EFFECT OF FIRM SIZE ON THE RELATIONSHIP BETWEEN LIQUIDITY AND FIRM VALUE OF FIRMS LISTED ON THE NAIROBI SECURITIES EXCHANGE, KENYA

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Abstract

This study investigates the moderating effect of firm size on the relationship between liquidity and firm value among companies listed on the Nairobi Securities Exchange (NSE). Liquidity is essential in ensuring financial stability and market confidence, while firm size may influence how liquidity impacts firm valuation. The study employs a longitudinal research design using panel data from 51 NSE-listed firms spanning 15 years (2007–2022). Data were obtained from audited financial statements and reports, ensuring accuracy and reliability. Liquidity was measured using short-term liquidity (mean = 0.4722, SD = 0.2659), asset convertibility (mean = 0.1885, SD = 0.0986), and new debt liquidity (mean = 0.3904, SD = 0.2097). Firm size was operationalized using total assets (log-transformed mean = 16.6046, SD = 4.5559) and number of employees (log-transformed mean = 2.7847, SD = 1.6473), while firm value was measured using Tobin's Q (mean = 1.5686, SD = 0.8152). Descriptive statistics reveal moderate liquidity levels across firms, with varying firm sizes influencing liquidity management. The study employs fixed-effects regression analysis, where the results indicate that firm size significantly moderates the liquidity-value relationship. The interaction term between liquidity and firm size (total assets) is positive and statistically significant (B = 0.038, p < 0.000), demonstrating that larger firms benefit more from liquidity in enhancing firm value. Similarly, the number of employees as a moderating factor shows a significant impact (B = 1.27e-16, p = 0.003), reinforcing the hypothesis that firm size strengthens the relationship between liquidity and firm value. These findings contribute to corporate finance literature by confirming that larger firms have a stronger ability to leverage liquidity for value creation due to better credit access, operational efficiency, and economies of scale. The study provides valuable insights for corporate managers, investors, and policymakers, emphasizing the need for firm-specific liquidity strategies. Future research should explore industry-specific variations and macroeconomic influences to further understand the dynamics of liquidity and firm valuation.

Keywords

Firm Size, Liquidity, Firm Value, Nairobi Securities Exchange, Panel Data, Fixed Effects, Corporate Finance

1. Introduction

Existing research has in most cases than not, found firm liquidity to have a direct relationship with firm value (Moore et al., 2002; Du, Wu & Liang, 2016; Ngugi & Mwangi, 2022). However, some researchers indicate that there are special circumstances where firm liquidity no longer directly influences firm value, mostly as a result of varying economic situations (Brogaard & Detzel, 2020; Zuhron, 2019; Putro & Reisman, 2021). This relationship is however, not uniform across firms, as differences in firm size introduce variations in how liquidity translates into value creation. Larger firms, which have been characterized by greater access to capital markets, diversified revenue streams, as well as stronger reputational advantages, which may leverage liquidity more effectively and therefore lead to enhanced firm value (Demirgüç-Kunt & Maksimovic, 2019; Bancel & Mittoo, 2011). Conversely, smaller firms, often constrained by limited financing options and higher operational risks, may experience a weaker or even negative impact of liquidity on firm value (Beck, Demirgüç-Kunt & Maksimovic, 2005; Berger & Udell, 2006). These contrasting findings suggest that researchers are yet to be conclusive on the effect of firm size acting

as a moderating factor. Firm size therefore, potentially amplify or dampen the liquidity-value relationship depending on market conditions and firm-specific attributes.

Financial relationships also indicate different patterns across firms since firm size operates as an influential moderator between financial variables. Larger organizations are more likely to leverage scale advantages to enhance their credit standing which improves their ability to access capital. Smaller companies on the other hand, face liquidity limitations that restrict their growth potential and valuation possibilities (Titman et al., 2021). Firm size also interacts differently with other corporate factors which means that it would have entirely different impact on the relationship between liquidity and firm value (Horne & Wachowiez, 2009). Firm size has been known to be closely linked to the ability to access affordable credit, as they are deemed to be of lower risks as compared to the smaller firms with smaller asset bases (Suwardika & Mustanda, 2017). Small firms struggle with financing constraints that lead to liquidity shortages, which hinder their ability to generate value (Beck et al., 2005). It is also common that larger firms are able to establish more sophisticated corporate governance structures as well as stronger management teams capable of navigating through difficult regulatory environment. This enhances investor confidence and improves their firm value (Hall & Weiss, 2009).

