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Research Paper

Liquidity and Firm Market Value: The Moderating Role of Firm Size

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ABSTRACT

A strong market valuation signals robust future growth prospects, attracting capital investment as investors perceive potential for returns. Conversely, a declining market value may indicate underlying management inefficiencies, deterring investor confidence. This study investigates the impact of liquidity ratios on firm market value, with particular emphasis on the moderating role of firm size in this relationship. Utilizing a sample of non-financial firms listed on the Indonesia Stock Exchange from 2016 to 2022, this research applies panel data analysis through the Ordinary Least Squares (OLS) method to test the proposed hypotheses. The findings reveal that liquidity ratios—specifically the current ratio, quick ratio, and cash ratio—negatively affect firm market value. Moreover, the results suggest that firm size significantly moderates the relationship between liquidity ratios and market value. This study enriches the literature by providing nuanced insights into the optimal management of corporate liquidity to enhance firm market value. From a practical standpoint, the research offers valuable implications for managerial decision-making, particularly in crafting debt and asset management strategies that influence firm valuation.

Introduction

Fluctuations in firm market value are a recurring phenomenon in the Indonesian capital market, which often influences investor behavior. These market value changes are particularly significant for investors who use firm valuations to assess future growth

potential (Chen, 2022). When a firm maintains a high market value, it signals strong prospects, attracting capital investment as investors anticipate favorable returns (Lestari & Pabulo, 2023). Conversely, a declining market value may be symptomatic of inefficiencies in management or external shocks, eroding investor confidence and discouraging further investments (Amin et al., 2021; Bhat et al., 2018; Mishra & Kapil, 2017). This pattern is consistent with the Trade-off Theory, which argues that firms must optimize various financial indicators to achieve a balance that maximizes firm value (Adeneye et al., 2022). In this context, the liquidity ratios of firms play a critical role, influencing both their operational capacity and their appeal to investors. Thus, this study aims to explore the influence of liquidity ratios on firm market value while investigating whether firm size can moderate this relationship.

The relationship between liquidity management and market value has become more pronounced in recent years, especially given the volatile nature of the global economy. Several prominent cases in the Indonesian market underscore the importance of this issue. For example, PT Unilever Indonesia Tbk (UNVR) experienced a sharp decline in its market value during 2020, falling from IDR 408 trillion at the beginning of the year to IDR 340 trillion by year's end, largely due to a pandemic-driven reduction in net profits and sales performance. In contrast, PT Indofood CBP Sukses Makmur Tbk (ICBP) successfully increased its market value from IDR 92 trillion to IDR 103 trillion in 2022. This rise was driven by strong financial performance, particularly in terms of liquidity management, as evidenced by an improvement in the company's current ratio from 2.1 in 2021 to 2.4 in 2022. These cases highlight the significance of liquidity ratios in determining market value, suggesting that firms with optimized liquidity management are better positioned to weather economic challenges and maintain investor confidence.

Liquidity ratios are essential metrics used to evaluate a firm's ability to meet short-term obligations and maintain operational stability. According to Trade-off Theory (Myers & Majluf, 1984), firms must strike a balance between liquidity and profitability to maximize value. While high liquidity provides security against financial distress, excessive liquidity may undermine profitability due to the opportunity costs associated with idle funds (Kaur & Singh, 2019). This dynamic illustrates the necessity for firms to maintain an optimal liquidity level that minimizes financial risk without sacrificing returns (Kim et al., 2019). The optimal level is one in which a firm can meet its short-term obligations without holding excess assets that could otherwise be invested in profitable ventures (Nguyen & Dao, 2022).

Previous studies have widely examined liquidity ratios, such as the current ratio, quick ratio, and cash ratio, as indicators of corporate financial health (Bencheikh & Taktak, 2017; Queiri et al., 2021; Sugosha & Artini, 2020; Wicaksono & Adiwibowo, 2017). These ratios measure a firm's ability to cover short-term liabilities using its current assets. From the perspective of Trade-off Theory, firms with high liquidity are perceived as less risky, given their capacity to meet immediate obligations. This tends to send positive signals to investors, enhancing their confidence and potentially increasing the firm's market value (Adeneye et al., 2022; Banerji et al., 2018). Firms with high liquidity are generally better positioned to navigate economic downturns, as they have the resources to cover liabilities without the need to liquidate long-term assets or take on additional debt (Zhang et al., 2017).

