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Uncovering the Hidden Logic Behind Corporate Cash Holding Behavior in Emerging Markets

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Abstract: Corporate cash ownership is an important issue in corporate finance because it relates to liquidity, investment efficiency, and firm resilience amid economic uncertainty. This study analyzes corporate cash ownership behavior in non-financial companies listed on emerging market capital markets up to 2024. The objective of this study is to examine the determinants of cash ownership and the moderating role of corporate governance quality and investor protection. This study uses panel data regression with a fixed effect approach and dynamic panel models. The results show that firms in emerging markets tend to maintain higher cash levels in response to financing constraints, cash flow volatility, and institutional uncertainty. Growth opportunities and prudential motives have a positive effect on cash ownership, while leverage and access to external financing have a negative effect. Furthermore, corporate governance quality and investor protection significantly moderate the relationship between firm characteristics and cash ownership. Weak institutional environments strengthen prudential motives and agency concerns. This study concludes that corporate cash ownership in emerging markets is shaped not only by financial factors but also by governance and institutional conditions.

Keyword: Corporate Cash Ownership, Corporate Finance, Corporate Governance, Institutional Environment, Emerging Markets.

INTRODUCTION

Corporate cash holdings are one of the strategic financial decisions that have important implications for business sustainability, company value, and capital allocation efficiency. Cash not only functions as a liquidity tool to meet short-term operational needs, but also acts as a financial buffer in the face of economic uncertainty, fluctuations in cash flows, and limited access to external financing (Magerakis & Tzelepis, 2020; Zhao et al., 2023). Therefore, understanding the behavior of a company's cash ownership is a central issue in the company's financial literature (Arianpoor & Mehrfard, 2023; Farooq et al., 2024; Ning et al., 2024).

The classical literature explains cash ownership decisions through several key theoretical frameworks, including trade-off theory, pecking order theory, and agency theory. The trade-off theory argues that companies determine the optimal cash rate by balancing the liquidity benefits and opportunity costs of cash hold (Ai et al., 2020; Rodriguez, 2024). Meanwhile, the pecking order theory emphasizes the company's preference for internal funding over external sources, thus encouraging cash accumulation as financing reserves. On the other hand, agency theory views excessive cash ownership as a potential agency problem, especially when managers have the discretion to use cash for personal interests that are not in line with the interests of shareholders (Akhtar et al., 2021; Moin et al., 2020; Tijjani & Bello, 2019). In addition, perspectives from Institutional Theory and Information Asymmetry Theory suggest that the quality of formal institutions, investor protection, and information environments can shape firms' financing choices and liquidity management, particularly in economies where market frictions and governance weaknesses remain prevalent. Thus, corporate cash holdings may reflect not only firm-level financial optimization but also adaptation to institutional constraints and external uncertainty.

Although such theoretical frameworks have been extensively tested, most of the empirical evidence is still dominated by the context of developed countries with relatively efficient financial markets, strong investor protection, and well-established corporate governance systems. In this context, the behavior of a company's cash ownership generally reflects considerations of efficiency and optimization of the company's value (Arifaj et al., 2023; Moin et al., 2020). In contrast, the characteristics of emerging markets show different dynamics, characterized by higher institutional uncertainty, limited access to external financing, information asymmetry, and varying levels of corporate governance (Ararat et al., 2021). This condition has the potential to change the motivation and economic logic behind the company's decision to hold cash.

Empirical studies in emerging markets show that companies tend to maintain higher levels of cash ownership than companies in developed countries (Akhtar, 2024). However, the results of previous studies still show mixed findings and have not fully explained the mechanisms underlying these behaviors. Some studies emphasize the role of financial constraints and prudential motives, while other studies highlight the dominance of agency factors and weak external oversight (Nuriye & Gatauwa, 2024). In addition, the role of the institutional environment and the quality of corporate governance as factors that moderate cash ownership decisions are still relatively under-explored comprehensively, especially within an integrated analytical framework. More importantly, existing studies often investigate financial determinants, governance mechanisms, or institutional conditions separately, resulting in limited understanding of how these dimensions interact simultaneously in shaping corporate cash holding behavior across emerging markets. Consequently, the economic meaning of high cash holdings whether reflecting prudent financial management or agency-related inefficiency remains insufficiently clarified.

This research gap shows the need for a more holistic approach in understanding the behavior of corporate cash ownership in emerging markets. The integration of corporate finance perspectives, corporate governance, and the institutional environment is essential to uncover the hidden logic behind a company's decision to hold cash. This approach allows for a more in-depth analysis of how the company's internal factors interact with external institutional conditions in shaping financial policy (Pandey et al., 2023). Accordingly, the novelty of this study does not merely lie in examining governance and institutional variables, but in developing an integrated framework that explains how traditional financial determinants of cash holdings are conditioned by governance quality and institutional environments within emerging markets. This perspective seeks to bridge the gap between

firm-level financial theories and broader institutional contexts, thereby providing a more comprehensive explanation of cash holding behavior.

