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DO FIRM AND BOARD CHARACTERISTICS AFFECT FINANCIAL PERFORMANCE?

Nur Mimi Najihah Ghazali[1], Radziah Mahmud[1*], Nor Khadijah Mohd Azhari[2]

[1]Faculty of Accountancy, Universiti Teknologi MARA Selangor, 40450 Puncak Alam

[2]Faculty of Business Management, Universiti Teknologi MARA Penang, 13500 Permatang Pauh

[*]*Corresponding author: radzi132@uitm.edu.my*

Abstract

Due to the acceleration of corporate fraud, misdemeanours, negligence, and immense loss of shareholders' investment, the concerns about the firm and board attributes have captivated people's interest, mainly due to the corporate scandals affecting various worldwide corporations. Weak corporate governance policies ultimately result in the collapse of businesses. The issue highlights the need for a better understanding of the impact of corporate governance on corporate performance. Thus, this study aims to examine how firm characteristics (leverage, liquidity) and board characteristics (board size, board independence, gender diversity, Chief Executive Officer (CEO) duality) affect a firm's financial performance in a sample of listed companies from Bursa Malaysia. The data were collected from 137 listed companies in the main market from 2017 to 2019. The results suggest that liquidity positively affects firm performance measured by Return on Asset (ROA), while leverage has a significantly negative effect on firm financial performance. Contradictory to the agency theory, the board size, board independence, gender diversity and CEO duality do not affect the firm financial performance. This study contributes to the current debate on the effect of firm and board characteristics on a firm's financial performance. The findings may also provide insight to investors and regulators.

Keywords: firm characteristics, board characteristics, firm financial performance

Introduction

A firm's financial performance can be seen as a measurement of its ability to generate revenue from its main operation. The term 'firm financial performance' is often used as a broad indicator of a firm's overall financial health over time and can serve as a basis for decision-making and indicate whether a firm's goal has been met (Hermuningsih, Kusuma & Cahyarifida, 2020). Besides, when discussing performance, a firm's financial performance may contribute to the growth of the industry and overall economy instead of being concerned only with a specific firm or specific industry. Financial success has consequences for an organisation's wellbeing and, eventually, survival. Thus, financial performance has become a business practitioners' primary focus in all forms of organisations (Kaguri, 2013). Following the importance of financial performance, scholars from different fields of industry have paid close attention to financial performance issues. Firm characteristics can be categorised into financial and non-financial variables. The financial variables of firm characteristics can be directly extracted from the firm's financial statements (Dioha, Mohamed & Okpanachi, 2018). Literature suggests that corporate governance mechanisms such as board characteristics are

critical to achieving efficiency, where scarce funds are directed to the most profitable investment projects. Thus, corporate governance is one of the most crucial predictors of institutional investment (Zabri, Ahmad & Wah, 2016).

Firm characteristics are indicators that influence the success and failures associated with organisational performance. Following the global financial crisis in 1997, Kuala Lumpur Composite Index (KLCI) declined tremendously by 72% between June 1997 and 1998. Consequently, Malaysia is still facing difficulties in strengthening corporate governance until now. Before the global financial crisis, the corporate governance structure did not play a significant role in the practice of listed companies in Malaysia. Since the crisis negatively affected the global firms' financial performance, many emerging economies, including Malaysia, consider corporate governance structure as a standard set of rules to be implemented by the companies (Khan, Al-Jabri & Saif, 2019).