However, excessive liquidity can also signal inefficiencies. Firms that hold too many current assets may face reduced profitability due to the opportunity cost of not deploying those assets into productive investments (Intara et al., 2024). Moreover, excessive liquidity

may indicate poor asset management by the firm's leadership, raising concerns among investors regarding the company's operational efficiency (Kim et al., 2019; Reimsbach et al., 2018). For instance, idle cash reserves that could have been used to expand operations or pursue lucrative opportunities may instead lead to stagnation in growth, ultimately diminishing firm value.

Despite the wealth of research on the relationship between liquidity ratios and firm market value, the findings remain inconclusive and at times contradictory. While some studies report a positive relationship between liquidity ratios and firm market value (Bencheikh & Taktak, 2017; Chatterjee et al., 2021; Jiang et al., 2011; Wicaksono & Adiwibowo, 2017), others find that liquidity ratios have a negative impact on market value (Damayanti & Suryandani, 2023; Just & Exhaust, 2020; Sugosha & Artini, 2020). Additionally, some studies suggest no significant relationship between these variables (Hongli et al., 2019; Thosen & Dermawan, 2023). These discrepancies highlight the presence of a research gap, suggesting that various contextual factors, such as industry type, firm size, time periods, or external economic conditions, may influence the liquidity-market value relationship.

This study seeks to address this gap by investigating the moderating role of firm size in the relationship between liquidity ratios and firm market value. Firm size is a critical factor that may explain the inconsistencies in prior research findings. Smaller firms generally have limited access to external capital markets and therefore rely more heavily on internal resources, including their liquidity, to finance operations (Bhat et al., 2018; Fadjri & Nurdiansyah, 2023). In such firms, high liquidity can be perceived as inefficient resource allocation, as smaller companies often face higher opportunity costs when funds are left idle (Liu & Suzuki, 2024). On the other hand, larger firms typically enjoy greater operational flexibility and diversification, allowing them to maintain higher liquidity levels without sacrificing profitability (Cull et al., 2015).

Moreover, smaller firms may also face higher costs associated with holding liquidity, such as storage costs for excessive inventory or reduced returns on cash reserves. Investors may view high liquidity in smaller firms as a signal of ineffective resource management, potentially reducing market value (Frimpong et al., 2024). In contrast, large firms may benefit from maintaining higher liquidity, as it enhances their ability to meet short-term obligations and pursue investment opportunities without relying on external financing (Zhu et al., 2022). According to the Pecking Order Theory (Myers, 1984), larger firms typically face less information asymmetry and can access external funding more easily. This reduces their need to hold excessive liquidity while still allowing them to manage short-term liabilities effectively.

The purpose of this study is to rigorously examine the impact of liquidity ratios on firm market value, while assessing the moderating effect of firm size. By focusing on manufacturing firms listed on the Indonesia Stock Exchange from 2016 to 2022, this research provides a timely analysis of how liquidity management practices affect firm valuation, particularly in the context of economic disruptions such as the COVID-19 pandemic. Unlike previous studies, which often overlook the moderating role of firm size, this research aims to fill that gap by providing empirical evidence on the nuanced relationship between liquidity ratios, firm size, and market value. By doing so, the study contributes to the existing literature on corporate finance and provides practical insights for managers on how to optimize liquidity management strategies to enhance firm value.

This study's novelty lies in its exploration of firm size as a key moderating variable, offering a fresh perspective on the liquidity-market value relationship. The findings are expected to enrich the understanding of liquidity management, particularly in emerging markets like Indonesia, where economic volatility and firm size disparities may play a significant role in shaping financial outcomes. The research aims to provide both theoretical and practical contributions, helping firms tailor their liquidity strategies according to their size and market conditions. Unlike previous studies that predominantly focused on liquidity ratios in isolation, this research uniquely integrates firm size into the analysis, thereby revealing the nuanced interplay between these factors. By emphasizing this moderating effect, the study paves the way for a more holistic understanding of financial management practices, ultimately contributing to more effective decision-making in diverse business environments.