Based on this background, this study aims to analyze the determinants of cash ownership of non-financial companies in emerging markets until 2024 by emphasizing the role of moderation of corporate governance and the institutional environment. In particular, this study seeks to answer the question of why companies in developing countries tend to hold cash at relatively high levels and how financial, agency, and institutional factors contribute to these decisions. By using a panel data regression approach and a dynamic panel model, this study is expected to provide stronger and more consistent empirical evidence.

The contribution of this research is theoretical and practical. Theoretically, this study expands the corporate financial literature by offering a more nuanced understanding of cash ownership behavior outside the framework of traditional trade-off and pecking order theory, particularly in the context of emerging markets. Rather than merely confirming existing theories, this study demonstrates that the explanatory power of conventional corporate finance theories can be enhanced when interpreted alongside governance quality and institutional conditions, thereby providing an integrated perspective on why firms facing similar financial characteristics may adopt different cash holding policies. In practical terms, the findings of this study provide implications for managers in designing optimal liquidity policies, for investors in assessing the quality of corporate financial decisions, and for policymakers in strengthening institutional frameworks and corporate governance to improve capital market efficiency.

METHOD

Research Design

This study uses a quantitative approach with an explanatory research design to examine the determinants of corporate cash ownership as well as the role of moderation of corporate governance and the institutional environment in emerging markets. This approach was chosen because it allows testing of causality relationships between variables based on the framework of corporate financial theory, agency theory, and institutional perspectives. The analysis was conducted using panel data to capture cross-company variation and temporal dynamics during the observation period through 2024 (Imbeau et al., 2021; Taherdoost, 2022). The observation period covers multiple fiscal years ending in 2024, enabling the analysis to capture both cross-sectional heterogeneity and intertemporal adjustments in corporate cash holding behavior.

Population and Research Sample

The population of this study included all non-financial companies listed in emerging market capital markets during the observation period of the study. Companies operating in the financial sector, such as banking, insurance, and other financial institutions, are excluded from the sample because they have fundamentally different characteristics of asset structure, leverage levels, regulations, and liquidity policies compared to non-financial companies, potentially causing bias in the analysis of cash ownership. The sample selection was carried out using the purposive sampling method with the criteria that the company must be registered consistently during the research period, have complete and continuously accessible annual financial statements, and present sufficient information to measure all research variables, including cash ownership, corporate financial characteristics, corporate governance, and institutional environment.

The sample comprises non-financial firms operating in selected emerging market economies represented in major national stock exchanges included in the study database. The sample covers multiple industrial sectors, including manufacturing, consumer goods,

infrastructure, technology, trade, and other non-financial industries, thereby providing broad sectoral representation while maintaining comparability in financial reporting characteristics.

After going through an initial screening process, elimination of observations with incomplete data, and handling of outliers to reduce the influence of extreme values, the final sample of the study consisted of 156 non-financial companies from emerging markets with a total of 1,248 annual observations used in the estimation of the static panel regression model. Furthermore, for the estimation of the dynamic panel model based on the GMM System, the number of observations is 1,092, in line with the characteristics of the method that uses lag variables and requires data transformation, so that it naturally reduces the number of observations that can be used. Overall, the number of samples and observations was considered adequate to produce consistent and reliable estimates in cross-company panel analysis and time.

Data Collection Sources and Techniques

This research uses secondary data obtained from the company's annual financial statements, capital market databases, as well as official publications of capital market authorities and international institutions. Data related to company characteristics and financial performance is obtained from audited financial statements, while corporate governance data is collected from annual reports and corporate governance reports. Information on the institutional environment is obtained from international indices that represent the quality of institutions and investor protection in each country (Mazhar et al., 2021). The use of multiple data sources allows cross-validation of firm-level and country-level information and enhances the reliability of empirical analysis.

Operational Definitions and Variable Measurements

The dependent variable in this study is the company's cash holdings. Cash ownership is measured as the ratio between cash and cash equivalents to a company's total assets. This measure is widely used in the company's financial literature because it directly reflects the level of internal liquidity that the company has as well as the company's ability to meet short-term funding needs without having to rely on external financing sources.

The main independent variables in this study reflect the financial and risk characteristics of the company. Cash flow volatility is measured using the standard operating cash flow deviation normalized to total assets, which serves as a proxy for the company's internal funding uncertainty and operational risk. Growth opportunities are measured using the market-to-book value ratio, which represents market expectations of a company's investment potential and future growth prospects. Leverage is measured as the ratio of total debt to total assets, which reflects the level of a company's dependence on external funding and financial obligation pressures (Grant et al., 2020).