It is evident that some empirical research suggest that firm size does not moderate the relationship between liquidity and firm value, as factors such as market conditions, industry characteristics, and corporate strategies may play a more significant role. However, other studies have found a striking moderating role of firm size on liquidity-value relationship. It is in this background that this study seeks to investigate whether firm size strengthens or weakens the association between liquidity and firm value, particularly within the context of firms listed on the Nairobi Securities Exchange (NSE).

2. Literature Review

This study was based on the size effect theory which was first proposed by Banz (1981) during tests of the Capital Asset Pricing Model (CAPM). He suggested that firm size could be a proxy for risk. Smaller firm were generally considered less liquid and therefore faced higher liquidity risks than larger firms. Market liquidity variations also explain the size effect's influence on the performance. This theory posits that, on average, smaller firms yield higher returns over the long term than larger firms. Smaller firms often operate in more volatile environments but have greater growth opportunities. These opportunities, combined with their lower stock prices, often result in significant price appreciation compared to large-cap stocks. Asness et al. (2018) supported this perspective, noting that size matters, particularly when controlling for quality or "junk" stocks. However, critics argue that the size effect is seasonal, concentrated in specific periods, such as January in the United States, and is unevenly distributed across firms (Horowitz, 2000). Moore (2000) further challenged this theory under the Efficient Market Hypothesis, contending that publicly available size information should not systematically lead to higher returns.

However, smaller firms are more likely to re-invest their earnings which reduces liquidity. On the other hand, larger firms would tend to distribute more of their earnings as dividends to investors, making it more preferable and more attractive to investors than smaller firms (Redding, 1997).

Researchers have sought to determine the moderating role of firm size on relationships between liquidity, capital structure, leverage, risk and value of the firm. There are differing findings indicating that size of the firm may have different moderating role on different corporate factors and their influence on firm value. Abbasi and Malik (2015) for instance, examined whether firm size acted as a moderator of value-liquidity relationship using evidence from the Pakistani stock market. The findings indicated that large companies do have a stronger liquidity impact on firm value due to better access to capital markets and higher investor confidence. These findigs were also replicated in other studies (Thomson & Clarke, 2020; Jordan, 2022; Mushafiq et al., 2022; & Muller & Schmid, 2021).

On the contrary, Anisah, Murad, Samudra and Magfirah (2022) found that the link between capital structure and firm size was not moderated by business size. Sulalman (2022) investigation on the moderating impact of company size on the relationship between the cash conversion cycle and company value of listed industrial goods firms in Nigeria found that cash conversion cycle significantly enhanced Tobin's Q, yet firm size had a minimal effect on this relationship. The study concluded that business size does not significantly influence the cash conversion cycle based on the analysed data. The findings were also supported by a study conducted by Lesmana and Faisol (2018).

Wiyani et al. (2023) investigated on impact of leverage on corporate value using size as a moderating variable. The results indicated that neither debt to equity nor debt to assets significantly affected company value, individually or collectively. Additionally, corporate size had only a negligible effect on the dynamics between leverage and company_value. Similarly more studies advocated for further analysis to determine the moderating role of firm size on the relationship between liquidity and firm value. They were of opinion that changing macroeconomic conditions could be at play to affect the moderating effect of firm size (Johnson & Brown, 2022; Harper & Collins, 2019).

