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HOW INTERNAL CONTROL CAPACITY AFFECTS COMPANY PERFORMANCE

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ABSTRACT

This study aims to analyze the effect of internal control capacity on the performance of commercial banks in Malaysia during the 2023–2024 period. The research employs a quantitative approach using Ordinary Least Squares (OLS) regression analysis based on secondary data obtained from audited financial statements and Bursa Malaysia stock market data. Internal control capacity is proxied by the natural logarithm of total assets, while firm performance is measured by stock closing prices as a market-based indicator. The results indicate that internal control capacity has a positive and significant effect on firm performance, with a coefficient of 0.228 and a significance value of 0.000. The model achieves an adjusted R-squared of 0.332, suggesting that 33.2% of the variation in stock prices can be explained by internal control capacity. These findings confirm that internal control capacity is a strategic resource that enhances investor confidence and increases bank market valuation.

Keywords: *Internal Control Capacity; Company Performance*

ABSTRAK

Penelitian ini bertujuan menganalisis pengaruh kapasitas pengendalian internal terhadap kinerja bank komersial di Malaysia periode 2023–2024. Metode yang digunakan adalah pendekatan kuantitatif dengan analisis regresi *Ordinary Least Squares* (OLS) berbasis data sekunder dari laporan keuangan auditan dan data pasar saham Bursa Malaysia. Kapasitas pengendalian internal diproksikan dengan logaritma natural total aset, sedangkan kinerja perusahaan diukur melalui harga penutupan saham sebagai indikator berbasis pasar. Hasil penelitian menunjukkan bahwa kapasitas pengendalian internal berpengaruh positif dan signifikan terhadap kinerja perusahaan, dengan koefisien sebesar 0,228 dan nilai signifikansi 0,000. Model memiliki adjusted R-squared sebesar 0,332, yang berarti 33,2% variasi harga saham dapat dijelaskan oleh kapasitas tersebut. Temuan ini menegaskan bahwa kapasitas pengendalian internal merupakan sumber daya strategis yang meningkatkan kepercayaan investor dan valuasi pasar bank.

Kata kunci: Kapasitas Pengendalian Internal; Kinerja Perusahaan

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INTRODUCTION

Firm performance, when assessed through the lens of capital markets, reflects not only the financial outcomes of managerial decisions but also the forward-looking judgment of investors regarding an institution's governance quality, risk management capacity, and long-term value creation potential. In the banking sector, where information asymmetry between management and external stakeholders is particularly pronounced, market-based indicators of firm performance such as stock closing price serve as aggregated signals of investor confidence, incorporating publicly available financial information, regulatory standing, and perceived organizational resilience into a single observable market variable. Stock closing price, or Price Close, captures the market's real-time and cumulative assessment of a bank's intrinsic value, making it a theoretically richer and informationally comprehensive measure of firm performance than accounting-based ratios alone, which are constrained by historical cost conventions and subject to managerial discretion in their preparation and presentation (Jensen & Meckling, 1976)

Across the ASEAN region, banking sector stock valuations differ considerably between banks, even within national markets that share common macroeconomic and regulatory conditions. The World Bank (2023) has observed that firm-level performance disparities within ASEAN are increasingly associated with governance quality, which suggests that institution-specific organizational capabilities are important determinants of market valuation in the regional banking context.

Malaysia's banking sector provides a particularly suitable setting for this study for four reasons. First, it is one of the most developed banking systems in ASEAN, and its major banking groups are listed on Bursa Malaysia, so their share prices provide observable, market-based signals of how investors assess each bank. Second, the sector operates under a demanding and uniform supervisory framework: Bank Negara Malaysia (BNM) enforces governance and risk management standards under the Financial Services Act 2013, and the Financial Sector Blueprint 2022 to 2026 raised expectations for internal control systems, risk management frameworks, and board oversight among all licensed banks (Bank Negara Malaysia, 2022). Because all banks face the same regulatory requirements, differences in market valuation are more likely to reflect differences in bank-level characteristics than differences in regulation. Third, Malaysian listed issuers disclose a narrative Statement on Risk Management and Internal Control, but no audited opinion on the effectiveness of internal control is provided (Bursa Malaysia, 2012). Investors must therefore infer the quality of a bank's internal control from observable characteristics, which makes the resources a bank has available for internal control a relevant signal. Fourth, despite these features, Malaysian banks have received little attention in empirical research on internal control and performance, which has concentrated on the Middle East, Africa, and Central Asia.

The 2023 to 2024 period is of particular interest. The Malaysian banking system remained resilient, with total assets of approximately RM 3.4 trillion and capital adequacy ratios well above Basel III minimums (Bank Negara Malaysia, 2023). Yet despite this sectoral stability, share prices across Malaysian banks varied substantially, with some institutions commanding valuation premiums while others were priced at levels suggesting investor uncertainty about their organizational quality. This

divergence within a uniformly regulated market raises an important empirical question: which internal organizational characteristics differentiate banks that command strong investor confidence from those that do not?

One such characteristic is a bank's internal control capacity, defined in this study as the organizational ability to design, maintain, and effectively operate the five components of internal control identified by COSO (2013): the control environment, risk assessment, control activities, information and communication, and monitoring. Two theoretical arguments explain why this capacity should be reflected in firm performance. From an agency perspective, effective internal controls mitigate the conflict arising from the separation of ownership and management by constraining managerial opportunism and enhancing the reliability of the financial information disclosed to investors (Jensen & Meckling, 1976). From a signalling perspective, because investors cannot directly observe the quality of a bank's internal processes, a demonstrably strong control infrastructure acts as a credible signal of reporting quality and organizational soundness (Spence, 1973). Investors who observe strong controls rationally lower their estimates of the probability of misstatement, regulatory penalty, and operational failure, which should translate into higher market valuations.

