

THE RELATIONSHIP BETWEEN LIQUIDITY AND VALUE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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Abstract

This study investigates the firm value-liquidity relationship for NSE-listed companies using a longitudinal study design. The population of interest was 63 companies listed on the NSE, but a total of 50 firms had complete financial data for a period of ten years (2013–2022). Secondary panel statistics were collected from audited financial reports and NSE. Liquidity was determined using three key indicators: short term liquidity, Assets Convertibility and New Debt Liquidity. Tobin's Q, a widely applied measure that uses both book and market values to provide a general valuation measure, was utilized to estimate firm value. Descriptive statistics summarized the data, while fixed-effects regression analysis was conducted to test the relationship between liquidity and firm value ($F(3, 50) = 586.24, p < 0.05, R^2 = 0.9565$). The findings indicated a statistically significant and positive association between liquidity and firm value. Short term liquidity had positive and significant impact on firm value, while assets convertibility had insignificant effect on firm value. On the other hand, new debt liability had positive significant impact on firm valuation. The findings pointed to the critical role played by sound liquidity management in encouraging operational stability as well as in improving investor confidence. It emphasized on the need for managers to be cautious on prevailing market condition that would impact assets convertibility while at the same time, control exposure to high credit risks. Strong liquidity management supports financial stability such that firms can meet short-term obligations and seize investment opportunities. In contrast, asset convertibility had insignificant influence on company value, highlighting the significance of prudent financial strategies. The research contributes to the corporate finance literature by providing empirical evidence for companies listed on the NSE. It affirms the role of liquidity in firm valuation and offers practical implications for policymakers, investors, and financial managers seeking to optimize liquidity initiatives for firm sustainable growth and market stability.

Keywords

Asset Convertibility; Emerging Markets; Firm Value; Fixed-Effects Regression; Liquidity; Nairobi Securities Exchange; New Debt Liquidity; Panel Data Analysis; Short-Term Liquidity; Tobin's Q

1. Introduction

1.1 Background

Firm valuation has continued to be a point of interest for many researchers, investors as well as corporate managers, primarily as a result of complex interplay of factors that enhance value in different firms (Gharaibeh & Qader, 2017). The seminal work by Miller and Modigliani (1961) sparked a significant empirical debate in modern finance, proposing that a firm's value is predominantly influenced by its business risk and profitability, thus suggesting that investment decisions alone dictate market valuation. It is only through further empirical and theoretical studies that showed that financing and dividend decisions were important in enhancing firm's value. A point that was enhanced in the works of Amihud and Mendelson (2008) who posited that a firm's liquidity decisions are crucial explanatory factors for firm value, alongside business risk and profitability.

This relationship between firm value and financial management practices had been a central focus in corporate finance, especially in emerging economies where firms face unique operational and economic challenges. Firm value, typically defined as a key driver of a firm's success, was a measure of its financial health, market performance, and ability to create shareholder wealth (Nguyen et al., 2016). Good financial management practices, particularly favourable liquidity practices, had been identified as major drivers of firm value because they influence a firm's effectiveness in operations, ability to attract investors, and resilience to market shocks (Johanson & Martin, 2021). However, despite the immense advancement in financial research, there remained gaps in understanding how specific liquidity policies, impacted firm value, particularly in developing economies like Kenya (Capital Markets Authority, 2022).

Financing constraints, economic fluctuation and an ever-changing regulatory environment are the key determinants of the financial decisions that compound the corporate environment for new emergent markets. In Kenya, The Nairobi Securities Exchange (NSE) plays the role of providing capital to firms and therefore diversifying the risks for investors. The understanding of the liquidity effects on companies' stocks listed on the NSE is useful as it helps in filling the gaps not addressed in the literature and understanding the dynamics of emergence markets. Systematic research following a methodology enabled the study to enhance knowledge about liquidity's impact on firm valuation along with financial stability (Du et al., 2016).