Local studies that investigated the moderating role of firm size on liquidity and firm value, in a greater extent found that firm size moderated the relationship. Mwangi and Otieno (2021) examined firms listed on the Nairobi Securities Exchange (NSE) and concluded that firm size significantly affects the firm value-liquidity relationship. Large companies possessed a higher liquidity-value relationship due to proper financial management and access to external capital. Similar findings were obtained by Kamau and Njoroge (2022) as well as Otieno and Njuguna (2023) despite undertaking studies in different economic sectors in Kenya.

Despite extensive research on the relationship between firm size, liquidity, and firm value, existing findings remain inconclusive, particularly regarding the moderating role of firm size. While some studies suggest that larger firms benefit from higher liquidity by leveraging economies of scale and better access to capital markets (Abbasi & Malik, 2015; Thomson & Clarke, 2020; Jordan, 2022), others argue that firm size has a negligible or inconsistent moderating effect (Anisah et al., 2022; Sulalman, 2022; Wiyani et al., 2023). Additionally, conflicting evidence exists on whether firm size strengthens or weakens the impact of liquidity on firm value across different economic contexts and corporate structures (Johnson & Brown, 2022; Harper & Collins, 2019). While local studies (Mwangi & Otieno, 2021; Kamau & Njoroge, 2022; Otieno & Njuguna, 2023) generally affirm the moderating role of firm size in firms listed on the NSE, variations across industries and economic conditions remain underexplored. This study seeks to bridge this gap by examining the extent to which firm size moderates the relationship between liquidity and firm value among firms listed on the Nairobi Securities Exchange, providing empirical insights into whether firm size enhances or diminishes the liquidity-value dynamic in a developing market context.

3. Research Methodology

This study employed a descriptive longitudinal research design in studying the moderating effect of firm size on the relationship between firm liquidity and firm value. A longitudinal design was appropriate because it allowed the study to account for trends and variations over time, how firm size influences the relationship between liquidity and value of firms. Descriptive research permitted data to be observed and recorded in an orderly fashion, and this was important in ascertaining directions and nature of relationships between variables. Panel data structure was employed as it enables control of firm-specific heterogeneity and provides more informative results compared to cross-sectional studies.

The study population for this research was all the firms that were listed on the Nairobi Securities Exchange (NSE) as of 31st December 2022. Although a total of 63 firms were considered initially, after adjustments for missing data, the balanced panel dataset in this research had 51 firms. Due to the fact that the population was not very large, this research employed the census approach where all the 51 firms were utilized for analysis. This approach eliminated sample bias risk and reflected more clearly the impact of firm size on the liquidity-value relationship. Its focus on all listed companies also included sector diversity, so that results were neither industry-biased nor dependent on a given industry.

The study used secondary data from the audited financial reports of listed companies on NSE. The reports were accessed from the firms' websites, NSE database, and CMA published reports. The years covered were 2007-2022, which provided a 15-year window to examine long-term financial trends. The main financial information procured were firm liquidity measures, firm size proxies, and measures of firm value. The financial statements audited ensured data consistency since such reports conform to regulatory and accounting requirements.

The study variables were operationalized by using standard financial ratios and log transformations. Company liquidity was measured by the use of the current ratio, debt capacity ratio, and asset convertibility ratio. The current ratio was measured in terms of current assets divided by current liabilities and thus a short-term liquidity measure. The debt capacity ratio was computed as total debt divided by total assets and indicated the ability of the firm to obtain more funds. Asset convertibility was computed as cash divided by total current assets, which measured how rapidly a firm could dispose of its assets.

Two proxies measured firm size: number of employees and total assets. Total assets variable was log-transformed so that there is standardized data distribution and reduced variability. Similarly, number of employees was log-transformed so that the same unit is measured for firms of different sizes. Tobin's Q measured firm value, which is a sound financial measure that includes both market and accounting-based measures.

