

The Effect of Board Size and CEO Duality on Firm Performance: Evidence from Malaysia

DJERFI Abderahmane¹

¹ University of jijel - Algeria

✉ abderahmane.djerfi@univ-jijel.dz

 0009-0009-2505-4789

CHAALAL Cherif Abdelillah²

² Ibn khaldoun university, Tiaret - Algeria

✉ cherifabdelilah.chaalal@univ-tiaret.dz

 0009-0005-4611-5182

SEBAI Saber³

³ ISCAE, Manouba University - Tunisia

✉ saber.sebai@gmail.com

 0000-0001-6310-4796

Received: 07-05-2025

Accepted: 12-21-2025

Published: 12-30 -2025

Abstract

This study examines the impact of selected board characteristics specifically board size and CEO duality, on corporate performance among the 100 largest non-financial firms listed on Bursa Malaysia during the period 2017–2020. The research is grounded in three theoretical frameworks: Agency Theory, Stewardship Theory, and Resource Dependence Theory, which together explain how corporate governance mechanisms influence firm outcomes. Using panel data analysis performed with STATA 16, the study employed the Panel-Corrected Standard Errors (PCSE) estimator to address heteroscedasticity and cross-sectional dependence issues.

Firm performance was measured using two main indicators: Tobin's Q as a market-based measure and Return on Assets (ROA) as an accounting-based measure. The empirical results reveal a significant positive association between board size and Tobin's Q, suggesting that larger boards may offer strategic benefits valued by investors, although no significant relationship was found with ROA. Additionally, CEO duality demonstrated a significant positive effect on both Tobin's Q and ROA, indicating that unified leadership can enhance both market valuation and operational performance within certain organizational contexts, the study contributes to the corporate governance literature by providing new evidence from Malaysia, highlighting how board structure and leadership configuration jointly affect firm performance.

Keywords: Board Size; CEO Duality; Firm Performance; Agency Theory; Resource Dependence Theory; StewardShip Theory.

Jel Classification: G32; G34.

Cite this article

Djefri, A., Chaalal, C. A., & Sebai, S. (2025). The Effect of Board Size and CEO Duality on Firm Performance: Evidence from Malaysia. *Economic Researcher Review*, 13(2),90–105.



This article is licensed under a Creative Commons Attribution-NonCommercial 4.0 International license

1. Introduction.

Over the past decades, a series of corporate scandals and financial crises have shaken global confidence in corporate governance systems, revealing significant deficiencies in transparency, accountability, and internal controls (Tricker, 2019; Aguilera, Desender, Bednar & Zhou, 2018). Failures such as Enron, WorldCom, and Parmalat, alongside economic volatility in emerging markets including Asia, Russia, and Brazil, highlighted institutional weaknesses that foster managerial opportunism and board inefficiency (Brammer, Millington & Rayton, 2019; Al-Fadli & Almaqtari, 2020).

Rooted in Agency Theory, corporate governance aims to align the interests of managers and shareholders through accountability and control mechanisms (Berle & Means, 1932; Jensen & Meckling, 1976; Ishak & Napier, 2006; Mustapha & Ahmad, 2011). Empirical evidence suggests that weak oversight and lack of board independence increase agency costs and reduce firm value. Accordingly, modern governance emphasizes independent audit committees, board independence, and transparent reporting as mechanisms to enhance performance and strengthen stakeholder trust (Al-Hamidy, 2010; Al-Hussain, 2009; Al-Moataz & Basfar, 2010).

Despite these reforms, empirical findings regarding the effects of board size and CEO duality remain inconsistent, particularly in emerging markets (Bhagat & Bolton, 2019). While some studies argue that larger boards improve strategic decision-making by providing diverse expertise and perspectives, others suggest that they may reduce cohesion and slow down decision processes (Aggarwal, 2013; Liu & Fong, 2010). CEO duality—where the same individual serves as both CEO and board chair—also attracts debate, as it can either compromise board independence or provide unified leadership and strategic stability (Darko, Baah & Boachie, 2016).

This study addresses this gap by examining the impact of board size and CEO duality on the financial performance of non-financial firms listed on Bursa Malaysia during 2017–2020. Firm performance is measured using two primary indicators: Tobin's Q, representing market-based performance, and Return on Assets (ROA), representing accounting-based performance.

Research Problem

Although numerous studies have examined corporate governance, the relationship between board characteristics and firm financial performance remains unclear, especially in emerging markets. There is a need for contemporary empirical research that evaluates this relationship using Tobin's Q and ROA as objective performance measures.

Based on the above, the main research question can be formulated as follows:

What is the effect of board size and CEO duality on the financial performance of non-financial firms listed on Bursa Malaysia, as measured by Tobin's Q and ROA?

Sub-Questions

1. How does board size affect firm performance according to Tobin's Q and ROA?
2. What is the impact of CEO duality on firm performance according to Tobin's Q and ROA?

3. Does the relationship between board characteristics and firm performance vary depending on the performance measure used?

Study Objectives

- To examine the relationship between board structure (size and CEO duality) and firm financial performance using Tobin's Q and ROA.
- To provide empirical evidence on the effectiveness of board characteristics in emerging markets.
- To offer recommendations for improving corporate governance and enhancing financial performance in listed companies.

