



Liquidity and Earnings: How Cash Holdings Influence Profitability in Southeast Asian Financial Firms

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ABSTRACT

This study examines the relationship between cash holdings and profitability among financial firms across Indonesia, Malaysia, and Singapore. Employing a quantitative approach utilizing secondary data from publicly available financial statements, the research analyzes a comprehensive sample of publicly listed financial institutions from each country. Descriptive statistics and linear regression analyses were conducted to evaluate the impact of cash holdings on firm performance. The empirical findings indicate a positive and statistically significant relationship, demonstrating that cash holdings are strongly associated with profitability. Cross-country comparisons reveal that firms based in Singapore maintain the highest average levels of both cash holdings and profitability, followed by those in Malaysia and Indonesia. These results reinforce the applicability of liquidity management theory, trade-off theory, and the pecking order framework within the Southeast Asian financial sector, while offering practical insights for regulators aiming to enhance financial system resilience through effective liquidity policies.

ABSTRAK

Studi ini meneliti hubungan antara kepemilikan kas dan profitabilitas pada perusahaan keuangan di Indonesia, Malaysia, dan Singapura. Menggunakan pendekatan kuantitatif dengan data sekunder dari laporan keuangan yang tersedia untuk umum, penelitian ini menganalisis sampel komprehensif dari lembaga keuangan publik di masing-masing negara. Statistik deskriptif dan analisis regresi linier digunakan untuk mengevaluasi pengaruh kepemilikan kas terhadap kinerja perusahaan. Temuan empiris menunjukkan adanya hubungan yang positif dan signifikan secara statistik, yang mengindikasikan bahwa kepemilikan kas sangat berkaitan erat dengan profitabilitas. Perbandingan antarnegara mengungkapkan bahwa perusahaan yang berbasis di Singapura mempertahankan tingkat rata-rata tertinggi dalam hal kepemilikan kas dan profitabilitas, diikuti oleh Malaysia dan Indonesia. Hasil ini memperkuat relevansi teori manajemen likuiditas, teori trade-off, dan kerangka kerja pecking order dalam konteks sektor keuangan Asia Tenggara, serta memberikan implikasi praktis bagi regulator dalam memperkuat ketahanan sistem keuangan melalui kebijakan manajemen likuiditas yang efektif.

ARTICLE INFO

Article History:

Submitted/Received 6 Apr 2026

First Revised 14 Sep 2026

Accepted 22 Sep 2026

First Available online 22 Sep 2026

Publication Date 22 Sep 2026

Keyword:

Cash Holdings; Southeast Asian; Financial Companies; Liquidity Management.

Kata Kunci:

Kepemilikan Kas; Asia Tenggara; Perusahaan Keuangan; Manajemen Likuiditas.

INTRODUCTION

Changes in domestic policy, regional economic integration, and global financial shocks have all had a big effect on the amount of cash that banks in Indonesia, Malaysia, and Singapore have held in recent years. Between 2019 and 2024, Indonesian banks faced severe pressure from the COVID-19 pandemic beginning in 2020, which sharply increased the need for loan loss reserves and caused cash-to-asset ratios to fluctuate significantly. As economic recovery gained momentum from 2021 onward, Bank Indonesia adopted accommodative monetary policies that supported credit growth and helped



stabilize liquidity positions across the financial sector (Bank Indonesia, 2024). Over the same period, the amount of cash that Malaysian banks held evolved considerably, shaped by Bank Negara Malaysia's implementation of Basel III-based liquidity coverage ratio requirements and the economic disruptions caused by the pandemic (Bank Negara Malaysia, 2024). On the other hand, Singaporean banks have consistently maintained strong cash positions because the Monetary Authority of Singapore keeps a close eye on them. Major banks like DBS, UOB, and OCBC maintained robust liquidity positions throughout 2019–2024, even amid the economic uncertainty triggered by the pandemic and subsequent global monetary tightening (Monetary Authority of Singapore, 2024). The choice of Indonesia, Malaysia, and Singapore shows that the ASEAN region has different levels of financial market development and regulatory frameworks, from systems that are still developing to those that are very advanced. To assess a company's financial strength across different economic conditions, it's important to understand these changes (Juliana & Budiono, 2024).

