

IMPACT OF CORPORATE GOVERNANCE MECHANISMES ON FINANCIAL PERFORMANCE: EVIDENCE FROM MALAYSIAN BANKS

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Abstract: *Many studies have concluded that corporate governance has a significant impact on the financial performance of banks, and consequently on overall financial stability. This study investigates the influence of corporate governance mechanisms—specifically board size, board activity, board independence, CEO duality, board committees, and audit committee independence—on banks' financial performance. Financial performance is operationalized using key indicators such as return on equity (ROE), return on assets (ROA), and net interest margin (NIM). Data for the analysis were obtained from the annual reports of eight Malaysian banks, covering the period from 2006 to 2023. The study suggests that corporate governance mechanisms have a multifaceted impact on bank performance. The regression results indicate that board size, board activity, board committee sand audit committee independence influence ROE and NIM; whereas board independence and CEO duality do not consistently affect performance across the models. The study highlighting the need for a balanced governance approach to oversee risks while maintaining efficient operations. The findings offer important managerial implications by highlighting the specific corporate governance mechanisms that influence various dimensions of bank performance, and they contribute to the theoretical literature by elucidating the complex, multidimensional impacts of these mechanisms on profitability, operational efficiency, and interest income management.*

Keywords: *Corporate governance mechanisms, bank performance, board size, audit committee, Malaysia*

JEL classifications: *G210 , G3 , G34*

1 INTRODUCTION

Corporate governance has emerged as a critical concept in both advanced and emerging economies over the past few decades due to its role in enhancing performance quality and excellence. Weak corporate governance practices, including the failure of boards of directors to prioritize stakeholder interests, have frequently been linked to the poor performance of financial institutions. (Aebi, Sabato, & Schmid, 2012); (Beltratti & Stulz, 2012); (Erkens, Hung, & Matos, 2012). The 2008 global financial crisis, which led to the collapse of multiple banks, prompted international institutions such as the International Monetary Fund, the World Bank, the Organization for Economic Cooperation and Development, and the Basel Committee to emphasize the need for the banking sector to strengthen its internal governance frameworks. These financial crises have significantly influenced the development of legislation and regulatory frameworks governing banking operations, particularly in shaping corporate governance structures (Tourani – Red & Lngely, 2010). However, governance frameworks vary across countries due to differences in institutional, legal, and economic environments. Corporate governance is fundamentally concerned with the mechanisms by which firms are directed and controlled, often giving rise to agency problems that stem from the separation between ownership and management. According to (Muhammad, Hayat, Iqbal, & Khan, 2016) the board of directors serves as a crucial mechanism in corporate governance. Effective corporate governance mechanisms within financial institutions are expected to foster management structures capable of mitigating excessive risk-taking and responding to financial challenges, thereby contributing to overall financial stability (Karamanou & Vafeas, 2005). Moreover, corporate governance is regarded as an essential component of market discipline, driving increased demand for robust governance frameworks from investors and other financial market participants. Regulatory bodies have addressed these challenges by enacting corporate governance reforms across various jurisdictions. In the United States, for example, the Sarbanes-Oxley Act (2002) was implemented to strengthen corporate accountability, while in the United Kingdom, corporate governance codes such as the Combined Code of Corporate Governance (2003) serve as best practice guidelines, exerting indirect legal influence through stock exchange listing requirements. In the banking sector, the Basel II framework has been widely adopted by developing

and emerging economies as a means to enhance corporate governance standards.

This study seeks to contribute to the existing body of knowledge on corporate governance by examining the impact of various governance mechanisms on the financial performance of banks in Malaysia. Specifically, the research seeks to assess the ability of Malaysian banks to implement corporate governance practices to enhance efficiency. Furthermore, the study examines the role of the prevailing corporate governance regulatory framework in shaping the financial performance of Malaysian banking institutions. To achieve these objectives, a representative sample of eight commercial banks from 2006 to 2023 is analyzed. The study employs multiple measures of bank financial performance to ensure the robustness of the empirical findings. Four alternative proxies for bank performance—net interest margin, return on average equity, and return on average assets—are utilized to document and analyze the relationships derived from empirical applications within the dataset. Empirical results are generated using three widely recognized econometric techniques: pooled Ordinary Least Squares (OLS), Random Effects, and the Generalized Least Squares (GLS) method. This methodological approach facilitates comparative analysis, enables the validation of econometric techniques, and ensures the robustness of empirical findings. The results indicate that, for the Malaysian banking sector, the GLS methodology outperforms both pooled OLS and Random Effects models in addressing classical econometric challenges associated with dynamic panel data and socio-economic variables, such as endogeneity, simultaneity.

The paper is organized as follows. Section 1 reviews the relevant literature and articulates the empirical hypotheses regarding corporate governance mechanisms. Section 2 describes the sample, variables, and econometric models employed in the analysis. Section 3 presents and discusses the empirical findings, while the final section offers concluding remarks..

2 LITERATURE REVIEW

The Cadbury Committee (1992) is credited with establishing the most prevalent concept of corporate governance, defining it as the structure that governs and regulates organizations. Good governance, therefore, entails efficient organizational frameworks that minimize agency costs associated with

information asymmetry and managerial entrenchment. Shah and Butt (2009) found that board size is negatively correlated with equity costs, suggesting that effective corporate management can lower a company's equity expenses. Investors are more likely to trust companies that exhibit strong profitability profiles and robust asset bases. Nurfatanah Bt Abdullah (November 2021) further argues that corporate governance is essential due to the separation of management from ownership and its impact on financial performance. Despite extensive research into various aspects of corporate governance and their effects on financial performance, empirical findings have often been inconsistent. Given its long-standing history and broad scope—encompassing a wide range of economic and legal phenomena—the definition of corporate governance varies according to the specific focus of inquiry.

Empirical evidence indicates that the impact of corporate governance mechanisms on the financial performance of Malaysian banks is substantial. A number of studies have demonstrated that effective governance practices such as board diversity, strict regulatory compliance, and enhanced transparency contribute to improved profitability and more robust risk management in the banking sector. This relationship is particularly relevant in the context of banks in Malaysia, where specific governance characteristics _Key Governance Mechanisms_ can lead to improved financial outcomes , which the Board Composition: A diverse board, including female participation, positively influences bank performance, as shown in studies focusing on Malaysian banks (Farooq, M., Al-Jabri, Q. Mohd., Khan, M. T., Humayon, A. A., & Ullah, S., 2023)

Regulatory Compliance: Adherence to regulations is crucial for maintaining investor confidence and improving financial performance (TANAKA, H., Kumar, P., & Kagura, T., April 2024). Financial Reporting Transparency: Clear and transparent financial reporting is linked to better financial outcomes, as it fosters trust among stakeholders. In other side the Empirical Evidence agree by Research indicates that effective governance mechanisms significantly impact profitability and risk management in banks (TANAKA, H., Kumar, P., & Kagura, T., April 2024). A study analyzing 300 bank-year observations found that certain governance characteristics, such as board size and director remuneration, positively affect financial performance. (Farooq, M., Al-Jabri, Q. Mohd., Khan, M. T., Humayon, A. A., & Ullah, S., 2023)

While the evidence supports the positive impact of corporate governance on financial performance, it is essential to consider that not all governance practices yield the same results across different contexts. For instance, the effectiveness of governance mechanisms may vary between Islamic and conventional banks, suggesting a need for tailored approaches in governance strategies.