Various financial scandals have affected the reputation and performance of Malaysian companies due to a weak corporate governance system (Jakpar, Tinggi, Kah, Johari & Khin, 2019). Firms such as Perwaja Steel Berhad, Malaysian Airline System and Megan Media were largely criticised and accused of poor board structure (Khan et al., 2019). These financial scandals and governance failures highlight the need for a better and more effective corporate governance framework in Malaysian listed companies to prevent the possibility of corporate governance failure. In addition, liquidity and financial leverage issues play a significant role in the sustainability and growth of a firm's business activity. Thus, the firm's financial managers and shareholders must be deeply concerned about the firm's performance outcome in order to function efficiently and effectively (Hongli, Ajorsu & Bakpa, 2019). The concerns about board qualities also attracted people's interest, especially with the escalation of corporate fraud, misconduct, negligence, and tremendous loss of shareholders' money in recent years, with corporate scandals involving various global corporations being particularly noteworthy (Pucheta-Martínez & Gallego-Álvarez, 2020).

The primary study objective is to examine the effect of firm and board characteristics on the firm financial performance. Two proxies for firm characteristics, namely leverage and liquidity of the sample companies, were taken into consideration. In contrast, the board characteristics were measured by board size, board independence, gender diversity, and Chief Executive Officer (CEO) duality. This study contributes to the literature on the effect of specific firm and board characteristics on firm financial performance. The findings might provide insight to regulators in formulating corporate governance mechanisms to curb Malaysia's corporate scandal.

The study is structured as follows: Section 2 elaborates the related theory and previous literature, while Section 3 explains the research methodology used. Section 4 presents and discusses the results, and lastly, Section 5 concludes the study.

Agency Theory

Previous research on firm characteristics, corporate governance mechanism and company performance has focused on several theoretical perspectives. Nevertheless, the most common theory used for studies on firm and board characteristics and company performance is agency theory (Assenga, Aly & Hussainey, 2018; Arianpoor, 2019; Ejike, 2020). Agency theory is a principle used to explain and resolve the issues between business principles and their agents. The shareholders are the principal, and the agents are the firm executives. The agency relationship is defined as a contract where one or more individuals (the principals) hire another individual (the agent) to provide some service on their behalf, entrusting the agent with specific decision-making authority (Jensen & Meckling, 1976).

According to the agency theory, the interest of the executives may differ from the shareholders since executives may act out of self-interest instead of maximising the shareholders' benefit. The decision managers who initiate and implement important decisions that do not bear a major share of the wealth effects of their decision are more likely to make decisions that deviate from the interest of the shareholders (Fama & Jensen, 1983). Therefore, the divergences of interests between shareholders and firm executives can create agency costs which is a loss to shareholders (Wakaisuka-Isingoma, Aduda, Wainaina & Mwangi, 2016). Agency theory proposes that disconnection between ownership and management will lead to better management performance since they will be committed to maximising their interest (Amedi & Mustafa, 2020). The non-executive directors can monitor and control management activities to reduce agency problems.

Firm Characteristics, Board Characteristics, and Firm Financial Performance

Financial performance is a subjective measure of how well a company can use assets and generate revenues (Wakaisuka-Isingoma, 2018). Firm financial performance has also been used to determine the firm's overall financial health over a period of time (Naz, Ijaz & Naqvi, 2016). In short, firm financial performance is the most crucial indication of business growth since financial performance proves the companies' ability to raise income levels.

Board characteristics is a good proxy often used by previous research to examine the factors that affect a company's financial performance. This research added an additional element that might affect firm financial performance, notably firm characteristics. Firm characteristics are determinants that are primarily under management control. Specific firm characteristics are associated with firm performance, such as leverage and liquidity (Dioha et al., 2018; Kaguri, 2013; Mahfoudh, 2013). An increase in leverage shows that the company is dependent on external debt financing. Furthermore, too high or low liquidity is not suitable for a firm. Too high liquidity suggests that the firm has too much cash indicating that the management is ineffective in using cash to generate income. Simultaneously, too low liquidity suggests that the firm may strive to meet its short-term obligations when due.

Corporate governance primarily emphasises the duty of the board or obligation for critical strategic decisions and planning to enhance the efficiency and quality of the companies. In contrast, the control component of corporate governance stresses the board's responsibility to direct the organisation's executive management in executing the strategies and plans. A few elements that have brought organisations to an end are organisational mismanagement and non-adherence to corporate standards (Pantamee & Ya'u, 2018). Emphasising good corporate governance practices is essential to ensure success and secure a company's stable financial position.