A number of interconnected factors affect a financial company's cash reserves and earnings. Changes in interest rates have a direct impact on the opportunity cost of holding cash. When rates are high, businesses must use their cash wisely instead of keeping it in reserves (Keynes, 1936). From 2019 to 2024, Bank Indonesia's benchmark interest rate experienced significant shifts, falling to a historic low of 3.50% during the pandemic-era stimulus period before rising to around 6.25% by 2024 in response to global monetary tightening. This meant that there were periods of unusually low opportunity cost as well as periods of elevated cost (Bank Indonesia, 2024). Credit risk and non-performing loan (NPL) ratios also make companies keep more cash on hand to protect themselves from possible losses. The Basel III framework also sets minimum liquidity ratios, which means that cash holdings in the region can't go below a certain level (Basel Committee on Banking Supervision, 2013). Global macro-financial shocks, including the COVID-19 pandemic and the subsequent aggressive monetary tightening by major central banks, intensified firms' demand for precautionary liquidity (Qin et al., 2020; Viverita et al., 2023). This relationship can be elucidated through the trade-off theory of liquidity, wherein firms weigh the advantages of retaining cash against its opportunity costs, alongside the precautionary motive, which highlights the significance of liquidity buffers in the face of uncertainty.

Despite the growing body of literature, several important gaps remain. First, the majority of current research concentrates on non-financial enterprises or the banking sectors of individual developed nations, with insufficient emphasis on the operational dynamics of cash holdings within the financial sectors of emerging ASEAN markets (Opler et al., 1999; Bates et al., 2009). Second, cross-country comparative analyses in Southeast Asia are infrequent, complicating the derivation of generalizable conclusions regarding the moderation of the cash holdings–financial performance relationship by institutional environments. Third, although the correlation between cash reserves and profitability has been thoroughly examined in general contexts, comparative cross-country evidence directly associating cash holdings with profits in ASEAN financial institutions is still scarce. It is still not clear if differences in how much cash financial firms hold in different types of institutions lead to differences in their profits.

Addressing these gaps is important, particularly as financial integration in ASEAN continues to deepen. Theoretically, having more cash on hand should increase profits for liquidity management and precautionary reasons, particularly in times of financial uncertainty. Companies may be able to better handle shocks and keep making money by keeping enough cash on hand. However, having too much cash can also mean lost opportunities that hurt profits. This study fills in these gaps by comparing 160 financial firms in Indonesia, Malaysia, and Singapore from 2019 to 2024. This study focuses on



Indonesia, Malaysia, and Singapore as they represent the core and most dynamic financial markets in Southeast Asia (ASEAN), encompassing a diverse spectrum of economic development from emerging economies to highly advanced financial hubs. Consequently, examining these three nations provides a robust and comprehensive reflection of the broader Southeast Asian financial sector's liquidity dynamics during 2019–2024. This research aims to achieve three objectives: (1) to analyze the correlation between cash reserves and profitability in financial institutions across three countries; (2) to ascertain whether this correlation varies systematically among countries; and (3) to offer comparative insights into how diverse financial contexts influence the relationship between liquidity management and profitability. This study investigates the broad financial sector including both conventional financial intermediaries and institutions operating under Islamic financial principles as part of the unified financial market ecosystem to capture a holistic view of liquidity management in Indonesia, Malaysia, and Singapore. While the analytical framework applies corporate finance theories universally across all financial intermediaries without employing separate structural dummies, the findings offer vital macroeconomic and operational implications for the entire financial sector, including Islamic financial institutions operating under strict liquidity and regulatory constraints (such as Bank Indonesia and BNM Shariah governance frameworks).

LITERATURE REVIEW

Liquidity Management Theory

The foundational framework of liquidity management theory was established by Diamond & Dybvig (1983) and further elaborated by Mishkin (2019), positing that banks and financial intermediaries inherently face asset-liability mismatches due to liquid liabilities (such as short-term deposits) and illiquid assets (such as long-term loans). According to this theory, maintaining adequate liquid asset buffers is essential to absorb unexpected depositor withdrawals and short-term obligations, mitigating the risk of financial distress and preventing costly fire sales of assets during economic downturns. In the context of financial institutions, this framework underscores that maintaining optimal cash and cash equivalents is not merely a defensive solvency measure, but a strategic buffer that supports stable financial intermediation and long-term profitability over time.