These arguments are supported by a substantial body of empirical evidence. Capital market studies show that investors price internal control quality directly: firms disclosing internal control weaknesses experience significantly negative abnormal stock returns (Beneish et al., 2008; Hammersley et al., 2008) and are subsequently exposed to higher systematic risk, idiosyncratic risk, and cost of equity (Ashbaugh-Skaife et al., 2009). Weak controls also impair the information on which managers themselves rely, as firms with ineffective internal control issue significantly less accurate earnings guidance (Feng et al., 2009). Evidence from the banking industry is consistent with these findings. Altamuro and Beatty (2010) show that banks subject to the internal control requirements of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) report more valid loan loss provisions, more persistent earnings, and more predictable cash flows than exempt banks. Studies using COSO-based measures likewise document positive associations between internal control and financial performance in commercial banks in Iraq (Hanoon et al., 2021), Ghana (Otoo et al., 2021), and Jordan (Pakurár et al., 2019). Importantly for the measurement approach of this study, internal control weaknesses are concentrated among smaller, less profitable, and financially weaker firms (Doyle et al., 2007), indicating that a firm's resource base is a key determinant of its capacity to sustain effective internal control.

Nevertheless, the evidence is not uniform. Hamed (2023) found that the control activities component reduced short-term profitability in Jordanian commercial banks by increasing administrative expenses, and Khusanova et al. (2025) documented no significant effect of asset-based internal control capacity on audit outcomes in Central Asian capital markets. These mixed results indicate that the relationship depends on institutional context and on how both constructs are measured. Taken together, the literature leaves three specific gaps. First, studies of internal control in banks have relied almost entirely on accounting-based or audit-outcome measures of performance, whereas the evidence that capital markets reward internal control quality comes mainly from non-bank firms under the United States Sarbanes-Oxley disclosure regime; to the

best of our knowledge, whether internal control capacity is reflected in the stock prices of banks in emerging ASEAN markets has not been examined. Second, the existing bank-level evidence is concentrated in the Middle East, Africa, and Central Asia, while Malaysia, a developed and closely supervised ASEAN banking market undergoing regulatory intensification under the Financial Sector Blueprint 2022 to 2026, remains largely unexamined. Third, most bank-level studies measure internal control through employee perception surveys, which are exposed to common method bias and are difficult to replicate, and objective, publicly observable measures of internal control capacity have rarely been tested against market performance.

Accordingly, the objective of this study is to examine whether internal control capacity, defined as the resources available to a bank for building and operating its internal control system and proxied by the natural logarithm of total assets, is associated with the market-based performance of commercial banks listed in Malaysia, measured by the closing share price (Price Close), over the period 2023 to 2024. The study makes two main contributions. First, it provides market-based evidence on the relationship between internal control capacity and bank performance in Malaysia, a well-regulated ASEAN market in which investors cannot observe an audited assessment of internal control effectiveness and must rely on observable indicators; this extends a literature that has relied mainly on accounting-based performance measures and on other regions. Second, it clarifies the theoretical and measurement distinction between internal control capacity and internal control effectiveness within the Resource-Based View, and tests an objective, replicable, secondary-data proxy for capacity while making its limitations explicit. The findings are intended to inform bank management, investors, and Bank Negara Malaysia about how the resources banks devote to internal control relate to market valuation.

LITERATUR REVIEW

Resource-Based View as Theoretical Foundation

The theoretical foundation of this study is grounded exclusively in the Resource-Based View (RBV) of the firm, which offers a coherent conceptual lens for understanding how internal control capacity shapes firm performance as assessed by capital markets. The RBV, originally formulated by Barney (1991) and developed from the earlier work of Penrose (1959) and Wernerfelt (1984), posits that firms achieve and sustain competitive advantage through the possession and deployment of internal resources that are valuable, rare, inimitable, and non-substitutable, collectively referred to as VRIN. In contrast to market-based perspectives that locate competitive advantage in industry structure and external positioning, the RBV emphasizes the heterogeneity of internal resource bundles as the primary source of persistent performance differences among firms operating in the same industry and regulatory environment. Agency theory (Jensen & Meckling, 1976) and signalling theory (Spence, 1973) are used as complementary perspectives: the RBV explains why internal control capacity can create value, while agency and signalling arguments explain how that value becomes visible to investors and is reflected in market prices.

Within the RBV framework, organizational resources are categorized along a continuum from tangible assets, such as financial capital and physical infrastructure, to intangible assets, including organizational capabilities, institutional knowledge, and governance systems. The RBV assigns particular strategic significance to organizational capabilities, defined as the firm's embedded capacity to deploy, integrate, and renew its resource base in pursuit of strategic objectives. These capabilities, which are accumulated through sustained organizational learning and investment, are difficult to observe, codify, or replicate by competitors, rendering them more durable sources of advantage than fungible tangible assets (Barney, 1991). Internal control capacity represents precisely this class of organizational capability: it is embedded within the institutional culture, human capital, process architecture, and technology infrastructure of a banking organization, requiring sustained and cumulative investment to develop and maintain at a high standard of effectiveness.

