

Analysis of Corporate Governance and Bank Performance: Empirical Evidence From Malaysian Banking Industry

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Abstract

Various theories and empirical studies have been applied and proposed to establish and explain how corporate governance practices are related to banks financial performance. This study concerns the relationship between corporate governance variables and bank performance in Malaysia. The data collected and analysed in this research is from quarter one year 2011 to quarter four year 2016. Various determinants have been identified namely return on equity(ROE) for bank performance measurement, CEO duality, board size, and board gender for corporate governance. Control variables are bank size and bank leverage. The

methodologies adopted in this research includes descriptive analysis, correlation analysis, Pooled Ordinary Least Square (OLS) regression, Diagnostic Tests (Jarque-Bera Normality Test, Wooldridge Test and Variance Inflation Factor), Breusch-Pagan (BP) Lagrange Multiplier test, and Hausman test. In this study, the findings indicate that strong board composition and bank leverage were experience better performance.

Keywords: corporate governance, bank performance, Malaysian banking industry

Introduction

This study is designed to examine whether the corporate governance will have an influence on the local commercial banks performance in Malaysia. Malaysia bank industry is being chosen for this study for two reasons. Firstly, the Malaysian banking system is accounted for approximately 70 percent of the total assets of the Malaysian financial system, becoming the major component, and it is also play a vital role in Malaysia economic growth (Said & Tumin, 2011). Secondly, there are limited studies done on this topic for Malaysia especially in the banking industry. Particularly, the impact of corporate governance on banking industry has been almost ignored in emerging market such as Malaysia's. According to Chang,2004 , a number of studies have been taken to understand the status of corporate governance in Malaysia in relation to some compulsory provisions while some have established audit and accounting issues (Abidin, et al 2009) but very few have examined the contribution of good corporate governance in the commercial banking industry in Malaysia. Thus, there is a need and interest to provide a better understanding whether corporate governance can have an influence on the performance of Malaysian banking industry Lukas, S., & Basuki, B. , 2015). This study may lead to important policy implication for government or regulatory bodies even the executives in banks which help them in implementing better and effective corporate governance practices in order to improve bank performance.

Background of Study

Corporate Governance System and Bank Performance in Malaysia

Corporate governance has been regarded as a serious issue in various nations due to massive corporate failure and scandals after the economic crisis in 1997. Malaysia corporate governance practices have been enhanced since 1998 following the Asian Financial Crisis. Major reforms of the corporate governance include the forming of the Committee and Malaysian Institute of Corporate Governance (MICG) in 1998, the introduction of Code on Corporate Governance and ten-year Capital Market Master Plan, and the establishment of a mandatory accreditation programme. These efforts taken by the government have provided guidance on the principles and best practices in Malaysian corporate governance which lead to rapid growth for the country. According to Bank Negara Malaysia (2017), the financial sector of Malaysia mainly consists of commercial banks, Islamic banks, investment banks, insurance companies, and other financial institutions. As to date, there are 27 commercial banks, 16 Islamic banks, and 11 investment banks in Malaysia. However, among 27 commercial banks only 8 banks are local banks and the rest are foreign banks.

In the recent years, corporate governance has been given more attention in Malaysia.

According to Haniffa and Hudaib (2006), corporation collapses such as Renong, United Engineers Malaysia (UEM) and Kentucky Fried Chicken (KFC) were adversely affected by the 1997 financial crisis and the lack of effective corporate governance practice. In March 1998, Malaysian government decided to establish a high level Finance Committee on Corporate Governance (FCCG) with the aim of setting and enhancing the best practices in Malaysia. Corporate governance in Malaysia was reformed due to the implementation of Malaysian Code of Corporate Governance (MCCG) in 2000 and it became an amendment in Bursa Malaysia as a listing requirement in 2001. MCCG also revised in 2012 and all listed companies required to implement their corporate governance practice to comply with the new MCCG (Liew, 2007). Those initiatives taken by the government have improved the performance of domestic commercial banks in the years 2000 to 2013, with their Risk Weighted Capital Ratio (RWCR), ROA and ROE rose up from 4.2% to 11.7%, 1.1% to 1.5% and 13.7% to 15.7% (Saha et al., 2016). Generally, a better corporate governance can aid to boost company's performance and to protect the interests of investors and stakeholders through transparency, accountability, trustworthiness, and responsibility (Tomar, S., & Bino, A., 2012).