Significance of the Study

- Contributes to the literature on corporate governance in emerging markets, where institutional contexts differ from developed economies.
- Provides insights for investors and policymakers regarding the design of effective boards.
- Assists firms in adopting board structures that enhance transparency, efficiency, and long-term value creation.

Structure of the Paper

- Section 2: Literature review, covering key theories (Agency, Stewardship, Resource Dependence) and empirical evidence on board size, CEO duality, and firm performance.
- Section 3: Research methodology, including sample selection, data sources, variables, and analytical methods.
- Section 4: Results and discussion, relating empirical findings to the research questions and existing literature.
- Section 5: Conclusion, summarizing the findings, highlighting theoretical and practical contributions, and providing policy recommendations.

2. Literature review

Corporate governance has long been linked to firm performance, beginning with [Berle and Means \(1932\)](#), who highlighted the separation of ownership and control that gives rise to agency conflicts between shareholders and managers. [Jensen and Meckling \(1976\)](#) formalized this principal-agent relationship, noting that misaligned interests can cause inefficiency and value loss. Within this framework, governance mechanisms aim to align managerial actions with shareholder interests through accountability and oversight. As [Tong and Junarsin \(2013\)](#) emphasized, good governance builds investor confidence. Key governance attributes such as board size, CEO duality, and board meeting frequency remain central in explaining variations in firm performance and long-term success.

2.1 Board size.

With respect to effectiveness and performance of corporate governance structures, the size of the board of directors commonly known as the number of members serving on the board is widely

regarded as an important variable. The behavior of the boards with regard to their size and its effect on the performance of a firm has been the subject of many empirical studies in the past few decades and scholars have tried to decipher whether a large board or a small board results in more efficient oversight, strategies and effective decisions making. To give an example, [Alves \(2014\)](#) was able to do studies on this correlation but the patterns in literature are varied and inconclusive because of the varying research scenarios, theoretical orientations and research designs used by professionals. Although there are some researchers who claim the existence of optimal numbers of board members that strikes a balance between control and agility, there are those who suggest that board effectiveness is subjective. Larger boards are generally less coherent, more challenging to organize, and experience a more gradual pace of decision-making, which can positively affect strategic responsiveness as shown by stewardship theory. Conversely, agency theory and the resource dependence theory present a different point of view and claim that bigger boards can perform oversight tasks more efficiently, since they have access to a wider range of expertise, experience in the industry, external contacts ([Badu & Appiah, 2017](#)). It is these differing opinions that have been persisting to give academic roots of what can be said of the most effective board composition under different organizational and institutional environments.

Scores of scholars have underlined the fact that board size has a dramatic effect on the ability of a board to make prudent strategic compositions and offer proper oversight, which end up enhancing the performance of firms ([Larmou & Vafeas, 2010](#); [Fauzi & Locke, 2012](#)). The composition of the board has also been considered another structural characteristic that determines the nature of governance processes especially, efficiency of communication, the quality of monitoring, and efficacy of decision making. Because of its significance, theory has established two major schools of thought in finding the ideal size of the board. The small board argument of the first school contends that the smaller boards are superior since they are more likely to enjoy better communication, fewer necessary coordinations and better accountability, which subsequently enhance the firm value. This is backed by numerous empirical researches like the one by [Yermack \(1996\)](#) and [Ozkan \(2011\)](#) which indicate that the smaller the board size and the more concentrated the owners of the firm, the better the performance results a firm can possibly record as opposed to the situation where the board is extremely large yet strained with numerous owners. Conversely, the arguments against are based on the agency theory and resource dependence theory and have the claim that a larger board injects a wider diversity in knowledge, stronger monitoring capabilities and access to external resources, which in turn may have positive effects on the firm strategy and governance. These conflicting schools of thought indicate the current state of difficulty in reaching a conclusion as to the ideal size of a board that often varies dependent on the factors specific to the firm including firm size, industry, ownership structure.

The effectiveness of board size in terms of firm performance has still created a debate among scholars as there is still no empirical evidence to either support or to deny the effectiveness of board size in regards to firm performance. One of the earlier to show that smaller boards result in higher market performance of firms indicating that leaner boards are more efficient and less subject to both coordination issues and passive control, was [Yermack \(1996\)](#). Along this line, [Fischer and Pollock \(2004\)](#) observed that smaller boards are better placed to undertake effective monitoring due to the fact that few board members ensures tighter communication, concentrated discussions and faster strategic response.

Nevertheless, an opposite argument can find its ground in another line of studies that think that a larger size of a board can have a positive effect on corporate performance as diverse knowledge, skills, and experiences can be employed thus they become particularly useful in complex and dynamic organizations. As an example, [Klein \(1998\)](#) stated that larger boards are best placed to check on management and improve on the quality of the decision making since, they have greater expertise. In addition to that fact, [Dalton et al. \(1999\)](#) supported this view and indicated that board members have

more access to relevant, up-to-date information when work within bigger groups, which, on the other hand, leads to more conscious and strategic approach to governance practices.

Such conflicting results lend credence to the significance of contextual elements confronting the evaluation of the perfect board formulation that would improve firm performance, relevant aspects like the nature of industry, the regulatory regime, or the size of the firm should be considered.