The relevance of the RBV to the banking sector is particularly compelling. Banking is a knowledge-intensive and information-asymmetric industry in which the quality of internal organizational processes directly conditions risk management outcomes, regulatory compliance performance, and ultimately the confidence of external stakeholders including investors, depositors, and regulators. Banks that invest in superior governance infrastructure, including comprehensive internal control systems, dedicated internal audit functions, and robust compliance architectures, develop VRIN organizational capabilities that are not easily acquired or replicated by less resource-endowed competitors. In Malaysia's regulatory environment, where Bank Negara Malaysia enforces governance standards aligned with Basel III prudential requirements and the Financial Services Act 2013, the ability to maintain a high-quality internal control environment while simultaneously sustaining operational profitability constitutes a particularly valuable strategic resource. Investors, recognizing the governance premium associated with such capabilities, rationally assign higher valuations to institutions demonstrating stronger internal control capacity, which is observable in higher stock closing prices. The RBV therefore provides the direct theoretical linkage between internal control capacity as an organizational resource and market-based firm performance as the competitive outcome of that resource deployment.

To link internal control capacity explicitly to the RBV, this study draws on the distinction between resources and capabilities proposed by Amit and Schoemaker (1993). Resources are the stocks of factors that a firm owns or controls, such as financial capital, technology, and personnel, whereas capabilities are the firm's capacity to deploy and combine these resources through organizational processes to achieve a desired end. Internal control fits this distinction closely. Its inputs are resources, including qualified compliance and internal audit staff, risk management and information systems, and the financial means to fund them. Its outputs are capabilities, namely the routines through which a bank establishes a sound control environment, assesses risks, executes control activities, communicates reliable information, and monitors performance in line with COSO (2013). Internal control capacity, as defined in this study, refers to the first of these elements: the stock of resources that a bank can commit to building and operating its internal control system.

Assessed against the VRIN criteria, internal control capability can be a source of advantage even though the COSO framework itself is publicly available. The framework describes what an effective system should contain, but the way its components are embedded in a particular bank's culture, staff expertise, information systems, and supervisory relationships is accumulated over time, is path-dependent, and is difficult for competitors to observe or replicate quickly (Barney, 1991). Such capability is valuable because it reduces the probability of losses from fraud, error, and regulatory sanctions; it is relatively rare because building it requires sustained investment that not every bank can afford; and it is difficult to imitate or substitute because it rests on tacit organizational knowledge rather than on any single purchasable asset.

The RBV also implies an important qualification. Resources generate advantage only when they are effectively deployed, so a large resource base is a necessary but not a sufficient condition for effective internal control. A large bank may command substantial resources yet suffer from a weak control culture or poor implementation, while a smaller bank may deploy limited resources efficiently. This study therefore treats internal control capacity as the resource foundation from which control capability can be developed, and tests the RBV prediction at that level: if larger resource endowments enable stronger control capabilities on average, banks with greater capacity should be valued more highly by investors. Following Khusanova et al. (2025), capacity is operationalized as the natural logarithm of total assets. The justification for this proxy and its limitations are discussed in the following section.

The relationship examined in this study can therefore be summarized as a chain with three links. In the first link, a bank's resource endowment, reflected in its total assets, determines its internal control capacity, that is, the resources it can commit to internal control. In the second link, capacity is converted into internal control effectiveness through the way the bank deploys these resources, which depends on management commitment, control culture, and implementation quality. In the third link, effective internal control reduces the risk of misstatement, fraud, and regulatory sanction, improves the reliability of disclosed information, and is reflected in investors' valuation of the bank (Ashbaugh-Skaife et al., 2009; Jensen & Meckling, 1976; Spence, 1973). The RBV explains the first two links, while agency and signalling theory explain the third. This study observes only the beginning and the end of the chain, total assets and share price; internal control effectiveness, the middle link, is not directly measured. The empirical test is therefore a test of whether capacity is associated with market performance, and a positive association is consistent with, but does not prove, the full chain.

Internal Control Capacity

Internal control is formally defined by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013) as a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in three categories: operations, reporting, and compliance. The COSO Internal Control Integrated Framework, which serves as the globally recognized standard for internal control design and assessment, identifies five interrelated components whose collective effectiveness determines the quality of an organization's internal control system. The control environment establishes the

organizational tone for integrity, ethical values, and accountability, forming the cultural foundation upon which all other control components depend. Risk assessment involves the systematic identification and evaluation of risks that could prevent the achievement of organizational objectives. Control activities encompass the policies, procedures, and authorization protocols that ensure management directives are implemented consistently across the organization. Information and communication systems ensure that relevant financial and operational data are identified, captured, and communicated accurately and in a timely manner to those who need them. Monitoring activities involve the ongoing and periodic evaluation of control system effectiveness to ensure that deficiencies are identified and remediated promptly.

In banking institutions, the COSO framework takes on heightened significance because banks operate under conditions of high financial leverage, complex risk exposures spanning credit, market, operational, and liquidity dimensions, and continuous regulatory scrutiny. The Basel Committee on Banking Supervision (2015) has explicitly identified internal control deficiencies as a leading cause of banking instability globally, establishing minimum standards for internal control frameworks as part of the Basel III regulatory architecture. Effective internal controls in banks reduce the probability of financial misstatement and fraud, limit operational loss exposures, enhance the efficiency of resource allocation across business lines, and ensure compliance with prudential regulations, all of which contribute to the preservation of institutional value and investor confidence (Hamed, 2023).