1.1.1 Liquidity

Liquidity represents a vital segment of financial management since it describes a business's ability to fulfill immediate financial obligations which does not alter normal operational procedures. Financial risk management together with company administration benefits from this aspect which creates confidence among investors (Ningsih and Sari, 2019). A firm using liquidity strategies can meet unpredictable financial obligations and capture investment possibilities while maintaining stable operations (Tahu & Susilo, 2017).

In this research, liquidity was estimated using three transmission models which included current ratio, cash to current assets and the debt capacity. According to Moore et al. (2009), the current ratio is defined as the relative between current asset and current liability in an effort to identify its ability to accommodate current liability with current asset. Cash-to-current-assets ratio represents the ratio between the total cash and total current assets, which determines its conversion power indicating a company's capacity to convert them into cash (Harjito & Martono, 2017). Nevertheless, debt capacity relates to how much debt an organization can manage to handle and without causing a blight on its solvency (Sukmawardini & Ardiansari, 2018).

Sufficient amount of liquidity can attain a financial solidity and operating space but a comparatively high level of liquid assets may reduce the organisational efficiency as they are locked up in cash rather than effectively invest them (Tahu & Susilo, 2017). Liquidity is a vital component since it encompasses the ability to meet the obligations and effectively utilise the capital for expansion. Hence, it therefore calls for more research on the relationship between liquidity and firm value, especially in the emerging markets which are different from those of the developed countries (Du et al., 2016).

1.1.2 Firm Value

Firm value is a measure of the firm's financial and market performance, and the capacity of the firm to create shareholders long-run returns defines this concept. The concept of firm value refers to investor sentiment and trends in the market, as well as internal factors such as financial policy and operational efficiency (Johanson & Hallberg, 2021). Tobin's Q was used in this study for firm value as this measure combined both book value and market value of the firm. Tangible and intangible assets were equally captured by Tobin's Q which indicates the utilization of resources by a firm as well as market expectations (Harjito & Martono, 2017)

The market value of a firm is lower in the case of business or external crises but increased in good corporate governance, sound operations and controls, and favorable industry conditions (Mangantar & Ali, 2015). As found in the literature, cost reduction in financial risks and operational stability enables enhancement of business value, (Moore et al., 2009). However, prior research has given inconsistent results, and therefore the need to conduct further studies, especially in the emerging economies with diverse financial systems. This study sought to fill this research gap by examining the impact of liquidity on firm value of firms listed in the NSE, provide empirical evidence on the business valuation maximization through the management of efficient liquidity as the market boasts of shifting characteristics.

1.1.3 Nairobi Securities Exchange (NSE)

The NSE commenced its operation in 1954 and plays an important role in Kenya's financial market, as it provides a platform for equities and debts. The NSE gives corporations an opportunity to source for long term funds while giving investors an opportunity to expand their list of investments across different classes (Capital Markets Authority, 2022). The NSE spearheads the economic development on behalf of the nation by efficiently enforcing regulations on corporate governance among the companies listed and effectively directing local and international

market investment. To support the transparency and confidence of the investors, the legislation requires organizations to provide accurate financial data (Johanson & Martin, 2021).

NSE operates within a changing market environment with a backdrop of economic cycles and changes in market sentiment involving both institutional and retail traders. Both of these sources of variables have their benefits and drawbacks for listed companies. The changing market dynamics highlight the need for good financial management as a way to protect against economic uncertainty according to Mangantar and Ali (2015). This research used companies from the National Stock Exchange listing platform to study how liquidity affects a company worth. Research on these firms identified finance patterns to improve corporate finance knowledge and help understand how liquidity management impacts market value growth in emerging nations (Harjito & Martono, 2017).