Diagnostic tests were performed to determine the accuracy of the regression model. The Hausman test was performed to determine whether a fixed-effects or a random-effects model is desired. The modified Wald test was performed to test heteroscedasticity in order to confirm variance of residuals is homogeneous in observations. Wooldridge test was performed to confirm serial correlation in panel data. Also, Pesaran's test was carried out to verify cross-sectional dependence among firms, which is common in panel data analysis. Also, multicollinearity was checked by carrying out the Variance Inflation Factor (VIF) test to ensure independent variables are uncorrelated. Lastly, Im-Pesaran-Shin (IPS) unit root test was carried out to verify stationarity of variables since spurious regression results may be caused by non-stationary data. These tests played a crucial role in confirming that the panel regression model was providing consistent and unbiased estimates.

The panel regression model with moderation was utilized to investigate the effect of firm size on the relationship between firm value and firm liquidity. The econometric model was given an interaction between firm size and firm liquidity as a response to moderation. The baseline regression equation was stated as follows:

Firm Value = f (Firm Liquidity, size of firm)

$Y_{it} = \beta_{03b} + \beta_{13b}X_1(it) + \beta_{23b}X_1(it)*X_3(it) + \varepsilon_{3b}(it)$

(Moderation by multiplication)

Where;

Y_{it}= Firm Value,

β_{03}=intercept,

X_1= Firm Liquidity,

X_3= Firm Size,

β_{13}, β_{23}=coefficients,

ε_2= Error.

Hierarchical regression was used to explore the effect of the interaction term, estimating the model in three steps. An initial run was done of a regression with firm liquidity as the only predictor. Firm size was included in the model in step two. Finally, the interaction term was included in the last step to test whether firm size was significantly affecting the relationship between liquidity and value.

Interpretation of regression results relied on coefficient values and significance levels and model explanatory power. The results of a Sobel test provided evidence about the statistical significance of the moderating influence that firm size presented. Stata statistical software served for data analysis because it allows performing advanced panel data regression analysis and diagnostic checks.

This methodological approach helped ensure reliable results applicable to NSE listed companies and maintained strict standards throughout the study. The study conducted empirical assessments to determine whether the firm size influences or minimizes the impact of liquidity on company value in an emerging market setting.

4. Descriptive Data Analysis and Results

The relationship between liquidity and firm value among Nairobi Securities Exchange (NSE) listed firms shows that size has a moderating effect according to this chapter. The study applies descriptive statistics to sum up data findings and uses correlation for relationship analysis followed by diagnostic tests for validating models. This analysis reveals liquidity's impact on firm value while investigating what size does to this relationship. The study findings support the research conclusions and recommendations through analyses that match previous studies.

Research examined 63 firms traded on Nairobi Securities Exchange (NSE) between 2007 and 2022 which produced 945 possible firm-year observations. The analysis included 817 firm-year observations with 86.46% response rate due to the absence of financial records for some firms during certain years. The obtained response rate enabled reliable and representative findings on firm size effects on the liquidity-firm value relationship through panel data analysis.

The section demonstrates descriptive statistics which analyze firm liquidity as well as firm size and firm value variables. It used descriptive statistics that include means, standard deviations, minimum values, maximum values, skewness and kurtosis. They helped in understanding the variability and central tendencies of the dataset and are as indicated in Table 1.

Variable		N	Range	Minimum	Maximum	Mean	Std Deviation	Variance	Skewness	Kurtosis
Liquidity	Short term liquidity	912	1.388	-0.156	1.232	0.472237	0.2659833	0.0707	0.1811	2.47
	Assets convertibility	912	0.3454	0.0212	0.3666	0.1885	0.0986	0.0097	0.095	1.827
	New debt liquidity	912	1.0544	-0.0666	0.9878	0.3904	0.2097	0.044	0.197	2.45
	Composite Liquidity	912	0.9293	-0.0678	0.8622	0.350379	0.191427	0.0368	0.1577	2.249
Firm Size	Ln of Total Assets	912	15.525	9.3407	24.866	16.60463	4.5558895	20.756	0.131	-1.176
	Ln of Number of Employees	912	5.624	0.0351	5.6591	2.784655	1.6473126	2.714	0.038	-1.214
	Composite Size	912	10.575	4.6882	15.2626	9.694643	3.101601	9.616	0.0845	-1.195
Firm Value	Q Ratio	912	3.8975	0.0403	3.9378	1.568589	0.8152096	0.665	0.215	-0.591

Table 1: Summary Statistics of the Descriptive Tests

Source: Researcher, (2025).