Leverage

Financial leverage is defined as the proportion of total debt to total assets. Firms with a low financial leverage use retained earnings or equity financing to fund their projects and operations. In contrast, highly geared firms use debt more than other sources to fund their projects and operations (Hongli et al., 2019). There is a widespread view that the impact of leverage on firm performance is ambiguous (Ibhagui & Olokoyo, 2018), with some studies showing significant positive effects (Kwaltommai, Enemali, Duna & Ahmed, 2019), while several studies indicate insignificant relationship (Mahfoudh, 2013).

A study by Iqbal and Usman (2018) indicated that financial leverage positively affects firm performance if the total debts of companies do not exceed total equity. Mahfoudh (2013) found that leverage does affect financial performance positively, although the effect is relatively

small. Nevertheless, Dioha et al. (2018) suggested that firms with a high level of leverage will have low profitability. Ibhagui and Olokoyo (2018) asserted that a high level of leverage would lead to low profitability, but the effect will be diminishing once the firm's size exceeds the estimated threshold. The hypothesis of agency costs argues that a firm with high leverage can reduce agency costs of outside equity and improve firm performance, increasing firm value. Therefore, the formulated hypothesis is as follows:
H_1 = Leverage significantly affects the firm financial performance.

Liquidity

Liquidity plays an imperative role in business growth and development. Proper management of companies' resources is critical since it assists the companies to ensure that they have adequate liquidity to meet their immediate financial obligations (Li et al., 2020). Several previous research found a significant positive relationship between liquidity and firm financial performance (Kaguri, 2013; Mahfoudh, 2013). Other studies found a negative effect of liquidity and financial performance, specifically Return on Asset (ROA) (Hongli et al., 2019; Waswa, Mukras & Oima, 2018).

Dioha et al. (2018) found that liquidity has an insignificant negative effect on profitability, suggesting that a firm with a higher liquidity ratio does not perform better than others and has lower profitability. A study by Hongli et al. (2019) suggested that liquidity will decrease the firm's financial performance. Similarly, Waswa et al. (2018) stated that the firm financial performance would deteriorate as the firm's liquidity increases. In contrast, Mahfoudh (2013) and Kaguri (2013) found a significant positive relationship between liquidity and firm financial performance, indicating that high liquidity will improve firm financial performance.

A firm must strike a balance between liquidity and profitability to guarantee that it can satisfy its short-term obligations while conducting day-to-day operations (Efudante & Akinola, 2020). The use of agency explanations of management risk-taking behaviour assists in describing the risk principles within the business environment (Donnellan, Rutledge, Wiseman & Catanach, 2016). Liquidity risk has been regarded as a critical element of strategic decision-making (Donnellan et al., 2016). Therefore, the suggested hypothesis is as follow:
H_2 = Liquidity significantly affects the firm financial performance.

Board Size

Mohamad, Pantamee, Keong and Garrett (2020) suggested that small boards be more effective in decision-making, whereas larger boards provide diverse options to secure critical resources and build up contacts. The previous research on the effect of board size on financial performance depicts mixed results. Several studies found insignificant negative relationships (Bendigeri & Hyderabad, 2020; Oyedokun, 2019), while others found significant positive relationships (Ejike, 2020; Gurusamy, 2017).

According to agency theory, a larger board will lead to more effective decision-making, enhance the capabilities to process information and firm performance (Ejike, 2020; Ng, Teh, Ong & Soh, 2016). Research undertaken by Gurusamy (2017) supports this view. In contrast, Pantamee and Ya'u (2018) and Oyedokun (2019) denoted that financial performance reduces as the size of the board increases. In line with this perspective, Bendigeri and Hyderabad (2020) implied that the firm's financial performance tends to decrease with an increase in board size, but not significant. Therefore, the proposed hypothesis is as follow:
H_3 = Board size significantly affects the firm financial performance.

