THE IMPACT OF SOLVENCY POSITION ON BANKS' PERFORMANCE IN MALAYSIA

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ABSTRACT

Solvency position reflects a bank's ability to meet its long-term financial obligations and serves as a key indicator of financial stability and performance. However, there is limited empirical evidence on how different solvency ratios influence bank performance in the Malaysian context. This study aims to examine the impact of solvency position on the performance of commercial banks in Malaysia. A quantitative descriptive research design was employed, covering a five-year period from 2018 to 2023. Secondary data were obtained from the annual reports of firms listed on Bursa Malaysia and analyzed using a panel data regression model via EViews version 12. The findings reveal that both the debt ratio and capital adequacy ratio have a statistically significant effect on return on equity, which serves as a proxy for bank performance. Conversely, the equity ratio does not exhibit a significant impact. Control variables such as bank size and interest rate also show no significant influence on performance. These results offer valuable insights for bank managers, investors, and policymakers, particularly in formulating effective capital management strategies and enhancing financial resilience within the Malaysian banking sector.

Keywords: *Solvency Position, Equity Ratio, Debt Ratio, Capital Adequacy Ratio, Return on Equity, Bank Performance.*

INTRODUCTION

Malaysia's banking sector plays a pivotal role in driving economic development by facilitating capital allocation, managing financial risks, and maintaining financial system stability. In an increasingly dynamic financial environment with growing regulatory demands, ensuring the resilience of banking institutions is more critical than ever. Among the key indicators of a bank's financial health is its solvency position, which reflects its capacity to meet long-term debt obligations and withstand financial shocks. This aspect of financial strength has gained renewed importance following the implementation of Basel III regulations and the economic disruptions triggered by the COVID-19 pandemic (Bank Negara Malaysia, 2023). Hence, this study is driven by three main concerns: (1) the increasing relevance of solvency to investors and regulators, (2) mixed findings in the existing literature, and (3) emerging macroeconomic challenges affecting banks' solvency structures.

First, solvency has become a central focus for regulators, particularly Bank Negara Malaysia, in evaluating the financial soundness of commercial banks. Key indicators such as the equity ratio (EQR), debt ratio (DER), and capital adequacy ratio (CAR) are regularly monitored to ensure banks can endure financial stress. For instance, the CAR is designed to act as a buffer during economic downturns by requiring banks to maintain minimum capital thresholds. However, excessively high CAR levels may limit lending capacity and investment, potentially constraining profitability (Lim et al., 2015). Second, the academic literature presents no clear consensus on the relationship between solvency and bank performance. While

some studies report a positive link, others find negative or statistically insignificant relationships (Isa et al., 2023). These inconsistencies are particularly evident in the impact of DER and EQR on return on equity (ROE), and they may vary by institution type, market conditions, or time period. Third, recent macroeconomic developments like rising inflation and adjustments to the overnight policy rate have added pressure on banks to balance adequate solvency with profitability. These challenges highlight the importance of re-examining how solvency indicators influence bank performance in Malaysia.

In response to these issues, this study investigates the impact of solvency position on the performance of Malaysian commercial banks. Specifically, it examines the relationship between EQR, DER, and CAR (as solvency indicators) and ROE (as a proxy for performance). Bank size (SIZE) and interest rate (IR) are included as control variables to strengthen the empirical model. The analysis is based on a panel data regression using data from 15 Malaysian commercial banks over the period 2018–2023. By addressing these research gaps, the study aims to provide insights for policymakers, bank managers, and financial analysts to enhance capital management practices and strengthen the long-term financial resilience of Malaysia's banking sector. To achieve this aim, the study outlines the three specific objectives: (1) to investigate the relationship between the equity ratio and the performance of commercial banks in Malaysia (2)to evaluate the impact of the debt ratio on the performance of commercial banks in Malaysia (3) to analyse the influence of the capital adequacy ratio on the performance of commercial banks in Malaysia. These objectives are intended to guide the study in understanding how various dimensions of solvency contribute to the overall financial performance and resilience of banks within the Malaysian context.