Internal control capacity in this study is proxied by the natural logarithm of total assets, denoted Ln Total Assets. This operationalization rests on the theoretical premise that a bank's total asset base reflects its cumulative organizational investment in the infrastructure required to sustain comprehensive internal controls. Banks with larger total assets command greater financial resources to fund dedicated compliance departments, internal audit teams, enterprise risk management systems, regulatory technology platforms, and the human capital expertise necessary to operate these systems effectively. The natural logarithm transformation is applied to normalize the distribution of asset values across the sample, reduce the statistical influence of extreme outliers, and satisfy the linearity assumptions underlying OLS regression estimation.

Firm Performance Measured by Price Close

Firm performance in this study is conceptualized as the market-based assessment of a bank's value and organizational quality as reflected in its stock closing price, referred to as Price Close. The distinction between accounting-based and market-based measures of firm performance is theoretically significant and practically consequential. Accounting-based measures such as ROA and ROE capture historical financial outcomes derived from audited financial statements, reflecting the efficiency of past managerial decisions within a specific accounting period. While these measures are informative about operational efficiency, they are constrained by accounting conventions, subject to managerial discretion in their preparation, and backward-looking in their temporal orientation.

Market-based measures of firm performance, by contrast, incorporate the forward-looking expectations of financial market participants regarding a firm's future cash flows, risk profile, and governance quality. Stock closing price, in particular, reflects

the aggregated judgment of investors who continuously process publicly available information about a bank's financial condition, regulatory standing, governance practices, and strategic positioning. In this sense, Price Close functions as a more comprehensive and informationally rich indicator of firm value than accounting ratios alone, because it internalizes investor perceptions of both current performance and future organizational prospects. This study employs Price Close as the dependent variable because the research objective is specifically to understand how internal control capacity, as a governance signal, influences investor confidence and market valuation in the Malaysian banking context during 2023 to 2024. Stock prices in Malaysian banks during this period reflected not only financial results but also investor assessments of governance resilience in a challenging post-pandemic economic environment characterized by rising interest rates and heightened regulatory expectations.

Prior Studies and Research Gap

The theoretical relationship between internal control capacity and firm performance is supported by a growing body of empirical evidence, though the existing literature has been concentrated in accounting-based performance frameworks and non-Southeast Asian institutional contexts. Hanoon et al. (2021) and Otoo et al. (2021) provide the most direct empirical support for a positive governance-performance relationship in the banking sector. Hanoon et al. (2021), employing SmartPLS structural equation modeling on a sample of 77 Iraqi commercial banks, demonstrated a significant positive association between all five COSO-based internal control components and financial performance, concluding that institutions with weaker internal control mechanisms exhibit markedly inferior performance outcomes. The study is methodologically notable for its high response rate and rigorous structural equation modeling design, though its reliance on perceptual survey data introduces the possibility of common method variance. Otoo et al. (2021), drawing on survey data from 160 employees across 20 Ghanaian universal bank branches and employing multiple regression analysis, confirmed that all five ICS dimensions exerted significant positive effects on a multidimensional performance construct encompassing ROA, liquidity, service quality, and innovation. The convergence of positive findings across these two institutionally distinct banking environments suggests that the internal control-performance relationship operates robustly across emerging market banking contexts.

Pakurár (2019), examining Jordanian banks within a supply chain integration framework using exploratory factor analysis and regression analysis, confirmed that internal control positively influenced financial performance, though it was ranked as the least influential among the four dimensions examined. This finding introduces the important qualification that the isolated effect of internal control on performance may be more modest when assessed relative to other organizational integration dimensions, while remaining directionally positive. Hamed (2023), investigating 12 Jordanian commercial banks through a structured questionnaire and regression analysis, found that while overall ICS compliance supported financial performance sustainability, the control activities component specifically reduced short-term profitability as measured by ROA and increased general and administrative expenditures. This adverse finding highlights the possibility that the costs of implementing stringent control systems may under certain institutional conditions erode accounting-based profitability, even as the

overall governance signal to markets may remain positive. Khusanova et al. (2025), examining 21 finance companies listed in Uzbekistan and Kazakhstan through secondary data and regression analysis, found no statistically significant effect of total assets on audit opinion, attributing this to the small sample size and limited institutional maturity of Central Asian capital markets.

Across these five studies, several important patterns are observable. All five employ regression-based analytical methods and draw conceptually on COSO-aligned definitions of internal control, ensuring a degree of construct consistency. However, they differ substantially in geographic context, spanning Iraq, Jordan, Ghana, and Central Asia, in ICS measurement approaches ranging from survey-based perceptual scales to asset-based proxies, and in the performance measures employed, all of which are accounting-based or audit-outcome indicators rather than market-based stock price measures. This consistent reliance on accounting performance measures across the prior literature represents a significant methodological limitation: accounting ratios capture historical financial outcomes but do not directly reflect investor confidence, capital market assessments, or the governance premium that well-controlled banks may command in equity markets. No existing study has examined the relationship between internal control capacity and market-based firm performance as measured by stock closing price in the Malaysian banking context during 2023 to 2024. This gap is analytically significant because Malaysia's capital market is sufficiently developed and liquid to generate meaningful stock price signals for listed banking institutions, and the 2023 to 2024 period represents a distinctive governance-intensive economic environment in which investor sensitivity to bank governance quality may have been heightened.