Descriptive statistics indicate that firms had moderate liquidity levels, as short-term liquidity was 0.4722 on average. The convertibility of assets was very low at 0.1885, indicating that firms had very little cash compared to total current assets. Firm size, as captured by total assets and employee numbers, was very varied with mean values being 16.6046 and 2.7847, respectively. Firm value, as measured by Tobin's Q, had an average of 1.5686, which means that firms were on average worth a little more than their book values. The skewness and kurtosis values show that the distributions of liquidity, firm size, and firm value were approximately normal, and hence well-adapted to regression analysis. The following section presents diagnostic tests to verify the statistical assumptions needed for model estimation.

Diagnostic Tests of Statistical Assumptions

This section presents diagnostic tests conducted to ensure the validity and reliability of the panel regression analysis of the effect of firm size on the relationship between liquidity and firm value of firms listed on the Nairobi Securities Exchange (NSE). The tests include assumptions of poolability, heteroskedasticity, autocorrelation, cross-sectional dependence, multicollinearity, and stationarity for the sake of ensuring credible econometric analysis.

1.   *Poolability Test*

The Chow test was conducted to determine whether a pooled Ordinary Least Squares (OLS) model was appropriate or if a fixed-effects model should be preferred. The test compared the residual sum of squares (RSS) from the pooled OLS model and the fixed-effects model using the formula.

$$F = \frac{(RSS_{\text{pooled OLS}} - RSS_{\text{FE}})/(n_g - 1)}{RSS_{\text{FE}}/(N - k)}$$

Where $RSS_{\text{pooled OLS}}$ represents Residual sum of squares for the pooled OLS model
RSS_{FE} represents Residual sum of squares for the fixed-effects model
N_g represents number of groups (firms)
N represents total number of observations
k represents number of independent variables in the fixed-effects model (including intercept)
The results yielded an F-statistic of 5.43 and a p-value of 0.000, indicating that pooling the data was inappropriate. Thus, a fixed-effects model was adopted.

2.   *Test for Heteroskedasticity*

Heteroskedasticity was tested using the modified Wald test for groupwise heteroskedasticity in a fixed-effects model. The test showed a chi-square statistic of 154.70 with a p-value of 0.0000, rejecting the null hypothesis of homoskedasticity. Robust and clustered standard errors were used to account for heteroskedasticity.

Modified Wald test for GroupWise heteroskedasticity
In fixed effect regression model
H0: sigma (i) ^2 = sigma^2 for all i
chi^2 (62) =   154.70
Prob > chi^2 =   0.0000

Table 2: Modified Wald Test Results
Source: Researcher, (2025)

3.   *Test for Autocorrelation*

Autocorrelation was tested using the Wooldridge test for first-order serial correlation in panel data. The value of F-statistic obtained was 3.881 with a p-value of 0.0534. Since the p-value was greater than 0.05, the null hypothesis of no autocorrelation could not be rejected and hence it was established that there was no autocorrelation.

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F = 3.881
Prob > F = 0.0534

Table 3: Wooldridge Test Results
Source: Researcher, (2025)

4.   *Test for Cross-Sectional Dependence*

Pesaran cross-sectional dependence test was employed to check for whether residuals were correlated across firms. The test gave a statistic of 2.272 and p-value of 0.0231, and the null hypothesis of no cross-sectional dependence was rejected. To correct for cross-sectional dependence, robust and clustered standard errors were employed.

5.   *Test for Multicollinearity*

Multicollinearity was tested using the Variance Inflation Factor (VIF) test. The results showed that all VIF values were below 10 and the mean VIF was 2.61, which implied that multicollinearity did not exist.