LITERATURE REVIEW

This study is primarily anchored in solvency theory, supported by capital buffer theory and agency theory, to frame the relationship between solvency and bank performance. Solvency theory posits that maintaining adequate equity relative to debt obligations enhances a bank's capacity to endure financial stress and maintain long-term operations. This theory directly supports the study's investigation of how solvency indicators equity ratio (EQR), debt ratio (DER), and capital adequacy ratio (CAR) influence return on equity (ROE). Bin and Yusoff (2017) emphasize that strong solvency positions foster investor and depositor confidence, ultimately contributing to sustained profitability. Additionally, capital buffer theory suggests that banks should hold capital above the regulatory minimum to absorb unexpected losses. Jokipii and Milne (2008) and Montagnoli (2018) argue that well-capitalized banks are better prepared to weather financial downturns. However, Carvallo Valencia and Ortiz Bolaños (2018) note that excessive capital reserves may reduce short-term profitability. This theory reinforces the importance of CAR in evaluating resilience and its trade-off with performance. Furthermore, agency theory examines conflicts between shareholders and managers, particularly in capital allocation decisions. According to Manual et al., (2020), higher debt levels can discipline managers by imposing fixed obligations, encouraging efficient resource use. Conversely, excessive equity may reduce pressure for performance. Idris et al. (2024) affirm that solvency indicators can influence managerial behavior and accountability, thereby affecting ROE.

The conceptual framework is presented in Figure 1, illustrating the hypothesized relationships between solvency indicators and bank financial performance along with control variables. Solvency, measured by the EQR, DER, and CAR, serves as the core independent construct. The dependent variable is ROE, which reflects the profitability of a bank in relation to its equity base. Additionally, control variables such as Bank Size (SIZE) and Interest Rate (IR) are incorporated to provide a more robust understanding of performance determinants.