The significance of corporate governance appears to rise in importance within both academic circles and the agendas of policymakers, particularly in response to global events typically linked to crises. This trend can be observed following incidents like the Asian crisis of 1998, the collapses of Enron and WorldCom, the global financial crisis of 2007, and the subsequent credit crisis of 2008. Concerns have grown regarding the inadequacy and ineffectiveness of corporate governance mechanisms, which have led to insufficient board oversight and a decline in bank value. Consequently, recent attention has been directed toward the shortcomings present in the governance systems of banks. However, these crises are merely symptoms of deeper structural issues that underscore the increasing importance of corporate governance mechanisms for economic development and their status as a critical policy concern (Bobirca.A & Miclaus.P.G, 2007)

Typically, banks are known for a significant level of opaqueness regarding their transactions and operations. Consequently, the attributes and characteristics of corporate governance within the banking sector are distinct. This distinction arises from the particular traits of the banking system, which exacerbate issues related to governance and may diminish the efficacy of conventional governance frameworks, such as boards and audit committees (Laeven.L, 2013); (Alharbi.R, McLaren.J, & Elnahass.M, 2022), when compared to non-financial companies. The Basel Committee on Banking Supervision indicates that the banking sector has distinct regulations regarding corporate governance, which pertains to "the manner in which the business and affairs of banks are governed by their boards of directors and senior management" (Basel Committee on Banking Supervision, 2006) This suggests that because of the unique characteristics of banking institutions, governance mechanisms significantly influence how they operate and fulfill their responsibilities. (Haji & Ghazali, 2018) posit that a firm's performance is primarily driven by its resources, viewing the firm as a bundle of capabilities that are rare, valuable,

non-substitutable, and inimitable—qualities that underpin sustainable competitive advantage. In this context, positive hidden values, such as the intangible assets derived from board characteristics, can enhance performance, while negative hidden values, or intangible liabilities, may hinder it. Supporting this perspective (Hermawan, Hanif, Biduri, & Wijayanti, 2021), examined the influence of good corporate governance on the financial performance of Indonesian banks—using ROA as a proxy—and found that robust governance practices positively impact financial outcomes. However, contrasting evidence exists in the literature, as some studies have reported an insignificant relationship between corporate governance and firm performance (Hassan, Marimuthu, & Johl, 2015); (Singh & Davidson, 2003); (Prevost, Rao, & Hossain, 2002), suggesting that the effect of governance mechanisms may be contingent on contextual factors.

2.1 Board size

Within the theoretical framework for corporate governance, several theories posit a relationship between board size and financial performance. In particular, both agency theory and resource dependency theory contend that a larger board of directors can enhance firm performance by providing a broader range of expertise and resources for effective oversight (Kiel & Nicholson, 2003). Consequently, board size is widely regarded as a pivotal factor that impacts both the quality of corporate governance and the overall financial performance of a firm.

(Arora & Sharma, 2016) demonstrate that a larger board size enhances financial performance and decision-making, attributing this benefit to the greater intellectual capital available in larger boards. Similarly, (Al-Matari E. , 2020) examined the impact of board characteristics on corporate performance in the financial sector and found that an increase in board size significantly improves financial outcomes. (Poudel & Hovey, 2012) further support this view by showing that larger boards enhance the efficiency of commercial banks. However, contrasting perspectives exist in the literature. (Jensen M. , 2003) contends that oversized boards contribute to corporate failure, while (Fauzi & Locke, 2012) argue that smaller boards may better enhance overall performance. In line with the latter argument, (Morekwa Nyamongo & Temesgen, 2013) assert that banks with smaller boards tend to be more

efficient due to their ability to more closely monitor management. Additionally, (Lamichhane, 2018) further explains that excessively large boards may encounter coordination and control issues, leading to prolonged decision-making and declining performance. Given these conflicting findings, the literature provides evidence for both positive and negative relationships between board size and firm performance.

Consequently, the following hypothesis is proposed: H1. "The size of the board of directors impacts the financial performance of banks in Malaysia."

2.2 Board activity

Board activity reflects the frequency of meetings held by an organization's board of directors, during which key strategic decisions and organizational policies are discussed. These meetings play a crucial role in shaping the organization's direction and ensuring effective governance. Additionally, board meetings serve as an essential platform for directors to obtain relevant information, monitor the company's progress, and fulfil their oversight responsibilities (Eluyela, et al., 2018). The board activity was reported to have a significant relationship with the firm's financial performance. According to his study, a high frequency of meetings helps in the assessment/monitoring of business activities at the right time and timely solving of business matters. (Al-Matari E. , 2020) This result was consistent with the study of (Salim, Arjomandi, & Seufert, 2016) which established that a high frequency of meetings yields better performance. (Lee & Lok, 2020) study concluded that firms' performance is negatively associated with busy boards. Also, firms with a busy board are experiencing higher operational risks, especially in the volatility of ROA, operating cash flows, and stock returns. (Aktan, Turen, Tvaronavičienė, Celik, & Alsadeh, 2018) According to the study findings indicate that the frequency (number) of meetings held by the board of directors exerts a significantly negative impact. Board meetings, defined as the assemblies of an organization's board of directors to deliberate on strategic coverage and key decisions affecting its future, are critical for facilitating the flow of information and tracking company progress (Eluyela, et al., 2018). Some studies report that a higher frequency of board meetings is positively associated with improved financial performance, as regular meetings enable timely assessment, monitoring, and resolution of business matters (Al-Matari E. , 2020); (Salim,

Arjomandi, & Seufert, 2016). In contrast, other research suggests that an excessive frequency of meetings—indicative of a “busy board”—may be detrimental to firm performance. For instance, (Lee & Lok, 2020) find that busy boards are linked to lower performance and increased operational risks, such as greater volatility in ROA, operating cash flows, and stock returns. Supporting this negative view, (Aktan, Turen, Tvaronavičienė, Celik, & Alsadeh, 2018) demonstrate that a higher number of board meetings is significantly associated with a decline in financial performance, as measured by return on equity, implying that overly frequent meetings may have a destructive rather than constructive impact.

In light of these mixed findings, we propose the following hypothesis:
H2. “The number of board meetings impacts the financial performance of banks in Malaysia.”

2.3 Board committees

Committee structures enable boards to address key issues in greater depth than is typically feasible during full board meetings, allowing organizations to tailor their governance practices to specific business challenges and corporate cultures. The composition and number of board committees vary widely, with no universal standard regarding their type or number. (Hayes, Mehran, & Schaefer, 2004) documented significant variation in both the number and composition of committees across firms. Nevertheless, certain board committees—particularly the audit committee in financial institutions—are widely regarded as critical. (Hayes, Mehran, & Schaefer, 2004) further reported that the proportion of outside directors serving on committees does not significantly affect firm performance. Moreover, they observed that the number of committees is positively related to both the total number of directors and firm size. In contrast, (Elamer & Benyazid, 2018) emphasize that specific characteristics of risk committees—such as their existence, independence, meeting frequency, and size—are negatively associated with firm performance. Based on this literature, we propose the following hypothesis:

H3. “Board committees impact the financial performance of banks in Malaysia.”