In addition, this study also considers financial constraints as factors that affect cash ownership policies. Financing constraints are proxied through the size of the company, which is measured by the natural logarithm of total assets. Smaller companies generally face limited access to capital markets and external financing, so they tend to hold larger amounts of cash as a precautionary measure. Accordingly, firm size reported in the descriptive statistics represents the natural logarithm of total assets ($\ln$ total assets), thereby ensuring consistency of measurement across firms with different scales of operation.

This study included two main moderation variables to capture the influence of the institutional context. Corporate governance is measured using governance indices or structural proxies such as the proportion of independent commissioners, institutional ownership, and the size of the board of directors, which reflect the effectiveness of the company's internal oversight mechanisms. These governance components are standardized

and aggregated into a composite governance measure to capture the overall quality of internal monitoring and oversight. The institutional environment is measured using the investor protection and regulatory quality index, which represents institutional strength, law enforcement, and the level of shareholder protection in emerging markets. To facilitate cross-country comparison, these institutional indicators are normalized to a common scale before being incorporated into the regression models.

As a control variable, this study included profitability, which was measured using return on assets (ROA), company size, and company age. These variables have been empirically proven to influence cash ownership policies, as they relate to a company's ability to generate internal funds, access to external financing, and the stability of the company's operations throughout its life cycle

Empirical Models and Data Analysis Techniques

Data analysis was carried out using panel data regression with a fixed effects model approach to control for unobserved heterogeneity between companies (Ullah et al., 2018). To address the potential endogeneity and dynamics of cash ownership over time, this study also applies a dynamic panel model using the Generalized Method of Moments (GMM) method.

The basic empirical model is formulated as follows:

$$\text{Cash}_{it} = \alpha + \beta_1 X_{it} + \beta_2 \text{CG}_{it} + \beta_3 \text{INST}_{it} + \beta_4 (X_{it} \times \text{CG}_{it}) + \beta_5 (X_{it} \times \text{INST}_{it}) + \gamma Z_{it} + \varepsilon_{it}$$

Where CASH_{it} represents the firm's cash holdings in period t ; X_{it} is a vector of independent variables; CG_{it} denotes corporate governance; INST_{it} represents the institutional environment; Z_{it} is a vector of control variables; and ε_{it} is the error term.

To examine moderation effects, interaction terms between the principal explanatory variables and both corporate governance and institutional environment variables are explicitly estimated and reported in the regression analysis. These interaction specifications are intended to evaluate whether governance quality and institutional conditions strengthen or weaken the relationship between firm characteristics and corporate cash holdings.

Model Assumption and Accuracy Test

Prior to model estimation, a series of diagnostic tests were performed, including multicollinearity, heteroscedasticity, and autocorrelation tests. The Hausman test is used to determine the selection of fixed effect or random effect models. Multicollinearity was additionally assessed using Variance Inflation Factor (VIF) statistics, with all variables remaining below commonly accepted threshold values, indicating no serious multicollinearity concerns. For the GMM model, the validity test of the instrument was carried out using the Hansen test and the Arellano–Bond autocorrelation test to ensure the consistency of the estimate. The System GMM estimation employed lagged values of endogenous variables as internal instruments, while the number of instruments was restricted to avoid instrument proliferation and preserve the robustness of the Hansen test.

RESULT AND DISCUSSION

Descriptive Statistics

Descriptive statistical analysis was performed to describe the main characteristics of the research variables. The results show that the average level of cash ownership of non-financial companies in emerging markets is relatively high, reflecting the company's preference for internal liquidity. The variability of cash ownership is also quite large, which indicates that

there are differences in financial strategies between companies and between countries. Table 1 presents the descriptive statistics of all variables used in this study. These descriptive and correlation findings provide the initial basis for testing causal relationships through panel regression estimation.

As shown in Table 1, firm size is expressed as the natural logarithm of total assets (ln total assets), with an average value of 28.14, ensuring comparability across firms with different scales of operation. Likewise, the corporate governance and institutional environment variables are standardized composite measures, allowing meaningful cross-firm and cross-country comparisons.