To clinch the argument on the larger board structures, [Kyereboah-Coleman and Biekpe \(2005\)](#) noted that there was relation between structured large boards with enhanced financial performance across companies especially in developing economies. Their results confirm their expectations about the higher the number of members of the board, the better the control, the decision-making process and more thorough the process of governances.

In the view of agency theory, the board size can also improve the board monitoring capacity of managerial action as a larger group of directors is more likely to question the executive decision that can counteract opportunistic tendencies. The same idea can be found with [Qadorah and Fadzil \(2018\)](#), who stated that there is a possibility of holding CEOs more accountable through the inclusion of various expert opinions, thanks to the existence of a more diverse group of directors.

Simultaneously, a complementary explanation of the resource dependence theory suggests that a bigger size of a board is beneficial as it increases accessibility to external networks, strategic resources, and industry knowledge. In their work with the empirical support of the firms in Ghana and Nigeria, [Badu and Appiah \(2017\)](#) identified the positive connection between the size of the board and its effect on the performance of the firm. They concluded that, in emerging markets characterized by complex business environments and institutional constraints, increasing board size can be a strategic response that enhances a firm's adaptive capacity and long-term value creation.

That being the case, this study suggests the following hypothesis:

H1: suggests that the larger the board, the higher is the firm's performance.

2.2 CEO Duality.

Details on how having the same person as both CEO and Chairperson on a board of directors affects company performance are one of the key questions in the field of corporate governance research ([Dalton, Hitt, Certo, & Dalton, 2007](#)).

The rules put in place by the Sarbanes-Oxley Act of 2002 have caused people to pay more attention to the double-leadership model. Studies and arguments based on agency theory show that CEO duality might reduce a board's effectiveness and prevent the firm from performing well ([Jensen, 1993](#)).

Usually, the CEO deals with daily matters of the company, whereas the Chairperson is responsible for the board's activities, such as giving high-level direction and checking how executives carry out their duties. If a single person holds both the president's and prime minister's roles, fears surface about power being concentrated, personal conflicts, and losing balance with check and balances ([Pham & Pham, 2020](#)).

They give two different opinions about what CEO duality means for companies. Based on agency theory, having CEO duality means the board cannot properly watch over and supervise management because of possible conflicts. When the CEO leads the board, they may avoid checks by others and use their two roles to pursue matters that may not benefit shareholders ([Peng, Zhang, & Li, 2007](#)). That's why it is considered important for the CEO and Chairperson to have different roles, to avoid conflicts and promote seeing through shareholders' interests ([Donaldson & Davis, 1991](#)).

Looking at it this way, having joint roles as chair and CEO is expected to harm a company's operation and protection since it causes problems in management and helps leaders stay in charge. So, this view of leadership underlines the importance of:

H2a : Being a CEO and chairperson at the same time has a weakened impact on a firm's performance.

On the other hand, stewardship theory maintains that having one person in both CEO and board leader roles results in unity, speedy choices, and stable strategies. Stewardship theory suggests that managers are driven by things such as their enthusiasm to do well for the organization, duties, and reaching achievements (Donaldson & Davis, 1991). Looked at this way, leaders who handle both CEO and chairman jobs may experience reduced uncertainties in their roles, perform more effectively as managers, and strengthen the unity within the organization (Bich & Thai, 2019).

This theory means that executives are responsible for the company and usually take care of the shareholders' interests first. Therefore, having the same individual in both the CEO and chairman roles could increase a company's performance by decreasing disputes and raising top executives' authority (Bhagat & Bolton, 2008).

Based on this view, the alternative hypothesis is promoted.

H2b : The presence of both jobs in a single individual is associated with high performance by the company.

3. Research design.

3.1. Sample data.

The companies included in this research consist of the 100 biggest non-financial companies listed at Bursa Malaysia. The firms were picked using their market capitalization and the role they play in Malaysia's business community. The details in the study are from the years 2017 to 2020, as gathered from secondhand resources, such as annual reports, profiles of directors, and the Thomson Reuters database.

2017 was chosen to set the foundation because it marked the updated version of the Malaysian Code on Corporate Governance (MCCG) for more strict requirements on public firms. The chosen time frame gives a four-year overview of what happened after reforms and its results.

Highlighting only the top 100 companies was necessary in order to include those companies that provide clear information and have reliable rules in place. As a result, most of these businesses make sure they comply with MCCG guidelines and disclose that compliance in their annual reports as required.

So, these resources supply credible and organized details required for judging corporate governance and the performance of a company.

The reason the financial sector was left out is because the regulations for financial institutions are different from others. The way banks are governed and what they must report cannot be compared straightaway with what non-financial firms do (Abed, Al-Attar, & Suwaidan, 2012). Adding them to the analysis might cause problems and could possibly conflict with the results.

The study attempts to offer consistent and easy-to-generalize results on CEO duality by looking at non-financial companies with open finances and powerful governance standards in Malaysia.

3.2 Measurement variables.

The researchers looked at firm performance in relation to board characteristics by using a special panel data method. The dependent variable is the firm's financial performance, measured through both market-based and accounting-based indicators: Tobin's Q and Return on Assets (ROA), respectively.