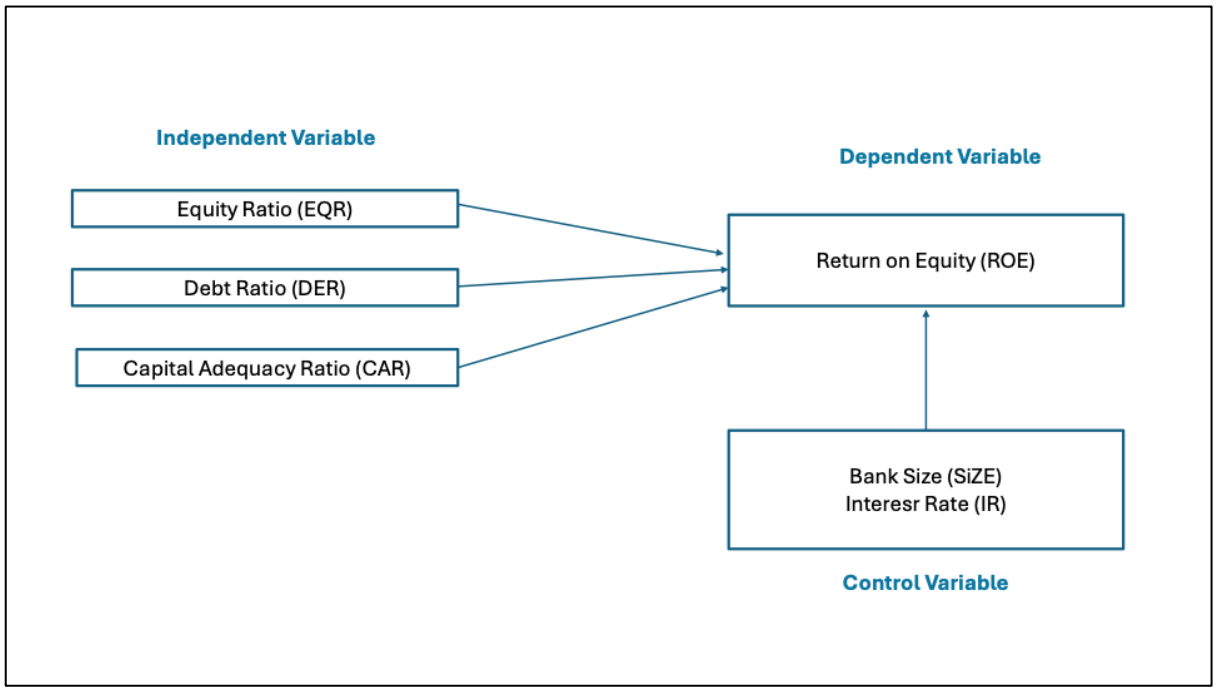

Figure 1: Theoretical Framework

Empirical studies have extensively investigated the influence of capital structure on bank profitability, offering diverse perspectives across different economies and financial systems. This synthesis of past findings provides the empirical foundation for the current study. Isa et al., (2023) analyzed Malaysian commercial banks and found that solvency measures like EQR, DER, and CAR play a critical role in sustaining profitability by preventing insolvency and enabling banks to absorb losses. Excessive leverage, as indicated by high DER, may reduce profitability by increasing financial risk, highlighting the importance of optimal capital structure in line with solvency position theory. Sufian and Chong (2008) underscore the relevance of ROE as a key metric for investors and regulators, as it evaluates how efficiently a bank uses shareholders' equity to generate earnings. ROE is influenced by internal factors like capital structure and external variables such as inflation and interest rates.

Equity Ratio (EQR)

The EQR represents the proportion of a bank's total assets financed by shareholder equity. A higher EQR typically suggests a lower reliance on debt and a stronger capital foundation, thereby indicating financial stability. However, excessively high EQR values may indicate under-utilization of leverage, potentially limiting profitability. Lim et al., (2015) found that Malaysian banks strive to maintain moderate EQR levels to optimize both risk management and earnings. Bin and Yusoff (2018) similarly reported that banks with stronger equity bases and balanced leverage exhibit more stable financial performance and greater investor confidence, supporting higher ROE. Further, the cyclical nature of credit and economic conditions also interacts with solvency to influence bank performance. According to Bank Negara Malaysia's Financial Stability Review (2019), Malaysian banks' ROE fluctuates with credit cycles and economic growth. However, institutions with more prudent solvency positions demonstrate greater resilience during downturns, emphasizing the importance of maintaining adequate solvency across economic cycles—an insight that aligns with solvency position theory. Thus, the first hypothesis is developed:

H1: *Equity Ratio (EQR) has a significant relationship with the return on equity (ROE) of commercial banks in Malaysia.*

Debt Ratio (DER)

DER indicates the proportion of assets financed through liabilities. While leverage can amplify returns, it also increases exposure to financial risk, especially under volatile interest rate conditions. Isa et al., (2023) observed that the impact of DER on bank performance in Malaysia varies depending on institutional risk profiles and external conditions. Excessive leverage was shown to reduce profitability due to increased risk exposure. Manual et al., (2020) found that stronger solvency positions, including balanced DER levels, improve liquidity and managerial efficiency by minimizing agency costs. Similarly, Bin and Yusoff (2018) reported that banks with controlled leverage demonstrate improved transparency and accountability, helping to mitigate agency conflicts and align managerial behavior with shareholder interests. Idris, Kadri, and Razali (2024) confirmed that DER plays a pivotal role in limiting managerial discretion and excessive risk-taking, in line with agency theory. Hence, the second hypothesis is formulated:
H2: *Debt Ratio (DER) has a significant impact on the return on equity (ROE) of commercial banks in Malaysia*.

Capital Adequacy Ratio (CAR)

CAR measures the capital buffer a bank holds against its risk-weighted assets. A higher CAR enhances resilience to financial shocks but may lead to more conservative lending practices and thus reduced short-term profitability. Lee and Isa (2021) affirmed that Malaysian banks with higher CARs showed stronger stability during crises, even if profitability was temporarily constrained. Sukendri (2024) emphasized that higher CAR values limit excessive managerial risk-taking, thus promoting sound governance and reducing agency conflicts. Manual et al., (2020) demonstrated that regulatory capital requirements serve as external governance mechanisms that reinforce internal capital discipline, reduce moral hazard, and limit managerial discretion. According to Bank Negara Malaysia's Financial Stability Review (2024), CAR, alongside DER and EQR, plays a significant role in reducing systemic risk by constraining high-risk managerial behavior. This comprehensive governance framework enhances solvency and, in turn, financial performance. Therefore, the final hypothesis is proposed:
H3: *Capital Adequacy Ratio (CAR) has a significant influence on the return on equity (ROE) of commercial banks in Malaysia.*