3. Problem Statement

The corporate governance issues have been given great attention in Malaysia and other countries over the world after the Asian financial crisis in 1997 that caused massive corporate failure. Onakoya, Ofoegbu, and Fasanya (2012) have stated that high profile corporation defamations such as Enron and WorldCom in the USA in the early 2000s, Cadbury in Nigeria, Royal Ahold in Netherlands and other similar cases around the world were caused by weak corporate governance system. These corporate failures had led to the enactment of Sarbanes-Oxley Act in 2002 in USA, the Higgs Report and Smith Reports in 2003 in UK and the st-code for corporate governance for Nigeria banks in 2006 with the aim to amend the level of corporate governance in those countries (Onakoya et al., 2012).

According to Haniffa and Hudaib (2006), corporation collapses such as Renong, UEM and KFC in Malaysia was adversely affected by the Asian financial crisis. The lack of effective corporate governance practice also contributed to the failure. The government has taken several efforts to improve the corporate governance level such as the establishment of FCCG, MICG, and so forth. Corporate governance in Malaysia was reformed due to the implementation of MCCG in 2000 and it became an amendment in Bursa Malaysia as a listing requirement in 2001. MCCG also revised in 2012 and all listed companies required to implement their corporate governance practice to comply with the new MCCG (Liew, 2007).

Various theories and empirical studies have been applied and proposed to establish and explain how corporate governance practices are related to banks financial performance. Al-Saidi and Al-Shammari (2013) in a research study concluded that lessening the number of board directors supports the performance of bank. The researcher observes that this is proving the prediction of agency theory. Nevertheless, Sheikh and Karim (2015) reported that CEO-board chair responsibility duality positively affects bank performance. The positive consequence of CEO duality on bank performance is said to be inconsistent with agency

theory, but consistent with stewardship theory. Besides, resource dependency theory is supported by Isik and Ince (2016) and Sheikh and Karim (2015) in which their studies showed that banks with larger board size lead to more profit and better performance.

Literature Review

Corporate Governance

Based on Lukas and Basuki (2015), corporate governance was, for the Indonesia Institute of Corporate Governance, the mechanism by a company to direct and guide their operating under the expectation of stakeholders. In the research of Shleifer and Vishny (1997), they adopt the term ‘corporate governance’ to refer to a way in which the return on investment for capital investors will be protected and promised to be received (Sheikh & Karim, 2015). Corporate governance plays a critical role in the success or failure of the companies. Sound corporate governance practice builds confidence of investors and encourages them to invest money for companies, expands the access to external financing by companies, reduces cost of capital, which in turn improves operational performance as well as the economic growth (Fanta, Kemal, & Waka, 2013).

Accordingly, it can be clearly seen that good corporate governance will contribute in increasing the company value as well as more desirable company performance. The consequences of weak corporate governance not only affect the company itself but also the country’s economy as a whole. Kyereboah-Coleman and Biekpe (2006) stated that, poor corporate governance can cause the poor firm performance and more bankruptcy risks and then this effect may spread globally, which can in turn lead to the economic crisis like the Asian financial crisis 1997. Poorly governed company are tending to earn less profits, higher bankruptcy risks, less worth and distribute fewer cash to their shareholders (Kyereboah-Coleman & Biekpe, 2006).