Researchers look at board size and CEO duality as the chief independent variables, believing they can have an effect on the company's performance. Furthermore, looking at firm size, firm age, and leverage deals with variations between firms and helps avoid possibility of missing important factors.

The measuring values of the variables can be found in the following table:

Table 1: Variable Definitions and Measurements

Variable	Type	Proxy / Measurement	Expected Sign
Tobin's Q	Dependent	(Market Value of Equity + Total Liabilities) / Total Assets	—
Return on Assets (ROA)	Dependent	Net Income / Total Assets	—
Board Size	Independent	Total number of directors on the board	± (Mixed findings)
CEO Duality	Independent	Dummy variable: 1 = CEO is also Chairman, 0 = otherwise	Negative (H2) / Positive (H2Alt)
Firm Size	Control	Natural log of total assets	Positive
Firm Age	Control	Number of years since incorporation	Positive
Leverage	Control	Total Debt / Total Assets	Negative

The source: Developed by Author

For analyzing how board traits affect a firm's results, two regression models were designed. Model 1 employs Tobin's Q as a proxy for market-based firm performance, while Model 2 utilizes Return on Assets (ROA) as a proxy for accounting-based performance. The models are defined as follows:

Model 1:

Tobin's Q equals β_0 plus β_1 BSIZE, β_2 DUAL, β_3 FSIZE, β_4 FAGE, β_5 LEV, plus an error term called ε

Model 2:

ROA equals to $\beta_0 + \beta_1$ BSIZE + β_2 DUAL + β_3 FSIZE + β_4 FAGE + β_5 LEV + ε

Where: Tobin's Q: Market-based performance indicator ; ROA: Return on Assets (accounting-based performance indicator) ; BSIZE: Board size ; DUAL: CEO duality ; FSIZE: Firm size ; FAGE: Firm age ; LEV: Leverage ; ε : Error term ; β_0 – β_5 : Coefficients to be estimated.

4. Results and Discussion

4.1 Descriptive Statistics and Normality Test

Using STATA version 16, the data was pre-processed and studied in the right manner for panel data. To begin the analysis, descriptive statistics were calculated for both dependent and independent variables in order to provide an overview of the data's central tendencies and distribution characteristics. The dependent variables used were Tobin's Q and ROA, representing two distinct dimensions of firm performance: market-based and accounting-based, respectively, as suggested by Djerfi and Louadj., 2023 ;Abderahmane, D., & Abdelillah, C. C. 2023; Djerfi and Chaalal., 2025).

Seeing the data in Table 2, the amount of Tobin's Q for all sampled companies was 1.8735 with a high value of 13.36 and a low value of 0.00. A winsorized version of Tobin's Q (WTobinsQ), used to minimize the effect of extreme outliers, shows an average of 1.7547, with a maximum of 6.765 and a minimum of 0.4. This implies that how a company is valued can change a lot depending on its

governance, the size of the organization, or which industry it is in. Regarding Return on Assets (ROA), the mean value is 7.574%, reflecting overall profitability levels. Even so, the values can vary a lot on each stock, going as high as 46.1% and as low as -35.23%. It also proves that among many firms, some make a large profit and some lose money, which proves the need to study the factors that create such differences within companies.

Differing levels of both dependent variables prove that there is a wide range of firm performances, so it is necessary to use panel regression to handle variations in time and between firms.

To confirm that the regression analysis is reliable, the normality test was carried out for all the continuous variables. Despite minor circumstances of skewness, mainly for Tobin's Q, all issues were taken care of by applying winsorization and robust standard errors in all regression models.

According to descriptive statistics, there was not a lot of difference between the values for the independent variables. For instance, board size (BSIZE) ranged from small boards with 4 members to larger ones with up to 13, while CEO duality (DUAL) was a binary variable, with a majority of firms separating the roles of CEO and board chair. Firm size (FSIZE) and firm age (FAGE) displayed a normal distribution, indicating the presence of both young and mature firms in the sample, and leverage (LEV) showed a skewed distribution, with some firms heavily dependent on debt financing.

The first part of the study suggests links between governance details and how firms perform, and these are studied further in regression analysis found in the following section.

Table (2) : Descriptive Statistics of Continuous Variables

Variable	Obs	Mean	min	Max	sd	skewness	Kurtosis
Tobin's Q	400	1.8735	0	13.36	2.119011	2.867128	12.3504
WTobin's Q	400	1.754675	.4	6.765	1.633661	1.890133	5.864512
ROA	400	7.573825	-35.23	46.1	8.972266	1.072781	7.809803
BD_SIZE	400	8.45	4	14	2.062312	.4344608	2.720495
CEO_D	400	.21	0	1	.4078183	1.423983	3.027728
F_AG	400	42.41	4	192	29.92877	2.121219	8.878962
F_SIZE	400	6.55035	5.01	8.26	.706567	.1653566	2.235302
Leverage	400	44.95602	0	5063	302.123	14.79114	227.326
WLeverage	400	23.84587	0	58.0625	16.81801	.2036346	2.087864

Note: We winsorise (Tobin's Q and Leverage) at (5 95) percentile to normalise the variables.

The source : They are prepared by researcher based on STATA 16 outputs.