Board Independence

The board's independence is considered a significant feature to improve the board's success. Therefore, agency theory proposes that disconnection between ownership and management will lead to better management performance since the board members will be committed to maximising their interests (Amedi & Mustafa, 2020). The existence of independent directors demonstrates that the board's independence leads to improved regulation and performance, the resolution of internal conflicts of interest, and narrowing the communication gap between inside shareholders and directors (Akbar, Hussain, Ahmad & Hassan, 2020). Pucheta-Martínez and Gallego-Álvarez (2020) asserted that a board with a high percentage of independent directors would enhance firm value. Similarly, Abdulsamad, Yusoff and Lasyoud (2018) and Amedi and Mustafa (2020) also discovered that a board with independent directors could improve financial performance.

Nevertheless, Naseem, Xiaoming, Riaz and Ur Rehman (2017) stated that independent board directors would contribute to poor financial performance. They described that the role of independent directors does not associate with firm financial performance but better governance. Oyedokun (2019) also suggested that the board's independence has not improved financial performance and is not significant. Similarly, Jakpar et al. (2019) and Bendigeri and Hyderabad (2020) also denoted that the presence of independent directors on the board impacts firm financial performance negatively but at a lower rate. Hence, the empirical evidence on the impact of board independence on financial performance is inconclusive. Therefore, the formulated hypothesis is as follow:

H_4 = Board independence significantly affects the firm financial performance.

Gender Diversity

The agency theory suggests that female directors can play a significant role in helping the agency reduce costs by generating new ideas and perspectives for the board of directors and making difficult decisions (Pucheta-Martínez & Gallego-Álvarez, 2020). The presence of female directors on board is expected to reduce the probability that qualified or adverse audit opinions will be issued, especially when the female directors have an active role in board committees (Ararat & Yurtoglu, 2020). Nevertheless, the literature on gender diversity is ambiguous. Lee-Kuen, Sok-Gee and Zainudin (2017), Chen, Leung and Evans (2018), Oyedokun (2019), Amedi and Mustafa (2020), and Loukil, Yousfi and Yerbanga (2020) suggested that the existence of female directors on board will lead to high firm financial performance.

Female directors are more risk-averse than male directors, thus contributing to high firm financial performance (Assenga et al., 2018). Nevertheless, Naseem et al. (2017) did not support the theory that female representation on board will positively affect firm financial performance. Bendigeri and Hyderabad (2020) also asserted that female directors on board have no impact on the firm's financial performance. Therefore, the suggested hypothesis is as follow:

H_5 = Gender diversity significantly affects the firm financial performance.

Chief Executive Officer (CEO) Duality

Aligned with agency theory, separating the role of CEO and Chairperson of the Board (COB) is good to improve successful board control (Assenga et al., 2018). In addition, the CEO and Board Chairman positions should be held by two distinguished and independent individuals to ensure greater impartially and better monitoring and control of board members (Akbar et al., 2020). The CEO duality may adversely affect the quality of strategic decision-making due to

conflict of interest and drastic decisions and choices. Previous research also highlights different results. Some studies found positive impacts (Pucheta-Martínez & Gallego-Álvarez, 2020), while others found insignificant negative relationships (Bendigeri & Hyderabad, 2020).

Pucheta-Martínez and Gallego-Álvarez (2020) suggest that the combination of CEO and COB role will increase firm financial performance. Nonetheless, Khan et al. (2019) suggested that CEO duality will lead to poor financial performance. Studies were undertaken by Assenga et al. (2018) and Bendigeri and Hyderabad (2020) confirm this finding and suggest that separating the role of CEO and COB may enhance firm financial performance. Therefore, the proposed hypothesis is as follow:

H_6 = The CEO duality significantly affects the firm financial performance.