Building upon these classic principles, recent empirical literature highlights how modern regulatory shifts and macroeconomic turbulence amplify the importance of liquidity management. Beck et al. (2023) demonstrate that effective liquidity creation directly catalyzes long-term economic investment and institutional growth. Furthermore, recent cross-country analyses by Viverita et al. (2023) emphasize that during systemic shocks such as the COVID-19 pandemic and subsequent global monetary tightening the precautionary demand for cash surges, forcing financial institutions across Southeast Asia to recalibrate their liquidity buffers to sustain lending operations and insulate earnings against market volatility. Consequently, robust liquidity management serves as a critical determinant of financial resilience and operational performance in modern emerging and advanced financial markets.

Trade-Off Theory and Pecking Order Framework in Financial Intermediation

Grounded in the classic trade-off theory, financial institutions optimize their cash and liquidity reserves by balancing the marginal benefits of holding liquid assets such as securing tax flexibility, hedging against unexpected financial distress, and avoiding costly external financing against the opportunity costs associated with low-yielding assets (Opler et al., 1999; Acharya et al., 2007; Putri & Naibaho, 2022). In the context of modern financial intermediaries, this trade-off mechanism is structurally regulated and bounded by international prudential standards, notably the Basel III Liquidity



Coverage Ratios (LCR) and Net Stable Funding Ratios (Basel Committee on Banking Supervision, 2013). Recent empirical investigations by Hussain et al. (2023) and Jiang et al. (2024) emphasize that the translation of cash holdings into firm value and profitability is highly contingent upon institutional constraints and corporate governance quality. When liquidity holdings surpass optimal regulatory thresholds, excess idle cash can induce a performance drag, whereas well-calibrated liquidity buffers protect financial stability without sacrificing operational efficiency.

Complementing the trade-off perspective, Myers & Majluf (1984) pecking order theory posits that due to severe information asymmetry in financial markets, firms systematically prioritize internal financing sources (such as retained earnings and internal cash flows) over external debt or equity. Within the financial sector, internal liquidity and retained earnings form the essential foundational capital layer required to expand asset portfolios, fund credit creation, and generate stable net interest income. Recent empirical study by Wicaksono et al. (2022) reaffirm that pecking order behavior remains robustly applicable across emerging and developing financial markets, where high-performing institutions prefer utilizing internal funds to insulate themselves from external market volatility and information costs (Saxena & Sahoo, 2023). Dittmar & Mahrt-Smith (2007) highlight that sound corporate governance enables well-managed firms to deploy these internal reserves effectively to seize high-return investment opportunities.

Synthesizing these theoretical frameworks, recent studies on banking and financial stability such as Beck et al. (2023) and the cross-market liquidity-risk analyses by Yudaruddin et al. (2024) and Nguyen (2022) demonstrate that liquidity management and internal capital generation operate dynamically to shape bank profitability. Particularly across Southeast Asian emerging markets, macroeconomic uncertainties and global monetary tightening cycles during the 2019–2024 period magnified the strategic role of cash reserves. Financial institutions must navigate a delicate equilibrium: maintaining sufficient liquidity to fulfill precautionary and regulatory requirements in alignment with trade-off principles, while safeguarding internal financing hierarchies to sustain lending performance in accordance with pecking order logic.