Overall, evidence from both global and Malaysian banking contexts reveals varying impacts, with results often shaped by economic conditions, regulatory environments, and internal risk management practices. Additionally, in order to enhance the precision of the model, two control variables are included: (1) SIZE indicates larger banks may enjoy scale advantages and better diversification, leading to improved profitability. However, Athanasoglou et al. (2008) note that beyond a certain threshold, size may contribute to inefficiencies. (2) IR indicates fluctuations in the central bank's Overnight Policy Rate (OPR) impact banks' net interest margins and profitability. Isa et al., (2023) also note differences in IR sensitivity between Islamic and conventional banks.

DATA AND METHODOLOGY

This study adopts a quantitative research design to investigate the impact of solvency position on the financial performance of commercial banks in Malaysia. The analysis is based on a panel dataset comprising 15 commercial banks over a six-year period from 2018 to 2023. Banks were selected using purposive sampling, focusing on those with complete and consistent financial data throughout the study period to ensure data reliability and robustness. All data were sourced from secondary materials, specifically audited annual reports published on the official websites of the selected banks, alongside macroeconomic indicators such as the annual policy interest rate, retrieved from the official database of Bank Negara Malaysia. A total of 90 firm-year observations were compiled for the empirical analysis.

The dependent variable, return on equity (ROE), is used as a proxy for bank performance, reflecting the efficiency with which a bank generates profit from shareholders' equity. The independent variables representing the banks' solvency position are the equity ratio (EQR), debt ratio (DER), and capital adequacy ratio (CAR). In addition, two control variables such as SIZE and IR were incorporated to account for institution-specific and macroeconomic influences on bank performance. The multiple regression model is formulated as follows:

$$ROE_{it} = \alpha + \beta 1EQR + \beta 2DER + \beta 3CAR + \beta 4SIZE + \beta 5IR + \varepsilon$$

Where, ROE= Return on equity; EQR= Equity ratio; DER = Debt ratio; $_{it}$ = number of companies from 2018 to 2023; ε= error terms

Table 1 presents in the measurements of variables using key financial ratios and control variables to assess the solvency position and performance of Malaysian banks.

Table 1. Measurement of Variables

Variables	**Measurement**	**Source**
Dependent Variable		
Return on Equity (ROE)	Net Income / Shareholders' Equity	Idris et al. (2024)
Independent Variables		
Equity Ratio (EQR)	Total Equity / Total Assets	Usman et al. (2019)
Debt Ratio (DER)	Total Liabilities / Total Assets	Haniff & Yusoff (2018)
Capital Adequacy Ratio (CAR)	Total Equity / Risk-Weighted Assets (or Total Assets)	Ratnasari et al. (2021)
Control Variables		
Bank Size (SIZE)	Natural logarithm of Total Assets	Claessens, Coleman, & Donnelly (2018)
Interest Rate (IR)	Average lending interest rate (%)	Bank Negara Malaysia (2023)

The dependent variable, ROE, shows how profitable the bank is compared to its shareholders' equity. This shows how well the bank makes money from its capital. These variables, when looked at together, give us an entire overview of how solvency, capital structure, macroeconomic factors, and bank performance are related in the Malaysian banking sector. Therefore, ROE was computed as net income divided by shareholder equity. The independent

variable, EQR shows a proportion of a bank's total assets that are financed by equity capital. EQR as total equity divided by total assets. This shows how strong the bank's capital is and how well it can handle losses. DER shows how much of the bank's total assets are financed by liabilities. Thus, DER was calculated as total liabilities divided by total equity. This gives an idea of the bank's overall leverage and risk exposure. CAR was measured as total regulatory capital divided by risk-weighted assets the bank's regulatory capital strength compared to its risk-weighted assets. This shows how well it can handle financial shocks and stay stable. This study also includes control variables to consider external and structural factors that affect how well banks do. The natural logarithm of total assets is used to measure SIZE, which considers scale effects that could affect profitability and risk management. Meanwhile, IR is the average interest rate for loans, which shows how macroeconomic conditions affect banks' costs of borrowing and lending.