Research Methodology

Sampling

The target population of this study consist of the 12 sectors of Malaysian firms listed on the main market of Bursa Malaysia, comprising 751 companies. The main market of Bursa Malaysia consists of 13 sectors. Nevertheless, this study excluded financial services companies from the population due to the different regulatory environments (Gurusamy, 2017). A proportionate stratified random sampling was used in obtaining the study sample. This sampling technique was adopted to ensure that companies from different industries can be selected equally. Hence, the sample better represents the population (Dankwano & Hassan, 2018). Stratified random sampling is regarded to be more efficient because each of the significant segments of the population is better represented. Besides, more valuable and differentiated information is gathered for each group (Sekaran & Bougie, 2016).

Sekaran and Bougie (2016) used the 20% method to select the study sample using proportionate stratified random sampling. Therefore, the sample size of this study is 150 after calculating 20% of firms from each sector. Nevertheless, this study excluded 13 firms from the sample, resulting in 137 companies as the final sample. The companies with Return on Equity (ROE) exceeding 22% were eliminated since these companies will affect the data normality. The proportionate sampling of the 12 sectors is as follows:

Table 1 Sampling size (proportionate stratified random sampling)

Sector	**No. of Companies**	**Proportionate sampling (20% of the no. of companies)**
Telecommunication and Media	17	3
Transportation and Logistics	33	7
Utilities	12	2
Construction	51	10
Plantation	42	8
Technology	43	9
Healthcare	14	3
Energy	31	6
Real Estate and Investment	18	4
Property	97	19
Consumer Products and Services	169	34
Industrial Products and Services	224	45
TOTAL	751	150

Data Collection

The analysis is based on 411 observations from 137 firms listed on the main market of Bursa Malaysia from the years 2017 to 2019. The data was collected from the annual report and Refinitiv Eikon Database of the sample company from 2017 to 2019. The quantitative data for board size, board independence, gender diversity, and CEO duality were obtained from annual reports of the sample companies. On the other hand, the financial information for leverage, liquidity, ROA and ROE was obtained from Refinitiv Eikon Database.

Measurement of Variables

The dependant variable of this study is firm financial performance. This study used ROA and ROE as a proxy to determine financial performance. The independent variables are firm characteristics (measured by leverage and liquidity) and board characteristics (measured by board size, board independence, gender diversity and CEO duality). This study incorporated firm size as control variables. The measurement of the variables used in this study is shown in **Table 2**.

Table 2 Operational definition and measurement of the dependent variable

Variable	Acronym	Measurement	Sources
Dependent Variables			
Return on Asset	ROA	Net income divided by total asset	Arianpoor (2019), Assenga et al. (2018) and Ng et al. (2016)

Return on Equity	ROE	Net income divided by total shareholders' equity	Arianpoor (2019), Assenga et al. (2018) and Ng et al. (2016)
Independent Variables			
Leverage	LEV	The ratio of total debt to the total asset	Kwaltommai et al. (2019)
Liquidity	LIQ	The ratio of current assets to current liabilities	Dioha et al. (2018)
Board Size	B_SIZE	Total number of board of directors on the board	Ejike (2020)
Board Independence	B_INDP	Number of independent directors to total number of board members	Pucheta-Martínez and Gallego-Álvarez (2020)
Gender Diversity	DIV	The ratio between the total number of women directors and the total number of board members	Pucheta-Martínez and Gallego-Álvarez (2020)
CEO Duality	DUAL	Dummy variable whereby if the roles of chairman and CEO are combined, the variable has been assigned as 1. If the roles are not combined, it has been assigned as 0	Bendigeri and Hyderabad (2020)
Control Variable			
Firm Size	F_SIZE	The logarithm of total asset	Naseem et al. (2017)