Hypotheses Development

Liquidity Ratios and Firm Market Value

At critically low liquidity levels, a company's market value tends to diminish, as investors perceive this as a red flag, indicating a heightened risk of insolvency. Conversely, an excessively high liquidity level also undermines market value, as it signals inefficiencies in the firm's asset management (Chatterjee et al., 2021). Consequently, a firm's market value can only be maximized at an optimal liquidity threshold (Abu Khalaf & Awad, 2024). Insufficient liquidity places businesses at risk of failing to meet their short-term obligations (Hongli et al., 2019). Should a company be unable to settle its current liabilities—such as accounts payable, taxes, or maturing debts—it may face a liquidity crisis, potentially leading to bankruptcy. This elevated bankruptcy risk sends negative signals to investors, prompting them to devalue the firm, which in turn depresses its market value (Fadjri & Nurdiansyah, 2023).

Conversely, companies with excessively high liquidity levels maintain an abundance of current assets. Idle current assets, such as surplus inventory or unutilized cash reserves, represent missed opportunities for investment (Rabbani et al., 2024). Cash that remains idle depreciates in value over time due to inflation, while holding excessive inventory incurs substantial storage costs (Jiang et al., 2011). Investors often interpret such scenarios as symptomatic of poor asset management, suggesting operational inefficiencies within the organization (Nguyen et al., 2020). This perceived mismanagement leads investors to assign a lower valuation to the firm, adversely affecting its market value. Thus, there exists an optimal liquidity level at which a company avoids both the inefficiencies of holding excess current assets and the risks associated with insufficient liquidity. At this equilibrium, the company achieves an ideal balance, which maximizes investor confidence, thereby enhancing its market value.

Several prior studies support the premise of a non-linear relationship between liquidity ratios and firm market value. For instance, Nguyen et al. (2020) found that the current ratio exhibited a non-linear inverted U-shaped effect on firm value among Vietnamese enterprises. This supports the Trade-off Theory, which posits that there exists an optimal level of liquidity that maximizes firm value. Similarly, Just and Echaust (2020), using the cash and current ratios as liquidity proxies, identified a non-linear relationship between liquidity ratios and firm value in Indonesian manufacturing firms. Yao and Qiu

(2024) further corroborated the non-linearity hypothesis, suggesting that while the current ratio positively influences firm value at lower liquidity levels, it exerts a negative impact at higher liquidity thresholds. This pattern was observed in Vietnamese enterprises, where liquidity management played a significant role in firm valuation. Additionally, Rabbani et al. (2024), analyzing panel data from 2010 to 2019, demonstrated that the current ratio had a non-linear inverted U-shaped effect on firm value, proxied by Tobin's Q, in Malaysian companies. Their findings were consistent with the Trade-off Theory, affirming that an optimal liquidity level exists for firms to maximize market value.

H_1: Liquidity ratios have a non-linear effect on firm market value

Liquidity Ratios, Firm Size, and Firm Market Value

The rationale for this hypothesis lies in the notion that large and small firms must account for different factors when determining their optimal liquidity levels. For smaller businesses, elevated liquidity may be viewed unfavorably by investors, as it can signal ineffective management of current assets (Hanif et al., 2019). In contrast, high liquidity in larger firms tends to be perceived more positively, as it enhances the firm's ability to meet short-term obligations (Zhong et al., 2023). According to the Pecking Order Theory (Myers, 1984), larger firms experience less information asymmetry, which enables them to access external funding with greater ease. This allows larger firms to maintain optimal liquidity without forgoing profitable investment opportunities.

Several factors explain why high liquidity in large corporations is typically viewed positively by investors. First, reduced bankruptcy risk: large firms generally have greater access to external financing and a broader array of business activities, which decreases the likelihood of insolvency stemming from liquidity issues. Given that high liquidity mitigates the risk of insolvency, investors are inclined to view it favorably (Chia et al., 2020). Second, greater ability to meet obligations: large firms typically face substantial financial commitments, such as accounts payable, payroll, and operational expenditures. Firms with ample liquidity are better positioned to meet these obligations, which is a positive signal to investors (Han et al., 2024). Third, access to investment opportunities: larger firms often have a wider range of potential investments, such as business expansion, acquisitions, and diversification. High liquidity provides the flexibility needed to capitalize on these opportunities swiftly, which investors recognize as a significant advantage for growth (Yao & Qiu, 2024). Due to these distinct factors, investors tend to assess a firm's liquidity differently based on its size. While excessive liquidity is often regarded negatively in smaller firms, it is generally perceived positively in larger firms.