The study also employed panel data regression techniques, including POLS, FEM, and REM. The most appropriate model was selected based on three specification tests: the Chow test, the Breusch-Pagan Lagrange Multiplier (LM) test, and the Hausman test. These tests assessed model fit and suitability in controlling for unobserved heterogeneity and endogeneity issues. The choice of methodology and variable selection is guided by prior empirical research, including studies by Bin and Yusoff (2017), Claessens et al., (2018), and the International Monetary Fund (IMF, 2014; 2015), all of which underscore the significance of capital structure, leverage, and regulatory compliance in shaping bank performance and financial stability.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2 summarizes the descriptive statistics for all variables used in this study. Among the variables, DER recorded the highest mean, followed by CAR, ROE, EQR, SIZE, and IR. The highest standard deviation is observed for DER, indicating substantial variation in leverage across banks, while IR shows the lowest variability. Most variables are positively skewed, with DER being the most skewed, suggesting a few banks have significantly high debt levels. ROE is slightly skewed to the right, reflecting moderate concentration of profitability. In terms of kurtosis, DER and CAR are leptokurtic, indicating the presence of extreme values, whereas SIZE and IR are platykurtic, reflecting fewer extreme fluctuations.

Table 2. Descriptive Statistics for ROE, EQR, DER, CAR, SIZE, and IR

	ROE	EQR	DER	CAR	SIZE	IR
Mean	0.836183	0.748919	4.834486	0.786282	4.676399	1.505435
Median	0.732083	0.743555	4.822510	0.783468	4.542281	1.509874
Maximum	2.509599	0.786083	4.885828	0.857729	6.936998	1.658228
Minimum	0.566222	0.726657	4.804840	0.767837	1.823916	1.321756
Std. Dev.	0.410907	0.014199	0.029715	0.014211	1.193723	0.126572
Skewness	3.509383	1.012115	0.694293	2.685265	-0.093439	-0.138130
Kurtosis	13.51457	3.257783	1.915264	11.70401	2.691784	1.383871

Correlation Matrix

Table 3 presents the Pearson correlation matrix for all variables included in the study. ROE shows a weak negative correlation with the EQR (–0.1170), suggesting that higher equity levels may be slightly associated with reduced profitability, possibly due to a more conservative capital structure. The correlation between ROE and DER is minimal (0.0266), indicating that

leverage has little direct influence on returns within the sample. A weak negative relationship is also observed between ROE and the CAR (–0.2706), implying that maintaining higher regulatory capital may not necessarily improve profitability. In contrast, both SIZE and interest IR show very weak positive correlations with ROE (0.0303 and 0.0156, respectively), suggesting negligible associations. Additionally, the low correlation between DER and CAR (0.1988) indicates that these solvency measures reflect different aspects of a bank's financial structure. Overall, none of the correlation values exceed ±0.7, suggesting no multicollinearity issues among the independent variables and supporting the reliability of the regression analysis.

Table 3. Correlation Matrix

	ROE	EQR	DER	CAR	SIZE	IR
ROE	1.000000					
EQR	-0.117014	1.000000				
DER	0.026578	-0.043999	1.000000			
CAR	-0.270590	0.181494	0.198843	1.000000		
SIZE	0.030299	-0.341551	0.072132	-0.441441	1.000000	-
IR	0.015599	0.025468	0.012512	-0.147912	-0.022854	1.000000

Pooled Ordinary Least Squares (POLS) Regression Model

Table 4 reports the results from the POLS regression model. The regression findings reveal that ROE is negatively associated with EQR, CAR, and SIZE, while DER and IR display positive relationships with ROE. Among the independent variables, only CAR is statistically significant at the 5% level ($p = 0.0046$), indicating that higher capital adequacy is associated with a lower ROE. The remaining variables, although showing either positive or negative signs, are not statistically significant, implying limited explanatory power. The insignificance of most variables may reflect the limitations of the POLS model in accounting for bank-specific heterogeneity, suggesting that more advanced panel techniques (e.g., Fixed or Random Effects) may provide more reliable and robust estimates.