2. Literature Review

The theoretical background is based on the relation between firm liquidity and firm value. Liquidity is an essential aspect of financial management that encapsulates a firm's ability to meet its short-term commitments while maintaining operational efficiency. The study draws on the cash conversion cycle and operating theory that asserts that sound management of liquidity enables firms to achieve maximum efficiency in their operations through reducing the duration to transform investment in receivables and inventory into cash. Firms with efficient liquidity management can sustain operations, reduce financial risk, and communicate financial well-being to the market, thereby resulting in their increased valuation (Deloof, 2003).

The research also employs agency theory, which captures the source conflict between shareholders and managers on financial decision-making. Agency theory postulates that managerial discretion may influence liquidity management policies to either align or conflict with shareholder interests (Jensen & Meckling, 1976). Efficient liquidity management reduces agency costs by ensuring that resources are effectively utilized to enhance shareholder value. However, excessive liquidity can lead to inefficiency, such as squandered resources, that can be detrimental to firm value. Conversely, insufficient liquidity can increase financial distress risk and annihilate market confidence.

The convergence of these theories provides an all-around perspective of the firm liquidity value relationship within the NSE context. In light of the peculiar characteristics of Kenyan market, the research adds to the existing body of knowledge on financial management practices and their applicability to firm performance. Theoretical and empirical implications of this study can serve as a practical tool for financial managers and policymakers while making decisions regarding firm valuation optimization, mostly in emerging economies.

Empirical evidence for this research included a research by Moore et al. (2002) who found that liquidity was able to contribute 0.3 to 0.6 percent increase in firm's value. This was also affirmed by similar studies conducted in China (Du, Wu & Liang, 2016). However, they found that excessive liquidity would lead to diseconomies of scale. Brogaard and Detzel (2020) highlighted that liquidity had positive effects on firm value only during financially stable periods and hence suggesting market conditions to have significant moderating role in relationship between liquidity and firm value.

Contradictory evidence was tabled in a study conducted by Zuhron (2019) in a single sector in Indonesian Stock Exchange, where asset liquidity had marginal and non-significant influence on company valuation. Despite the concern that researchers only focused on a single sector of the economy of an emerging market, contrary findings were also recorded in more studies (Mishra and Kapil, 2021; Putro & Reisman, 2021). They found that liquidity had a modest and negative influence on capital structure.

The contradictory findings enhanced the research gap on the relationship between liquidity and firm value, more so in an emerging economy such as Kenya. Related local studies had captured data only from periods before major market shocks of COVID-19 (Ngugi & Mwangi, 2022; Waitherero et al., 2020). The studies were also undertaken in different sectors and therefore exemplifying the gap on influence of liquidity on firm value of firms in the entire Kenyan market.

3. Methodology

This study followed a positivist research philosophy, in which the application of objective and measurable data was prioritized in examining the firm liquidity–firm value nexus in companies listed on the Nairobi Securities Exchange (NSE). A panel data analysis was undertaken to establish trends and patterns over a ten-year period (2012–2022). Such a type of approach allowed one to conduct elaborate research on the activities of liquidity management and its resulting implications on the valuation of a company over time.

The population of the study was 63 NSE listed firms, but a total of 50 firms had complete data for the period of 10 years and therefore made up balanced panels. The sample thereby chosen accounted for nearly 80% of the overall market capitalization of the NSE in order to permit the generalizability and strength of findings (Capital Markets Authority, 2022).

Three key indicators were used to estimate liquidity: debt capacity, cash-to-current-assets ratio, and current ratio. Firm value was quantified employing Tobin's Q, which is a book-to-market value blend measure to account for operating performance and market mood (Schwartz & Splevich, 2017).

Model stability was tested using poolability and autocorrelation tests. Other diagnostic tests that were conducted included, heteroscedasticity, multi-collinearity as well as cross-sectional dependence and stationarity. To determine whether fixed-effects or random effects model, bet's described the data, Hausman test was undertaken and co-integration testing from Tahu and Susilo (2017).