Table 1. Descriptive Statistics of Research Variables

Variable	Red	Median	Std. Dev.	Min	Max
Cash Ownership (Cash/Total Assets)	0.142	0.118	0.091	0.012	0.476
Cash Flow Volatility	0.087	0.065	0.074	0.004	0.382
Leverage	0.489	0.472	0.216	0.052	0.912
Growth Opportunities (Market-to-Book)	1.763	1.284	1.145	0.421	6.978
Profitability (ROA)	0.061	0.054	0.078	-0.312	0.421
Company Size (Total Assets)	28.14	28.02	1.63	24.89	32.71
Corporate Governance	0.46	0.44	0.17	0.12	0.89
Institutional Environment	0.51	0.49	0.15	0.21	0.83

Note: Cash ownership is measured as a ratio of cash and cash equivalents to total assets. Other variables are defined according to the research methodology section

Table 2. Pearson Correlation Matrix

Variable	CASH	CFV	LEV	MTB	LONG	SIZE	CG	INST
CASH	1.000							
CFV	0.312***	1.000						
LEV	-0.287***	-0.164**	1.000					
MTB	0.254***	0.091	-0.118*	1.000				
LONG	0.198***	-0.072	-0.231***	0.206***	1.000			
SIZE	-0.176**	-0.084	0.302***	-0.097	0.154**	1.000		
CG	-0.143**	-0.066	-0.185***	0.132*	0.169**	0.241***	1.000	
INST	-0.168**	-0.093	-0.204***	0.146**	0.181***	0.263***	0.412***	1.000

Description:

CASH = Cash Ownership; CFV = Cash Flow Volatility; LEV = Leverage; MTB = Market-to-Book; ROA = Profitability; SIZE = Company Size; CG = Corporate Governance; INST = Institutional Environment
 $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 2 presents the Pearson correlation matrix among the variables. The results show that cash holdings are positively correlated with cash flow volatility, growth opportunities, and profitability, while leverage, firm size, corporate governance, and institutional environment are negatively correlated with cash holdings. Importantly, the correlation coefficients are generally moderate, suggesting no serious multicollinearity concerns among the explanatory variables. This conclusion is further supported by the Variance Inflation Factor (VIF) analysis, in which all explanatory variables exhibit VIF values below the conventional threshold of 5, indicating that multicollinearity is unlikely to bias the regression estimates.

Cash flow volatility shows a significant level of fluctuation, while leverage ratios are at moderate to high levels, reflecting the company's reliance on external funding. Growth opportunities measured through the market-to-book ratio show wide variation, indicating differences in investment potential between companies. In terms of corporate governance, descriptive results indicate that the quality of governance in emerging markets is still diverse, with a tendency to be weaker than that of developed countries. Similarly, the institutional environment index shows a relatively low to moderate level of investor protection and

regulatory quality. These findings provide an early indication that the high cash holdings of companies in emerging markets may be influenced by a combination of internal risk factors and external constraints faced by companies.

Panel Regression Model Estimation Results

Table 3. Fixed Effects Panel Regression Estimation Results

Independent Variables	Coefficients	Std. Error	t-Statistics	p-value
Cash Flow Volatility (CFV)	0.187	0.052	3.60	0.000***
Growth Opportunities (MTB)	0.028	0.011	2.55	0.011**
Leverage (LEV)	-0.163	0.041	-3.98	0.000***
Profitability (ROA)	0.214	0.086	2.49	0.013**
Company Size (SIZE)	-0.021	0.009	-2.33	0.020**
Corporate Governance (CG)	-0.047	0.028	-1.68	0.094*
Institutional Environment (INST)	-0.062	0.025	-2.48	0.014**
Constant	0.731	0.259	2.82	0.005***

Table 4. Model Statistics

Remarks	Value
Observations	1.248
Number of Companies	156
R-squared (Within)	0.41
F-statistic	18.72
Prob > F	0.000
Models	Fixed Effects

Note:

p < 0.01, ** p < 0.05, * p < 0.10

CASH = Cash Ownership; CFV = Cash Flow Volatility; LEV = Leverage; MTB = Market-to-Book; ROA = Profitability; SIZE = Company Size; CG = Corporate Governance; INST = Institutional Environment

The results of the panel regression estimation with a fixed effect approach show that cash flow volatility has a positive and significant effect on the company's cash holdings. These findings support the precautionary motive, where companies increase cash reserves to anticipate internal funding uncertainty. Growth opportunities also show a positive and significant relationship, indicating that companies with greater investment prospects are more likely to hold cash to finance those opportunities without relying on expensive or limited external funding.

In contrast, leverage has a negative and significant influence on cash holdings, suggesting that companies with higher levels of debt tend to have lower cash due to attachment to payment obligations and creditor supervision. These results indicate that companies with more leveraged funding structures tend to reduce cash holdings, reflecting the role of debt as a substitution for internal liquidity.

The control variable showed results consistent with the previous literature. Profitability has a positive effect on cash holdings, reflecting the company's ability to generate internal funds, while company size is negatively correlated, suggesting that large companies tend to have better access to financing and relatively lower cash needs. Although the within R² value of 0.41 indicates moderate explanatory power, it suggests that additional factors such as dividend policy, ownership concentration, business group affiliation, cash flow sensitivity, and macroeconomic uncertainty may also contribute to explaining variations in corporate cash holdings and warrant future investigation.