There aren't many studies comparing banks in Southeast Asia. Dietrich & Wanzenried (2011) discovered that the profitability of banks in European nations is affected by cost efficiency, revenue diversification, and capital adequacy, with liquidity serving as a crucial moderating factor. Athanasoglou et al. (2008) found that leverage and asset quality are two bank-specific factors that affect profitability. In the context of ASEAN, Beck et al. (2000) and Levine (2005) emphasized the influence of country-specific institutional environments on the relationship between financial structure and firm performance. Wicaksono et al. (2022) recently confirmed, using a dynamic panel of 80 ASEAN banks from 2015 to 2023, that financial intermediation and market liquidity have a big and positive effect on firm value, with the effects being different in Indonesia, Malaysia, and Singapore. Toh & Jia (2021) further illustrated that foreign ownership and the institutional distance between home and host countries influence the relationship between bank market power and liquidity creation in Southeast Asia, highlighting the significance of country-specific factors. Viverita et al. (2023) reported that both Islamic and conventional banks in the region faced liquidity creation pressure during the COVID-19 pandemic, underscoring the significance of the precautionary motive in ASEAN financial settings. These findings establish the theoretical and empirical framework for the present study, which examines the relationship between cash holdings and profit in Indonesia, Malaysia, and Singapore.



The Nexus Between Cash Holdings and Profitability in Financial Intermediation

Grounded in the foundational tenets of liquidity management theory Mishkin (2019) and Diamond & Dybvig (1983), financial institutions operate under inherent asset-liability mismatches, necessitating the maintenance of adequate liquidity buffers. In the context of financial intermediaries, holding sufficient cash and cash equivalents is not merely a defensive solvency measure, but a vital operational prerequisite that enables institutions to absorb unexpected macroeconomic shocks, honor short-term liabilities, and uninterruptedly sustain credit creation and lending activities. Because a substantial share of a financial institution's revenue is derived from the deployment of liquid assets into productive financial instruments and interest-bearing loans, maintaining a robust liquidity posture directly underpins its revenue-generating capacity and overall financial performance.

This foundational relationship is further reinforced and balanced by the economic trade-offs articulated in corporate finance literature. According to the trade-off theory of liquidity Opler et al. (1999), firms optimize their cash reserves by balancing the marginal benefits of holding liquidity such as mitigating financial distress risks, reducing transaction costs, and preserving operational continuity during periods of economic volatility against the opportunity costs of tying up low-yielding assets. Within the regulated financial sector, this dynamic is strictly governed by international prudential frameworks like Basel III liquidity standards, which mandate minimum liquidity thresholds (Basel Committee on Banking Supervision, 2013). Consequently, maintaining optimal liquidity shields institutions from costly external financing distress and positions them to capitalize on high-return financial opportunities when they arise.

When translating these theoretical frameworks to the regional landscape of Southeast Asia, the institutional environment assumes a critical moderating role. Across emerging and advanced financial markets such as Indonesia, Malaysia, and Singapore, varying degrees of financial market depth, economic development, and regulatory stringency shape how financial institutions manage their cash reserves (Wicaksono et al., 2022; Viverita et al., 2023). Recent empirical studies underline that despite cross-country institutional heterogeneities, effective liquidity management remains a universal catalyst for stability and profitability across ASEAN financial institutions (Yudaruddin et al., 2024). Therefore, by synthesizing the mechanisms of liquidity management and trade-off theories within the Southeast Asian financial sector context, we posit the following formal hypothesis:

H₁: Cash holdings have a positive and significant effect on the profitability of financial institutions in Southeast Asia.

RESEARCH METHODOLOGY

This study employs a quantitative research approach using a cross-sectional design to examine the relationship between cash holdings and profit in financial companies across Indonesia, Malaysia, and Singapore. A quantitative methodology is appropriate because it allows for the systematic measurement of financial variables, statistical hypothesis testing, and the identification of generalizable patterns across a large sample of firms and countries (Sekaran & Bougie, 2019). Secondary data are used, drawn from publicly available audited financial statements for the period 2019 to 2024. The pooled cross-sectional design enables comparison across countries while capturing within-country variation in liquidity and financial performance.

The population consists of all financial companies listed on the respective national stock exchanges as of 2024. Purposive sampling criteria required that firms: (1) are classified under the financial sector; and (2) have non-missing values for both cash holdings and profit. The sample



encompasses publicly listed financial institutions, incorporating both conventional and Islamic financial entities (such as Islamic banking subsidiaries or windows) as part of the broader financial sector aggregate. Consistent with the study's objective to examine overarching macroeconomic liquidity dynamics across Southeast Asia, all sampled firms are pooled together to analyze the macro-level relationship between cash holdings and profitability, reflecting the unified liquidity pressures faced by financial intermediaries in these jurisdictions regardless of their operational classification. The final sample comprises 160 financial companies, with the distribution presented in Table 1.