The research analysed liquidity and firm value through the model below:

$$\text{Firm Value} = f(\text{Firm liquidity})$$

$$Y_{it} = \beta_{01} + \beta_{11} X_1(it) + \varepsilon_1(it)$$

Where:

$$Y_{it} = \text{Firm } i\text{'s value, at time } t \text{ Value, } \beta_{01} = \text{intercept,}$$

$$X_1 = \text{Firm Liquidity,}$$

$$\beta_{11} = \text{coefficient,}$$

$$\varepsilon_1 = \text{Error term}$$

4. Results

Three core liquidity factors which included Working capital ratio together with Cash-to-Current assets ratio and Debt capacity were used for measurement and analysis. The research used Tobin's Q to measure firm value by dividing market value by book value. The descriptive study showed variations in both the worth and the liquid assets of the selected sample companies.

The short-term liquidity average was 0.4722 with a standard deviation of 0.2659, which implies that most of the firms possessed relatively low liquidity levels to support short-term financial requirements, while some had shortages of liquidity. Asset convertibility averaged 0.1885 (SD = 0.0986), which meant low availability of cash relative to current assets. New debt liquidity was, on average, 0.3904 (SD = 0.2097), indicating moderate utilization of debt as a source of liquidity. Firm value, as proxied by Tobin's Q, was 1.5686 (SD = 0.8152) on average, indicating the firms were, on average, more highly valued in the market than their book values. This measure of firm value ranged from 0.0403 to 3.9378, showing broad variability, with a positive skewness of 0.215, reflecting that most of the firms were valued near or below the mean but some high-flying firms substantially pulled the distribution.

| Variable | Mean | Std Deviation | Skewness | Kurtosis | Min | Max |
|------------------------|--------|---------------|----------|----------|---------|--------|
| Short-term liquidity | 0.4722 | 0.2659 | 0.181 | 2.470 | -0.156 | 1.232 |
| Asset convertibility | 0.1885 | 0.0986 | 0.095 | 1.827 | 0.0212 | 0.3666 |
| New debt liquidity | 0.3904 | 0.2097 | 0.197 | 2.450 | -0.0666 | 0.9878 |
| Tobin's Q (Firm Value) | 1.5686 | 0.8152 | 0.215 | -0.591 | 0.0403 | 3.9378 |

Table 1: Descriptive Statistics for Liquidity and Firm Value

Source: Author, (2025)

The correlation analysis provided further evidence of the relationship between liquidity and firm value. Pearson's correlation coefficient revealed statistically significant positive correlations between the measures of liquidity and firm value. Short-term liquidity correlated at 0.460 with firm value ($p < 0.01$), which suggested that firms with higher current ratios were associated with higher market valuations. Similarly, asset convertibility was correlated at 0.575 with firm value ($p < 0.01$), emphasizing the importance of maintaining sufficient liquid reserves to support market confidence. New debt liquidity also significantly positively correlated with firm value ($r = 0.559$, $p < 0.01$), reflecting the potential benefits of employing debt to enhance liquidity if applied judiciously. These relationships asserts that effective liquidity management is extremely key in firm valuation.

| | | Tobin's Q |
|-----------------------|---|-----------|
| Short term liquidity | R | .460** |
| Assets convertibility | R | .575** |
| New debt liquidity | R | .559** |

** . Correlation is significant at the 0.01 level (2-tailed).

Table 2: Correlation between Liquidity and Firm Value

Source: Author, (2025)

Diagnostic tests verified the strength and robustness of the findings, ensuring that the fixed-effects model was appropriate and testing for potential issues including cross-sectional dependence, heteroskedasticity, and multicollinearity.

1. Tests for Poolability

The test was undertaken to determine whether a pooled OLS model was appropriate as compared to either a fixed-effects or random-effects model. Using chow test, it was determined that it was large and significant ($F = 5.43$; $p = 0.000$). It indicated that pooling the data was inappropriate and either a fixed-effects or random effects model would have been appropriate.