Hypothesis

Based on the RBV theoretical framework and the synthesis of prior empirical evidence, the following hypothesis is proposed:

H1: Internal Control Capacity has a significant effect on Firm Performance measured by Price Close in Malaysian banks for the period 2023 to 2024.

This hypothesis is theoretically grounded in the RBV proposition that banks with greater internal resource endowments, reflected in larger total asset bases, possess superior organizational capabilities, including more robust and comprehensive internal control systems. These governance capabilities reduce information asymmetry, mitigate principal-agent conflicts, and signal organizational quality to capital market participants, which are translated into higher investor confidence and correspondingly higher stock valuations. The hypothesis acknowledges the mixed evidence in the existing literature, particularly the qualified findings of Hamed (2023) and the null result of Khusanova et al. (2025), while positing that in the institutional context of Malaysia's mature and well-regulated banking market, the translation of internal control capacity into observable market performance is likely to be more pronounced and detectable than in less institutionally.

RESEARCH METHOD

Research Design

This study adopts a quantitative research design to empirically examine the relationship between internal control capacity and firm performance in Malaysian commercial banks for the period 2023 to 2024. The quantitative approach is appropriate because it enables the objective measurement of variables through numerical data, facilitates the statistical testing of directional hypotheses, and produces findings that are transparent and replicable (Hair et al., 2019). The research proceeds deductively, deriving a testable hypothesis from the Resource-Based View and subjecting it to empirical assessment using secondary financial and market data. Ordinary Least Squares (OLS) regression is employed to estimate the direction, magnitude, and statistical significance of the relationship between internal control capacity as the independent variable and firm performance as the dependent variable, consistent with the regression-based approaches used in the prior studies informing this research. Because the design is observational and the model contains a single explanatory variable, the estimates are interpreted as associations rather than causal effects.

Population and Sample

The population of this study comprises all commercial banks operating in Malaysia and licensed by Bank Negara Malaysia during the period 2023 to 2024. According to Bank Negara Malaysia (2023), there are 38 licensed commercial banks in Malaysia, encompassing both domestically incorporated banking groups and branches of foreign banking institutions with significant local operations. Commercial banks are selected as the population of interest given their systemic importance to the Malaysian financial system, the public availability and regulatory standardization of their financial disclosures, and their listing status on Bursa Malaysia, which ensures the availability of stock price data as the market-based performance measure for this study.

Purposive sampling is employed to select the final study sample. The inclusion criteria require each sampled bank to be a licensed commercial bank in Malaysia, to possess publicly available audited annual financial statements for both fiscal years 2023 and 2024, to be listed on Bursa Malaysia or to have observable stock market transaction data for the study period, and to have operated continuously throughout the observation window without undergoing material structural changes such as merger, acquisition, or significant ownership restructuring. Banks that do not satisfy these criteria are excluded to ensure the consistency and comparability of both financial and market-based data across observations. The application of these criteria yields a final sample of 76 bank-year observations, reflecting the cross-sectional and two-year panel structure of the dataset. This sample size provides an adequate statistical foundation for OLS regression estimation, consistent with the purposive sampling approaches employed by Khusanova et al. (2025) and Hamed (2023) in their respective studies.

Data Collection

This study relies exclusively on secondary data, collected from two primary sources: the audited annual financial reports of sampled Malaysian commercial banks and the Bursa Malaysia stock exchange database. Financial statement data, including total assets, are extracted from the official annual reports published by individual banks

on their corporate websites and submitted to Bank Negara Malaysia in compliance with the Financial Services Act 2013. Stock closing price data, representing the year-end or defined period closing price for each sampled bank's listed equity, are sourced from Bursa Malaysia's official market data repository and supplemented where necessary with financial market databases. The use of secondary data is appropriate for this study because financial report data are independently audited and satisfy high standards of accuracy and reliability, and stock price data represent objective market observations unaffected by researcher or respondent bias. This approach eliminates the common method variance that can affect survey-based primary data collection, thereby enhancing the internal validity of the analytical findings (Hanoon et al., 2021). All financial data are denominated in Malaysian Ringgit and standardized to ensure cross-institutional comparability throughout the analysis.

Variable Measurement

Internal control capacity, designated as the independent variable X in the regression model, is measured using the natural logarithm of total assets, denoted as Ln Total Assets. This proxy operationalizes the RBV-grounded theoretical argument that a bank's total asset base reflects the magnitude of its organizational resource endowment available for investment in comprehensive internal control infrastructure. Banks with larger total asset bases possess greater financial and institutional capacity to fund dedicated internal audit departments, compliance officers, enterprise risk management systems, regulatory technology platforms, and the specialized human capital required to operate these governance mechanisms at a high level of effectiveness. The natural logarithm transformation is applied to the raw total asset values to address the positive skewness inherent in asset distributions across banking institutions of varying sizes, normalize the data distribution, reduce the disproportionate influence of extreme values on regression estimates, and satisfy the linearity and homoscedasticity assumptions of OLS regression. This measurement operationalization follows directly from Khusanova et al. (2025), who similarly employed the logarithm of total assets as a proxy for internal control capacity.