Bank Performance

Banks have the imperative role in the economic development of a country as it controls monetary policy and allocate funds to various sectors of the economy. Strong banking sector is vital for increasing jobs opportunity, entrepreneurial activity, and increasing economic growth. Bank performance defined by San Ong and Gan (2013) as “the reflection of the bank resources used in order to achieve its objectives.” Onakoya et al. (2012) indicated that bank performance is a concept that the overall objective of a bank can be achieved by using the financial, material and human resources available to the bank in an effective and efficient manner. A bank’s financial condition and performance can be evaluated through the conversion of financial statement data into formats by the financial statement analyst. In general, income statement, statement of financial position (balance sheet), and also statement of cash flow are crucial for tracking the financial health of a bank over a specific accounting period, which the period can be quarterly, annually, or even monthly.

Ratio analysis is often used among various tools and techniques by most of the banks to analyse their financial performance. Fraser and Ormiston (2013) divided ratios into five categories: liquidity (capability of a firm to pay its debt obligations as they come due),

activity (firm’s potentiality to produce sales from its investment in assets), leverage (measures the extent of the firm’s financing with debt), profitability (indicates the profitable level of the firm), and market (measures the returns to stockholders and the value of the firm).

There are two indicators for the bank performance which are market performance and accounting performance. Market-based performance includes Tobin’s Q whereas accounting based performance represented by ROA and ROE (San Ong & Gan, 2013). Some past studies using Tobin’s Q (Al-Saidi and Al-Shammari, 2013; Belhaj and Mateus, 2016) as their measurement of bank performance. In contrast, other researchers using ROA and ROE (Tomar and Bino, 2012; Fanta et al., 2013; Bebeji et al., 2015; Boussaada and Karmani, 2015; Liang et al., 2013; Pathan, Skully, and Wickramanayake, 2007; Sheikh and Karim, 2015) as the bank performance measures.

Methodology

Data Descriptions

In order to gather enough data for this research, the secondary sources of data were obtained from the published annual reports and audited financial statements of the sampled local commercial banks. The data covering the period 2011 to 2016 are obtained.

Conceptual Framework

The following figure is the conceptual framework for this study. The independent variables are board composition, CEO duality, board size, and board gender as they affect the bank performance. Therefore, Return on Equity (ROE) is used as a proxy for bank performance.

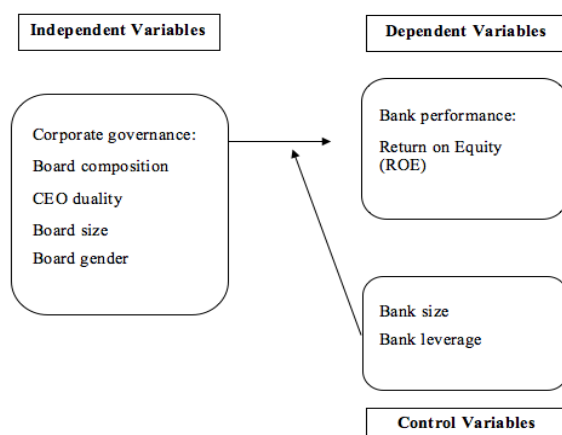


Figure 1. Conceptual Framework for the relationship between corporate government variables and bank performance in Malaysia

Estimation Model

The relationship between bank performance with the chosen corporate governance variables was tested using panel data regression model. The following regression model was based on Sheikh and Karim (2015) study and was expressed as follows:

$$ROE_{it} = \beta_{1i} + \beta_2 BC_{it} + \beta_3 CD_{it} + \beta_4 BS_{it} + \beta_5 BG_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \varepsilon_{it} \quad (1)$$

where ROE represents return on equity. i represents the cross-sectional unit (banks) while t represents the period of time (2011-2016). β_1 is the intercept or constant term while $\beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ are estimated coefficient of the independent and control variables. Also, ε refers to the random error term. The set of independent and control variables include:

