives’ compensations in the selected Malaysian companies; the maximum amount is RM 155,900,000, and the minimum is RM 88,788 during the 3 years (2012–2014). ASTRNRTO is 0.6826701 (0.5726904); ROE is 6.733361 (6.64); and NOSHR varies between 506 to 62,483 shareholders, with the mean (median) at 7645 (3857). In addition, EPS is 12.61772 (8.305); however, the minimum value is negative RM 128.61, which shows the loss of companies during the years of study (2012–2014), which is a very high loss. In terms of TOTEQU, the maximum amount is RM 53,058,700,000, the minimum is RM 13,184,912, and the mean (median) is 1.95 (2.52). The mean (median) of CURRITO is 3.368575 (1.858931); for WRCAPT, the maximum amount is RM 22,414,800,000, the minimum amount is −11,287,002,000 and the mean (median) is 4.60 (1.01); and, lastly, the mean (median) of LEVRTO is 0.4734264 (0.3894299).

Table 3 displays the independent variables (IVs) and dependent variable (DV) correlations. It shows ROE, ASTRNRTO, NOSHR, EPS, TOTEQU, and WRCAPT, are positively and significantly correlated to EXDCOM. However, CURRITO and LEVRTO are negatively but not significantly related to EXDCOM. These results are similar to the studies of Jacek (2010), Farrell and Winters (2008), Ertimur et al. (2011), Bebchuk and Fried (2003), Liu et al. (2012), Mehran (1995), and Berger et al. (1997). For any econometric problem related to serial correlation, multicollinearity and heteroscedasticity, it can be noticed that within the IVs, TOTEQU and WRCAPT show the maximum correlation is 0.7494, but it is less than 9. However, this is very important to treat before going further for regression analysis. Based on recommendations of researchers, individual heterogeneity and multicollinearity should be controlled in empirical analysis that uses panel data (Kyereboah-Coleman, 2007). Myers (1990) stated that if the value of the variance inflation factor (VIF) is greater than 10, it is a concern. However, the VIF values in this study are well below 10 at 1.83. Consequently, multicollinearity is not a problematic issue or concern in this study. The Breush-Pagan/Cook-Weiberg test was used to test homoscedasticity (the test results are displayed in Table 4). After ensuring that the data and model are free from any analytical problems, pooled OLS regression was utilized to examine and analyze the data. Pooled OLS regression is broadly applied and recommended for panel studies since it produces unbiased and steady estimates of parameters regardless of time-constant attributes (Zariyawati et al., 2009; Zhang, 2013). Furthermore, pooled OLS regression is preferred for data that does not have dummy variables, which is the case in this study. Additionally, besides the results of pooled OLS regression, this study presents the results of random-effects model and fixed-effects model in order to ensure the robustness of the results.

Table 4 displays the outcomes of pooled OLS regression regarding the significant determining factors. Table 4 also
presents the outcomes of the random-effects model and fixed-effects model. Interestingly, the results are almost similar between the two models as well as with the pooled OLS model, except that NOSHR is insignificantly related to EXDCOM. According to Lazár (2016), the main advantage of using the fixed-effects estimator is that it can minimize endogeneity by controlling firm characteristics which are not observable or measurable, but are likely to be correlated with regression. Table 4 also shows the relationship between the efficiency and effectiveness ratios (IVs) and executives’ compensation (DV). The results show ROE has a positive and significant relationship with EXDCOM; the coefficient is 175490 at the 1% significance level, thus showing a strong relationship. However, ASTRNRTO does not show any significant relationship with EXDCOM. NOSHR has a significantly positive relationship with EXDCOM (as the coefficient is 185.8 and significant at the 1% level). This result shows the importance of the number of shareholders to executive directors in Malaysian companies. In other words, as the firm’s visibility expands, the amount of compensation increases, which reflects the agency problem.

Another control variable that shows a strong and positive relationship with EXDCOM is TOTEQU; the coefficient is .0009482 at the 1% significance level. Another factor that also shows a significant relationship to executive directors’ compensation is WRCAPT; the coefficient is 0.0023721 with a significance level of 1%. However, the result shows there is no significant relationship between CURRITO and EXDCOM. Surprisingly, EPS has a significant but negative association (which is contrary to expectations) with EXDCOM; the coefficient is 78664 at the 1% significance level. The $R^2$ is .5885 and the Adj-$R^2$ is .5791, which are very good in explaining the executives’ compensation.

Discussion of Results

This study focuses on whether or not there is any relationship between company effectiveness and efficiency and the executive directors’ compensation in Malaysian listed companies. Firm visibility, liquidity, profitability, working capital, company net-worth, and Financial leverage are the control variables. The results of the analysis are elaborated as follows:

### Independent Variables

**Company effectiveness.** This study examines whether or not there is a relationship between company effectiveness and directors’ compensation. It is expected that higher ROE is considered as a good achievement for executive directors, who in this case, deserve more compensation and vice versa. It is an estimate of the earnings of invested equity capital, or alternatively, the percentage return to owners on their investment in the firm (Jacek, 2010; Lesáková, 2007; Singh & Yadav, 2013). The results show ROE has a positive relationship with EXDCOM. The coefficient of 175490 at the 1% significance level, shows this strong relationship. The result may indicate that due to economic difficulties during that period, directors who were well paid were inclined to please...
the firm’s shareholders by reducing firm’s expenditure so that they can get higher ROE. The result also confirms that if ROE is higher, it leads to higher EXDCOM. Similar results were found by Sigler (2011), De Wet (2012), Amin et al. (2014). Hence, the first hypothesis is accepted.