Table 4. POLS Regression Model

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	4.6005	7.4427	0.6181	0.5382
EQR	-3.0498	1.4850	-0.9581	0.3408
DER	1.4510	1.4850	0.9771	0.3313
CAR	-10.2128	3.5080	-2.9113	0.0046
SIZE	-0.0585	0.0422	-1.3861	0.1694
IR	-0.1271	0.3413	0.618129	0.7105

Fixed Effect Model (FEM)

Table 5 displays the regression results from the FEM. Both the EQR and DER exhibit positive and statistically significant relationships with ROE, suggesting that stronger capital positions

and prudent leverage contribute positively to bank profitability. In contrast, the CAR and SIZE show negative and significant effects on ROE at the 5% significance level, indicating that higher regulatory capital and larger institutional scale may place downward pressure on returns. Meanwhile, IR remains positively associated with ROE but does not reach statistical significance. These results highlight the importance of capital structure management in enhancing bank performance.

Table 5. Fixed Effect Model (FEM)

Variable	Std. Error	T-Statistics	Probability
EQR	0.906132	2.803161	0.0379
DER	0.338228	2.526329	0.0528
CAR	0.334047	-2.706175	0.0425
SIZE	0.050716	-2.365013	0.06430
IR	0.048496	0.000169	0.9999

Hausman Test

Table 6 presents the results of the Hausman specification test used to determine the more appropriate estimator between the Fixed Effects Model (FEM) and the Random Effects Model (REM). The Chi-square statistic was 2.58 with 5 degrees of freedom, yielding a probability value of 0.7639. Since this result is statistically insignificant at the 5% level, the null hypothesis cannot be rejected, suggesting that the REM would be the preferred model.

Table 6. Hausman Test Result

Test Summary	**Chi-Sq. Statistic**	**d.f.**	**Prob.**
Cross-section random	2.58	5	0.7639

Regression Model Selection

Table 7 summarises the regression results across the Pooled OLS, REM, and FEM estimators. Although the Hausman test points toward the REM, this study adopts the FEM in line with strong support from the banking literature. Dietrich and Wanzenried (2011), for instance, employed FEM despite Hausman results favouring REM, reasoning that unobserved heterogeneity in banking is likely to correlate with explanatory variables. Similarly, Sufian (2012), Egbunike and Okerekeoti (2018), Duho et al. (2019), and Isayas (2022) all emphasized the theoretical justification for FEM, highlighting that internal bank-level factors such as governance, policies, or management styles, are unlikely to be random and must be controlled for. Adopting FEM in this study therefore ensures that time-invariant, entity-specific characteristics are appropriately accounted for, reducing bias and enhancing the reliability of results. This methodological stance aligns with established practices in empirical banking research and strengthens the validity of the study's conclusions.

Table 7. Summary of Regression Model

ROE	POOLED OLS	REM	FEM
C	4.600533 0.618129	-3.281049 -2.233850	-3.925358 -2.165883
EQR	-3.049781 -0.958060	2.247184 1.695939	2.540035 2.803161
DER	1.451017 0.977149	0.710425 2.874851	0.854476 2.526329
CAR	-10.21272 -2.911291	-0.853536 -1.497996	-0.903990 -2.706175
SIZE	-0.058544 -1.386063	-0.074235 -1.372629	-0.19945 -2.3650.13
IR	-0.127127 -0.372450	0.011958 0.276466	8.19E-06 0.000165
Observation	90	90	90
LM Test	189.8577 0.0000 (REM is more appropriate)		
Hausman Test		2.58 0.7639 (REM is more appropriate)	