The hypothesis that firm size moderates the relationship between liquidity ratios and market value has been supported by several previous studies. For instance, Nguyen et al. (2020) found that firm size mitigates the impact of the current ratio on firm value in Vietnamese enterprises. Specifically, the current ratio negatively affects the market value of small firms but positively influences the value of larger firms. Similarly, Yao and Qiu (2024) provided empirical evidence that firm size moderates the effects of liquidity ratios (such as the cash and current ratios) on firm value in Vietnam. In his study, liquidity ratios were beneficial to large firms but detrimental to the market value of smaller enterprises. Rabbani et al. (2024) further demonstrated that firm size moderates the non-linear relationship between the current ratio and firm value in Iranian firms. Their findings indicated that the current ratio negatively impacts the market value of smaller firms but has a positive effect

on larger ones. Additional support for this moderating role of firm size was presented by Sugosha and Artini (2020), who found empirical evidence that firm size weakens the negative impact of liquidity ratios (current and cash ratios) on market value in Indonesian manufacturing firms.

H_2: Firm size moderates the negative effect of liquidity ratios on firm market value.

Method

Research Design, Data and Sample

This study adopts a quantitative research design, leveraging secondary data obtained from annual reports of firms listed on the Indonesia Stock Exchange (IDX), accessible either through the IDX website or the respective firms' websites, as well as from the OSIRIS database. The study population encompasses all non-financial firms listed on the IDX, and the sample is selected through purposive sampling, covering the period from 2016 to 2022. The inclusion criteria for the sample require firms to have been continuously listed on the IDX throughout this period. Furthermore, firms with incomplete data necessary for the computation of the research variables will be excluded from the sample.

The choice of research design, data, and sample selection is particularly suited for examining the relationship between liquidity and firm market value, as well as the moderating role of firm size, for several reasons. First, using a quantitative approach allows for precise measurement of liquidity ratios and firm size, ensuring robust statistical analysis of their effects on firm value. Second, the IDX is an ideal context because it features a diverse range of non-financial firms, varying in size and liquidity management practices, which enhances the generalizability of the findings. Additionally, the time frame from 2016 to 2022 captures key economic fluctuations, including the COVID-19 pandemic, offering insights into how liquidity management and firm size influenced market value during periods of economic stress. This period is critical for understanding the dynamics of liquidity and firm value, as firms' financial strategies and performance may differ across economic cycles. Hence, the chosen data and sample provide a comprehensive foundation to explore the interaction between liquidity and firm size and their collective impact on firm market value.

Variable Measurement

The primary dependent variable in this study is market value (LNMV), which reflects the perceived worth of a firm within the market. Market value is calculated by multiplying the firm's current stock price by the number of outstanding shares. A higher market value signals greater investor confidence and optimism about the firm's future performance. To ensure a more normalized distribution and for ease of comparison, LNMV is expressed as the natural logarithm of the product of the stock price and the total number of outstanding shares.

The independent variables in this research are several liquidity ratios that provide insights into a firm's ability to meet short-term obligations. The first of these is the current ratio, which gauges a firm's ability to pay off its short-term liabilities with its current assets. The ratio is determined by dividing the total current assets by the total current liabilities, providing an overall picture of the firm's short-term financial health. A higher current ratio indicates better liquidity, suggesting the firm is well-positioned to cover its short-term debts.

In addition, the quick ratio serves as a more stringent measure of a firm's liquidity by excluding inventories from the current assets. It calculates the firm's ability to meet its short-

term obligations using only its most liquid assets, such as cash and receivables. The quick ratio is derived by subtracting total inventory from current assets and dividing the result by current liabilities. This measure is crucial for investors seeking a clearer assessment of a firm's liquidity without the influence of less liquid assets like inventory.

The cash ratio offers an even more conservative liquidity measure, focusing solely on a firm's ability to cover short-term obligations with cash or cash equivalents, including marketable securities. This ratio is calculated by dividing total cash and cash equivalents by current liabilities. For creditors, the cash ratio provides a valuable assessment of the firm's immediate liquidity and its ability to meet debt obligations without relying on the sale of assets or the collection of receivables.