BC = Board composition

CD = CEO duality

BS = Board size

BG = Board gender

SIZE = Bank size

LEV = Bank leverage

Empirical Evidence

Earlier studies apply distinct proxies of corporate governance indicators to explain their effect on bank performance. However, the findings of these studies were inconclusive as discussed below. Al-Saidi and Al-Shammari (2013) have reviewed the corporate governance and bank performance in Kuwait by using role duality, non-executive directors, family directors, and board size as the independent variables. The results of OLS regression showed that board size and non-executive directors have inversely impact on bank performance whereas the two-stage-least square results showed that role duality has positive effect while board size reveals a negative consequence on bank performance. The findings of Jadah et al. (2016) and Sheikh and Karim (2015) contrast with that of Al-Saidi and Al-Shammari (2013). The study of Jadah et al. (2016) have revealed a correlation between board size and board composition and performance of banks using 20 commercial banks in Iraq. They found that both variables were positively associated with Iraqi bank performance. In addition, there is a negative association between board gender and bank performance. Pathan and Faff (2013) reported different findings with Jadah et al. (2016) in terms of board gender.

Sheikh and Karim (2015) applied pooled OLS to investigate the performance of 22 commercial banks in Pakistan from 2004 to 2013. Their results indicated that board size and board composition has significantly positively consequence on bank performance in terms of ROA, ROE, earnings per share, and market-to-book ratio. In addition, they also found that CEO duality and managerial ownership are positively related with EPS. Institutional ownership has significantly positively impact on ROE and EPS. However, ownership concentration has negative relationship with EPS. In the study of Dao and Hoang (2012), the OLS regression results stated that the board size and capital adequacy ratio have momentous consequence on Vietnamese bank performance. Contrarily, the board composition has insignificant effect on bank performance. The study of Lukas and Basuki (2015), which using

the data of banks listed on Indonesia Stock Exchange (IDX) found a similar result with Dao and Hoang (2012), except for that capital adequacy ratio is insignificant with bank financial performance.

In previous study of Bebeji et al. (2015), board size and board composition have been proven to be related to the performance of bank in Nigeria. They suggested that board size is inversely related while board composition is positively associated to bank performance. Their results have been supported by Liang et al. (2013) who also showed the same conclusion for both variables. Moreover, Liang et al. (2013) documented that board gender has insignificant influence on bank performance. The results of Bebeji et al. (2015) and Liang et al. (2013) have been argued by Pathan et al. (2007). The study investigated the relation between proportion of independent directors and board size with Thai bank performance over the period of 1999 until 2003. They employed panel fixed effect models and found that board size has significant positively influence on bank performance. Nonetheless, Thai bank performance is adversely affected by the amount of independent directors.

The past research findings of Kyereboah-Coleman and Biekpe (2006) was consistent with Pathan et al. (2007). Kyereboah-Coleman and Biekpe (2006) employed OLS regression in their study and indicated that board size has positive influence while board independence has negative influence on Ghana listed and non-listed banks performance, as measured by ROA. They also documented that CEO duality has positive consequence on non-listed bank performance and negative effect on listed bank performance. Furthermore, the study conducted by Tomar and Bino (2012) focused on the performance of banks listed on Amman Stock Exchange using the panel data over the period 1997 to 2006. The result of the linear regression analysis demonstrated that ownership structure and board composition possess significant effect with bank performance. Nevertheless, board size is insignificant with Jordanian bank performance.

Fanta et al. (2013) also attempted to evaluate the performance in Ethiopia banking industry and corporate governance using panel data of 9 commercial banks for the years 2005 to 2011. They point out that there are significant negative consequence of board size and existence of audit committee on bank performance. The bank size and capital adequacy ratio have a significant positive association with bank performance. Isik and Ince (2016) studied the effect of board size and composition on the performance of 30 commercial banks in Turkey using the panel fixed effects regression model. The study failed to prove any significant impact of board composition on bank performance. However, board size showed a significant positive consequence on bank performance. The study of Belhaj and Mateus (2016) on European banks performance showed similar results with Isik and Ince (2016). They also reported that no significant impact of CEO duality on performance exists and the bank performance is positively affected by the presence of women directors. Similarly, Boussaada and Karmani (2015) argued that their findings support the view of Belhaj and Mateus (2016), except for the influence of board size on bank performance. The study applied System Generalized Method of Moments (SGMM) to investigate the correlation between corporate governance and bank performance in Middle East and North Africa (MENA) region. They concluded that board size has negatively influence the MENA bank performance. The results also showed

that state directors undermine whereas foreign directors improve the performance in MENA banks.