Table (3) : Descriptive Statistics (percentage) for dummy variables

COE Du	Freq	Percent
0	316	79
1	84	21
Total	400	100.00

The source : They are prepared by researcher based on STATA 16 outputs.

Two indicators are used to evaluate the firm performance of the dependent variables in this paper. The performance in the market is measured using the Tobin's Q ratio, whereas the performance from the accounts is measured by Return on Assets.

As indicated in Table 2, the average value of TOBINS_Q among the sample is 1.8735, making the maximum value 13.36 and the minimum 0.00. BY using WTobinsQ, which is winsorized, extreme outliers are excluded, and the variable has a mean of 1.7547, while its maximum is 6.765 and its lowest is 0.40.

The ROA figures indicated a range from 46.10% to -35.23%, so the financial results of the top 100 non-financial firms at Bursa Malaysia differed over the four years.

Independent variable board size reports that 8.45 board members on average, and the minimum and maximum numbers are 4 and 14, respectively. About CEO duality, since it is just binary (1 for duality and 0 for separation), 84 firms are represented by 1 and 316 by 0, so the majority of firms have kept these positions apart.

When it comes to control variables, here are the descriptive statistics.

- An average firm's age (F_AGE) is 42.41 years, and its values can be as low as 4 and as high as 192 years.

The natural logarithm of total assets shows that the average size of firms (F_SIZE) is 6.5504, and it ranges from 5.01 to 8.26.

The average leverage ratio is 44.956%, it can get as high as 506.3%, and the lowest it can be is zero.

When we winsorize leverage (Leverage) at the 5th and 95th percentiles, the balance comes to 23.846%, and it ranges from 0% to 58.06%.

The researcher used statistics to ensure that the data met the requirement of normality. All variables shown in Table 2 meet the acceptable requirements, which are said to be within ± 3 for skewness and ± 10 for kurtosis, as suggested by Kline (2011). As a result, we believe regression analysis will deliver useful findings because the variables' distribution is almost normal.

4.2 Correlation of the Study Variables and Variance Inflation Factor

Table (4) : Correlation of the Study Variables and Variance Inflation Factor

	Tobin's Q	ROA	B_SIZE	CEO_D	F_AGE	F_SIZE	Lev	Vif
Tobin's Q	1.0000							
ROA	0.7457***	1.0000						
B_SIZE	-0.0176	-0.1118	1.0000					1.16
CEO_D	0.0839	0.0573	-0.0471	1.0000				1.04
F_AGE	0.0417	0.0560	0.0776	-0.1492***	1.0000			1.05
F_SIZE	-0.2815***	-0.3310***	0.3487***	-0.1015	0.1475***	1.0000		1.34
Lev	-0.1807***	-0.2204***	0.2617***	0.0525	0.1313***	0.4173***	1.0000	1.26

Note. Tobin' = TobinsQ; ROA =Return on Assets; B_SIZE = Board Size; CEO_D= chief executive officer Duality ;F_SZ = Firm size; F_AGE = Firm age; Lev= Leverage *** significant at 0.01 level, ** significant at 0.05 and * at 0.1 level.

The source : They are prepared by researcher based on STATA 16 outputs.

Table 4 contains the Pearson correlation values between the variables used in the research. According to Hair et al. (2014), the absence of multicollinearity is confirmed as none of the

correlation coefficients is over 0.90. Thus, it can be expected that the variables are distinct from one another and fit for use in multivariate regression analysis.

The research results indicate that as board size (B_SIZE), firm size (F_SIZE), and leverage (LEV) rise, both Tobin's Q and ROA fall, which explains that there is a negative link between these variables and successful firm performance according to both accounting and market metrics.

At the same time, being led by a dual-role CEO and age of the firm show a positive and significant link to both ROA and Tobin's Q.

For this purpose, Variance Inflation Factor (VIF) was calculated for each independent and control variable. Since the highest VIF value was below 10, that confirms that there is no multicollinearity in the regression model.

4.3 Regression results

There are two procedures involved in analyzing the effect of CG on company performance. The outcomes of the simultaneous equation model are shown in Tables 5 and 6. Each category's contribution to the firm's performance is measured independently of the others. Tobin's Q and return on assets are used to gauge a company's success. Indicators of governance are also employed independently.

The variables come together with the financial leverage, firm size, and firm age control factors.

Table (5) : Main Regressions Results (PCSEs)

Panel-corrected								
	Tobin's Q				ROA			
Variables	Coef.	Std. Err.	Z	P> z	Coef.	Std. Err.	Z	P> z
B_SIZE	.0830118	.0150529	5.51	0.000***	.0731175	0.56	0.56	0.574
CEO_D	.3275393	.163996	2.00	0.046**	1.144216	1.88	1.88	0.060*
F_AGE	.0055518	.0004738	11.72	0.000***	.0366516	5.45	5.45	0.000***
F_SIZE	-.648437	.0771718	-8.40	0.000***	-	-	-	0.000***
Leverage	-.0106531	.0025668	-4.15	0.000***	3.813662	10.18	10.18	
					-	-2.70	-2.70	0.007***
					.0630538			
R Square		0.1075						0.1334
prob>F		0.0000						0.0000
Breusch and Pagan LM test		0.0000						0.0000
Hausman test		0.0658						0.0000
Modified Wald		0.0000						0.0000
Heteroskedasticity								
Wooldridge		0.0003						0.0006
Autocorrelation								
Pesaran's cross sectional independence		0.547						0.531
Notes: The definitions of the variables are in Section 3.2. z-statistics are based on panelcorrected standard error (PCSE).***, ** and * represent statistical significant at the $p < 1\%$, 5% , and 10% levels, respectively.								