Firm size, measured by the natural logarithm of total assets (LNTA), serves as the moderating variable in this study. Larger firms often enjoy better access to capital markets, economies of scale, and greater financial stability, which can influence the relationship between liquidity ratios and market value.

To ensure the robustness of the analysis, the study incorporates several control variables, notably profitability ratios such as profit margin, gross margin, and operating margin. These indicators offer a comprehensive view of a firm's operational efficiency and overall profitability, factors that are critical to investors. Additionally, the natural logarithm of the firm's operating cash flow (LNCFO) is included as a control variable, reflecting the firm's ability to generate cash from its core operations. A firm's operating cash flow significantly impacts its capacity to meet short-term liabilities, making it a key metric for investors when evaluating the firm's liquidity and operational sustainability. Thus, fluctuations in operating cash flow, along with profitability ratios, provide essential information to investors, enhancing their ability to make informed decisions about the firm's financial health and performance.

Research Model

This study aims to test two key hypotheses: first, the impact of liquidity ratios on a firm's market value, and second, the moderating role of firm size on the relationship between liquidity ratios and market value. The analysis employs panel data methodology, which combines both time series and cross-sectional data. Panel data tracks the movement of individual units over time, allowing for more robust regression analysis. The use of panel data minimizes potential bias, while offering greater information, variation, and degrees of freedom (Gujarati, 2012). These advantages enable panel data to more effectively detect and measure impacts that cannot be adequately captured using purely cross-sectional or time series methods. Furthermore, panel data allows for a more sophisticated exploration of the behavior within the model, eliminating the need for classical assumption tests typically required in other forms of regression analysis (Gujarati, 2012). The research model employed in this study is detailed as follows.

$$LNMV = \alpha + \beta\ CurrentRatio_{it} + \beta\ QuickRatio_{it} + \beta\ CashRatio_{it} + \beta\ ProfitMargin_{it} + \beta\ GrossMargin_{it} + \beta\ OperatingMargin_{it} + \beta\ LNCFO_{it} + \varepsilon \quad \text{(Model 1)}$$

$$LNMV = \alpha + \beta\ CurrentRatio_{it} + \beta\ QuickRatio_{it} + \beta\ CashRatio_{it} + \beta\ LNTA_{it} + \beta\ CurrentRatio*LNTA_{it} + \beta\ QuickRatio*LNTA_{it} + \beta\ CashRatio*LNTA_{it} + \beta\ ProfitMargin_{it} + \beta\ GrossMargin_{it} + \beta\ OperatingMargin_{it} + \beta\ LNCFO_{it} + \varepsilon \quad \text{(Model 2)}$$

Results

Table 1 delineates the descriptive statistics of the variables under investigation, elucidating the quantitative characteristics of the sampled data comprising 336 observations. The dependent variable, LNMV (log of market value), exhibits an average value of 21.683 with a standard deviation of 4.271. The range of values spans from a minimum of 11.457 to a maximum of 26.779, indicating a diverse landscape of market valuations among the firms analyzed.

The Current Ratio averages 2.178 with a standard deviation of 1.596, suggesting that, on average, the firms possess sufficient current assets to cover their current liabilities. However, the minimum value of 0.23 and a maximum of 11.09 highlight significant disparities in liquidity management across the sample. The Quick Ratio, which averages 1.366 with a standard deviation of 1.357, provides a more stringent measure of liquidity, reflecting the firms' ability to meet short-term obligations with their most liquid assets. The wide range, from a minimum of 0.01 to a maximum of 10.81, underscores variability in the firms' liquidity positions.

The Cash Ratio, with an average of 0.96 and a standard deviation of 1.209, is particularly concerning, as it indicates that, on average, firms hold only 60% of their current liabilities in cash. This ratio underscores the potential vulnerabilities firms face in addressing short-term operational challenges, especially in meeting maturing debts. The observed cash ratio indicates that firms may not possess adequate liquid assets to effectively navigate financial exigencies, which can adversely affect their operational stability.

In terms of firm size, the variable LNTA (log of total assets) demonstrates an average of 18.942 with a standard deviation of 1.766, reflecting a relatively consistent representation of firm sizes in the sample. The minimum and maximum values, ranging from 14.653 to 22.948, indicate a diverse array of firm sizes, which is essential for analyzing the moderating effects of firm size on the liquidity-market value relationship.