2. Test for Heteroscedasticity

Modified Wald test was undertaken to determine whether the model's residuals exhibit constant variance and therefore enhancing model's reliability. The P value for this test was 0.000 and therefore there was evidence of heteroskedasticity across the cross-sectional units in the panel data. This called for the use of robust and clustered standard errors that was required to address the problem of the standard errors.

3. Test for Autocorrelations

Woodridge test was used to detect first-order autocorrelation that could lead to biased standard errors and incorrect test statistics (Woodridge, 2001). The test results ($F = 3.881$; $p = 0.0534$) had p-value (0.0534) greater than 0.05, so the study failed to reject the null hypothesis indicating that the panel data had no autocorrelations that would affect model analysis.

4. Test for Cross-Sectional Dependence

Pesaran's test for cross-sectional dependence was employed to detect whether there was presence of correlation across entities in the panel data. The results ($X = 2.272$; $p = 0.0231$). The tests indicated presence of Cross-Sectional Dependence which was also addressed by use of robust and clustered standard errors without altering the coefficient estimates.

5. Hausman's Test

The test was used to determine whether to use a fixed-effects model in the data or the random effects model. The results ($X^2 = 94.20$; $p = 0.000$) indicated that the null hypothesis was rejected and therefore the test supported the use of fixed effects model.

6. Multicollinearity Test

Variation Inflation Factors (VIF) were used to determine whether the independent variables had significant collinearity that would affect the test results. New Debt Liability had VIF of 5.70, Short-Term Liquidity 5.37 and Assets Convertibility at 1.80; which were all below 10 indicating that there were no serious collinearity to lead to spurious regressions.

7. Unit Root Test

Augmented Dickey-Fuller (ADF) was employed to check for unit roots. New Debt Liability, Short-term liquidity and Assets convertibility all had p-values below 0.05, and therefore the null hypothesis was rejected indicating that the variables were stationary and there was therefore no need for co-integration test.

5. Hypotheses Testing and Discussion of Findings

The general hypothesis of the study was that the relationship between liquidity and firm value is not significant. This was tested using a fixed-effects regression model.

The fixed-effects regression model also quantified the correlation between liquidity and firm value more accurately, confirming that liquidity measures had a significant effect on explaining firm value ($F(3, 50) = 586.24$, $p < 0.05$, $R^2 = 0.9565$). Short-term liquidity had the strongest positive impact on firm value, with a regression coefficient of 0.76 ($p < 0.05$), indicating that higher levels of short term liquidity enhanced operational stability and firm value. Asset convertibility on the other hand did not have significant impact on Tobin's Q ($\beta = 0.007$; $p = 0.948$). This provided an indication that despite liquidity having positive influence on firm's value, there are other market factors that could affect the potential for liquidity to enhance firm's value, and therefore agreeing with proposition by Brogaard and Detzel (2020). New debt liquidity, also had positive significant effect on firm value ($\beta = 2.52$; $p = 0.000$).

| Variable | Coefficient (β) | Std Error | t-value | p-value |
|----------------------|-------------------------|-----------|---------|---------|
| Short-term liquidity | 0.76 | 0.061 | 12.44 | 0.000 |
| Asset convertibility | 0.007 | 0.109 | 0.07 | 0.948 |
| New debt liquidity | 2.52 | 0.084 | 29.97 | 0.000 |

Table 3: Fixed Effects Regression Results

Source: Author, (2025)

The evidence revealed that while increased liquidity enhances firm valuation, asset convertibility may be influenced by market factors and therefore affect valuation of the firm. Such findings are relevant for financial managers and policymakers when seeking to optimize liquidity management and increase market efficiency.