The source : They are prepared by researcher based on STATA 16 outputs.

Two ways of analyzing the impact of corporate governance on firm performance were tried, and the outcomes from the simultaneous equation model are displayed in Tables 5. The analysis evaluates the individual contribution of each governance indicator—board size (B_SIZE) and CEO duality (CEO_D) on two performance metrics: Tobin's Q (market-based) and Return on Assets (ROA) (accounting-based). Variables used to control the model are financial leverage (LEV), the company's size (F_SIZE), and its age (F_AGE).

Initial explorations found out that these issues exist in the panel dataset.

Heteroskedasticity was found in both Tobin's Q and ROA since the null hypothesis of error variance was rejected by the Breusch-Pagan/Cook-Weisberg test (Tobin's Q: $\chi^2 = 50.59$, $p = 0.0000$; ROA: $\chi^2 = 41.93$, $p = 0.0000$).

- The Wooldridge test found that there is first-order serial correlation in Tobin's Q data ($F = 14.115$, $p = 0.0003$) and ROA data ($F = 12.447$, $p = 0.0006$), so the null hypothesis should be rejected.

Along with handling other issues, the study made use of the Panel-Corrected Standard Error (PCSE) in the Ordinary Least Squares (OLS) approach. It is able to handle both variability in variances and relation between the same panel.

The main findings are related to regression analysis.

It is found from the regression that board size influences market performance by increasing Tobin's Q with statistical significance ($\beta = 0.0830$, $p < 0.01$). This is consistent with what [Adams and Mehran \(2005\)](#) report and supports the argument by the Resource Dependence Theory that wider experience and knowledge shared by bigger boards add value to firms (as described in [Brown et al., 2011](#)). Yet, in the accounting-based model (ROA), there was no statistical link between board size and firm performance, adding to the similar findings reported by [Bhagat and Black \(2002\)](#).

There was a strong and noticeable relationship between CEO duality (CEO_D) and firm performance, as seen by positive and significant coefficients for both Tobin's Q ($\beta = 0.3275$, $p = 0.046$) and ROA ($\beta = 1.1442$, $p = 0.060$). These findings are in line with earlier reports by Ali and Zhang (2015) that state linking the CEO and board chair positions can raise a firm's results. In addition, Stewardship Theory states that CEO duality ensures effective leadership by using one and the same rule, which enhances the organization's decision-making abilities ([Bich & Thai, 2019](#)).

With regard to the control variables, here is what the paper reports:

A bigger firm is linked to a negative and significant market and accounting performance (Tobin's Q: $\beta = -0.6484$, $p = 0.000$; ROA: $\beta = -3.8137$, $p = 0.000$), showing that bigger size might bring problems of inefficient processes or less efficient use of resources.

Particularly, debt ratios (LEV) are linked with less successful firm performance (Tobin's Q: $\beta = -0.0107$, $p = 0.000$, ROA: $\beta = -0.0631$, $p = 0.007$) because this could hinder management and introduce more risks to the company.

5. Conclusion

This study aimed to explore the impact of selected board characteristics—namely board size and CEO duality on the financial performance of the top 100 non-financial firms listed on Bursa Malaysia's Main Market over the period 2017–2020. The research sheds light on the field of corporate

governance by focusing on additional and clear evidence connecting board makeup and firm leadership to results in emerging markets.

The main points found in the analysis are highlighted here.

It is evident from the research that having a larger board brings about a higher Tobin's Q, an indicator that investors relate to favorably with that firm. The study corroborates Resource Dependence Theory, which indirectly supports the idea that bigger boards give firms access to needed resources, ideas for strategy, and a good reputation. Having more diverse people on boards usually results in more effective ways to make decisions and lessens the gaps in knowledge.

In addition, it was found that the study's statistical relationship between board size and ROA was insignificant. Although having a large board canvas can boost a firm's image on the market, it may not positively affect operations within the company. This gap between the results shown by markets and accounting has been discussed in studies about governance ([Dalton et al., 1999](#); [Jackling & Johl, 2009](#)).

It was also found that CEO duality is related to good company performance in terms of Tobin's Q and ROA. This agrees with the idea from Stewardship Theory ([Davis et al., 1997](#)) that giving one person several leadership roles can strengthen the organization's alignment, unity in strategies, and accountability of its managers. Since many Malaysia-based businesses are owned and controlled by families, CEO duality can speed up the process of making and carrying out business strategies.

All in all, these findings prove that both board size and CEO duality help to improve a company's performance, particularly in developing countries.

In this research, Agency Theory, Stewardship Theory, and Resource Dependence Theory are all brought together to give new insights.

According to Agency Theory (by Jensen and Meckling in 1976), it is risky for CEOs to serve as both the head of management and as a board member since it increases their power. Even so, our outcomes imply that performance in Malaysia is not made weaker by duality, going against the traditional understanding of agency.