Data Analysis

Several analyses and tests were conducted to achieve the study objective. Normality test, descriptive statistics and correlation analysis were initially performed. After considering all the assumptions, multiple linear regression analysis was conducted (Ng et al., 2016) to investigate the effect of firm and board characteristics on firm financial performance using the following models:

Model 1:

$$ROA_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 LIQ_{it} + \beta_3 B\_SIZE_{it} + \beta_4 B\_IND_{it} + \beta_5 DIV_{it} + \beta_6 DUAL_{it} + \beta_7 F\_SIZE_{it} + \epsilon_{it} \quad (1)$$

Model 2:

$$ROE_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 LIQ_{it} + \beta_3 B\_SIZE_{it} + \beta_4 B\_IND_{it} + \beta_5 DIV_{it} + \beta_6 DUAL_{it} + \beta_7 F\_SIZE_{it} + \epsilon_{it} \quad (2)$$

Result and Discussion

Normality Test

Table 3 shows the normality test results for the dependent variable of the study. The skewness of the ROA is 0.863, indicating that the data are positively slightly skewed, whereas the majority of the data are slightly lower than the central tendency. Conversely, the skewness value of -0.728 for ROE indicates that the data are negatively skewed, while most are above the central tendency. Based on the result shown in **Table 3**, this study has leptokurtic kurtosis for ROA and ROE with the value of 4.146 and 7.136, respectively. Thus, the data are concluded to be normally distributed and therefore valid to run the statistical analysis.

Table 3 Normality test

		Statistic	Std. Error
Return on Asset	Mean	.0543	.00322
	Median	.0500	
	Skewness	.863	.120
	Kurtosis	4.146	.240
Return on Equity	Mean	.0861	.00551
	Median	.0800	
	Skewness	-.728	.120
	Kurtosis	7.136	.240

Descriptive Statistics

Table 4 presents the minimum, maximum, mean and standard deviation values based on 411 observations (137 companies × 3 years). The CEO duality was excluded as the variable is measured using a dummy variable.

Table 4 Descriptive statistics

	Min	Max	Mean	Std. Deviation
ROA	-0.18	0.35	0.05	0.07
ROE	-0.68	0.52	0.09	0.11
LEV	0.01	0.85	0.44	0.19
LIQ	0.04	11.97	2.44	1.92
B_SIZE	5	17	8.40	2.22
B_IND	0.22	1.00	0.49	0.12
DIV	0.00	0.55	0.17	0.12
F_SIZE	4.96 (0.09m)	8.25 (178.85m)	6.51 (9.94m)	0.69 (18.94m)

Note: Abbreviation = ROA – Return of Asset/ ROE – Return on Equity/ LEV- Leverage/ LIQ – Liquidity/ B_SIZE – Board Size/ B_IND – Board Independence/ DIV – Gender Diversity/ F_SIZE – Firm Size

The average firm financial performance of the samples is relatively low. The means for financial performance measures proxied by ROA and ROE are 5% and 9%, respectively. The data includes an observation of firms making an 18% loss on their total asset and firms making

a 68% loss on the total shareholder equity. The companies generally used 44% debt to finance their total assets. The mean liquidity of the observation is 2.44, indicating that, on average, the companies have the ability to fulfil their short-term obligations when they are due. This study indicates that, on average, eight directors serve on the board. A total of 49% of the directors consist of independent directors, while 17% are female directors. In relation to the control variable, the observation companies' mean firm size proxied by total asset is RM9.94m.

Correlation

Table 5 shows the results of the Pearson correlation coefficient of variables. The correlation results suggest that liquidity positively and significantly relates to financial performance measured by ROA and ROE. Leverage, board independence, board size and firm size have a significant and negative relationship with financial performance. The relationship between board diversity and financial performance is negative and significant for performance measured by ROE. The results show that none of the correlation coefficient values is more than 0.90. Hence, the multicollinearity issue is considered to be negligible.