Hypothesis Development

Hypothesis is needed to evaluate the link between the independent variables and dependent variables. Hence, the hypotheses are tested which of the variables can affect the performance of the firm:

H1: There is a positive significant relationship between board composition and bank performance.

H2: There is a positive significant relationship between CEO duality and bank performance.

H3: There is a positive significant relationship between board size and bank performance.

H4: There is a negative significant relationship between board gender and bank performance.

Dependent Variable

In this research, the ROE was used to provide the insight of bank's effectiveness in managing its equity. ROE was a measure of how effective the bank manages and uses the shareholders' funds to generate profit for itself and return for the shareholders. ROE was determined by calculating the net income divided by the shareholders' equity.

Independent Variables

The independent variables use in this study include board composition, CEO duality, board size, and board gender as they affect the bank performance. Board composition could be measured by the proportion of independent directors to total number of directors of the bank. CEO duality was considered as a dummy variable to capture the independency of the board, which was measured as equal to one if the CEO is also the chairman, and zero otherwise. Board size could be calculated as the total number of directors on the board of the bank. Board gender was measured by the proportion of women directors on the board.

Data Analysis

In order to test the relationship among each variable, several research methodologies were employed, that are, descriptive analysis, correlation analysis, Pooled Ordinary Least Square (OLS) regression, diagnostic tests, Breusch-Pagan (BP) Lagrange Multiplier test, and Hausman test.

Results and Findings

The findings of the descriptive analysis, correlation analysis, BP Lagrange Multiplier test, Hausman test, diagnostic tests and also the fixed effects regression were analysed and discussed as follows:

Descriptive Analysis

The dependent variable of this research is ROE while the independent variables are board

composition (BC), CEO duality (CD), board size (BS), and board gender (BG). In addition to the independent variables, control variables included are bank size (SIZE) and bank leverage (LEV). The summary statistics for all variables are presented in the table below.

Table 1. Descriptive Analysis

Variables	Observations	Mean	Std. Dev.	Minimum	Maximum
ROE	48	0.1286	0.0331	0.0628	0.2265
BC	48	0.5502	0.1244	0.2500	0.7500
CD	48	0	0	0	0
BS	48	9.6458	1.7319	5	13
BG	48	0.0955	0.0928	0	0.2857
SIZE	48	8.2318	0.3745	7.5572	8.8669
LEV	48	0.9130	0.0131	0.8795	0.9487

As it can be seen in the table above, the mean of ROE is 12.86% with the minimum, maximum and standard deviation of 6.28%, 22.65% and 0.0331 respectively. Malaysian banks have higher performance when comparing this result with Sheikh and Karim (2015) that revealed the mean value for ROE to be 2.73% for Pakistan banks and Pathan et al. (2007) demonstrated that local commercial banks in Thailand have average ROE of -0.64.

For BC, the average of 55.02% suggests that about half of the Malaysian banks' boards are independent directors or non-executive directors. In the case of CEO duality, this finding suggests that CEO duality is not applicable in banks in Malaysia as the recommendation in Malaysian Code on Corporate Governance (2012) has stated that the positions of the board chairman and CEO should be separated.

The third independent variable, BS has a minimum of 5 and a maximum of 13 with an average of 9.6458, indicating the board size of Malaysian banks is approximately nine members. This is consistent with the recommendation of the Cadbury Committee report as a size of eight to ten members on the board is preferable for board effectiveness. In contrast, BG is a disappointing figure of 9.55% as measured by the number of women directors on the board. It suggests that the participation of female directors on the board is still very low in the Malaysian local commercial banks. The minimum value of 0 shows that there are no women directors on the board in some of the banks in Malaysia while the maximum value of 28.57% shows that about less than half of the board is female.