Resource Dependence Theory reinforces the positive association between board size and firm performance by emphasizing the board's external linkage and advisory roles ([Hillman & Dalziel, 2003](#)).

The Stewardship Theory shows that having a CEO who is both a steward and a leader is most useful when the company is trusted by all members.

Applying all these theories gives a more detailed insight into the governance processes taking place in emerging economies.

The research generates major insights for both managers and regulators. Companies should be guided to select a proper board that keeps diversity high, covers all aspects of management, and provides enough strategic ideas, while preventing conflicts. Since companies differ, the best size for an organization depends on its industry and how intricate it is.

In certain cases, having a CEO double as a director may be useful as long as the company has solid internal controls and the board remains responsible. The pros and cons of having one central strategy should be discussed by the board.

Anyone interested in a company's performance may judge its future prospects using board traits, as this information is harder to find in some emerging markets.

The findings back the idea that regulators should develop rules that fit the local situations in emerging nations rather than just copy those from Europe or America.

Even though the study provides useful ideas, it has some notable deficiencies that need further exploration.

1. Future works on the topic should examine financial firms, SMEs, and more industries to increase the widened application of the findings throughout Malaysia.

2. The study selected only two governance topics to review. Further research may focus on how the following aspects impact staffing shortages:

- Board independence.
- Diversity of people's genders.
- The amount of time an official has been on the board and what.
- educational achievements they have.
- Audit, nomination, and remuneration are among the committees.
- How often board meetings happen.

3. If the study covered a long period of time (like 10 years), the effects of board decisions on the business could be properly understood as short-term problems were less likely.

4. To offer more insights, coming studies could also bring in ROE, EPS, ROI, as well as non-financial metrics such as ESG, satisfaction among workers, and the company's new products or services.

5. An analysis of various emerging economies, such as Indonesia, Thailand, Tunisia, or Algeria, can be done to determine how the board's features differ and how they impact company results.

Using these findings, we advise stakeholders active in emerging markets on possible policies.

- It is important for Securities Commissions and Stock Exchanges in Algeria, Tunisia, and similar countries to adopt rules that follow newly discovered industry standards.

Following are ways in which regulatory bodies should work:

motivate each board to have programs that help directors gain the skills and knowledge needed for effective service.

- Enhance how much information is shared about the organization's board and the role of its CEO.
- Focus on promoting a variety of people in leadership and give leaders freedom in their methods as long as they comply with laws.
- Encourage universities and research centers to do regular studies on corporate governance that guide regulations.

It is clear from this study that effective corporate governance helps a firm succeed, mostly when markets are less well-developed and regulations are not yet strong. Because board size and CEO duality are linked to good results here, it recommends that governance systems should be suited to each country.

In the process of economic modernization, strong governance is more important than ever to draw foreign investment, watch out for stakeholders' interests, and guarantee solid growth of companies in emerging markets.

"Corporate governance is not just about compliance it is about performance, accountability, and creating value" (Tricker, 2015).

Overall, achieving sustainable development and enhancing institutional effectiveness require the establishment of strong legal and regulatory frameworks, supported by long-term strategic planning and significant investments in infrastructure and technology (Djerfi & Chaalal, 2024).

Referrals and references:

1. Abed, S., Al-Attar, A., & Suwaidan, M. (2012). Corporate governance and earnings management: Jordanian Evidence. *International Business Research*, 5(1), 216-225.
2. Abderahmane, D., & Abdelillah, C. C. (2023). *The Impact of Capital Structure on profitability: Empirical analysis of non-financial companies listed on Bursa Malaysia*. *Journal of North African Economies*, 19(31), 39-60.
3. Adams, R., & Mehran, H. (2005). Corporate Performance, Board Structure and its Determinants in the Banking Industry, in EFA. in EFA 2005 Moscow Meetings.
4. Aguilera, R. V., Judge, W. Q., & Terjesen, S. A. (2018). Corporate governance deviance: Toward a thicker description of the mechanisms of governance. *Academy of Management Perspectives*, 32(3), 284–306. <https://doi.org/10.5465/amp.2016.0132>
5. Al Fadli, A., & Almaqtari, F. A. (2020). Corporate governance and financial performance of listed firms: Evidence from the Gulf region. *Cogent Business & Management*, 7(1), 1804721. <https://doi.org/10.1080/23311975.2020.1804721>
6. Ali, A., & Zhang, W. (2015). CEO tenure and earnings management. *Journal of Accounting and Economics*, 59(1), 60-79.
7. Alves, S. (2014). The Effect of Board Independence on the Earnings Quality: Evidence From Portuguese Listed Companies. *Australasian Accounting, Business and Finance Journal*, 8(3), 24-44.
8. Badu, E., & Appiah, K. (2017). The impact of corporate board size on firm performance: evidence from Ghana and Nigeria. *Research in Business and Management*, 4(2), 1-12.
9. Berle, A., & Gardiner, M. (1932). *The Modern Corporation and Private property*. New York: Mac-Millan.
10. Bhagat, S., & Black, B. (2002). The Non-correlation between Board Independence and Long-term Firm Performance. *Journal of Corporation Law*, 27(2), 231-274.
11. Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance*, 14(3), 257–273.
12. Bich, N., & Thai, P. (2019). The effects of leadership skills on firm performance: The case of textile and garment firms in Vietnam. *Management Science Letters*, 9(12), 2121-2130.
13. Brammer, S., Jackson, G., & Matten, D. (2019). Corporate social responsibility and institutional theory: New perspectives on private governance. *Socio-Economic Review*, 17(1), 3–28. <https://doi.org/10.1093/ser/mwy030>
14. Dalton, D., Hitt, M., Certo, S., & Dalton, C. (2007). The fundamental agency problem and its mitigation. *Academy of Management annals*, 1(1), 1-64.
15. Djerfi, A., & Chaalal, C. A. (2024). Strategies for Developing Renewable Energy in Developing Countries: Challenges, Opportunities, and Future Prospects. *مجلة دراسات وأبحاث اقتصادية في الطاقات المتجددة*, 11(2), 122-133.
16. Djerfi, A., & Chaalal, C. A. (2025). *Do board meetings and independence have an impact on a firm's performance? Evidence from Malaysia*. *Beam Journal of Economic Studies*, 9(2), 653-667.
17. Djerfi, A., & Louadj, M. (2023). Effect of Board Diversity on Firm Performance: Evidence from Malaysian non-Financial Listed Companies. *Finance and Business Economies Review*, 7(2), 4-22.