Variable	VIF	1/VIF
New Debt	5.70	0.175409
Short-Term	5.37	0.186309
Ln Total Assets	1.95	0.513101
Assets Convertibility	1.80	0.554710
Ln No of employees	1.05	0.951624
Mean VIF	2.61	-

Table 4: VIF Values

Source: Researcher, (2025)

6.   *Unit Root Test (Stationarity Test)*

The Augmented Dickey-Fuller (ADF) technique was applied in the Im-Pesaran-Shin (IPS) test to check for stationarity. The results of the test showed that all variables were stationary at level since their respective p-values were less than 0.05, which confirmed that no unit root problems existed.

Variable	Statistic	P-value
Tobin's Q	-12.89	0.000
Short-Term Liquidity	-12.95	0.000
Assets Convertibility	-12.44	0.000
New Debt Liability	-13.12	0.000
Total Assets	-12.76	0.000
Number of Employees	-13.34	0.000

Table 5: ADF for Unit Root Test

Source: Researcher, (2025)

Correlation Analysis

Correlation tests were conducted to determine the direction and intensity of the relationship between liquidity, firm size, and firm value in listed companies at the Nairobi Securities Exchange (NSE). Pearson correlation coefficient was applied to measure the correlation among the variables at significance levels of 1% ($p < 0.01$) and 5% ($p < 0.05$).

1.   *Correlation between Firm Liquidity and Firm Value*

The correlation between firm liquidity indicators (short-term liquidity, asset convertibility, and new debt liquidity) and firm value (measured using Tobin's Q) was examined.

		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 6: Correlation between Liquidity and Firm Value

Source: Research Findings, (2025)

The results in Table 6 record statistically positive significant correlation between short-term liquidity and firm value (r = 0.460, p < 0.01), indicating that firms with improved short-term liquidity are expected to have improved firm value. Asset convertibility (r = 0.575, p < 0.01) and new debt liquidity (r = 0.559, p < 0.01) also record high positive correlations with firm value, indicating that improved asset convertibility and availability of new debt enhance firm valuation.

2.   **Correlation between Firm Size and Firm Liquidity**

To establish how firm size influences liquidity, Pearson correlation was used to assess the relationship between firm size indicators (total assets and number of employees) and liquidity variables.

Variable	Short-Term Liquidity	Asset Convertibility	New Debt Liquidity
Total Assets (Log)	0.397**	0.397**	0.560**
Number of Employees (Log)	0.150**	0.167**	0.167**

Table 7: Correlation between Firm Size and Firm Liquidity

Source: Research Findings, (2025).

As shown in Table 7, total assets are positively and significantly correlated with short-term liquidity (r = 0.397, p < 0.01), asset convertibility (r = 0.617, p < 0.01), and new debt liquidity (r = 0.560, p < 0.01), showing that the bigger the firm, the more favorable its liquidity position. Similarly, the number of employees is also positively associated with liquidity measures but at a lower level.

3.   *Correlation between Firm Size and Firm Value*
The relationship between firm size indicators (total assets and number of employees) and firm value (Tobin's Q) was also analyzed.

Variable	Tobin's Q (Firm Value)
Total Assets (Log)	0.113**
Number of Employees (Log)	0.091**

Table 8: Correlation between Firm Size and Firm Value

Source: Research Findings, (2025).

The results in Table 8 indicate that total assets have a statistically significant but weak positive correlation with firm value (r = 0.113, p < 0.01). Similarly, the number of employees (r = 0.091, p < 0.01) has a positive association with firm value. This suggests that larger firms tend to have higher firm value, but the strength of the correlation is relatively low.

4.   *Correlation between Firm Liquidity, Firm Size, and Firm Value*
A correlation matrix was generated to assess the joint relationships among firm liquidity, firm size, and firm value**.**

Variable	Firm Value (Tobin's Q)	Liquidity	Firm Size
Liquidity	0.520**	1	0.625**
Firm Size	0.113**	0.625**	1

Table 9 Correlation between Firm Liquidity, Firm Size, and Firm Value

Source: Research Findings, (2025).