For control variables, SIZE has the mean value of 8.2318 as measured by the logarithm of the total assets of the banks with a minimum value of 7.5572 and a maximum value of 8.8669. The standard deviation of bank size among the commercial banks in Malaysia is 0.3745. On the other hand, the average LEV is 91.30% with a range of 87.95% to 94.87%. The high value of the mean indicates that the majority of bank assets are financed by deposits and non-deposits liabilities during the study period.

Correlation Analysis

The results in Table 2 shows that there is no multicollinearity problem since all the values of correlation between each variable are below 0.8. Also, there is no correlation between CEO duality with each variable as the values of CEO duality are zero due to the practice of the

separation of CEO and board chairman by Malaysian local commercial banks.

Table 2. Correlation Analysis

Variables	ROE	BC	CD	BS	BG	SIZE	LEV
ROE	1						
BC	0.0636	1					
CD	-	-	-				
BS	-0.0415	-0.1699	-	1			
BG	-0.0352	-0.0849	-	0.2274	1		
SIZE	0.1223	0.2599*	-	0.3212**	0.5933***	1	
LEV	0.5300***	0.1946	-	-0.2086	-0.3289**	0.0469	1

Notes: Correlation is significant at ***0.01, **0.05, and *0.1 levels.

From the table above, the association between ROE with board composition and bank size is positive but statistically insignificant. Similarly, board size and board gender are observed to be negatively correlated with ROE but the relation is statistically insignificant. Consistent with expectations, bank leverage has significant and positive association with ROE at 1% significance level. This indicates that higher debt ratio induces better bank performance. In terms of board composition, a negative but statistically insignificant correlation is found between board size and board gender with this variable.

However, the association between board composition and bank leverage is indicated as positive with the coefficient of 0.1946, but statistically insignificant. Board composition is significantly positively correlated with bank size at 10% significance level, suggesting that larger banks will have more independent or non-executive directors on their boards. This finding is similar with Sheikh and Karim (2015).

In addition, there is a statistically significant positive relationship of board size with bank size at significant level of 5%. This may show that bigger banks have more directors on the board. On the other hand, board gender and bank leverage are found to be positively and inversely related with board size respectively, but these relationships are not statistically significant. With regards to board gender, bank size shows significant positive correlation with this variable at 1% significance level, with a coefficient of 0.5933. The relationship between board gender and bank size reveals that larger banks tend to have more female directors on the board. In case of board gender with bank leverage, the results show a negative significant association at significant level of 5%. Finally, bank size and bank leverage are positively correlated with each other but statistically insignificant.

Diagnostic Test

Diagnostic tests are conducted before running the panel data regression in order to test whether the Classical Linear Regression Model assumptions have been fulfilled or not. If not, these assumptions could cause estimation problems in the model. Jarque-Bera normality test is running using Eviews9 while Wooldridge test for autocorrelation and Variance Inflation Factor for multicollinearity are running using STATA.

Table 3. Diagnostic Tests

Diagnostic Tests	P-value
Jarque-Bera Normality test	0.0909
Wooldridge test	0.1194
Variance Inflation Factor	
Variable	VIF
BC	1.28
BS	1.28
BG	2.09
SIZE	2.29
LEV	1.32

Based on the table above, the p-value for Jarque-Bera normality test is 0.0909, which is greater than 0.05 at 5% significance level and is statistically insignificant. Thus, there is insufficient evidence to reject the null hypothesis and this means that the residuals are normally distributed, with no normality problem. On the other hand, Wooldridge test has the p-value (0.1194), which is higher than 10% significant level and therefore statistically insignificant. Hence, the null hypothesis does not reject and concluded that there is no autocorrelation problem in the model. For the variance inflation factor, all the VIF values are less than 10 which means that the independent variables are not collinear. Therefore, it can be indicated that no multicollinearity problem exists in the model.

Breusch-Pagan (BP) Lagrange Multiplier Test

Before estimating the equation (1), BP Lagrange Multiplier test is tested to choose whether Pooled OLS regression or random effects model is more appropriate to use in the study. Table 4 presents the results of BP Lagrange Multiplier test as below.