These findings were compared with both theoretical and empirical studies that had been reviewed. The positive relationship between firm value and liquidity conforms to the operating and cash conversion cycle theory, where efficient management of liquidity reduces financial uncertainty, enhances operational efficiency, and enhances profitability. Possessing adequate liquidity allows firms to meet short-term obligations and reduce risks, thus projecting an image of financial stability to the market. This aligns with the study by Johanson and Martin (2021), and, Harjito and Martono (2017), which highlighted the effect of liquidity on building market confidence and firm value. The positive influence of asset convertibility also raises the importance of liquid balances to provide companies with leeway in responding to unfolding market conditions and capitalize on investment opportunities.

Agency theory, emphasizing the risk of excessive financial leverage, which heightens financial risk, creates agency costs, and distributes shareholder value, all decreasing corporate valuation. The findings support the research by Tahu and Susilo (2017), which established the negative impact of high leverage on firm performance. The results emphasize the need for liquidity management strategies aimed at improving financial performance with little debt risk. This particularly applies in emerging markets like the NSE, where companies have different financial practices and access to sources of liquidity.

There is variability of firm value and liquidity across NSE-listed companies, and this refers to variations in financial management practices. Others have exhausted their liquidity in their efforts to raise their market value, but some over-attribute their business growth to loans and thus make themselves vulnerable to changes in the economy and declining investor confidence. The finding highlights the role of diverse techniques in liquidity management that address both firm-level and market-level factors. In addition to bolstering the operational effectiveness, effective liquidity management maintains investor confidence, which guarantees sustained market performance.

In general, the results supported the hypothesis that liquidity is a value determinant of firms. Liquidity and short-term convertibility of assets were sources of positive impact on firm value, but their dependence on debt liquidity to an excessive degree was negatively impacted. The results have implications for financial managers in that they entail the maintenance of adequate levels of liquidity and the reduction of financial risk from debt. For transactions like the NSE, policymakers should institute measures that compel firms to adopt best practices in financial management, which will foster growth and stability.

6. Conclusion

The research indicates that the value of firms highly influenced by overall liquidity for firms listed at NSE. There are ramifications towards policy as well as practice regarding liquidity management and firm valuation. The study concludes that policymakers for firms listed at NSE should ensure that they consider frameworks that enhance optimal liquidity levels as a way of enhancing financial stability and long-term value. It would also be ideal to ensure that firms do not hold excessive ideal cash that would lead to inefficiencies. It would also be in the interests of the firms if policies that facilitated credit access and efficient capital markets could be adopted. They would enhance balancing of liquidity needs and investment opportunities and hence improve their valuation and enhance increased market confidence.

The research also concluded that it was in the interest of firms to integrate management strategies that aligned with value optimization. This implies that effective liquidity management should not only seek to meet short-term obligations, but should also leverage liquidity to drive sustainable growth. Managers should adopt data-driven approaches to monitor liquidity trends and make informed financial decisions that enhance shareholder value. Other avenues to enhance market valuation would be strengthened through sound governance practices as well as transparency in financial reporting.

7. Recommendations

Financial managers must prioritize maintaining optimal liquidity levels to maximize firm value. For example, firms with higher short-term liquidity, and were able to acquire new debt easily, enjoyed strong market valuations.

Managers should implement aggressive cash flow management and monitor liquidity measures regularly to ensure stability in case of an economic downturn. The study however found that asset convertibility was highly affected by market conditions and therefore inhibited the value of the firms. Investment in liquidity trend-tracking financial analysis tools can also enable firms to make sound decisions that optimize business efficiency and market performance.

Regulators and policymakers should promote financial transparency and enact regulations that would assist in encouraging sound liquidity management. The regulatory bodies can require firms to provide comprehensive liquidity data and debt levels, increasing market confidence and greater accountability. Briefly calling upon firms to maintain sufficient levels of liquidity without over-leveraging would make the entire market more robust. Additionally, macroeconomic policy that establishes stable financial conditions for firms to appreciate cheap credit without debt misuse would neutralize systemic risk. Future research should examine how extensive the influence of the quality of governance, type of industry, and macroeconomic volatility is on the nexus of liquidity and value to help paint a richer picture of emerging economy financial activity.

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