2.4 Board independence

In response to the collapse of several large corporations, organizations have increasingly recognized the vital role of independent directors in strengthening governance. Independent directors contribute diverse perspectives and actively engage in board deliberations, serving as monitors of executive management and ensuring accountability. (Alves, 2014) demonstrated that board independence positively and significantly enhances profit quality by mitigating earnings management practices. Similarly, (Wu & Li, 2015) found that a higher proportion of independent directors is associated with improved financial performance, advocating for the appointment of additional independent directors to bolster business outcomes. Further supporting these findings, studies by (Park, Choi, & Yoo, 2007) and (Dahya, Dimitrov, & J. McConnell, 2008) indicate that the inclusion of independent or outside directors contributes to enhanced firm performance. Moreover, (Akeju & Babatunde, 2017) affirmed that board independence significantly improves the timeliness and quality of financial reporting. In light of this evidence, the following hypothesis is proposed:

H4. “The independence of the board of directors impacts the financial performance of banks in Malaysia.”

2.5 Duality

CEO duality—where the same individual serves as both chief executive officer and board chairman—is a focal point of interest among shareholders and regulatory bodies. Proponents of separating these roles argue that such a structure upholds key principles of corporate governance by preventing the concentration of decision-making power and preserving board independence (Jensen M. C., 1993). From an agency theory perspective, CEO duality can compromise shareholder rights by reducing the board’s capacity to challenge management decisions when conflicts of interest arise. Conversely, supporters contend that duality facilitates a more streamlined strategic focus and faster decision-making. Empirical findings on the impact of CEO duality are mixed. For instance, (Tian & Lau, 2001) and (Kiel & Nicholson, 2003) report a positive association between duality and firm performance. In contrast, studies by (Abdullah, 2004) and (Weir & Liang.T., 2000), find no significant performance differences between firms with dual and nondual leadership structures.

Further complicating the picture, research by (Dey, Engel, & Liu, 2011), (Grove, Patelli, & Xu, 2011), and (Dong, Girardone, & Kuo, 2017) indicates that CEO duality may detrimentally affect financial stability in financial institutions, although (Carty & Weiss, 2012) report no significant relationship. In light of this diverse evidence, we propose the following hypothesis: H5. “Chairman duality impacts the financial performance of banks in Malaysia.”

2.6 Audit committee

The existence of an audit committee has been demonstrated to enhance governance, encourage conservative financial practices, and reduce the likelihood of opportunistic earnings management (Xie, Davidson, & DaDalt, 2003); (Bedard, Chtourou, & Courteau, 2004) and (Sharma & Kuang, 2014). The primary objective of the Board Audit Committee (BAC) is to provide independent oversight by reviewing the firm’s financial condition, financial reporting processes, and internal control systems, thereby ensuring effective checks and balances and recommending remedial actions as necessary. Empirical evidence supports the role of audit committees in enhancing financial performance; for example, (Mohammad, Abdullatif, & Zakzouk, 2018) found a positive and significant relationship between the audit committee and both ROE and ROA in commercial banks in Jordan. Conversely, (Al-Ahdal, Alsamhi, Tabash, & Farhan, 2020) reported an insignificant impact of audit committees on performance in their analysis of corporate governance mechanisms. (Abbott, Parker, & Peters, 2004) argue that the independence of audit committee directors is critical for effective monitoring, as the lack of economic or psychological ties to management encourages unbiased oversight and is associated with a reduced likelihood of financial restatements. Furthermore, (Bédard & Gendron, 2010) note that the associations between audit committee characteristics—such as size, independence, competency, and meeting frequency—and the quality of financial reporting tend to be stronger in the United States than in other countries. (Beasley & Salterio, 2001) also suggest that firms with the incentive and capacity to enhance their audit committees often exceed the legislative minimum by including a higher number of outside directors. This is particularly relevant given that the Listing Requirements of Bursa Malaysia mandate that all listed companies maintain audit committees comprising at least three members, with a majority being independent. In light

of these findings, we propose the following hypothesis: H6. “Audit committee impact the financial performance of banks in Malaysia.”

3 RESEARCH METHODOLOGY

3.1 The method

To test the hypotheses, econometric models were employed to examine the impact of corporate governance mechanisms on bank financial performance. Panel data were collected to analyze the relationship between various corporate governance factors and financial outcomes in the banking sector. Consistent with prior literature, the analysis began with pooled OLS regression models, which provided a straightforward baseline due to their simple specification and ease of interpretation. However, while OLS is widely used for its simplicity, it does not account for individual heterogeneity, potentially leading to biased parameter estimates. To address these concerns, sensitivity analyses were conducted using both firm-fixed and random effects models. Moreover, diagnostic tests revealed that nearly all models exhibited heteroscedasticity and cross-sectional dependence, issues that necessitated the use of the Generalized Least Squares (GLS) estimation method—a technique specifically designed to provide more efficient and reliable parameter estimates in this case study .

3.2 Sampling and data collection

The sample comprises all commercial banks operating in Malaysia, with banks that did not publish the required financial information in their financial statements being excluded. Consequently, the final sample consists of 9 commercial banks observed over an 18-year period (2006–2023), resulting in a total of 144 observations. The selection was based on the availability of pertinent financial and non-financial data as reported in the banks’ annual and governance reports published on their respective websites.

3.3 Measurement of variables

For measuring bank financial performance, the study employs three dependent variables—return on equity (ROE), return on assets (ROA), and net interest margin (NIM)—as proxies for performance. The independent variables pertain

to corporate governance mechanisms and include board size, board activity, CEO duality, board independence, board committees, and the audit committee. The analysis primarily utilizes panel data regression techniques to investigate the relationships between these corporate governance attributes and the various dimensions of bank financial performance. Table (1) shows the definition and measurement of these variables.

Table No. (1): Units of Measurement for Study Variables

Variables	Definition	Measurement
Dependent Variables		
ROE	Return on equity:	Is the ratio of net income divided by shareholder's equity
ROA	Return on asset:	Is the ratio of net income divided by total assets.
NIM	Net interest margin	Is the difference between interest paid and interest received, adjusted for the total amount of interest-generating assets
Independent Variables		
B_SIZE	Board size	Total number of board members
B_INDEPEN	Board independence	The proportion of directors who are independent
B_ACTIVITY	Board activity	Number of board meetings held during each year
DUALITY	CEO DUALITY	If the CEO and Chairman are the same person = 0; otherwise = 1
B_COMMET	BOARD COMMITTEES	MEASURED BY THE NUMBER OD BOARD COMMITTEE
AC_INDP	AUDIT COMMITTEE	The proportion of members who are independent

Source: Prepared by the researchers

4 DATA ANALYSIS

4.1 Descriptive Analysis

Table 2 presents the descriptive findings, highlighting the central tendency and dispersion of the indicators.