Table 1. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
LNMV	336	21.683	4.271	11.457	26.779
CurrentRatio	336	2.178	1.596	.23	11.09
QuickRatio	336	1.366	1.357	.01	10.81
CashRatio	336	.96	1.209	.01	10.14
LNTA	336	18.942	1.766	14.653	22.948
ProfitMargin	336	17.029	12.018	.09	61.37
GrossMargin	336	42.708	20.716	9.01	97.99
OperatingMargin	336	22.41	17.032	1.57	165.94
LNCFO	336	26.257	4.089	14.834	31.275

The profitability ratios further elucidate the financial performance of the firms. The Profit Margin, defined as net profit divided by sales, reveals an average of 17.029 with a standard deviation of 12.018. This variation, with values from a minimum of 0.09 to a maximum of 61.37, suggests that while some firms achieve commendable profitability, others struggle significantly. The Gross Margin, averaging 42.708 with a standard deviation of 20.716, reflects a firm's efficiency in producing goods relative to sales, ranging from 9.01% to an impressive 97.99%. Similarly, the Operating Margin, averaging 22.41 with a standard

deviation of 17.032, underscores the variability in operational efficiency among firms, with minimum and maximum values of 1.57% and 165.94%, respectively.

Additionally, LNCFO (log of operating cash flow) shows an average of 26.257 with a standard deviation of 4.089, ranging from 14.834 to 31.275. This metric is crucial, as it indicates the firms' capacity to generate cash from operational activities, essential for maintaining liquidity and supporting ongoing operations.

The descriptive statistics reveal considerable variability among the analyzed firms, particularly in the financial ratios encompassing liquidity (Current Ratio, Quick Ratio, Cash Ratio) and profitability (Profit Margin, Gross Margin, Operating Margin). This disparity highlights significant differences in financial performance and operational efficiency across the sample, indicating that firms exhibit a range of capabilities in managing their liquidity and profitability, which may ultimately influence their market value.

Table 2 portrays the results of the multicollinearity test conducted on the variables included in the study. The correlation coefficients reveal the interrelationships among the independent variables and the dependent variable, LNMV (log of market value). A critical observation from the table is that all correlation coefficients among the independent variables remain below the threshold of 0.8, which is often used as a benchmark for identifying potential multicollinearity issues. For instance, the highest correlation observed is between the Quick Ratio and Cash Ratio (0.769), indicating a strong relationship but still falling within acceptable limits. The Current Ratio and Operating Margin demonstrate low correlations with the dependent variable, suggesting that while they are not highly collinear with other variables, their direct relationship with market value remains weak. Moreover, the high correlation of LNCFO (log of operating cash flow) with LNMV (0.971) indicates a robust relationship, justifying its inclusion as a control variable. These findings indicate that the model is well-specified, minimizing the risk of inflated standard errors and providing confidence in the results obtained from the regression analysis. Overall, the absence of multicollinearity enhances the validity of the subsequent analyses, ensuring that the independent variables can be interpreted distinctly in relation to their impact on firm market value.

Table 2. Multicollinearity Test

Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
LNMV	1.000							
CurrentRatio	-0.037	1.000						
QuickRatio	-0.131	0.603	1.000					
CashRatio	-0.173	0.677	0.769	1.000				
ProfitMargin	-0.109	0.213	0.272	0.292	1.000			
GrossMargin	-0.002	-0.008	0.010	0.052	0.695	1.000		
OperatingMargin	-0.127	0.002	0.053	0.103	0.543	0.507	1.000	
LNCFO	0.971	-0.097	-0.177	-0.218	-0.115	0.016	-0.130	1.000

Furthermore, Table 3 presents the results of the hypothesis testing for this study. In Model 1, which evaluates Hypothesis 1, the findings reveal that the Current Ratio significantly impacts market value (LNMV) with a coefficient of -0.306 ($p < 0.001$). This negative coefficient suggests that an increase in the Current Ratio correlates with a decline

in market value, indicating that higher liquidity may signal inefficiency in asset management. Similarly, the Quick Ratio exhibits a significant negative relationship with market value, reflected in a coefficient of -0.144 ($p < 0.01$). Additionally, the Cash Ratio also demonstrates a significant impact on market value, with a coefficient of -0.041 ($p < 0.01$). Collectively, these liquidity ratios reveal a consistent trend: as liquidity increases, market value decreases. This finding aligns with the Trade-off Theory, which posits that excessively high liquidity can detract from a company's value due to perceptions of inefficiency and reduced profitability from underutilized assets. Investors tend to view substantial liquidity unfavorably, as it may indicate that resources are not being allocated effectively for growth.