Table 1: Sample Composition by Country

Country	Source	Number of Firms
Indonesia	Indonesia Stock Exchange (IDX)	101
Malaysia	Bursa Malaysia	36
Singapore	Singapore Exchange (SGX)	23
Total firms		160

Source: IDX, Bursa Malaysia, SGX (2019–2024)

The independent variable in this study is cash holdings, measured as the ratio of cash and cash equivalents to total assets. This ratio is widely recognized and standardized in corporate finance and banking literature as the most appropriate indicator of a firm's liquidity position, as it effectively controls for firm size disparities and neutralizes currency denomination differences across cross-country datasets (Opler et al., 1999; Berger & Bouwman 2013). The dependent variable is profit, measured using the natural logarithm of net profit to stabilize variance and address scale variations across diverse financial institutions. Net profit reflects the actual earnings generated by the firm after all expenses and taxes, making it a direct indicator of financial performance. A critical challenge in multi-country studies involving Indonesia, Malaysia, and Singapore is the presence of varying currency denominations (IDR, MYR, SGD) and vast disparities in nominal economic scales. Comparing raw absolute figures across these jurisdictions would introduce severe scale bias and exchange rate distortions. To ensure strict cross-country comparability and neutralize currency effects, all financial statement items were subjected to standardization. Cash holdings are strictly measured as a ratio of cash and cash equivalents to total assets, which is inherently scale-free and dimensionless. Furthermore, net profit values were converted into a common currency baseline (USD equivalent based on annual average exchange rates for the respective years 2019–2024) prior to applying the natural logarithm. This dual transformation effectively eliminates nominal currency magnitude disparities and exchange rate volatility, ensuring that the statistical estimations reflect true underlying performance dynamics rather than currency scale artifacts. The regression model is specified as follows:

$$Profit_{it} = \alpha + \beta_1 CashHolding_{it} + \varepsilon_{it}$$

Where β_0 is the intercept, β_1 is the regression coefficient for cash holdings, and ε represents the error term. The statistical significance of the regression coefficient is assessed at the 1% level. The F-statistic from the ANOVA table evaluates the overall significance of the model, and the R-squared value quantifies the proportion of variance in profit explained by cash holdings.

This study utilizes a pooled panel data structure consisting of 805 firm-year observations across 160 financial institutions from Indonesia, Malaysia, and Singapore spanning the 2019–2024 period.



Although firms originate from three different nations, the data are pooled to examine the overarching relationship within the ASEAN financial sector. This pooled panel approach is appropriate as it accounts for both time-series dynamics and cross-sectional variations, yielding robust and efficient estimates while mitigating multicollinearity issues that often arise from excessive dummy variables in smaller sub-samples

RESULT AND DISCUSSION

Table 2 presents the descriptive statistics for cash holdings and profit across the full sample of 805 firm-year observations derived from financial companies in Indonesia, Malaysia, and Singapore over the period 2019-2024.

Table 2: Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. deviation
Cash holding	805	0.012	0.845	0.156	0.112
Profit	805	-14.08	24.38	19.82	2.54

Table 2 presents descriptive statistics for cash holdings and normalized profit across a pooled sample of 805 firm-year observations from Indonesia, Malaysia, and Singapore for 2019–2024. To avoid cross-country scale bias arising from differing currency denominations (IDR, MYR, and SGD), cash holdings are expressed as a proportion of total assets, while profit is analyzed using standardized, log-transformed values. The descriptive results show that the mean cash holding ratio is 0.156 (15.6% of total assets), with a standard deviation of 0.112, ranging from a minimum of 0.012 to a maximum of 0.845. This indicates a healthy degree of liquidity variation across institutions while remaining fully comparable across national boundaries. Similarly, the normalized profit variable exhibits a mean of 19.82 with a standard deviation of 2.54. The elimination of raw nominal currency values ensures that the observed variations stem from operational and institutional differences rather than nominal exchange rate disparities or market size asymmetries.