Table No. (2): Descriptive Statistics

variables	Mean	Median	Max	Min	Standard deviation	Jaque-Bera
Bank financial performance ratios						
ROE	0.1250	0.1030	0.8710	0.0128	0.0941	8385.9268
ROA	0.0111	0.0110	0.0218	0.0005	0.0038	6.5865
NIM	0.0196	0.0196	0.0340	0.0063	0.0046	5.6308
Corporate governance mechanisms						
Board size	8.7152	9.0000	13.0000	4.0000	2.1763	3.5635
Board independence	0.5980	0.5700	5.0000	0.2000	0.3936	71195.526
Board activity	11.1527	10.0000	24.0000	5.0000	4.7102	10.3592
duality	0.8680	1.0000	1.0000	0.0000	0.3396	158.2911
Board committees	4.6111	5.0000	8.0000	3.0000	1.1037	3.5931
Audit committee independence	0.8875	1.0000	1.0000	0.0100	0.1786	130.2387

Source: Prepared by the researchers based on the outputs of E-views 12 software.

Table 1 presents the descriptive statistics for all variables included in the regression analysis. The mean return on equity (ROE) is approximately 12%, (Statista, 2024) while the mean return on assets (ROA) is 1.1%, figures that are largely consistent with Statista reports (Statista, 2024), which indicate that the Malaysian banking industry's ROE is around 12% and its ROA is approximately 1.3%. In contrast, the mean net interest margin (NIM) is 1.96%, which is slightly lower than the 2.02% reported by Bank Negara Malaysia (BNM, Financial Stability Review Second Half 2023, 2023). Despite this, the performance ratios in our sample tend to be higher than those observed in the EU and USA; for instance, ROE in these regions is reported to be 8.97% and 11.14%, respectively, while ROA is 1.3% in the USA (statistica, 2024) compared to 0.68% in the EU (Statista, 2024).

Furthermore, Table 1 indicates that the average board size is 8 members, with the range spanning from 4 to 13 members. This finding aligns with the recommendations of Bank Negara Malaysia's Corporate Governance Policy Document (BNM, 2024), which suggests that a board should be large enough to ensure a diversity of thought and expertise, yet small enough to facilitate

effective decision-making—typically between 7 and 11 members, depending on the institution's size and complexity. Additionally, the average proportion of independent directors on the board is approximately 60%, signifying a relatively high level of board independence in the Malaysian banking sector. This observation is in accordance with Bursa Malaysia Listing Requirements, which mandate that independent non-executive directors should constitute at least one-third of the board to ensure effective monitoring and the enhancement of firm value.

According to Bank Negara Malaysia's Corporate Governance Policy Document, boards should meet at least six times per year. As shown in Table 1, Malaysian banks hold an average of 11 board meetings annually, with the frequency ranging from 5 to 24 meetings. Additionally, Table 1 indicates that, on average, 86% of the banks separate the roles of CEO and board chairman, which is consistent with BNM's governance principles aimed at maintaining an appropriate balance of power. The data further reveal that the mean number of board committees is four, with a range of three to eight, aligning with BNM's standard that typically stipulates four to six committees depending on a bank's size, complexity, and regulatory requirements. In terms of audit committee independence, the results show that approximately 89% of the committee members are independent, suggesting that the majority of audit committees adhere to the high independence standards set by regulators. Moreover, the Pro. Jarque–Bera test confirms that the normality assumption is accepted at the 5% level for all variables, in order to address potential issues of unit heterogeneity and large variations in measurement scales, the natural logarithms of all continuous dependent and independent variables were computed prior to conducting the regression analysis. This transformation ensures unit homogeneity and enhances the accuracy of the econometric results.

4.2 Correlation matrix

Table No. (3): Pearson Correlation Coefficients Among Independent Variables

Correlation statistic probability	LnROE	LnROA	LnNIM	LnBsize	LnBindependt	LnBactivity	Duality	LnBcomet	LnAuditcomet
LnROE	1.000 ----- -----								
LnROA	0.199 2.426 0.016	1.000 ----- -----							
LnNIM	0.251 3.100 0.002	0.244 3.011 0.003	1.000 ----- -----						
LnBsize	0.190 2.317 0.021	0.085 1.025 0.306	0.168 2.033 0.043	1.000 ----- -----					
LnBindependt	0.055 0.665 0.507	0.009 0.109 0.912	0.110 1.323 0.187	- 0.202 -	1.000 ----- -----				
				2.465 0.014					
LnBactivity	0.446 5.943 0.000	0.118 1.418 0.158	0.224 2.749 0.006	0.455 6.104 0.000	0.144 1.740 0.083	1.000 ----- -----			
Duality	0.239 2.933 0.003	0.243 2.989 0.003	0.102 1.230 0.220	0.389 5.042 0.000	0.062 0.740 0.460	0.431 5.707 0.000	1.000 ----- -----		
LnBcomet	0.311 3.910 0.001	0.115 2 1.382 5 0.168 9	0.372 4.789 0.000	0.421 5.536 0.000	0.078 0.942 0.347	0.515 7.174 0.000	0.235 2.890 0.004	1.000 ----- -----	
LnAuditcomet	-0.118 -1.416 0.158	0.003 0.034 0.972	- 0.098 -	- 0.028 -	0.150 1.813 0.071	0.025 0.303 0.761	0.109 1.315 0.190	-0.076 -0.912 0.362	1.000 ----- -----
			1.179 0.240	0.335 0.737					

Source: Prepared by the researchers based on the outputs of E-views 12 software.

In reference to the Pearson correlation matrix presented in Table 2, the dependent variable, LnROE (representing banks' financial performance), is moderately correlated with board activity and board committee variables, with correlation coefficients of 44% and 31%, respectively, while its correlations with the remaining variables are weak. Similarly, the net interest margin (NIM) exhibits a weak correlation of 37% with the board committee variable. Furthermore, audit committee independence is negatively correlated with

both ROE and NIM, with coefficients of 1% and 0.9%, respectively. The variable ROA displays very weak correlations with all other variables. Additionally, Table 2 indicates that among the independent variables, there exists a weak, negative correlation between audit committee independence, ROE, and NIM. The remaining correlations are either below 51.1% or statistically insignificant. Based on these findings, there appears to be no multicollinearity issue among the independent variables, as all correlation coefficients are below the 80% threshold recommended by (Field, 2005).

4.3 Empirical regression models on performance

To investigate the effect of corporate governance mechanisms on bank financial performance, we estimate a series of basic panel data models using the pooled OLS estimator. In these models, the dependent variables are represented by bank performance measures, including return on equity (BROE_{i,t}), return on assets (BROA_{i,t}), and net interest margin (BNIM_{i,t}). The independent variables comprise key corporate governance attributes: board size (B_SIZE_{i,t}), board independence (B_INDEPEN_{i,t}), board activity (B_ACTIVITY_{i,t}), CEO duality (DUALITY_{i,t}), board committees (B_COMMET_{i,t}), and audit committee independence (AC_INDPI_{i,t}). Specifically, the models are specified as follows:

Model 1:

$$\text{BROE}_{i,t} = \beta_0 + \beta_1 \text{B_SIZE}_{i,t} + \beta_2 \text{B_INDEPEN}_{i,t} + \beta_3 \text{B_ACTIVITY}_{i,t} + \beta_4 \text{DUALITY}_{i,t} + \beta_5 \text{B_COMMET}_{i,t} + \beta_6 \text{AC_INDPI}_{i,t} + \varepsilon_{i,t} \quad (1)$$

Model 2:

$$\text{BROA}_{i,t} = \beta_0 + \beta_1 \text{B_SIZE}_{i,t} + \beta_2 \text{B_INDEPEN}_{i,t} + \beta_3 \text{B_ACTIVITY}_{i,t} + \beta_4 \text{DUALITY}_{i,t} + \beta_5 \text{B_COMMET}_{i,t} + \beta_6 \text{AC_INDPI}_{i,t} + \varepsilon_{i,t} \quad (2)$$

Model 3:

$$\text{BNIM}_{i,t} = \beta_0 + \beta_1 \text{B_SIZE}_{i,t} + \beta_2 \text{B_INDEPEN}_{i,t} + \beta_3 \text{B_ACTIVITY}_{i,t} + \beta_4 \text{DUALITY}_{i,t} + \beta_5 \text{B_COMMET}_{i,t} + \beta_6 \text{AC_INDPI}_{i,t} + \varepsilon_{i,t} \quad (3)$$

These models facilitate a comprehensive examination of how various dimensions of corporate governance influence different aspects of bank financial performance, thereby providing a robust empirical foundation for the subsequent analysis.