Table 3. Hypotheses Testing

	(1)	**(2)**
	Model 1	**Model 2**
CurrentRatio	-0.306***	-1.254
	(-3.82)	(-0.78)
QuickRatio	-0.144**	-2.167
	(-0.77)	(-0.54)
CashRatio	-0.041**	-0.988
	(-0.21)	(-0.23)
ProfitMargin	0.009	0.008
	(1.00)	(0.85)
GrossMargin	0.011*	0.012**
	(2.47)	(2.64)
OperatingMargin	0.017*	0.018*
	(2.28)	(2.28)
LNCFO	1.022***	1.023***
	(72.31)	(68.69)
LNTotalAset		0.189
		(1.78)
LNTAxCurrentRatio		0.074**
		(0.96)
LNTAxQuickRato		0.116***
		(0.61)
LNTAxCAshratio		0.051**
		(0.25)
Intercept	5.334***	1.260
	(13.76)	(0.57)
Industry Effect	Yes	Yes
Years Effect	Yes	Yes
Adj. R-Square	0.48	0.53
N	336	336

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Model 2, the analysis investigates the moderating role of firm size, proxied by total assets, on the relationship between liquidity ratios and market value. The results indicate that firm size significantly influences the three liquidity ratios, with positive coefficients observed. This suggests that larger firms experience a weaker negative effect of liquidity

ratios on market value. Consequently, the findings confirm the acceptance of the second hypothesis, indicating that while high liquidity ratios can diminish firm value, this adverse effect is moderated by the presence of substantial assets. In essence, a larger asset base provides firms with greater operational flexibility, allowing them to manage liquidity more effectively without detrimental impacts on market perception. Overall, the results emphasize the importance of balanced liquidity management, especially for larger firms, as excessive liquidity can be detrimental to market value if not strategically aligned with operational goals.

Discussion

The findings of this study reveal a significant negative relationship between the company's liquidity ratios—namely the current ratio, quick ratio, and cash ratio—and its market value. Specifically, as the liquidity ratios increase, the firm's market value, as indicated by its stock price, tends to decline. This outcome affirms our first hypothesis, aligning with established theoretical frameworks, particularly the Trade-off Theory, which posits that excessively high liquidity can lead to inefficiencies in asset management and a subsequent decline in profitability.

The Trade-off Theory suggests that companies must balance their liquidity levels to avoid inefficiencies that arise from holding excess current assets. When firms maintain high liquidity, it often signals to investors a potential inefficiency in managing those assets, leading to an opportunity cost that diminishes overall profitability (Just & Echaust, 2020; Myers & Majluf, 1984). Such inefficiencies may manifest in various ways, including increased costs associated with maintaining idle cash or cash-equivalents rather than investing in growth opportunities. Investors are acutely aware of these dynamics, interpreting high liquidity as a sign that management may not be leveraging resources optimally, thereby negatively impacting the perceived value of the firm (Anggraeni, 2020; Weny, 2023).

From a theoretical perspective, our results align with previous research that supports the notion that liquidity ratios inversely relate to firm value. Studies by Damayanti and Suryandani (2023), Just and Echaust (2020), and Sugosha and Artini (2020) corroborate our findings, illustrating a consistent pattern across diverse contexts. In contrast, our results diverge from those of Bencheikh and Taktak (2017), Chatterjee et al. (2021), Jiang et al. (2011), and Wicaksono and Adiwibowo (2017), which indicate a positive or neutral effect of liquidity on firm value. Such discrepancies may stem from variations in industry contexts, methodological approaches, or regional economic conditions. For instance, firms operating in capital-intensive sectors may experience different liquidity dynamics compared to those in less capital-intensive industries, influencing how investors assess liquidity's impact on value.