18. Doan, T. (2020). Financing decision and firm performance: Evidence from an emerging country. *Management Science Letters*, 10(4), 849-854.
19. Donaldson, L., & Davis, J. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16(1), 49–64.
20. Fauzi, F., & Locke, S. (2012). Board Structure, Ownership Structure and Firm Performance: A study of New Zealand Listed-Firms. *Asian Academy of Management Journal of Accounting and Finance*, 8(2), 43–67.
21. Fischer, Harald M; Pollock, Timothy G;. (2004). Effects of social capital and power on surviving transformational change: The case of initial public offerings. *Academy of Management Journal*, 47(4), 463-481.
22. Guest, M. (2009). The impact of board size on firm performance: Evidence from the UK. *The European Journal of Finance*, 15(4), 385–404.
23. Hair, J., Black, W., Babin, B., & Anderson, R. (2014). *Multivariate data analysis*. Seventh. Upper Saddle River: NJ: Pearson.
24. Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28(3), 383–396.
25. Ishak, Z., & Napier, C. (2006). Expropriation of minority interests and corporate diversification in Malaysia. *Asian Academy of Management Journal of Accounting and Finance*, 2(1), 85-113.
26. Jackling, B., & Johl, S. (2009). Board structure and firm performance: Evidence from India. *Corporate Governance: An International Review*, 17(4), 492–509.
27. Jensen, M. (1993). The modern industrial revolution, exit, and the failure of internal. *Journal of Finance*, 48, 831–880.
28. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
29. Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
30. Kline. (2011). *Principles and practice of structural equation modelling* (3rd ed). New York, NY : The Guildford Press .
31. Kyereboah-Coleman, A., & Biekpe, N. (2005). The relationship between board size, board composition CEO duality and firm performance experience from Ghana. Working paper.
32. Larmou, S., & Vafeas, N. (2010). The relation between board size and firm performance in firms with a history of poor operating performance. *Journal Management Government*, 14(1), 61–85.
33. Mak, Y., & Li, Y. (2001). Determinants of corporate ownership and board structure: Evidence from Singapore. *Journal of Corporate Finance*, 7(3), 235-256.
34. Mustapha, M., & Ahmad, A. (2011). Agency theory and managerial ownership: evidence from Malaysia. *Managerial Auditing Journal*, 26(5), 419-436.
35. Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, 42(6), 674–686.

36. Ozkan, N. (2011). CEO compensation and firm performance: An empirical investigation of UK panel data. *European Financial Management*, 17, 260–285.
37. Peng, M., Zhang, S., & Li, X. (2007). CEO Duality and Firm Performance during China's Institutional Transitions. *Management and Organization Review*, 3(2), 205-255.
38. Pham, D., & Pham, Q. (2020). The impact of CEO duality on firm performance: Examining the life-cycle theory in Vietnam. *Accounting*, 6(5), 737-747.
39. Qadorah, A., & Fadzil, F. (2018). The relationship between board size and CEO duality and firm performance: Evidence from Jordan. *International Journal of Accounting, Finance and Risk Management*, 3(3), 16-20.
40. Tong, S., & Junarsin, E. (2013). Do Private Firms Outperform SOE Firms after Going Public in China Given their Different Governance Characteristics? *Gadjah Mada International Journal of Business*, 15(2), 133-170.
41. Tricker, B. (2015). *Corporate Governance: Principles, Policies, and Practices* (3rd ed.). Oxford University Press.
42. Tricker, B. (2019). *Corporate governance: Principles, policies, and practices* (4th ed.). Oxford University Press.
43. Yang, T., & Zhao, S. (2014). CEO duality and firm performance: Evidence from an exogenous shock to the competitive environment. *Journal of banking & finance*, 49, 534-552.
44. Yermack, D. (1996). Higher Market Valuation of Companies With a Small Board of Directors. *Journal of Financial Economics*, 40(2), 185-211.