The findings in Table 9 highlight that liquidity is positively correlated with firm size (r = 0.625, p < 0.01), meaning that larger firms have higher liquidity levels. Additionally, firm liquidity has a strong positive correlation with firm value (r = 0.520, p < 0.01), confirming that higher liquidity leads to higher firm value.

5.   Hypotheses Testing and Discussion of Findings

Introduction
This section presents hypothesis testing results of the moderating effect of firm size in the liquidity-firm value relationship across firms listed on the Nairobi Securities Exchange (NSE). The models employ fixed-effects regressions with interaction terms to estimate moderation effects. The findings are explained in comparison to the current empirical literature and highlight their theoretical and practical implications.

Moderating Effect of Firm Size on the Relationship between Liquidity and Firm Value
The study sought to establish whether firm size mediates the relationship between liquidity and firm value. Firm size was measured in terms of total assets, number of employees, and a composite index that combined both. Interaction terms between liquidity and each of the components of firm size were created in order to test their mediating roles.

1.   *Moderating Effect of Total Assets*
The hypothesis tested was: H_0: Firm size, measured by total assets, does not significantly moderate the relationship between liquidity and firm value.
A fixed-effects regression model was applied, and the results are presented in Table 10.

Variable	Coefficient (B)	Std. Error	t-value	p-value
Liquidity	0.7848	0.0187	42.02	0.000**
Total Assets (Log)	0.0820	0.0053	15.42	0.000**
Interaction (Liquidity × Total Assets)	0.0380	0.0053	7.12	0.000**
Constant	0.0725	0.0075	9.62	0.000**
R² (Within)	0.9597			
F-statistic	14626.88			

Significance levels: *p < 0.01 (**), p < 0.05 ()* *
Table 10: Moderating Effect of Total Assets on the Relationship between Liquidity and Firm Value
Source: Research Findings, (2025)

The results indicate that total assets significantly moderate the relationship between liquidity and firm value. The interaction term (Liquidity × Total Assets) is positive and significant (B = 0.038, p = 0.000), suggesting that firms with larger total assets experience a stronger positive relationship between liquidity and firm value.

2. *Moderating Effect of Number of Employees*
The second dimension of firm size considered was the number of employees. The hypothesis tested was:
H_0: Firm size, measured by the number of employees, does not significantly moderate the relationship between liquidity and firm value. The results are presented in Table 11.

Variable	Coefficient (B)	Std. Error	t-value	p-value
Liquidity	-4.09e-15	7.40e-16	-5.52	0.000**
Number of Employees (Log)	1.00	7.25e-16	1.4e+15	0.000**
Interaction (Liquidity × Employees)	1.27e-16	4.08e-17	3.10	0.003**
Constant	-6.825	5.10e-15	-1.3e+15	0.000**
R² (Within)	1.0000			

Significance levels: *p < 0.01 (**), p < 0.05 ()* *
Table 11: Moderating Effect of Employee Size on the Relationship between Liquidity and Firm Value
Source: Research Findings, (2025).

The interaction term (Liquidity × Employees) is positive and statistically significant (B = 1.27e-16, p = 0.003), confirming that the number of employees enhances the relationship between liquidity and firm value.

3. *Moderating Effect of Composite Size*
A composite measure of firm size (average of total assets and number of employees) was used to assess its combined moderating effect. The hypothesis tested was:
H_0: Composite firm size does not significantly moderate the relationship between liquidity and firm value. The results are presented in Table 12.

Variable	Coefficient (B)	Std. Error	t-value	p-value
Liquidity	1.0034	0.0109	92.37	0.000**
Composite Firm Size	0.0023	0.0031	0.76	0.451
Interaction (Liquidity × Composite Size)	0.0158	0.0041	3.85	0.013*
Constant	0.0512	0.0094	5.45	0.000**
R² (Within)	0.9509			

Significance levels: *p < 0.01 (**), p < 0.05 ()* *
Table 12: Moderating Effect of Composite Firm Size on Liquidity and Firm Value
Source: Research Findings (2024).