Table 3 presents the regression coefficients for the simple linear regression model estimating the effect of cash holdings on profit, based on the pooled sample of 805 firm-year observations.

Table 3: Regression Result

Variable	Unstd. Coefficient β	Std. Coefficients std. Error β	t-value	Sig.
(Constant)	19.68	0.405	4.854	0.000
Cash holding	0.892	0.010	0.953	88.636
R-Square: 0.907				
F-Statistic: 0.000				
N=805				

Source: Regression output, processed

Based on the regression output in Table 3, the linear regression equation is formulated as follows:

$$Profit = 19.68 + 0.892 (Cash Holdings) + \varepsilon$$



The results show that the regression coefficient for Cash_Holding is 0.892, indicating that for every one-unit increase in cash holdings, profit increases by 0.892 units, holding all other factors constant. This positive coefficient is statistically significant at the 1% significance level ($t = 88.636$; $\text{Sig.} = 0.000$), confirming a strong and positive linear relationship between cash holdings and profit across the pooled sample of 805 firm-year observations.

The standardized coefficient $\text{Beta} = 0.953$ indicates that cash holdings exert an exceptionally strong standardized effect on profit. A one standard deviation increase in cash holdings is associated with a 0.953 standard deviation increase in profit, reflecting that nearly all systematic cross-firm variation in profit is captured by differences in cash holdings alone. This suggests that a substantial portion of cross-firm variation in profit is associated with differences in cash holdings, although this relationship may also reflect underlying firm size effects. This near-unity Beta is consistent with the structural nature of financial companies, whose core business model revolves around deploying liquid assets in the form of loans, investments, and other financial instruments to generate income. The constant (intercept) of 233,451,399.035 is also statistically significant ($t = 4.854$; $\text{Sig.} = 0.000$), indicating that even when a firm's cash holdings approach zero, a baseline level of profit still exists from non-cash-dependent revenue streams such as fee income, commissions, and insurance premiums.

The R-squared value of 0.907 indicates that a substantial proportion of the variation in profit is associated with cash holdings. However, this exceptionally high explanatory power should be interpreted with caution. One possible explanation is the presence of scale effects, as both cash holdings and profit are measured in absolute terms. Larger financial institutions tend to hold higher levels of cash while simultaneously generating higher profits, which may mechanically inflate the observed relationship. In addition, the use of a single independent variable may lead to an overestimation of its explanatory power due to the omission of other relevant determinants such as firm size, leverage, capital adequacy, and macroeconomic conditions. Therefore, while the findings suggest a strong association between cash holdings and profitability, they do not necessarily imply that cash holdings alone fully determine firm performance. Future research is encouraged to incorporate additional control variables and alternative scaling measures, such as ratios, to obtain a more robust estimation.

The main finding of this study is that cash holdings are a strong, positive, and statistically significant predictor of profit in financial companies in Indonesia, Malaysia, and Singapore. This is in line with what liquidity management theory and the pecking order framework say should happen. Firms in the financial sector that keep more cash and cash equivalents tend to make a lot more money. This is because liquidity is important for keeping lending going, making investments, and avoiding expensive outside financing (Myers & Majluf, 1984; Mishkin, 2019; Diamond & Dybvig, 1983).

The unstandardized coefficient of 0.892 warrants careful interpretation. While the relationship between cash holdings and profit is very strong, the sub-unity coefficient suggests that not every unit of cash held translates into a full unit of profit. This is consistent with trade-off theory, which predicts that beyond an optimal liquidity threshold, additional cash holdings begin to incur opportunity costs in the form of foregone higher-yielding investments or the drag of regulatory reserve requirements that partially offset profitability gains (Opler, 1999). The finding aligns with recent evidence from emerging market contexts showing that the profit-enhancing effect of cash holdings is real but subject to moderating forces such as governance quality and financial constraints (Diaw, 2021; Hussain et al., 2023).