Table 4. Breusch-Pagan (BP) Lagrange Multiplier Test

	Test hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	19.3802 (0.0000)	1.4631 (0.2264)	20.8433 (0.0000)***

Notes: *** denote statistically significant at 1% level.

As shown in Table 4 the value from BOTH column is the most suitable benchmark for making the selection under this test. The p-value is less than 0.01 and is statistically significant, therefore the null hypothesis can be rejected at 1% significance level and there is evidence of significant differences across banks. The rejection of null hypothesis shows that the random effects model is the more suitable model to be used in the study as compared to the Pooled OLS.

Hausman Test

Since the results of BP Lagrange Multiplier test suggests that the random effects model is the

suitable model to be used, the next step is running the Hausman test to choose between the fixed effects model and random effects model, which is more appropriate to use. The result of Hausman test are illustrated in table below.

Table 5. Hausman Test

Model	Test statistic (Chi χ^2)	d.f.	Prob.
ROE	19.8531	5	0.0013***

Notes: *** denote statistically significant at 1% level.

The results from the table above shows that the p-value is 0.0013, which is smaller than 0.01 and is statistically significant. Therefore, the null hypothesis can be rejected at 1% significance level. The rejection of null hypothesis concluded that fixed effects model is more appropriate for ROE in this study.

Fixed Effects Model Results

The results of fixed effects model of the study are showed in Table 6.

Table 6. Fixed Effects Model Results

Variable	Coefficient	Std. Error	t-statistic	p-value
BC	0.0945	0.0347	2.7211	0.0101**
BS	-0.0020	0.0020	-0.9567	0.3453
BG	-0.1368	0.0482	-2.8363	0.0075***
SIZE	-0.1396	0.0419	-3.3318	0.0020***
LEV	0.9300	0.2873	3.2367	0.0026***
Constant	0.4088	0.4964	0.8236	0.4158
R-squared	0.8820		F-statistic	21.8050
Adjusted R-squared	0.8416		Prob(F-statistic)	0.0000

Notes: *** and ** denote statistically significant at 1% and 5% level respectively.

As it is summarized in the table above, the estimated regression model is obtained as follows:

$$ROE = 0.4088 + 0.0945 BC - 0.0020 BS - 0.1368 BG - 0.1396 SIZE + 0.9300 LEV$$

From the model, the bank performance will be at a level 0.4088 when the independent and control variables are at zero. When there is one-unit increase in board composition, ROE will increase by 0.0945 unit, holding other variables constant. Both are positively correlated. On the other hand, when board size increase by one unit, ROE will decrease by 0.0020 unit, holding other variables constant. There is a negative relationship between board size and bank performance. Similarly, an increase of one unit in board gender will results in a decrease of 0.1368 unit in ROE, holding other variables constant. This shows that both are negatively related. Moreover, when there is one-unit increase in bank size, ROE will decrease by 0.1396 unit, holding other variables constant. This suggests that bank size is negatively associated with bank performance. Besides, when bank leverage increases by one unit, ROE will increase by 0.9300 unit, holding other variables constant. There is a positive relationship

between bank leverage and bank performance.

Summary of Hypotheses

Based on the above findings, it can be concluded that hypotheses 1 and 4 are supported whereas hypotheses 2 and 3 are not supported.

Table 7. Summary of Hypotheses

Hypotheses	Results	Supported/Not supported
H1: There is a positive significant relationship between board composition and bank performance.	Positive significant	Supported
H2: There is a positive significant relationship between CEO duality and bank performance.	Insignificant	Not supported
H3: There is a positive significant relationship between board size and bank performance.	Insignificant	Not supported
H4: There is a negative significant relationship between board gender and bank performance.	Negative significant	Supported

Conclusion

Overall, it can be concluded that corporate governance variables have a significant impact on local commercial banks' performance in Malaysia such as board composition, board gender, bank size and bank leverage. Meanwhile, board size and CEO duality show no relationship on bank performance in Malaysia.