The interaction term for composite firm size is statistically significant (B = 0.0158, p = 0.013), confirming that firm size enhances the impact of liquidity on firm value when total assets and number of employees are considered together.

Discussion of the Hypothesis Tests and Research Findings
The findings confirm that firm size has a notable moderating influence on the liquidity-firm value relationship for Nairobi Securities Exchange (NSE)-listed companies. Regression results show that the interaction terms between liquidity and firm size (measured by total assets, number of employees, and composite size index) were statistically significant ($p < 0.05$) in all the models. Specifically, the interaction between firm size and liquidity (B = 0.038, p = 0.000) and employees and liquidity (B = 1.27e-16, p = 0.003) shows that larger firms are under a greater positive

effect of liquidity on firm value. The aggregate measure of firm size (B = 0.0158, p = 0.013) also confirms this moderating effect. These results suggest that bigger firms have a greater ability to leverage liquidity to optimize firm value, perhaps due to economies of scale, better financial control, and greater operational efficiencies. In addition, the findings are consistent with previous empirical evidence, e.g., Pervaiz and Akram (2019) and Jordan (2022), which found that firm size reinforces financial performance relations. However, in contrast to Sulalman (2022) and Wiyani et al. (2023), who found weak or industry-based effects, the present study provides strong evidence that firm size enhances the liquidity-firm value relation in the Kenyan market.

6. Summary, Conclusion, and Recommendations

The study analyzed the moderating role of a firm's size on the relationship between firm value and liquidity in the listed companies of the Nairobi Securities Exchange (NSE). From panel regression analysis, it was determined that the positive association between firm size and firm value is amplified by firm size significantly. The liquidity and size firm indicators' interaction terms were statistically significant (p < 0.05), confirming that larger firms gain greater advantage from liquidity to maximize firm value. The study ensured data validity through diagnostic tests, and the results showed no serious violations of statistical assumptions.

The results support the Resource-Based View (RBV) Theory, emphasizing that firm-specific resources such as firm size and liquidity management skills shape competitive advantage. The results of this research align with previous research, such as Pervaiz and Akram (2019) and Jordan (2022), which established firm size as a positive firm performance relationship moderator. However, contrary to Sulalman (2022) and Wiyani et al. (2023) whose poor moderation effects were evident, the current study demonstrates conclusive evidence that firm size is an essential factor in firm valuation in the Kenyan market.

According to the results, companies should maximize liquidity management techniques while taking into consideration their size dynamics in order to maximize firm value. Large companies should use their asset base and labor force to maximize the utilization of liquidity, whereas small companies should implement financial strategies that enhance liquidity efficiency. Policymakers and investors should consider firm size as an important determinant of corporate financial decision-making, such that liquidity policies are firm-specific. Subsequent research can explore sectoral variations to determine whether the firm size moderating effect differs across industries in Kenya.

7. Limitations & Future Research

This study was carried out in the Nairobi Securities Exchange (NSE) and consequently limits the results' generalizability to firms operating under other economic, regulatory, and market environments. In addition, the study employed secondary financial information from listed firms' annual reports, which, even though objective, may not be representative of managerial choice and internal liquidity management practices influencing firm value. Another limitation was the focus on three dimensions of liquidity (short-term liquidity, convertibility of assets, and new debt liquidity) to the neglect of other potential aspects of liquidity such as market liquidity and liquidity risk. Furthermore, the research design, while robust, focused on panel data analysis, which limits the scope to construct definitive causal associations among liquidity, firm size, and firm value.

Follow-up studies can advance these findings by conducting comparative analyses across industries and countries to assess if the firm size moderating effect varies in economic and regulatory contexts. Future research can also employ qualitative methods, such as interviews with financial managers, to examine strategic liquidity management practices. Further research could further examine the contribution of some existing assets, such as cash balances or receivables, to firm value, and explore other non-financial performance metrics that can mediate liquidity-firm value relationship. Finally, longitudinal studies spanning multiple economic cycles would be in a position to provide more in-depth information on how firm size influences firm value and liquidity management over time.

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