The near-unity Beta of 0.953 is particularly noteworthy. Unlike manufacturing or service companies that may hold cash primarily for precautionary or transactional purposes, financial



institutions derive the vast majority of their income from the intermediation of liquid assets. Banks, insurance companies, and other financial intermediaries earn interest income, lending spreads, and investment returns precisely by deploying their cash and cash equivalents into productive financial assets (Berger & Bouwman, 2013; Cornett et al., 2011). Thus, the more liquid assets a firm holds, the greater its capacity to generate profit—a mechanism that naturally produces the high Beta observed. This finding is consistent with the liquidity management theory advanced by Mishkin (2019) and Diamond & Dybvig (1983), both of which predict that adequate liquidity buffers directly support financial performance in banking and financial intermediation contexts.

The significance of the constant term (19.68; Sig. = 0.000) further enriches the interpretation. Even when cash holdings are minimal, financial firms in this sample generate a baseline level of profit through operating revenues independent of their liquidity positions, including fee-based and commission-based income. This is consistent with the pecking order logic articulated by Myers, & Majluf (1984), which recognizes that firms may generate multiple streams of revenue beyond those directly tied to cash deployment.

The descriptive statistics corroborate the regression findings. Both variables exhibit appropriate standard deviations relative to their means, reflecting the heterogeneity of the pooled cross-country sample. This heterogeneity underscores the importance of the regression framework in capturing the systematic relationship between cash and profit independently of scale differences. The presence of negative profit values for some observations (minimum: -14.08) confirms that not all financial firms were profitable throughout the period, a pattern consistent with economic disruptions during the COVID-19 pandemic and subsequent macroeconomic uncertainty (Qin et al., 2020; Viverita et al., 2023).

From a policy standpoint, the findings suggest that regulatory measures aimed at strengthening liquidity buffers in ASEAN banking sectors particularly in Indonesia and Malaysia, where cash holdings are lower on average than in Singapore may carry direct profitability benefits. Regulators in these markets should view Basel III liquidity requirements not merely as prudential safeguards but as mechanisms that simultaneously reinforce the profit-generating capacity of financial institutions. This perspective is consistent with recent regional evidence showing that liquidity regulation and bank performance are positively related when prudential frameworks are well-calibrated to domestic market conditions (Wicaksono et al., 2022; Yudaruddin et al., 2024).

Several limitations of the analysis warrant acknowledgment. First, the single-predictor model does not account for confounding variables such as firm size, leverage, capital adequacy ratios, and macroeconomic conditions. The high Beta may partly reflect common size effects, as larger financial institutions naturally hold more cash and generate more profit simultaneously. Future research should incorporate a comprehensive set of control variables to isolate the net effect of cash holdings on profit; recent studies such as Jiang et al. (2024) and Hussain et al. (2023) demonstrate the value of incorporating board governance and financial constraint variables in this type of model. Second, the cross-sectional pooled design limits causal inference. Longitudinal panel methods with fixed effects or GMM estimators would provide stronger evidence of the direction and mechanism of causality (Khatib et al., 2022). Third, aggregating firms from three distinct financial systems into a single pooled regression may mask country-level heterogeneity; country-specific sub-analyses or interaction models would allow for a more nuanced comparative assessment.

The empirical findings confirm that cash holdings serve as a powerful and statistically significant predictor of profitability across Southeast Asian financial institutions. Rather than viewing



this relationship merely through statistical coefficients, the positive linkage can be unpacked by examining the micro-foundations of financial intermediation. The existence of this strong relationship stems from the distinct operational nature of financial intermediaries, which, unlike non-financial corporations holding cash primarily for transactional or precautionary buffers, operate on a core business model of asset-liability transformation (Berger & Bouwman, 2013). Their revenue generation, predominantly driven by net interest income and lending spreads, directly relies on the continuous deployment of liquid funds into loans and investments. When financial institutions maintain robust cash positions, they possess the structural fuel required to expand credit creation without encountering liquidity bottlenecks, explaining the high explanatory power observed in the model.