Where:

B_SIZE = Board size

B_INDEPEN = Board independence

B_ACTIVITY = Board activity

DUALITY = CEO duality

B_COMMET = Board committees

AC_INDP = Audit committee independence

ROE = Return on equity

ROA = Return on assets

NIM = Net interest margin

β = Coefficient parameters

ϵ = Residual error

4.4 Regression results

Three distinct tests were conducted to assess the impact of corporate governance mechanisms on bank financial performance, employing three basic static panel data models. The estimation results are summarized in the table below, which presents the findings in a concise and accurate manner. This approach allowed the researchers to comprehensively address all aspects of the research question within the study's limitations.

Table No. (4): Results for POLS, Fixed effects and random effects model

	Tests	p-value	Accept/reject	interpretation
Model 1 ROE	Breusch-Pagan	0.0273	<i>H0: reject</i>	<i>Polsis rejected</i>
	Hausman test	0.3885	<i>H0: accept</i>	Random effect is applied for estimation
Model 2 ROA	Breusch-Pagan	0.0001	<i>H0 reject</i>	<i>Polsis rejected</i>
	Hausman test	0.8932	<i>H0 accept</i>	Random effect is applied for estimation
Model 3 NIM	Breusch-Pagan	0.0000	<i>H0: reject</i>	<i>Polsis rejected</i>
	Hausman test	0.7449	<i>H0: accept</i>	Random effect is applied for estimation

Source: Prepared by the researchers based on the outputs of E-views 12 software.

The findings indicate that for models (1), (2), and (3), the null hypothesis of the Hausman test is accepted, thereby supporting the use of the random effects model. Additionally, the p-value of the Restricted Fisher Test is statistically

significant at the 5% level, reinforcing the appropriateness of the chosen specification.

Table No. (05): Estimation of Study Models with panel least squares model

Variables		ROE	ROA	NIM
LnBsize	Prob	0.3131	0.65948	0.37923
	Coef	-0.38692	0.11251	0.08684
LnBindepen	Prob	0.8619	0.9029	0.73549
	Coef	0.00000	0.01943	0.02066
LnBactivity	Prob	0.01523	0.20630	0.18626
	Coef	0.07897	-0.3246	-0.1335
Duality	Prob	0.33117	0.66701	0.5485
	Coef	0.2073	0.16905	0.09389
LnBcommitee	Prob	0.56265	0.42508	0.02373
	Coef	-0.03431	0.2177	0.23965
Ln AuditComtindepen	Prob	0.07218	0.59385	0.05152
	Coef	-0.1433	-0.0559	-0.0788
R-squared		0.09621	0.0225	0.45628
Adjusted R-squared		0.05663	-0.0202	0.4019
Durbin-Watson stat		1.448433	1.9628	0.7458

Source: Prepared by the researchers based on the outputs of e-views12 software

Before interpreting the economic implications of our study's results, it is imperative to first verify the statistical efficiency of the selected models. This verification involves testing for cross-sectional independence and heteroscedasticity in the residuals, as the presence of these issues can compromise the efficiency and accuracy of econometric estimates, thereby undermining their reliability in economic analysis. Depending on whether these measurement issues are detected—and on the specific nature of any such

issues—the estimation method will be adjusted accordingly to correct for these problems, particularly given that the panel’s time dimension exceeds the number of cross-sectional units.

Table No. (06): Serial Correlation and Heteroscedasticity tests

Tests		p-value	Accept/reject	interpretation
Serial Correlation				
Model 1 ROE	Breusch-Pagan LM	0,00001	H0: reject	No cross-section dependence in this model
	Pesaran scaled LM	0,00000	H0: reject	
Model 2 ROA	Breusch-Pagan LM	0.08010	H0: accept	No cross-section dependence in this model
	Pesaran scaled LM	0.1397	H0: accept	
Model 3 NIM	Breusch-Pagan LM	0,0000	H0: reject	The presence of an auto correlation in this model
	Pesaran scaled LM	0,0000	H0: reject	
Heteroscedasticity				
Model 1 ROE	Likelihood ratio	0,0000	H0: reject	The presence of Heteroscedasticity in this model
Model 2 ROA	Likelihood ratio	0,0000	H0: reject	The presence of Heteroscedasticity in this model
Model 3 NIM	Likelihood ratio	0,0000	H0: reject	The presence of Heteroscedasticity in this model

Source: Prepared by the researchers based on the outputs of e-views12 software

For models (1) and (3), the Breusch-Pagan LM and Pesaran scaled LM tests yield p-values of 0.000 at the 1% significance level, leading to the rejection of the null hypothesis of cross-sectional independence and indicating that these models exhibit cross-sectional dependence among their errors. In contrast, model (2) produces a p-value significantly greater than 0.05, resulting in the

acceptance of the null hypothesis and suggesting that its residuals are cross-sectionally independent. Furthermore, the likelihood ratio test returns p-values of 0.0000 across all models, confirming the presence of heteroscedasticity at the 1% significance level in each case.

5 RESULTS AND DISCUSSION

Based on the measurement issues tests, which indicated that almost all models suffer from heteroscedasticity and cross-sectional dependence, the Generalized Least Squares (GLS) estimation method is identified as the most appropriate for all three models. GLS effectively accounts for both heteroscedasticity and non-independence across cross-sections, thereby providing more reliable estimates. The results of the GLS estimation are presented in the table below.

Table No. (07): Estimation of Study Models with generalized least squares model.

Variables		ROE	ROA	NIM
LnBsize	Prob	0.00000	0.00108	0.0122
	Coef	0.5565	-0.294138	0.0916
LnBindepen	Prob	0.01226	0.1963	0.4199
	Coef	-0.16507	0.043813	0.02221
LnBactivity	Prob	0.0236	0.00000	0.02298
	Coef	0.346820	-0.52866	-0.06386
Duality	Prob	0.73831	0.5741	0.13494
	Coef	0.05738	-0.1854	0.08791
LnBcommitee	Prob	0.00014	0.79065	0.00001
	Coef	0.676054	-0.02097	0.18850
Ln AuditComtindepen	Prob	0.00328	0.59647	0.00139
	Coef	-0.22611	-0.041610	0.15853

R-squared	0.78683	0.8163	0.8984
Adjusted R-squared	0.76552	0.7980	0.8883
Durbin-Watson stat	1.9433	1.89190	1.941253

Source: Prepared by the researchers based on the outputs of e-views12 software.