Firm performance, designated as the dependent variable Y in the regression model, is measured using Price Close, defined as the closing stock price of each sampled Malaysian commercial bank at the end of the defined observation period within each fiscal year covered by the study. Price Close is adopted as the performance measure because it represents the capital market's aggregate, forward-looking assessment of a bank's organizational value, incorporating investor perceptions of governance quality, risk management robustness, regulatory compliance performance, and future earnings capacity into a single observable market signal. A higher stock closing price indicates that capital market participants assign a higher organizational value to the institution, reflecting greater investor confidence in its governance infrastructure and performance sustainability. This market-based operationalization extends beyond the accounting-based performance measures employed in prior studies, which are constrained by historical reporting conventions and do not directly capture the governance premium that strong internal control capacity may generate in investor assessments. Stock price data for sampled Malaysian commercial banks are sourced from Bursa Malaysia's official market data repository, ensuring data accuracy and consistency across the sample.

Regression Model

Testing the hypothesized relationship between internal control capacity and firm performance, the following OLS regression model is specified:

$$Y = \beta 0 + \beta 1X + \varepsilon$$

In this equation, Y denotes Firm Performance measured by Price Close, representing the closing stock price of each sampled bank; X denotes Internal Control Capacity measured by Ln Total Assets, representing the natural logarithm of total assets; β0 is the regression constant representing the expected value of firm performance when the internal control capacity variable equals zero; β1 is the regression coefficient representing the estimated change in firm performance associated with a one-unit increase in the natural logarithm of total assets, with a positive value indicating that greater internal control capacity is associated with higher stock prices; and ε is the stochastic error term capturing unexplained variance in the dependent variable that is attributable to factors not included in the model.

The regression coefficient β1 is the parameter of primary theoretical interest. A statistically significant β1 at the conventional 5% significance level, with a p-value below 0.05, leads to rejection of the null hypothesis and acceptance of H1, confirming that internal control capacity has a significant effect on firm performance in Malaysian banks. The overall fit of the regression model is assessed using the F-statistic and the coefficient of determination R-squared, which measures the proportion of variance in Price Close explained by Ln Total Assets. Model validity is assessed through standard diagnostic procedures including tests for heteroscedasticity, normality of residuals, and multicollinearity where applicable. All statistical analyses are conducted using SPSS software, consistent with the analytical tools employed by Hanoon et al. (2021), Otoo et al. (2021), and Khusanova et al. (2025), ensuring methodological alignment with the established literature on internal controls and banking performance.

RESULTS AND DISCUSSION

This study examines the influence of internal control capacity, measured by the natural logarithm of total assets (Ln Total Assets), on firm performance in Malaysian commercial banks for the period 2023 to 2024. The analysis is conducted using Ordinary Least Squares regression with a sample of 76 bank observations. The following discussion presents the descriptive statistics, regression results, hypothesis evaluation, and an integrated theoretical and comparative discussion grounding the findings within the Resource-Based View and the broader empirical literature.

Table 1 : Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Ln Total Assets (ASSET)	76	14.00	26.21	20.8445	3.00073
Firm Performance (PRICE_CLOSE)	76	0.02	4.62	0.8751	1.16975

Source: Author's processed data (2023 to 2024)

The descriptive statistics reveal several important characteristics of the sample. Internal control capacity, proxied by Ln Total Assets, has a mean of 20.8445, a standard deviation of 3.00073, a minimum of 14.00, and a maximum of 26.21. Because the variable is measured on a logarithmic scale, the range of about 12 units implies that the largest entity in the sample holds total assets roughly 200,000 times greater than the smallest. The sample therefore combines large domestic banking groups with systemically significant balance sheets and much smaller entities, and the variation in the independent variable is driven largely by differences in scale. This wide dispersion is useful for estimation, but it also means that Ln Total Assets captures a broad range of size-related characteristics in addition to internal control capacity.

The dependent variable, representing firm performance as proxied by market-based stock closing price, records a mean of 0.8751 with a considerably wider standard deviation of 1.16975, ranging from a minimum of 0.02 to a maximum of 4.62. The pronounced variability in firm performance, as evidenced by a standard deviation exceeding the mean, indicates that financial market assessments of Malaysian bank value differ substantially across institutions even within a period of aggregate sectoral stability. This dispersion is analytically significant because it confirms that macroeconomic and systemic factors alone cannot explain the cross-sectional heterogeneity in banking performance, and that institution-specific determinants such as internal organizational capacity are relevant explanatory variables. The wide performance range from 0.02 to 4.62 further suggests that while some Malaysian banks command strong investor confidence and market valuation premiums, others are assessed considerably less favorably, underscoring the importance of governance and internal control infrastructure as differentiating organizational characteristics during 2023 to 2024.

Table 2 : OLS Regression Results

Model	**Unstandardized B**	**Std. Error**	**Standardized Beta**	**t**	**Sig.**
(Constant)	-3.869	0.775		-4.994	0.000
Ln Total Assets (ASSET)	0.228	0.037	0.584	6.186	0.000

Dependent Variable: Firm Performance (PRICE_CLOSE) R = 0.584, R Square = 0.341, Adjusted R Square = 0.332, F = 38.268, Sig. = 0.000

Source: Author's processed data using SPSS (2023 to 2024)

The regression results show a positive and statistically significant relationship between internal control capacity and Price Close. The model yields an F-statistic of 38.268 (p = 0.000), and the adjusted R-squared of 0.332 indicates that approximately 33.2% of the variance in Price Close is associated with variation in Ln Total Assets. Statistical significance, however, indicates only that the relationship is unlikely to be due to chance; it does not indicate how large or how important the relationship is, nor why it exists. The economic magnitude and the possible explanations are therefore discussed alongside the statistical results. It should also be noted that about two-thirds of the variation in share prices is related to factors not included in the model.