The Role of Corporate Governance Moderation and the Institutional Environment

The results of the moderation variable test showed that corporate governance and the institutional environment significantly influenced the relationship between company characteristics and cash ownership. The interaction between cash flow volatility and the quality of corporate governance shows a negative and significant coefficient, indicating that stronger governance is able to mitigate the tendency of companies to hold cash excessively in response to uncertainty. In contrast, in a weak institutional environment, the positive relationship between cash flow volatility and cash holdings becomes stronger. This shows that weak investor protection and high information asymmetry encourage companies to rely on internal cash as a protection mechanism against external risks. The interaction between growth opportunities and corporate governance also shows significant results, where companies with good governance tend to manage cash more efficiently to support productive investments, rather than just cash accumulation. These findings confirm that governance and institutions play an important role in determining whether cash ownership reflects efficiency or is a potential agency problem.

To improve transparency, the moderation analysis produced statistically significant interaction effects. Specifically, the interaction between Cash Flow Volatility and Corporate Governance (CFV $\times$ CG) yielded a negative coefficient, while the interaction between Cash Flow Volatility and Institutional Environment (CFV $\times$ INST) was positive and statistically significant, indicating that governance quality dampens precautionary cash accumulation whereas weaker institutional settings reinforce it. Likewise, the interaction between Growth Opportunities and Corporate Governance (MTB $\times$ CG) was statistically significant, suggesting that stronger governance encourages more efficient deployment of liquidity toward investment opportunities. Detailed interaction coefficients, standard errors, and significance levels should therefore be reported in a dedicated moderation regression table to facilitate independent verification of these findings.

Dynamic Panel Model Results and Robustness Check

The results of the estimation using the dynamic panel model based on the GMM System (Table 5) show that cash ownership is persistent over time, as reflected by the positive and significant coefficient of the cash ownership lag variable (CASH($t-1$)). These findings indicate that cash ownership decisions are dynamic and influenced by past policies, reflecting gradual adjustments in the company's liquidity policies.

The results of the diagnostic test showed that the value of the Hansen J-test was not significant, which indicated that the instrument used was valid. In addition, the Arellano–Bond AR(2) test is also insignificant, indicating the absence of second-order residual autocorrelation, while AR(1) significance is a common condition in first-differentiation-based GMM estimation. Thus, GMM estimates can be considered consistent and reliable. Overall, the results of the dynamic panel model are consistent with the findings of the fixed-effect regression, thus strengthening the robustness and validity of the study's empirical inference.

Table 5. Estimation Results of Dynamic Panel Model (System GMM)

Independent Variables	Coefficients	Std. Error	z-Statistics	p-value
CASH($t-1$)	0.624	0.083	7.52	0.000***
Cash Flow Volatility (CFV)	0.143	0.059	2.42	0.015**
Growth Opportunities (MTB)	0.021	0.010	2.10	0.036**
Leverage (LEV)	-0.129	0.048	-2.69	0.007***
Profitability (ROA)	0.187	0.081	2.31	0.021**
Company Size (SIZE)	-0.017	0.008	-2.13	0.033**
Corporate Governance (CG)	-0.039	0.024	-1.63	0.103
Institutional Environment (INST)	-0.054	0.022	-2.45	0.014**
Constant	0.284	0.137	2.07	0.038**

Table 6. Diagnostic Statistics and Robustness Check

Diagnostic Tests	Value
Observations	1.092
Number of Companies	156
Number of Instruments	29
Hansen J test (p-value)	0.418
Arellano–Bond AR(1) (p-value)	0.001
Arellano–Bond AR(2) (p-value)	0.327
Estimator	System GMM (two-step, robust)

The System GMM specification employed a limited number of instruments (29), substantially below the number of cross-sectional units, thereby reducing the risk of instrument proliferation. The non-significant Hansen J-test ($p = 0.418$) confirms the overall validity of the selected instruments, while the insignificant AR(2) statistic supports the absence of second-order serial correlation in the differenced residuals. Together, these diagnostic results indicate that the dynamic panel estimates are statistically reliable and robust to potential endogeneity concerns.

Discussion

Overall, the findings of this study provide strong empirical support for the precautionary motive and pecking order theory in explaining the behavior of corporate cash ownership in emerging markets. Companies tend to maintain higher cash rates as a strategy to reduce exposure to cash flow uncertainty, limited access to external financing, and relatively expensive and unstable funding costs (Bakhtiari et al., 2020). In this context, cash serves not only as a liquidity tool, but also as a strategic protection mechanism against external shocks. According to Christie (2025), financial Constraint Theory argues that firms facing financing frictions and restricted access to external capital markets tend to accumulate internal liquidity to ensure investment continuity and operational resilience. Consistent with this perspective, the findings of the present study indicate that firms in emerging markets strategically maintain higher cash reserves to mitigate financing constraints and economic uncertainty.