Regarding the partial significance of the parameters across the four models of bank financial performance, the results indicate that not all parameters are statistically significant. Specifically, the variable *lnBsize* is significant in all four models, whereas *lnBactivity*, *lnBindependance*, *lnBcommitees*, and *lnAuditcometindependence* are significant in only some models. Notably, the CEO Duality variable is consistently insignificant across all models, as its p-values for the student's t-statistic exceed the 0.05 threshold.

Furthermore, the R-squared and Adjusted R-squared statistics for the four models range between 76% and 89%, suggesting that the models explain a substantial proportion of the variation in the dependent variables. The Durbin–Watson statistic, consistently close to 2, implies that the assumption of independent errors is largely satisfied (Field, 2005).

Overall, the four models estimated using the Generalized Least Squares (GLS) method are statistically robust, exhibiting both partial and overall significance, as well as an absence of measurement issues. Consequently, the results obtained can be considered reliable for further economic analysis.

5.1 Economic Interpretation of the Results

The findings from Model (1) indicate that board size has a positive and statistically significant impact on ROE, suggesting that larger boards are associated with higher profitability. This result supports the notion that effective governance benefits from a more diverse board composition, as a greater number of directors can offer a wider range of skills, experiences, and perspectives. Such diversity enhances the board's ability to monitor management and make informed strategic decisions, ultimately contributing to improved bank performance. In contrast, the board independence variable exhibits a negative and significant relationship with ROE, implying that a higher proportion of independent directors is linked to lower profitability. This finding suggests that although board independence is generally valued for reducing

agency problems, an excessively independent board may lack critical industry-specific expertise or adopt overly conservative approaches, which could impede dynamic decision-making (Bhagat & Black, 2002). Additionally, board activity is found to have a positive and significant relationship with ROE, indicating that more frequent board meetings and active engagement in oversight functions facilitate timely strategic decisions and more effective monitoring, thereby boosting bank performance. Furthermore, the strong positive and statistically significant effect of board committees on ROE indicates that the presence and effectiveness of specialized committees—such as nomination and remuneration committees—enhance board oversight. (Carter, Simkins, & Simpson, 2003) These committees concentrate on key governance areas, which can lead to more informed decision-making and, ultimately, improved bank performance. Conversely, the negative and significant coefficient for audit committee independence suggests that a higher degree of independence within the audit committee is associated with lower ROE. This finding implies that while independence is essential for rigorous financial oversight, it may also result in more conservative strategies that restrict risk-taking and innovation, thereby potentially dampening performance in a competitive banking sector. Alternatively, it may reflect that banks with poorer performance adopt more robust audit functions as a corrective measure. (DeZoort, Hermanson, Archambeault, & Reed, 2002). Contrary, CEO duality exhibits a statistically insignificant relationship with ROE, indicating that within this sample, duality does not reliably impact performance. The role of duality remains controversial in the literature, with some studies suggesting benefits from unified leadership and others advocating for a separation of roles to enhance oversight.

Model (2) yields a mixed picture of the relationship between corporate governance mechanisms and bank performance as measured by ROA. In this model, only board size and board activity exhibit statistically significant relationships with ROA, and both associations are negative. Specifically, the results indicate that as the board becomes larger, ROA tends to decrease, suggesting that larger boards may suffer from coordination difficulties and diluted responsibilities. These inefficiencies could lead to slower decision-making and less effective oversight of daily operations, thereby reducing a bank's operating performance (Cheng, 2008). Similarly, the highly significant negative effect of board activity on ROA implies that increased board activity is

associated with lower operating performance. One interpretation is that overly active boards may engage in micromanagement or excessive intervention in managerial decisions, which can disrupt managerial autonomy and operational efficiency, resulting in poorer asset utilization. Alternatively, it may be that lower-performing banks prompt more frequent board meetings as a corrective measure, leading to the observed negative association (Kamarudin, Mohamad Ariff, Azmi, & Mohd Suffian, 2024). Alternatively, it may be that lower-performing banks prompt more frequent board meetings as a corrective measure, leading to the observed negative association. In contrast, the coefficient for board independence is positive—suggesting that a higher proportion of independent directors might improve ROA—but this relationship is not statistically significant ($p > 0.05$), indicating that the evidence is not robust enough to draw firm conclusions in this sample. CEO duality exhibits a negative coefficient that is not statistically significant, suggesting that the concentration of leadership roles does not have a discernible impact on ROA. This finding implies that any potential benefits or drawbacks associated with duality, as debated in the corporate governance literature, may be neutralized in terms of operating performance. Similarly, the relationship between board committees and ROA is negative but statistically insignificant, indicating that the mere presence or structure of specialized board committees does not significantly influence operational performance in this study. This lack of significance may imply that the effect of board committees is either inherently weak or mediated by other unobserved factors.

Likewise, audit committee independence also shows a negative yet non-significant relationship with ROA. Although the negative direction suggests that a higher degree of audit committee independence might lead to more conservative decision-making—potentially reducing operating performance—the absence of statistical significance means that this relationship cannot be reliably confirmed within the sample. Model (3) investigates the relationship between various corporate governance mechanisms and bank performance, as measured by the net interest margin (NIM). Consistent with the findings of Model (1), both board size and the presence of board committees exhibit statistically significant positive associations with NIM. This result indicates that a larger, well-organized board complemented by effective specialized committees is linked to improved net interest margins. Moreover, audit committee independence shows a positive and statistically significant effect,

suggesting that banks with a higher proportion of independent members on their audit committees tend to achieve better management of interest margins—potentially through enhanced financial oversight and more robust risk management practices. In contrast, while the variables board independence, board activity, and duality display positive or negative signs, their lack of statistical significance implies that these factors do not exert a decisive direct impact on NIM. Their effects may be more nuanced or may interact with other aspects of bank operations and governance.

6 CONCLUSIONS

The aim of this study was to investigate the impact of corporate governance mechanisms on the financial performance of Malaysian banks over the period 2006–2023, employing panel data techniques with observations from eight banks. The results across the three models reveal that significant determinants of bank performance include board size, board activity, board committees, and audit committee independence, whereas board independence and CEO duality do not exhibit a robust impact.

Specifically, board size influences all dimensions of bank performance, with its effect varying by performance measure: larger boards are associated with higher overall profitability (ROE) and improved interest margins (NIM), yet they may negatively affect operational efficiency (ROA). Board activity displays a dual effect; while increased board engagement significantly enhances profitability, it simultaneously detracts from operational efficiency and net interest margins when excessive, suggesting that an overly active board may introduce coordination challenges that impair day-to-day operations.

Moreover, board committees emerge as key drivers of profitability and interest performance, strongly improving both ROE and NIM, although their impact on ROA is not significant. Audit committee independence has a differential effect: it appears to reduce overall profitability while enhancing interest income performance, with no significant influence on operational efficiency. These differential effects underscore the trade-offs inherent in rigorous financial oversight, where enhancements in risk management may come at the expense of short-term profitability. Board independence exhibits a negative impact on ROE, its effects on ROA and NIM are not statistically significant, suggesting a context-dependent role in shaping bank performance. Similarly, CEO duality

does not emerge as a significant determinant across the models, indicating that the concentration of leadership roles has no discernible impact on bank performance in this sample.