While our findings highlight the negative implications of high liquidity on firm value, it is essential to contextualize these results within the larger framework of company size and asset ownership. Notably, the adverse effects of liquidity ratios become less concerning for larger firms, characterized by substantial asset bases (Li et al., 2016). In such cases, high liquidity may be perceived more favorably by investors as a form of financial stability or insurance. For instance, should a large company face challenges in meeting short-term obligations, its significant asset holdings provide a safety net that mitigates potential

investor concerns. This perspective aligns with findings from Nguyen et al. (2020) and Sugosha and Artini (2020), which emphasize the protective role of large asset ownership in shaping investor sentiment.

The interplay between liquidity, firm size, and market value emphasizes the necessity of a nuanced approach to financial analysis. Companies with large asset bases may leverage high liquidity more effectively, enhancing their resilience in volatile markets (Chia et al., 2020; Hongli et al., 2019). Furthermore, such firms can attract external financing more readily, should the need arise, thereby maintaining operational continuity even in challenging economic climates (Mishra & kapil, 2017; Yao & Qiu, 2024). This indicates that while liquidity management remains crucial, the context in which it operates significantly influences its implications for firm value.

The results of this study also highlight the importance of investor perception in shaping market outcomes. In an environment where information asymmetry exists, investors rely on liquidity ratios as signals of management efficiency and firm health (Abu Khalaf & Awad, 2024; Giannetti & Zhao, 2019). High liquidity can thus be misinterpreted as a lack of strategic investment, leading to diminished market confidence (Chatterjee et al., 2021). This dynamic may explain why, despite sound fundamentals, companies with high liquidity ratios experience depressed valuations (Alfaro et al., 2019; Frimpong et al., 2024). Moreover, the implications of our findings extend beyond theoretical discourse into practical considerations for corporate management. Firms must develop strategic frameworks that balance liquidity with investment in growth opportunities, ensuring that excess cash is not merely sitting idle but is instead directed toward value-enhancing activities. This balance is critical for maintaining investor confidence and fostering long-term shareholder value.

From both theoretical and practical perspectives, this research represents a significant contribution to the existing literature. The findings of this study substantiate the central tenet of the Trade-off Theory, which posits that there exists an optimal liquidity level that can maximize corporate value. Conversely, either excessive or insufficient liquidity can detrimentally affect a company's worth. This discovery reinforces the Trade-off Theory's explanatory power regarding the nexus between liquidity and firm value. Furthermore, this study provides empirical evidence supporting the notion that firm size moderates the relationship between liquidity and corporate valuation. The results enrich our theoretical understanding of the variables influencing this relationship and their intricate interplay.

From a practical standpoint, this research assists corporate management in determining the ideal liquidity threshold to optimize firm value. In making decisions about the management of current assets, managers may consider the size of the enterprise as a critical factor. Additionally, the findings of this study may inform capital market authorities in formulating regulations or guidelines related to investor protection and corporate liquidity management. By offering new insights and both practical and theoretical contributions, this study enhances our comprehension of the interplay between liquidity, firm size, and corporate value, along with the broader implications for various stakeholders.

Conclusion

This study examines several liquidity ratios and their effects on the market value of firms, alongside investigating the role of firm size as a moderator in this relationship. The

findings reveal a consistent negative impact of liquidity ratios on market value, indicating that an increase in these ratios signals to the market a need to discount the company's value. Furthermore, the analysis demonstrates that firm size significantly moderates the influence of liquidity ratios on market value. While high liquidity can be perceived as a sign of inefficiency in managing current assets for smaller firms, it may enhance the market value of larger firms, as it reflects their ability to manage current assets and fulfill short-term obligations effectively. Overall, the results underscore that the moderating effect of firm size creates a non-linear relationship between liquidity ratios and market value, suggesting that market perceptions vary significantly based on firm size.

Despite the insights gained from this research, there are several limitations that could influence the findings. This study focuses exclusively on financial ratios without considering other influential factors, such as non-financial elements, that potential investors might evaluate when assessing a business. Therefore, future research could address these limitations by incorporating non-financial aspects to provide a more comprehensive understanding of the factors affecting market value. Such studies could enhance the depth of analysis and further illuminate the complex dynamics between liquidity, firm size, and market valuation.

Authors' Declaration

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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