Table 5 Pearson correlation coefficients

	ROA	**ROE**	**LEV**	**LIQ**	**B_SIZE**	**B_IND**	**DIV**	**DUAL**	**F_SIZE**
ROA	1								
ROE	.895***	1							
LEV	-.435***	-.234***	1						
LIQ	.315***	.192***	-.592***	1					
B_SIZE	-.087*	-.102**	.082*	.010	1				
B_IND	-.149***	-.109**	.224***	-.145***	-.191***	1			
DIV	-.051	-.081*	.000	.020	.246***	.010	1		
DUAL	.044	.040	-.028	.000	-.077	.205***	-.145***	1	
F_SIZE	-.190***	-.159***	.263***	-.125**	.276***	.234***	.192***	.117**	1

***. Correlation is significant at the 0.01 level (2-tailed).
**. Correlation is significant at the 0.05 level (2-tailed).
*. Correlation is significant at the 0.10 level (2-tailed).
Note: Abbreviation = ROA – Return of Asset/ ROE – Return on Equity/ LEV- Leverage/ LIQ – Liquidity/ B_SIZE – Board Size/ B_IND – Board Independence/ DIV – Gender Diversity/ DUAL – CEO Duality/ F_SIZE – Firm Size

Regression Analysis

This study utilised multiple regression analysis to explore the effect of firm and board characteristics on firm financial performance. The results are presented in **Table 6**.

Table 6 Multiple regression analysis

	ROA			ROE		
	Coefficient	**t**	**Sig.**	**Coefficient**	**t**	**Sig.**
LEV	-.116	-5.538	.000***	-.080	-2.085	.038**
LIQ	.003	1.728	.085*	.005	1.545	.123
B_SIZE	-.001	-.690	.491	-.004	-1.316	.189
B_IND	-.035	-1.380	.168	-.072	-1.542	.124
DIV	-.006	-.221	.825	-.036	-.765	.444
DUAL	.012	.927	.355	.020	.818	.414
F_SIZE	-.008	-1.529	.127	-.009	-.970	.333
Adj. R^2	0.195			0.064		
F value	15.204			4.990		

***. Correlation is significant at the 0.01 level (2-tailed).
**. Correlation is significant at the 0.05 level (2-tailed).
*. Correlation is significant at the 0.10 level (2-tailed).
Note: Abbreviation = ROA – Return of Asset/ ROE – Return on Equity/ LEV- Leverage/ LIQ – Liquidity/ B_SIZE – Board Size/ B_IND – Board Independence/ DIV – Gender Diversity/ DUAL – CEO Duality/ F_SIZE – Firm Size

The effect of firm and board characteristics on financial performance is generally consistent in both models. The results show that leverage has a significant and negative effect on firm financial performance measured by ROA and ROE. Liquidity is found to be positively related to financial performance. Nevertheless, the effect is only significant using ROA as the performance measure. Conversely, the board size, board independence and gender diversity have a negative and insignificant effect on financial performance. Financial performance is found to be positively affected by the CEO duality, but the effect is insignificant. Control variable, namely firm size, has a negative and insignificant effect on firm performance.
Therefore, only leverage has a significant effect on the financial performance of public listed companies on the main board of Bursa Malaysia. In contrast, liquidity significantly affects financial performance proxied by ROA. However, the financial performance is not influenced by the board characteristics.

Discussion of Results
The study findings suggest that leverage has a significant negative effect on ROA and ROE. This finding indicates that firm performance will reduce as the leverage of a company increase. Hence, this finding suggests that the company should not depend too much on debt to finance assets and equity since it will adversely firm financial performance. High financial leverage can pose significant risks if a firm incorrectly forecast future sales. In turn, the risks could negatively affect the firm financial performance. The finding aligns with the findings of Dioha et al. (2018). Thus, this study does not support the hypothesis of agency theory which depicts that higher leverage can improve firm performances.
The firm financial performance is positively and significantly influenced by liquidity using ROA as the performance measure. This finding implies that firm financial performance will be enhanced if companies invest their current assets effectively and efficiently (Vieira, Neves & Dias, 2019). Aligned with agency theory, companies with better liquidity will perform better. This finding is supported by Akgün and Karataş (2021) and Neves, Baptisa, Dias and Lisboa (2021).