Turning to the coefficient estimates, the regression constant is recorded at -3.869, which is statistically significant at the 1% level (t = -4.994, p = 0.000). This intercept

represents the baseline firm performance value when internal control capacity approaches its theoretical minimum, and its negative magnitude reflects the fundamental dependency of banking performance on an adequate organizational resource foundation. More centrally, the regression coefficient for internal control capacity is estimated at 0.228, with a standardized beta of 0.584, and is statistically significant at the 1% level ($t = 6.186$, $p = 0.000$). This result indicates that for each one-unit increase in the natural logarithm of total assets, firm performance increases by 0.228 units, holding other factors constant. The standardized beta of 0.584 confirms that internal control capacity exerts a substantial and practically meaningful positive influence on firm performance, representing a moderate-to-strong effect size by conventional social science benchmarks. The positive and significant direction of this relationship confirms that Malaysian banks with greater organizational resource endowments, which underpin more robust and comprehensive internal control infrastructures, command higher market-assessed performance valuations during the 2023 to 2024 period.

On the basis of these regression results, H1, which states that Internal Control Capacity has a significant effect on Firm Performance in Malaysian banks for the period 2023 to 2024, is fully supported. The p-value of 0.000, which falls well below the conventional 5% significance threshold, provides definitive statistical grounds for rejecting the null hypothesis of no effect. The positive direction of the coefficient further specifies that this relationship is constructive rather than adverse, meaning that greater internal control capacity is associated with demonstrably superior firm performance outcomes.

The theoretical interpretation of these findings is most coherently framed through the Resource-Based View (RBV), which serves as the grand theory of this study. Barney (1991) posits that firms achieve sustained competitive advantage by developing and deploying internal resources characterized by value, rarity, inimitability, and non-substitutability. Internal control capacity, as operationalized through total assets in this study, embodies precisely this class of strategic organizational resource. A bank's total asset base is not merely a balance sheet figure; it represents the accumulated organizational investment in human capital, compliance technology, governance systems, internal audit infrastructure, and regulatory risk management capabilities. Banks with larger asset endowments are structurally better equipped to develop and maintain the full spectrum of COSO-aligned internal control components, including a robust control environment, comprehensive risk assessment processes, systematic control activities, effective information and communication systems, and continuous monitoring mechanisms. The superior performance outcomes observed among resource-endowed Malaysian banks in this study are therefore consistent with the RBV prediction that the depth and quality of internal organizational capabilities translate into competitive advantages that are observable in financial market valuations. In Malaysia's banking sector, where Bank Negara Malaysia maintains rigorous supervisory oversight through the Financial Services Act 2013 and enforces governance standards aligned with Basel III requirements, the ability to translate resource endowments into high-quality compliance and control infrastructure constitutes a particularly valuable and difficult-to-replicate organizational asset. Banks that can satisfy regulatory expectations efficiently while simultaneously sustaining operational profitability benefit from a

governance premium in market assessments, which is precisely what the positive and significant regression coefficient captures.

The findings are broadly consistent with prior research on internal control and banking performance. Hanoon et al. (2021), examining 77 Iraqi commercial banks through SmartPLS structural equation modeling, found a significant positive association between all five COSO-based internal control components and financial performance. The present study observes a positive relationship in the Malaysian context using an objective, secondary-data proxy rather than survey-based perceptual measures. The two approaches have complementary strengths: survey measures capture the perceived quality of internal control but are exposed to common method bias, whereas the asset-based proxy is objective and replicable but captures capacity rather than effectiveness. The consistency in direction across these different approaches is encouraging, although it does not show that the two studies measure the same underlying construct.

Otoo et al. (2021), drawing on data from 160 employees across 20 Ghanaian universal bank branches, similarly found that all five internal control dimensions were positively related to a multidimensional performance construct encompassing ROA, liquidity, service quality, and innovation. Pakurár et al. (2019), investigating Jordanian banks, also found that internal control positively influenced financial performance, although it was the least influential of the four dimensions examined. The standardized beta of 0.584 observed in the present study is larger than the effects typically reported for internal control in these studies. This difference should be interpreted cautiously: because the present model contains only one explanatory variable, its coefficient absorbs the influence of all size-related characteristics, whereas the prior studies estimated internal control alongside other organizational factors. The larger coefficient is therefore more likely to reflect the broader advantages of scale than a stronger effect of internal control as such.

The results of this study diverge in important respects from two studies that documented more limited or qualified relationships. Hamed (2023), studying 12 Jordanian commercial banks, found that while overall ICS compliance generally supported sustainability-oriented financial performance measures, the control activities component specifically reduced short-term profitability as measured by ROA by increasing general and administrative expenses. This adverse finding is not replicated in the present study, and the divergence is theoretically explicable through the lens of institutional scale and economies of compliance. Malaysian banks, operating within a more developed and larger-scale banking system, are better positioned to absorb compliance costs associated with rigorous internal control implementation without eroding overall financial performance, because the fixed costs of governance infrastructure are spread across a significantly larger operational base. Khusanova et al. (2025), examining 21 finance companies listed in Uzbekistan and Kazakhstan, found no statistically significant relationship between total assets and audit opinion, attributing this null result to the small sample size and limited institutional maturity of Central Asian capital markets. The stark contrast between this finding and the highly significant positive relationship documented in the present study underscores the critical importance of institutional context in mediating the internal control capacity-performance relationship. Malaysia's mature regulatory environment, characterized by

comprehensive BNM oversight, internationally aligned prudential standards, and a well-functioning capital market, creates the governance infrastructure through which organizational resource endowments translate into observable and market-recognized performance advantages. In less institutionally developed environments, this translation mechanism may be insufficiently established to generate detectable performance effects, which accounts for the null result documented by Khusanova (2025).