Based on the descriptive analysis, about half of the banks' boards are independent or non-executive directors (55.02%). Local commercial banks in Malaysia also practised non-dual leadership structure where the CEO and board chairman are two different persons. In addition, the smallest bank board comprises five directors and the largest thirteen, showing an average of nine members per bank board. But the boards for local commercial banks are dominated by male and consist of low numbers of female directors. The average size of the banks is 8.2318 as measured by logarithm of their total assets with an average debt ratio of 91.30%. From the correlation analysis, it can be seen that only one of the corporate governance variables is significantly correlated with bank performance, that is, bank leverage. The positive relationship between bank leverage and ROE indicates high debt ratio results in better performance. Meanwhile, board composition, CEO duality, board size, board gender and bank size show no significant effect on bank performance. Board composition is positively correlated with bank size, suggesting that large banks consist of more outside directors. Bigger banks also have large number of directors on the board, indicating that the relationship between board size and bank size is significantly positive. Furthermore, board gender is found to be positively related with bank size but negatively with bank leverage.

From the results by using the Fixed Effects Model, there is a positive and significant association between board composition and bank performance. This confirms that increasing the number of independent or non-executive directors may improve the bank performance.

CEO duality is not important in describing the performance in Malaysian local commercial banks as the banks adopted non-dual leadership structure. Board gender affects bank performance negatively and significantly, which reveals that female directors increased the costs in quota companies because they are more altruistic and long-term oriented compared to the male directors. For control variables, bank size negatively impacts bank performance, however, bank leverage positively affects bank performance. Overall, the findings suggest that the banks' performance will be improved by adopting effective corporate governance practices. Even though most of the stated hypotheses are not supported based on the results, this study has achieved the objectives by examining and explaining the correlation between each corporate governance variables and bank performance.

There are some limitations that could not be avoided when this study was conducted. Since the focus of this study was on the local commercial banks in Malaysia, the sample size was limited to only eight banks from the whole Malaysian banking industry and did not include foreign commercial banks due to the resources constrain. Due to the adoption of non-dual leadership structures in all local commercial banks' boards, CEO duality has showed the values of zero as measured as dummy variable, which is equal to one if CEO is also the chairman and zero otherwise. This resulted in the problem when running this variable in Eviews9 as it could not make any variation with other variables. Therefore, this variable was excluded when running the data using the software. Moreover, the period of study was insufficient and inadequate that only covered six years, which is from 2011 to 2016. The limitation of time range was due to three reasons. First, the range of six years was chosen in order to meet the requirement of micropanel data, which states that the number of company or country should be more than the number of years. Next, some of the banks disclose only the most recent years' annual report and some of the banks do not disclose annual report before the year 2010. Finally, there is data incompleteness due to the data more than this timeframe is unavailable in DataStream.

Recommendations for Future Research

The future researches are encouraged to increase the number of sample by including another Asian emerging market such as Singapore, Thailand, Indonesia, Hong Kong and so on to contribute to the existing literature on the impact of corporate governance and firm performance. In addition, this research could undertake other banks like Islamic banks and foreign commercial banks, or other industries like manufacturing, tourism, and electrical and electronic, rather than just focus on domestic-based banks. It can broaden the scope and quality of the research. As limitations, this study only used internal mechanisms of corporate governance, which are board composition, CEO duality, board size and board gender as the tools to examine their effects on bank performance. In order to create a dynamic framework for future researches, corporate governance variables other than the internal mechanisms such as ownership structure, the number of board meeting, nature of audit committee, and so forth should be incorporated. Furthermore, there are other performance indicators like return on assets, Tobin's Q and earnings per share could be used to proceed with the similar topic of this study. Last but not least, the period of study should be increased since the years of study included from 2011 to 2016 was not considered as a long period. The reason behind this was

that the new rules and regulations might result in the change in bank profit over time. A large number of observations associated with a longer time period might facilitate the evaluation of the association between performance and corporate governance mechanisms. Also, the benefit of having a long period would allow the research to capture more accurate and precise results.

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