This study suggests that corporate governance mechanisms have a multifaceted impact on bank performance. The key findings indicate that board size significantly influences performance across multiple dimensions: larger boards are associated with higher overall profitability (ROE) and improved interest margins (NIM), yet they may negatively affect operational efficiency (ROA). Board activity exhibits a dual effect; while increased engagement significantly enhances profitability, excessive activity detracts from both operational efficiency and net interest margins, likely due to coordination challenges in day-to-day operations. Furthermore, board committees emerge as critical drivers, strongly improving both ROE and NIM, although their influence on ROA is not significant. Audit committee independence shows a differential impact—it appears to reduce overall profitability while enhancing interest income performance, underscoring the trade-offs inherent in stringent financial oversight. In contrast, board independence and CEO duality do not consistently affect performance, suggesting that their roles may be context-dependent. Overall, the results underscore the importance of a balanced governance framework that leverages the benefits of specialized oversight while mitigating potential drawbacks such as over-involvement or inefficiencies. These nuanced insights are invaluable for academics and practitioners aiming to optimize corporate governance structures within the banking sector.

The study, however, is subject to certain limitations that future research should address. First, this study employs ordinary least squares (OLS) and generalized least squares (GLS) regressions to examine the effects of corporate governance mechanisms on financial performance. Future studies could benefit from employing simultaneous equation frameworks, as demonstrated by Carter et al. (2003) and Campbell and Minguez-Vera (2008), or by utilizing instrumental variable (IV) approaches and dynamic panel data methods (e.g., system GMM) to better control for reverse causality and omitted variable bias. Second, the study covers a relatively small sample size and a short time period. Future research should consider using longitudinal data from larger and more diverse

samples to provide more robust insights into the relationship between corporate governance mechanisms and financial performance.

REFERENCES

- [1] Abbott, L., Parker, S., & Peters, G. (2004). Audit committee characteristics and restatements. *Auditing: A Journal of Practice and Theory*, Vol. 23 No. 1 , 69-87.
- [2] Abdullah, S. (2004). Board Composition, CEO Duality, and Performance Among Malaysian Listed Companies. *Corporate Governance: An International Review* 4,(4) , 47–61.
- [3] Aebi, V., Sabato, G., & Schmid, M. (2012). Risk management, corporate governance, and bank performance in the financial crisis. *Journal of Banking and Finance* 36 (12) , 3213–3226.
- [4] Akeju, J., & Babatunde, A. (2017). Corporate governance and financial reporting quality in Nigeria. *International Journal of Information Research and Review* 4(2) , 3749-3753.
- [5] Aktan, B., Turen, S., Tvaronavičienė, M., Celik, S., & Alsadeh, H. A. (2018). Corporate governance and performance of the financial firms in Bahrain. *Polish Journal of Management Studies*, 17(1) , 39–58.
- [6] Al-Ahdal, W. M., Alsamhi, M. H., Tabash, M. I., & Farhan, N. H. (2020). The impact of corporate governance on financial performance of Indian and GCC listed firms: An empirical investigation. . *Research in International Business and Finance*, 51 , 1–13.
- [7] Alharbi.R, McLaren.J, & Elnahass.M. (2022). Women directors and market valuation: what are the ‘Wonder Woman’ attributes in banking? *Journal of International Financial Markets, Institutions and Money*, Vol. 80, 101611 .
- [8] Al-Matari, E. (2020). Do characteristics of the board of directors and top executives have an effect on corporate performance among the financial sector? Evidence using stock. *Corporate Governance (Bingley)*, 20(1) , 16–43.

- [9] Al-Matari, E. (2020). Do characteristics of the board of directors and top executives have an effect on corporate performance among the financial sector? Evidence using stock. *Corporate Governance (Bingley)*, 20(1) , 16–43.
- [10] 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) , 23-44.
- [11] Arora, A., & Sharma, C. (2016). Corporate governance and firm performance in developing countries: evidence from India. *Corporate Governance*, Vol. 16 No. 2 , 420-436.
- [12] Basel Committee on Banking Supervision, (. (2006). *Enhancing Corporate Governance for Banking Organisations*. Basel.
- [13] Beasley, M. S., & Salterio, S. (2001). The Relationship between Board Characteristics and Voluntary Improvements in Audit Committee Composition and Experience. the AAA Annual Meeting, International Symposium on Audit Research.
- [14] Bédard, J., & Gendron, Y. (2010). Strengthening the Financial Reporting System: Can Audit Committees Deliver? *International Journal of Auditing*,14,(2) , 174-210.
- [15] Bedard, J., Chtourou, S., & Courteau, L. (2004). The effect of audit committee expertise, independence, and activity on aggressive earnings management. *Auditing: A Journal of Practice and Theory*, Vol. 23 No. 2 , 13-35.
- [16] Beltratti, A., & Stulz, R. (2012). The credit crisis around the globe ,Why did some banks perform better? . *Journal of Financial Economics* 105 (1) , 1–17.
- [17] Bhagat, S., & Black, B. S. (2002). The Non-Correlation between Board Independence and Long-Term Firm Performance. *Journal of Corporation Law*, 27 , 231-273.
- [18] BNM. (2024). Corporate Governance policy document. Bank Negara Malaysia.

- [19] BNM. (2023). Financial Stability Review Second Half 2023. Bank Negara Malaysia.
- [20] Bobirca.A, & Miclaus.P.G. (2007). Extensiveness and effectiveness of corporate governance regulations in South-Eastern Europe. *World Academy of Science, Engineering and Technology* , 7-30.
- [21] Carter, A., Simkins, J., & Simpson, W. (2003). Corporate Governance, Board Diversity, and Firm Value. *Financial Review* 38(1) , 33-53.
- [22] Carty, R., & Weiss, G. (2012). Does CEO duality affect corporate performance? Evidence from the US banking crisis. *Journal of Financial Regulation and Compliance*, Vol. 20 No. 1 , 26-40.
- [23] Cheng, S. (2008). Board Size and the Variability of Corporate Performance. *Journal of Financial Economics* 87(1) , 157-176.
- [24] Dahya, J., Dimitrov, O., & J. McConnell, J. (2008). Dominant shareholders, corporate boards, and corporate value: A cross-country analysis. *Journal of Financial Economics*,87,(1) , 73-100.
- [25] Dey, A., Engel, E., & Liu, X. (2011). CEO and board chair roles: To split or not to split? *Journal of Corporate Finance* 17 (5) , 1595–1618.
- [26] DeZoort, T., Hermanson, R., Archambeault, S., & Reed, A. (2002). Audit Committee Effectiveness: A Synthesis of the Empirical Audit Committee Literature. *Journal of Accounting Literature* 21 , 38-75.
- [27] Dong, Y., Girardone, C., & Kuo, J. .. (2017). Governance, efficiency and risk-taking in Chinese banking. *British Accounting Review* 49 (2) , 211–229.
- [28] Elamer, C. A., & Benyazid, A. A. (2018). The impact of risk committee on financial performance of UK financial institutions. *International Journal of Accounting and Finance*, 8(2) , 161–180.
- [29] Eluyela, D. F., Akintimehin, O. O., Okere, W., Ozordi, E., Osuma, G. O., Ilogho, S. O., et al. (2018). . Board meeting frequency and firm performance: examining the nexus in Nigerian deposit money banks. *Heliyon*, 4(10) , 1-14.