**Company efficiency.** ASTRNRTO was used to measure firm efficiency, but the result is contrary to expectations. There is no significant relationship between ASTRNRTO and EXDCOM. The reason behind this result may be that executives give more consideration to increasing the shareholders’ wealth (Doucouliagos et al., 2007), and not to efficiently utilizing the available assets to generate revenue. The result may also indicate that due to the economic turbulence during that period, it was so hard for executives to increase companies’ sales and consequently maintain higher efficiency rate. Similar results have been found by scholars (e.g., Jensen & Murphy, 1990). Hence, the second hypothesis is not accepted.

**Control Variables**

**Firm visibility.** It is known that as the firm expands its business and becomes more reputable and known by the people and investors, the pressure on the executive directors becomes more onerous. In other words, as the number of shareholders in a company increases, it leads to more agency costs. This leads to more pressure on the executive directors. To alleviate this burden, they request more compensation. The result of the current study shows a significantly positive correlation between number of shareholders (as a measurement for firm visibility) and executive directors’ compensation. The coefficient **t-value=185.8 and p <.001,** indicating this positive and significant relationship. However, the random-effects and fixed-effects models show a positive but insignificant correlation between firm visibility (number of shareholders) and executive directors’ compensation. Overall, this outcome supports the conclusion that when the visibility of the firm increases, and the firm gets more shareholders, executive directors will request more compensation as both the responsibilities and agency cost increase. This result supports the agency theory.

**Profitability.** Profitability means the ability of a company to reward its shareholders with high returns on their investment. Companies want to achieve steady profit and must have hard-working directors who can identify potential business opportunities to increase profit. This means executive directors must spend more time and exert more efforts to achieve this goal, which is definitely related to executive directors’ compensation. In this study, EPS was used to measure profitability. The results show a significant but negative relationship between EPS and EXDCOM in Malaysian listed companies; the coefficient **t-value=−78664.1 and p <.001,** which indicate this relationship between them. This result supports the significantly positive relationship between company effectiveness ratio and executive directors’ compensation. In other words, executive directors may give more consideration to increasing shareholders’ wealth and not be overly concerned with EPS percentage. These results are consistent with previous studies, such as Nulla (2013), Sheikh and Khursheed (2016).

**Total equity.** Total equity is a proxy for firm net-worth, which includes the share capital retained in the company in addition to the retained earnings minus the treasury shares. The finding of the current study displays a significant and positive association between TOTEQU (firm net-worth measurement) and EXDCOM. The coefficient **t-value=0.0009482 and p <.001,** indicate this positive and significant association. The results confirm that in companies with a large equity amount, the agency problem between shareholders and management increases, in turn, increasing the agency cost (Ang et al., 2000). This situation adds more burden on directors’ shoulders, resulting in their requesting higher compensation for their efforts. A similar result was found by Bebchuk and Fried (2003).

**Company liquidity.** In the case of company liquidity, the findings are unexpected; a positive connection between liquidity and EXDCOM was predicted but the result shows a negative but not significant relationship between CURRETO and EXDCOM. The interpretation of this result is that liquidity ratio may have a direct impact on company performance but not on executive directors’ compensation. Similar results were reported by Mehran (1995).

**Working capital.** Working capital is a very important factor that can play a role in board compensation. The results of the current study present a positive and significant correlation between WRCAPT and EXDCOM as the coefficient **t-value=0.023721 and p <.001.** The logical reason behind this correlation may be that more amount of working capital (whether debt or equity) leads to more executive directors’ compensation as directors are dealing with more financial resources, and therefore, more responsibilities. Similar results were found by Liu et al. (2012).

**Financial leverage.** Table 4 revealed a negative and insignificant association between LEVRTO (financial leverage measurement) and EXDCOM (executive directors’ compensation measurement). This result may be explained that during the period of Ringgit devaluation, the managements’ concern is to satisfy companies’ shareholders regardless whether or not using financial leverage. Similar findings reported by Sun and Cahan (2009).

**Conclusion, Limitations and Applications**

This study empirically examines whether or not there is a relationship between company effectiveness and company
efficiency and executive directors’ compensation in Malaysian listed companies. Six control variables are included in this study, namely, firm visibility (measured by number of shareholders), liquidity (current ratio), profitability (earnings per share), working capital, firm net-worth (total equity), and leverage. Data of 120 listed firms for the year 2012 to 2014 were extracted from their financial reports. The results of pooled OLS regression are supported by the results of random-effects model and fixed-effects model. The results show that company effectiveness is one of the determinants of executive directors’ compensation but not company efficiency. In other words, well-paid directors are willing to please the firm’s shareholders by increasing the returns on their equity. Firm visibility, firm net-worth and profitability also have strong relationships with executive directors’ compensation. However, liquidity and leverage do not show any significant relationship with executive directors’ compensation in Malaysian companies. The study uses both agency and behavioral motivation theories. Like any other study, this study has limitations. The database is not so large and is limited to 120 companies. Also, the period of 3 years which is considered as a short period. Nevertheless, the outcomes of this study benefit regulators and management. They can be aware of the determinants that affected executive director’s compensation in the companies during the devaluation of the Malaysian currency. The outcomes may help other parties, such as external users, to make the right decisions. In addition, the current study provides empirical proof that supports the agency theory. Lastly, future studies may consider more factors and longer periods or conduct a comparative study between different countries to find out whether board compensation has similar determinants in different business environments.

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