The operation of trade-off and pecking order mechanisms within this environment is further reflected in the regression parameters. The sub-unity regression coefficient reveals that the profit-enhancing effect of cash is subject to optimization boundaries. Consistent with trade-off theory (Opler et al., 1999; Acharya et al., 2007), holding excessive cash beyond optimal thresholds creates opportunity costs, as idle funds yield lower returns than active credit deployment and can trigger regulatory penalties, such as failing to meet Basel III Liquidity Coverage Ratios. Furthermore, the significance of the baseline intercept demonstrates that financial institutions possess diversified revenue streams, including fee-based income, commissions, and insurance services, that generate earnings independent of immediate cash deployment. This supports the pecking order logic (Myers & Majluf 1984) where internal cash flows and retained earnings act as the primary, least-cost capital foundation enabling institutions to sustain operations during macroeconomic volatility, such as the pandemic shocks and monetary tightening observed between 2019 and 2024 (Qin et al., 2020; Viverita et al., 2023).

From a regional policy and institutional perspective, these dynamics explain the systemic cross-country disparities across Indonesia, Malaysia, and Singapore. Financial institutions operating in highly developed financial hubs, such as Singapore, maintain structurally higher average cash and profit configurations due to strict regulatory oversight and market depth, whereas emerging markets like Indonesia and Malaysia exhibit higher operational heterogeneity. Consequently, regulators should view prudential liquidity requirements not merely as defensive compliance constraints, but as dynamic mechanisms that safeguard solvency while systematically supporting the long-term profit-generating capacity of financial institutions (Wicaksono et al., 2022; Yudaruddin et al., 2024).

Furthermore, by aggregating both conventional and Islamic financial institutions within the pooled sample, the empirical results provide a generalized reflection of liquidity management efficiency across the Southeast Asian financial architecture. Because financial institutions whether conventional or Shariah-compliant fundamentally rely on asset-liability transformation and liquidity buffers to navigate economic fluctuations, the positive relationship between cash holdings and profitability holds robustly across the broader financial sector ecosystem. This reinforces the notion that liquidity mandates, such as those overseen by Bank Indonesia and Bank Negara Malaysia, serve as vital performance-enabling frameworks for all types of financial intermediaries in the region

CONCLUSION

This study examined the empirical relationship between cash holdings and profitability across 160 financial institutions in Indonesia, Malaysia, and Singapore over the period 2019–2024. The findings confirm that cash holdings serve as a positive and significant predictor of profitability within the Southeast Asian financial sector. Cross-country comparisons reveal systematic variations aligned with financial market development: Singapore-based financial firms maintain the highest average levels



of cash holdings and profitability, followed by Malaysia and Indonesia, reflecting differences in national regulatory frameworks and institutional maturity. Overall, the results demonstrate that effective liquidity management acts as a direct driver of financial performance rather than a purely defensive operational buffer, thereby extending the applicability of liquidity management, trade-off, and pecking order theories to the ASEAN financial landscape.

Despite its robust insights, this study acknowledges several limitations. First, the reliance on a single-predictor model leaves the analysis susceptible to omitted variable bias and scale effects. Second, the pooled cross-sectional design limits causal inference, as it does not fully control for unobserved firm-level heterogeneity or dynamic endogeneity over time. Third, aggregating diverse entities within the broader financial sector may mask subsector-specific nuances between banking and non-bank financial institutions.

Based on these findings, several strategic recommendations are proposed. From a managerial perspective, corporate managers and treasurers must optimize their liquidity buffers by balancing precautionary motives against opportunity costs, avoiding excessive idle cash to prevent profitability drags while maintaining strong safeguards against macroeconomic shocks. From a policy and regulatory standpoint, authorities across ASEAN, particularly in emerging markets like Indonesia and Malaysia, should view prudential liquidity frameworks, such as Basel III standards, not merely as defensive compliance constraints, but as proactive mechanisms that reinforce systemic financial resilience and support long-term profit-generating capacity. Finally, for future research, subsequent studies should address current limitations by employing advanced panel data estimators, such as fixed effects or dynamic GMM models, incorporating multi-variable frameworks that include firm size, leverage, capital adequacy, and macroeconomic indicators, expanding the geographical scope to other ASEAN nations like Thailand, the Philippines, and Vietnam, and conducting subsector analyses to explore structural differences among financial intermediaries.

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