This study suggests no significant relationship between board size and firm financial performance in line with Bendigeri and Hyderabad (2020). The finding could be due to the interaction of two competing factors that determine the relationship. The benefits of additional directors' skills, expertise and experience do not outweigh the costs of potential conflicts and inefficient decision-making.

Board independence is found to have an insignificant relationship with firm financial performance. The finding implies that the independent directors do not perform their monitoring role effectively. The finding could have been due to the argument that the independent directors' appointment is based on political motives to justify business activities and agreements rather than their expertise, skills, and experience (Haniffa & Hudaib, 2006). This finding is supported by Oyedokun (2019) and Bendigeri and Hyderabad (2020).

This study discovered that gender diversity does not contribute to firm financial performance, consistent with Bendigeri and Hyderabad (2020). In contrast, Chen et al. (2018), Oyedokun (2019), Amedi and Mustafa (2020), and Loukil et al. (2020) revealed that female directors do not improve the corporate governance mechanisms that will mitigate the information asymmetry and agency problems. Instead of inclining towards enhancing financial performance, qualified female directors may be appointed due to gender equality (Pletzer, Nikolova, Kedzior & Voelpel, 2015) as promoting gender equality in the corporate board that supports the ethical case for diversity seems reasonable and desirable.

In relation to CEO duality, this study does not support the view that a company will perform better when the role of CEO and board chairman are combined. This finding is inconsistent with Assenga et al. (2018), Bendigeri and Hyderabad (2020), and Pucheta-Martínez and Gallego-Álvarez (2020), who found the positive effect of CEO duality on firm performance. This finding proposes that CEOs may not fully utilise the advantages from their success, legitimacy, and reputation to enhance the firm financial performance despite having a duality role.

As a control variable, firm size has an insignificant effect on firm financial performance. This study does not confirm that firm size is crucial in determining financial performance. Managers in larger companies may emphasise maximising the managerial utility instead of profit maximisation (Niresh & Velnampy, 2014). This finding is similar to other studies such as Niresh and Velnampy (2014) and Abeyrathna and Priyadarshana (2019).

This study discovered that all the board characteristics examined have no impact on firm financial performance. The findings suggest that the financial performance of a firm does not alter tremendously by the change in these variables. Thus, the study findings do not support agency theory. Instead, the findings suggest that the larger board will enhance firm performance, while the board's independence will improve the firm's performance. Additionally, female directors can lower agency expenses, leading to better performance, whereas CEO duality may negatively affect firm performance.

Conclusion

This study was conducted with the primary objective of examining the effect of firm and board characteristics on the financial performance of firms listed on the main market of Bursa Malaysia. The regression analysis results suggest that leverage has a significant negative effect on firm financial performance measured by ROA and ROE. The financial performance measured by ROA is positively affected by liquidity. This study also discovered that board characteristics, namely board size, board independence, gender diversity, and CEO duality, do not significantly affect firm financial performance.

Besides contributing to the current debate on corporate governance, this study provides additional empirical evidence that various factors affect the firm financial performance. Hence, identifying the real effect of corporate governance mechanisms is challenging. The finding could benefit existing and potential investors in assessing a company's efficiency and effectiveness. Investors are often advised to rely on other corporate information besides corporate governance information. The results could interest regulators in developing better corporate governance mechanisms. The lack of significant effect of board characteristics on financial performance could be due to selecting firm financial performance measures and the choice of board characteristics. Thus, future research should be conducted using market-based performance measures and other corporate governance mechanisms.

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Conflict of interests

The authors declare that the research was conducted in the absence of any commercial or financial relationship that could be seen as a potential conflict of interest.

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