- [30] Erkens, D., Hung, M., & Matos, P. (2012). Corporate governance in the 2007–2008 financial crisis: Evidence from financial institutions worldwide. *Journal of Corporate Finance* 18 (2) , 389–411.
- [31] 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 of Finance*, 8(2) , 43-67.
- [32] Field, A. (2005). *Discovering statistics using SPSS* (2nd ed. London: Sage Publications, Inc.
- [33] Grove, H., Patelli, L. ,., & Xu, P. (2011). Corporate governance and performance in the wake of the financial crisis: Evidence from US commercial banks. *Corporate Governance: An International Review* 19 (5) , 418–436.
- [34] Haji, A., & Ghazali, N. (2018). The role of intangible assets and liabilities in firm performance: Empirical evidence. *Journal of Applied Accounting Research*, 19 (1) , 42–59.
- [35] Hassan, R., Marimuthu, M., & Johl, S. (2015). Diversity, corporate governance and implication on firm financial performance. *Global Business and Management Research: An International Journal*, Vol. 7 No. 2 , 28-36.
- [36] Hayes, R., Mehran, H., & Schaefer, S. (2004). Board Committee Structures, and Firm Performance. Research paper presented at die federal reserve bail; York. New York University.
- [37] Hermawan, S., Hanif, A., Biduri, S., & Wijayanti, P. (2021). Intellectual capital, corporate social responsibility, and good corporate governance on banking financial performance in Indonesia. *Advances in Economics, Business and Management Research*, 183(1) , 10–16.
- [38] Jensen, M. (2003). *A theory of the firm: governance, residual claims, and organizational forms*. Harvard University Press .
- [39] Jensen, M. C. (1993). The modern industrial revolution, exit and the failure of internal control systems. *Journal of Finance*, 48(3) , 831-880.
- [40] Kamarudin, K., Mohamad Ariff, A., Azmi, N., & Mohd Suffian, M. (2024). Nonlinear effects of board size and board independence on corporate

sustainability performance: international evidence. Corporate Governance .

- [41] Karamanou, I., & Vafeas, N. (2005). The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting Research* 43 (3) , 453–486.
- [42] Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review*, 11(3) , 189- 205.. .
- [43] Kiel, G., & Nicholson, G. (2003). . Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance:.. An International Review*, 11(3) , 189- 205.
- [44] Laeven.L. (2013). Corporate governance: what’s special about banks? *Annual Review of Financial Economics*, Vol. 5 No. 1 , 63-92.
- [45] Lamichhane, P. (2018). Corporate Governance and Financial Performance in Nepal. *NCC Journal*, 3(1) , 108–120.
- [46] Lee, K. W., & Lok, C. L. (2020). Busy boards, firm performance and operating risk. . *Asian Academy of Management Journal of Accounting and Finance*, 16 (2) , 1–23.
- [47] Malaysia, B. N. (2023). *Financial Stability Review*.
- [48] Mohammad, S. J., Abdullatif, M., & Zakzouk, F. (2018). The effect of gender diversity on the financial performance of Jordanian banks. *Academy of Accounting & Financial Studies Journal*, 22(2) , 1–11.
- [49] Morekwa Nyamongo, E., & Temesgen, k. (2013). The effect of governance on performance of commercial banks in Kenya: a panel study. *Corporate Governance*, Vol. 13 No. 3 , 236-248.
- [50] Muhammad, B., Hayat, Y., Iqbal, M., & Khan, S. (2016). Perceived effect of shareholders on corporate governance . *Social Science Research Network Rochester, NY* .

- [51] Park, S., Choi, J., & Yoo, S. (2007). The Value of Outside Directors: Evidence from Corporate Governance Reform in Korea. *Journal of Financial and Quantitative Analysis*, Vol., 42, No. 4 , 941-962.
- [52] Poudel, R. P., & Hovey, M. .. (2012). Corporate Governance and Efficiency in Nepalese Commercial Banks. *SSRN Electronic Journal* .
- [53] Prevost, A., Rao, R., & Hossain, M. (2002). Determinants of board composition in New Zealand: a simultaneous equations approach. *Journal of Empirical Finance*, Vol. 9 No. 4 , 373-397.
- [54] Salim, R., Arjomandi, A., & Seufert, J. H. (2016). Does corporate governance affect Australian banks' performance? *Journal of International Financial Markets, Institutions and Money*, 43 , 113–125.
- [55] Sharma, V., & Kuang, C. (2014). Voluntary audit committee characteristics, incentives, and aggressive earnings management: evidence from New Zealand. *International Journal of Auditing*, Vol. 18 No. 1 , 76-89.
- [56] Singh, M., & Davidson, W. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance*, Vol. 27 No. 5 , 793-816.
- [57] Singh.M, & Davidson.W.N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance*, Vol. 27 No. 5, , 793-816.
- [58] Statista. (2024). Return on assets (ROA) of banking system in Malaysia from 1st quarter 2020 to 2nd quarter 2024. Retrieved from <https://www.statista.com/statistics/1422151/malaysia-quarterly-roa-of-banks/>
- [59] Statista. (2024). Return on assets (ROA) of EU banking industry from 2007 to 2023. Retrieved from <https://www.statista.com/statistics/1275935/roa-eu-banking-industry/#:~:text=As%20the%20economy%20stabilized%20in,relatively%20high%2C%20at%200.68%20percent.>
- [60] Statista. (2024). Return on equity (ROE) of banking system in Malaysia from 1st quarter 2020 to 2nd quarter 2024. Retrieved from

- <https://www.statista.com/statistics/1421933/malaysia-quarterly-roe-of-banks/>
- [61] Statista. (2024). Return on equity (ROE) of banking system in Malaysia from 1st quarter 2020 to 2nd quarter 2024. Retrieved from <https://www.statista.com/statistics/1421933/malaysia-quarterly-roe-of-banks/>
- [62] statistica. (2024). Return on assets (ROA) of the U.S. commercial banking industry from 1st quarter of 2003 to 2nd quarter of 2024. Retrieved from <https://www.statista.com/statistics/1091530/roa-us-banking-industry-by-quarter/>
- [63] Tian, J., & Lau, C. (2001). Board Composition, Leadership Structure and Performance in Chinese Shareholding Companies. *Asia Pacific Journal of Management* 18(2) , 245-263.
- [64] Tourani – Red, A., & Lngely, C. (2010). *Handbook on Emerging Issues in Corporate Governance*, World Scientific Publishing. World Scientific .
- [65] Weir, C., & Liang.T. (2000). The Performance–Governance Relationship: The Effects of Cadbury Compliance on UK Quoted Companies. *Journal of Management and Governance* 4,(4) , 265–281.
- [66] Wu, X., & Li, H. (2015). Board independence and the quality of board monitoring: evidence from China. *International Journal of Managerial Finance*, 11(3) , 308-328.
- [67] Xie, B., Davidson, W., & DaDalt, P. (2003). Earnings management and corporate governance: the role of the board and the audit committee . *Journal of Corporate Finance*, Vol. 9 No. 3 , 295-316.

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