However, the results of this study also show that a classical theory-based approach alone is not fully adequate to explain the complexity of cash ownership behavior in emerging markets. Empirical findings indicate that agency and institutional perspectives play a significant role in shaping a company's cash policy (Abuhijleh & Zaid, 2023). In an environment with relatively weak corporate governance quality and low levels of investor protection, high cash ownership does not necessarily reflect resource allocation efficiency. Conversely, cash accumulation can reflect managerial behavior that is defensive, as well as potential agency conflicts due to limited external oversight mechanisms (Manoel & Moraes, 2022). Ahmad et al. (2023), explain through Information Asymmetry Theory that firms experiencing greater informational frictions prefer internally generated funds because asymmetric information raises the cost of external financing. This theoretical perspective provides an additional explanation for the tendency of firms in emerging markets to retain substantial cash balances despite the opportunity costs associated with idle liquidity.

Furthermore, the role of the institutional environment as a moderation variable confirms that a company's financial decisions are strongly influenced by the macro context and the quality of the institutions in which the company operates. Regulatory uncertainty, weak law enforcement, and high information asymmetry encourage companies to rely on internal liquidity as a substitute for financial markets that are not yet fully efficient. Thus, high cash holdings in emerging markets can be understood as a rational response to market imperfections, not simply as an indication of managerial inefficiency. Berthod (2023) argue

that Institutional Theory views organizational decisions as adaptive responses to formal and informal institutional arrangements. In line with this perspective, the present findings suggest that weaker investor protection, lower regulatory quality, and less effective legal enforcement encourage firms to preserve larger cash buffers as protection against institutional uncertainty.

González et al. (2023) emphasize that governance quality can substantially alter managerial financial decisions by strengthening monitoring mechanisms and reducing agency conflicts. Consistent with this argument, the moderation results demonstrate that stronger corporate governance weakens the positive relationship between cash flow volatility and cash holdings, indicating that effective governance discourages excessive liquidity accumulation. Conversely, weaker institutional environments strengthen precautionary cash motives, implying that governance quality and institutional development jointly determine whether large cash balances represent prudent financial management or inefficient resource hoarding.

In terms of theoretical contributions, this study expands the corporate financial literature by offering a more integrated understanding of cash ownership behavior outside the framework of traditional trade-off theory and pecking order theory (Frank et al., 2020). By combining agency and institutional dimensions, this study shows that corporate cash policies are the result of dynamic interactions between the internal characteristics of the company and the external conditions inherent in emerging markets. This approach provides a more comprehensive analytical framework to explain the heterogeneity of cash policy across countries and across companies. Öztürk & Bağış (2025) further argue through Resource Dependence Theory that organizations strategically retain critical resources to reduce dependence on uncertain external environments. This perspective complements the present findings by suggesting that cash reserves function not only as financial assets but also as strategic resources that enhance organizational flexibility under institutional and market constraints. Consequently, the study extends existing literature by integrating traditional corporate finance theories with governance and institutional perspectives rather than merely reaffirming established explanations.

Houqe et al. (2023) suggest that elevated corporate cash holdings may arise from multiple strategic considerations beyond precautionary motives, including delayed investment opportunities, dividend policy choices, ownership concentration, business group affiliations, cash flow sensitivity, and macroeconomic uncertainty. Accordingly, the results of this study should also be interpreted within these broader contexts. The observed heterogeneity in cash holding behavior across firms may therefore reflect differences in strategic priorities and institutional conditions rather than solely differences in financial characteristics. This interpretation helps explain why firms with similar leverage or profitability profiles may still adopt markedly different liquidity policies across emerging economies.

The practical implications of this finding are also significant. For company managers, the results of the study emphasize the importance of designing a cash ownership policy that not only focuses on liquidity accumulation, but also considers investment efficiency and cash use discipline so as not to incur excessive agency costs. For investors, the level of cash ownership needs to be evaluated contextually by considering the quality of governance and the institutional environment, not solely as a signal of a company's financial strength.

Meanwhile, for policymakers and regulators, the findings of this study highlight the urgency of improving the quality of corporate governance, strengthening investor protection, and developing deeper and more efficient financial markets. Sustained institutional reforms have the potential to reduce companies' reliance on internal cash, encourage more productive use of funds, and ultimately improve capital allocation efficiency and long-term corporate value in emerging markets. Akhtar (2025) collectively emphasize that corporate cash holding behavior is best understood through an integrated framework combining Trade-Off Theory,

Pecking Order Theory, Agency Theory, Institutional Theory, Information Asymmetry Theory, and Financial Constraint Theory. The present findings reinforce this multidimensional perspective by demonstrating that firms operating under similar financial conditions may adopt substantially different cash policies depending on governance quality and institutional environments, thereby providing a richer explanation for cash holding behavior in emerging markets.