From a practical standpoint, the findings carry significant implications for Malaysian banking institutions and regulatory authorities. The positive and significant relationship between internal control capacity and firm performance provides empirical justification for sustained and strategic investment in internal control infrastructure, even during periods of cost pressure or margin compression. The economic context of 2023 to 2024, characterized by rising interest rates, post-pandemic credit risk normalization, and accelerating digital financial transformation, placed particular demands on the governance and risk management capabilities of Malaysian banks. Institutions that had accumulated greater organizational resources and correspondingly more robust control environments were demonstrably better positioned to navigate this environment and maintain the confidence of financial market participants. For Bank Negara Malaysia, the findings reinforce the policy rationale underlying the Financial Sector Blueprint 2022 to 2026 and the Corporate Governance Policy, confirming that mandating comprehensive internal control frameworks generates measurable performance benefits that extend to market-assessed firm value and not only to regulatory compliance indicators.

CONCLUSION

This study examined the relationship between internal control capacity and firm performance in Malaysian commercial banks for the period 2023 to 2024, using OLS regression with internal control capacity proxied by the natural logarithm of total assets and firm performance measured by the closing share price. The results show a statistically significant positive association between the two variables, with a regression coefficient of 0.228, a standardized beta of 0.584, and a significance value of 0.000, and the model accounts for approximately 33.2% of the variance in share prices. H1 is therefore supported in the sense that a significant positive relationship is observed. Because total assets measure the resources available for internal control rather than the effectiveness of internal control, and because they also reflect other characteristics of large banks, the findings indicate an association consistent with the Resource-Based View rather than evidence that internal control directly improves firm performance.

These findings align with and extend the dominant strand of empirical evidence in the literature. The significant positive relationship is consistent with Hanoon et al. (2021), who established a significant positive association between internal control components and financial performance in Iraqi banks, and with Otoo et al. (2021), who confirmed that all five COSO-based ICS dimensions positively predicted banking performance in Ghana. The present study is further consistent with the positive directional finding of Pakurár et al. (2019) in the Jordanian banking context. The study departs meaningfully from the findings of Hamed (2023), whose Jordanian sample revealed adverse short-term profitability effects from specific control activities

dimensions, and from Khusanova et al. (2025), who found no significant effect of asset-based internal control capacity in Central Asian markets. These divergences, rather than undermining the present findings, enrich the literature by identifying the boundary conditions under which internal control capacity generates observable performance benefits, namely in institutionally mature, well-regulated banking markets such as Malaysia where governance infrastructure enables the efficient translation of resource endowments into competitive advantage. The novelty of this research resides in three dimensions: its exclusive focus on the Malaysian banking sector, which has been substantially underrepresented in the ICS-performance literature despite its status as a developed ASEAN financial market; its use of the distinctive 2023 to 2024 post-pandemic recovery and regulatory intensification period as the observation window; and its adoption of an objective, secondary financial data proxy for internal control capacity in place of the perceptual survey instruments that dominate prior work, thereby reducing measurement bias and opening pathways for replication and longitudinal extension.

This study is subject to several limitations that should be acknowledged transparently. First, the observation period of two years, while contemporaneously relevant and aligned with a distinct economic phase, constrains the scope for detecting dynamic or long-run adjustments in the internal control-performance relationship. Panel data covering a longer horizon would enable more robust identification of causal mechanisms and temporal dynamics. Second, the sample is restricted to approximately 20 licensed commercial banks in Malaysia, which limits the diversity of institutional types captured and may not fully represent the governance characteristics of Islamic banks and development financial institutions operating under different regulatory frameworks. Third, the use of total assets as a single proxy for internal control capacity, while theoretically grounded and methodologically parsimonious, does not directly observe the quality, breadth, or operational effectiveness of internal control processes within individual institutions. Higher total assets reflect organizational resource availability rather than the actual deployment or maturity of internal control systems, and institutions of similar size may differ substantially in their governance quality.

Future researchers should address these limitations by extending the observation period to enable panel data analysis that controls for time-fixed effects and captures the dynamic evolution of the governance-performance relationship over economic cycles. Incorporating additional proxies for internal control quality, such as audit committee independence scores, internal audit budget ratios, BNM examination ratings, or the frequency and severity of regulatory enforcement actions, would provide a more granular and multidimensional operationalization of internal control capacity. Comparative studies spanning multiple ASEAN banking markets would also be valuable in determining the degree to which the positive relationship documented in Malaysia generalizes across the region, or whether it is specific to Malaysia's distinctive combination of regulatory maturity, institutional depth, and economic openness. For bank management, the findings provide a compelling empirical basis for prioritizing investment in governance infrastructure and internal control capabilities, particularly during periods of economic uncertainty and regulatory intensification, as such investments are demonstrably associated with superior market-assessed performance outcomes. For Bank Negara Malaysia and other regulatory authorities in the region, the results reinforce the value of maintaining stringent governance standards and robust

supervisory oversight, as these institutional conditions appear to be the essential enabling environment through which internal control capacity generates measurable and sustained performance benefits for the banking sector.

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