Discussion

The findings of this study provide important insights into the relationship between solvency positions and bank performance in Malaysia. The FEM results reveal that both the EQR and DER exert a positive and statistically significant influence on ROE. This suggests that maintaining a stronger equity base and prudent leverage enhances the performance of commercial banks in Malaysia. Research consistently shows that maintaining a strong equity base and using leverage prudently can enhance profitability, but the effect is nuanced and context-dependent. Moderate leverage can improve returns by lowering the cost of capital and increasing shareholder value, especially when the return on borrowed funds exceeds the cost of debt (Ima et al., 2024; Abubakar & Anyonje, 2025; Adib et al., 2024; Siahaan & Putra, 2024; Khusna & Rahadian, 2025). However, excessive reliance on debt increases financial risk and interest obligations, which can erode profitability and threaten long-term sustainability (Ima et al., 2024; Sany, Winata & Yasin, 2023; Daruwala, 2023; Kollipara & Podili, 2025; Kathayat, Khan & Awan, 2024).

Additionally, the positive effect of EQR and DER supports the agency theory and trade-off theory respectively. The positive effect of EQR aligns with agency theory, which suggests that higher equity reduces conflicts of interest between shareholders and managers by strengthening monitoring mechanisms (Jensen & Meckling, 1976). Meanwhile, the positive effect of DER is consistent with the trade-off theory, which posits that firms balance the tax benefits of debt with the costs of potential financial distress to optimize performance (Kraus & Litzenberger, 1973). Therefore, these findings directly address the first and second objectives of this study: (1) to investigate the relationship between the equity ratio and the performance of commercial banks in Malaysia, the positive and significant effect of EQR confirms that higher equity strengthens bank performance; (2) to evaluate the impact of the debt ratio on the performance of commercial banks in Malaysia, the positive association between DER and ROE indicates that prudent use of leverage enhances profitability.

Conversely, the FEM results reveal that CAR show significant negative effects on ROE, highlighting the potential profitability constraints imposed by regulatory capital requirements and diseconomies of scale within larger institutions. These findings resonate with prior empirical evidence in both developed and developing banking sectors. Dietrich and Wanzenried (2011), examining Swiss banks, also found that stronger capitalization positively influences profitability, particularly in times of economic uncertainty. Similarly, Sufian (2012) reported that equity positions were positively linked to profitability in South Asian banks, underscoring the universal importance of equity buffers in promoting stability and performance. The negative relationship between CAR and ROE observed in this study is consistent with Egbunike and Okerekeoti (2018) and Duho et al. (2019), who documented that stricter capital requirements often divert resources from income-generating activities, thereby reducing bank profitability.

The results also have significant implications for both regulators and bank managers. The negative effect of CAR on profitability highlights the trade-off between regulatory compliance and performance. While higher capital buffers enhance stability and protect against systemic, they may also limit banks' capacity to leverage assets for income generation. Enhanced capital adequacy reduces the likelihood and impact of contagious defaults, absorbs shocks, and lowers banks' contribution to systemic risk, especially for large and systemically important institutions (Lafuerza & Melnychuk, 2022; Bo, 2024; Dimitrov & Van Wijnbergen, 2023)). These buffers are effective across various banking systems and are particularly valuable during periods of financial stress.

The long-term benefits of stability and crisis prevention generally outweigh short-term constraints on lending and profitability. For example, (1) Short-term effects: Banks often respond to increased capital requirements by reducing lending, especially to riskier borrowers, and shifting towards safer assets. This can lead to a temporary dip in credit supply and profitability (Cappelletti et al., 2024; Cappelletti et al., 2020; Cappelletti et al., 2019; Marques et al., 2024; Hendrawan et al., 2023).(2) Medium-term effects: The initial reduction in lending tends to rebound as banks adjust, with a shift towards less risky lending and improved risk discipline. The adverse impact on the real economy is generally limited and short-lived (Cappelletti et al., 2024; Cappelletti et al., 2019; Marques et al., 2024). (3) Profitability trade-off: Higher capital buffers may reduce returns on assets and equity, but this is offset by greater long-term stability and lower risk of costly crises (Hendrawan et al., 2023). Regulators, particularly Bank Negara Malaysia (BNM), should therefore consider calibrating capital adequacy requirements in a way that balances stability with efficiency. At the institutional level, managers should focus on optimizing capital structures by strengthening equity bases without excessively constraining lending and investment activities. This is supported with the inverse relationship between SIZE and ROE that reflects findings from Isayas (2022), suggesting that larger institutions may face managerial inefficiencies and higher operational complexities, which can offset potential benefits of scale. The evidence that SIZE negatively affects profitability further suggests that larger banks may need to prioritize efficiency-enhancing strategies, such as digitalization and process streamlining, to mitigate the diseconomies of scale.