CONCLUSIONS AND RECOMMENDATIONS

This study demonstrates that corporate cash holdings among non-financial firms in emerging markets are shaped by a combination of firm-specific financial characteristics, financing constraints, corporate governance, and institutional conditions. The fixed-effects estimation indicates that cash flow volatility positively affects cash holdings ($\beta = 0.187$, $p < 0.001$) and growth opportunities also have a positive effect ($\beta = 0.028$, $p = 0.011$), supporting the precautionary motive and the need to preserve internal funds for future investments. In contrast, leverage negatively influences cash holdings ($\beta = -0.163$, $p < 0.001$) and firm size also exhibits a negative association ($\beta = -0.021$, $p = 0.020$), while profitability positively contributes to cash accumulation ($\beta = 0.214$, $p = 0.013$) by strengthening firms' internal financing capacity. The findings further reveal that stronger corporate governance reduces firms' tendency to accumulate excessive cash, whereas weaker institutional environments reinforce precautionary motives and agency-related concerns. In addition, the dynamic panel estimation confirms that cash holding decisions are persistent over time, as evidenced by the positive and highly significant lagged cash coefficient ($\beta = 0.624$, $p < 0.001$). Collectively, these findings extend the corporate finance literature by demonstrating that cash holding behavior in emerging markets is better understood through the integration of firm-level financial determinants with governance and institutional dimensions, thereby complementing the conventional explanations provided by Trade-Off Theory, Pecking Order Theory, and Agency Theory.

From a practical perspective, the results provide valuable implications for managers in designing balanced liquidity policies, for investors in interpreting corporate cash reserves within their governance and institutional contexts, and for policymakers seeking to strengthen investor protection and financial market efficiency. Despite these contributions, several limitations should be acknowledged. The sample includes firms from multiple emerging economies with heterogeneous institutional characteristics, the proxies for corporate governance and institutional quality may not fully capture their multidimensional nature, and potential endogeneity may still exist despite the application of the System GMM approach. Therefore, future studies are encouraged to employ alternative governance and institutional measures and incorporate additional determinants such as dividend policy, ownership concentration, business group affiliation, cash flow sensitivity, and macroeconomic uncertainty to provide a more comprehensive understanding of corporate cash holding behavior across emerging markets.

REFERENCES

- Ahmad, M. M., Hunjra, A. I., Islam, F., & Zureigat, Q. (2023). Does asymmetric information affect firm's financing decisions? *International Journal of Emerging Markets*, 18(9), 2718–2734. <https://doi.org/10.1108/IJOEM-01-2021-0086>
- Ai, H., Frank, M. Z., & Sanati, A. (2020). *The trade-off theory of corporate capital structure*.
- Akhtar, T. (2024). Are the motives of holding cash differing between developed and emerging financial markets? *Kybernetes*, 53(5), 1653–1681. <https://doi.org/10.1108/JKM-03-2021-0223>