From a theoretical standpoint, this study's findings reinforce the relevance of capital structure theories in the banking sector. Thus, these findings directly address the third objective of this study: (3) to analyse the influence of the capital adequacy ratio on the performance of commercial banks in Malaysia, where the significant negative effect of CAR confirms that higher capital buffers, while strengthening stability, may constrain profitability in the Malaysian banking context. Collectively, the results from this study exhibit similar patterns that while solvency positions play a critical role in shaping the performance of Malaysian

commercial banks: strong equity and prudent leverage enhance profitability, whereas excessive capital buffers impose constraints.

CONCLUSION

This study set out to examine the impact of solvency position on the financial performance of selected commercial banks in Malaysia over the period from 2018 to 2023. Drawing on a panel dataset comprising 15 banks and 90 firm-year observations, the analysis focused on three key solvency indicators such as equity ratio (EQR), debt ratio (DER), and capital adequacy ratio (CAR) with return on equity (ROE) serving as the primary measure of bank performance. Two control variables, bank size (SIZE) and interest rate (IR), were included to account for institutional scale and macroeconomic conditions. A series of econometric methods were employed, including descriptive statistics, correlation analysis, POLS, FEM, and the Hausman test, using EViews version 13. The empirical results, particularly from the Fixed Effects Model validated through the Chow and Hausman tests indicate that both EQR and DER have a positive and statistically significant influence on ROE. These findings suggest that well-capitalized banks with controlled leverage tend to perform better, aligning with solvency theory and supported by prior research such as Bin and Yusoff (2017) and IMF (2015). In contrast, CAR and SIZE exhibit negative and significant relationships with ROE. While capital adequacy enhances financial stability, overly conservative capital buffers may reduce profitability by limiting capital efficiency. Similarly, the negative impact of SIZE implies that larger banks may encounter operational inefficiencies or diminishing returns to scale. Meanwhile, IR was positively related to ROE but not statistically significant, suggesting a limited direct effect of interest rate changes on bank profitability during the study period. These findings offer valuable implications. For regulators such as Bank Negara Malaysia, the study reinforces the importance of monitoring solvency not only for compliance but also for its broader impact on performance. For bank managers, the results highlight the need to maintain an optimal capital structure that balances risk management and profitability. Investors, too, can use solvency indicators as tools to assess financial health and potential returns. Ultimately, this study demonstrates that solvency position is not only a regulatory requirement but a decisive driver of banks' performance in Malaysia.

This study is not without limitations. First, the analysis is confined to 15 commercial banks over six years, which may limit the generalizability of the findings. Expanding the sample to include Islamic banks or extending the timeframe could yield more comprehensive insights. Second, the study concentrates solely on quantitative financial indicators and does not incorporate qualitative aspects such as governance quality, management efficiency, or market competition. Lastly, only one macroeconomic variable interest rate was considered. Future research should explore additional external factors such as inflation, Gross Domestic Product (GDP) growth, and exchange rate fluctuations, while also integrating qualitative dimensions such as ownership structure, managerial effectiveness, and regulatory reforms. Furthermore, applying advanced econometric techniques such as the Generalized Method of Moments (GMM) or dynamic panel models could help address potential endogeneity issues and provide deeper insights into causal relationships. Comparative cross-country analyses, particularly within the ASEAN region, would also enrich understanding of the solvency–performance nexus in diverse institutional contexts.

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