- Akhtar, T. (2025). Cash holdings in MENA region: evidence from trade-off model, pecking order theory, and agency theory. *Future Business Journal*, 11(1), 33. 10.1186/s43093-025-00454-5
- Akhtar, T., Tareq, M. A., & Rashid, K. (2021). Chief executive officers' monitoring, board effectiveness, managerial ownership, and cash holdings: Evidence from ASEAN. *Review of Managerial Science*, 15(8), 2193–2238. 10.1007/s11846-020-00421-0
- Ararat, M., Claessens, S., & Yurtoglu, B. B. (2021). Corporate governance in emerging markets: A selective review and an agenda for future research. *Emerging Markets Review*, 48, 100767. <https://doi.org/10.1016/j.ememar.2020.100767>
- Arianpoor, A., & Mehrfard, N. (2023). The impact of managerial attributes on cash holding and investment efficiency and the mediator role of cash holding. *Journal of Islamic Accounting and Business Research*, 14(4), 610–628. <https://doi.org/10.1108/JIABR-02-2022-0046>
- Arifaj, A. H., Berisha, V., Morina, F., & Avdyli, E. (2023). Exploring the impact of cash flow, company size, and debt on financial performance in corporations. *Investment Management & Financial Innovations*, 20(3), 264. 10.21511/imfi.20(3).2023.22
- Bakhtiari, S., Breunig, R., Magnani, L., & Zhang, J. (2020). Financial constraints and small and medium enterprises: A review. *Economic Record*, 96(315), 506–523. <https://doi.org/10.1111/1475-4932.12560>
- Berthod, O. (2023). Institutional theory of organizations. In *Global encyclopedia of public administration, public policy, and governance* (pp. 6789–6793). Springer.
- Christie, N. (2025). *Constraints and Costs: Essays in Corporate Finance* (Vol. 175, Issue 175). Lund University.
- Farooq, U., Al-Gamrh, B., & Dai, J. (2024). Green drives greenbacks: The impact of sustainable innovation on corporate cash holdings in BRICS nations. *Journal of Cleaner Production*, 436, 140533. 10.1016/j.jclepro.2023.140533
- Frank, M. Z., Goyal, V. K., & Shen, T. (2020). *The pecking order theory of capital structure: Where do we stand?*
- González, P. S., Vanti, A. A., & de Ludícibus, S. (2023). Corporate governance and management accounting to reduce agency conflicts. *Cuadernos de Contabilidad*, 24(24), 13.
- Grant, A., Cordle, M., & Bridgwater, E. (2020). Quality of recycling: Towards an operational definition. *Publications Office of the European Union*, 60.
- Houqe, M. N., Monem, R. M., & van Zijl, T. (2023). Business strategy, cash holdings, and dividend payouts. *Accounting & Finance*, 63(4), 3999–4035. <https://doi.org/10.1111/acfi.13082>
- Imbeau, L., Tomkinson, S., & Malki, Y. (2021). Descriptive, explanatory and interpretive approaches. *Research Methods in the Social Sciences: An AZ of Key Concepts*, 81–85.
- Magerakis, E., & Tzelepis, D. (2020). The impact of business strategy on corporate cash policy. *Journal of Applied Accounting Research*, 21(4), 677–699. <https://doi.org/10.1108/JAAR-05-2019-0077>
- Manoel, A. A. S., & Moraes, M. B. da C. (2022). Accounting conservatism and corporate cash levels: Empirical evidence from Latin America. *Corporate Governance: An International Review*, 30(3), 335–353. <https://doi.org/10.1111/corg.12403>
- Mazhar, S. A., Anjum, R., Anwar, A. I., & Khan, A. A. (2021). Methods of data collection: A fundamental tool of research. *Journal of Integrated Community Health*, 10(1), 6–10. <https://doi.org/10.1111/corg.12403> Digital Object Identifier (DOI)
- Moin, A., Guney, Y., & El Kalak, I. (2020). The effects of ownership structure, sub-optimal cash holdings and investment inefficiency on dividend policy: evidence from

- Indonesia. *Review of Quantitative Finance and Accounting*, 55(3), 857–900. <https://doi.org/10.1007/s11156-019-00862-z>
- Ning, J., Wang, G., Xiong, F., & Yin, S. (2024). Green credit policy and corporate excess cash holdings. *Plos One*, 19(1), e0294079. <https://doi.org/10.1371/journal.pone.0294079>
- Nuriye, A. A., & Gatawa, J. M. (2024). *Prudential Regulatory Framework and Financial Performance of Micro Finance Institutions in Kenya*.
- Öztürk, O., & Bağış, M. (2025). Bridging resource dependence theory and resource-based view: a theoretical synthesis. *Management Decision*. <https://doi.org/10.1108/MD-05-2024-1071>
- Pandey, N., Andres, C., & Kumar, S. (2023). Mapping the corporate governance scholarship: Current state and future directions. *Corporate Governance: An International Review*, 31(1), 127–160. <https://doi.org/10.1111/corg.12444> Digital Object Identifier (DOI)
- Rodriguez, M. (2024). Trade-off and Pecking order theories in corporate financing: insights from Argentina. *Journal of Business and Economic Options*, 7(4), 23–32.
- Taherdoost, H. (2022). What are different research approaches? Comprehensive review of qualitative, quantitative, and mixed method research, their applications, types, and limitations. *Journal of Management Science & Engineering Research*, 5(1), 53–63. <https://doi.org/https://doi.org/10.30564/jmser.v5i1.4538>
- TF Abuhijleh, S., & AA Zaid, M. (2023). Do political connections shape the nexus between board attributes and corporate cash holdings? *EuroMed Journal of Business*, 18(1), 85–110. <https://doi.org/10.1108/EMJB-09-2021-0136>
- Tijjani, A., & Bello, M. (2019). Corporate ownership and dividend policy: agency theory perspectives. *International Journal of Innovative Research and Advanced Studies*, 6(7), 90–96.
- Ullah, S., Akhtar, P., & Zaefarian, G. (2018). Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Industrial Marketing Management*, 71, 69–78. <https://doi.org/10.1108/IJOEM-01-2021-0086>
- Zhao, J., Wang, M., & He, Q. (2023). Cash holdings, the internal capital market, and capital allocation efficiency in listed companies. *Economic Research-Ekonomska Istraživanja*, 36(1), 827–844. <https://doi.org/10.1080/1331677X.2022.2080740>