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Does Financial Attributes Matter? An Empirical Assessment of Liquidity, Dividend Decisions, and Firm Size on Value of Firms Listed at the Nairobi Securities Exchange

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Abstract

This study explores the combined effects of firm liquidity, dividend policy, and firm size on the value of firms listed on the Nairobi Securities Exchange. It posits that firm value is crucial in finance, as it results from various corporate decisions, including investment, risk management, and profitability, alongside financing choices like liquidity management and dividend policy. Earlier theories emphasized that investment decisions primarily influence firm valuation; however, empirical studies underscore the significance of liquidity, dividend policy, and firm size, particularly in emerging markets characterized by information asymmetry and financing constraints. The study utilizes cash conversion cycle, dividend signaling, and agency theories to create a conceptual framework analyzing how these factors collectively affect firm value, quantified using Tobin's Q. Adopting a positivist research philosophy and a descriptive longitudinal design, the study analyzed secondary financial data from all 63 NSE-listed firms from 2008 to 2022, yielding 765 observations. Firm liquidity was measured through short-term liquidity, asset convertibility, and new debt capacity; dividend policy was assessed via payout ratios and dividend yield; and firm size was defined in terms of total assets and employee count. The findings revealed that liquidity positively significantly impacts firm value, marking its crucial role in enhancing market perceptions. Conversely, dividend policy and firm size were analyzed as independent variables to determine their effects on firm value. The study concludes that liquidity is the main factor influencing firm value, whereas dividend policy and firm size also have a positive impact on the model's explanatory power. The results suggest that larger firms and those with well-defined dividend policies can enhance their valuation, thereby underscoring the significance of cohesive management strategies aimed at boosting firm value, particularly in emerging markets.

Keywords: *Firm Value Liquidity Dividend Policy Firm Size Tobin's Q*

1. Introduction

Firm value is a significant topic of scholarly and managerial interest, encapsulating the outcomes of various corporate financial decisions that influence market assessments. Initially, theories by Modigliani and Miller (1961) focused on investment decisions, business risk, and profitability as primary influencers of firm valuation, underestimating the impact of other financial choices. However, further research has revealed that financing decisions, particularly in liquidity management and dividend policy, are crucial in shaping investor perceptions and market value. Amihud and Mendelson (2008) highlighted liquidity's role as a key valuation driver, noting that

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investors favor firms that can efficiently convert assets to cash. In contemporary finance literature, attributes such as liquidity, dividend policy, and firm size are recognized as vital in determining firm value, particularly in emerging markets facing information asymmetry, economic fluctuations, and funding restrictions. Tools like Tobin's Q are essential for assessing market perceptions of a firm's future potential, blending accounting and market data to indicate whether firms are undervalued or overpriced (Fachrudin, 2018; Ghani et al., 2022). Thus, firm value is perceived not only as a reflection of current performance but also as an indicator of long-term strategic positioning and growth potential.

Liquidity management, dividend policy, and firm size are crucial to firm valuation, influencing operational stability, investor confidence, and competitive ability. Liquidity indicates a firm's capacity to meet short-term obligations without strain, reflecting risk perceptions and resilience. Adequate liquidity promotes stability, while excess can indicate inefficiency, leading to mixed empirical findings on its impact on firm value (Bibi & Amjad, 2017; Tahu & Susilo, 2017). Dividend policy serves an informational role; consistent payouts signal strong cash flows and positive management outlooks, but the significance of dividends varies by market, with evidence of positive, neutral, or insignificant effects (Amidu, 2007; Kapoor, 2006). Firm size affects value through economies of scale, reduced transaction costs, and better capital access, which diminish information asymmetry and financial risk (Horne & Wachowicz, 2009; Suwardika & Mustanda, 2017). The relationship between firm size and liquidity's influence on value is inconclusive, with studies presenting both moderating effects and lack thereof (Suffah & Riduwan, 2016; Yuliyanti et al., 2021). The analysis is grounded in financial theories like cash conversion cycle, dividend signaling, and agency theory, exploring how these variables jointly affect the valuation of firms on the Nairobi Securities Exchange, characterized by diverse performance and dynamic finance.

1.1 Research Problem

Firm value is a vital focus in academic and managerial discussions, primarily influenced by the interplay of internal financial strategies and market dynamics. According to traditional financial theory by Modigliani and Miller (1961), firm value is primarily driven by business risk and profitability linked to investment decisions. Nevertheless, empirical studies indicate that financing choices, particularly liquidity management and dividend policies, play a significant role in

determining firm value (Amihud & Mendelson, 2008). Liquidity is critical as it reflects a firm's ability to meet short-term obligations and indicates its financial health to investors (Harjito & Martono, 2017; Eljelly, 2004). In contrast, dividends express management's expectations about future earnings (Harjito & Martono, 2001; Alonso et., 2005).; Ghosh & Ghosh, 2008). The relationship between liquidity and dividend policy is intricate; dividends often affect cash outflows dependent on liquidity, necessitating a balance between reinvesting for growth and distributing profits.

Research reveals differing perspectives on this dynamic; some studies suggest that aligning liquidity and dividend strategies can boost firm value (Bibi & Amjad, 2017; Winarto, 2015), while others warn against excessive liquidity or erratic dividend payments (Tahu & Susilo, 2017; Kapoor, 2006). Moreover, firm size adds complexity; larger companies might gain from economies of scale and better access to capital but face potential agency problems and inefficiencies that could negate these advantages (Horne & Wachowicz, 2009; Suwardika & Mustanda, 2017; Suffah & Riduwan, 2016; Yuliyanti et al., 2021). Despite these findings, research on the combined influences of liquidity, dividend policy, and firm size on firm value is limited, especially in emerging markets like Kenya. This gap poses significant consequences for managerial decision-making, investor perceptions of firm stability, and regulatory frameworks. The Nairobi Securities Exchange (NSE), characterized by a diverse financial environment with varying liquidity and dividend ratios, emphasizes the necessity for comprehensive empirical studies. The lack of extensive research on these interconnected financial elements obstructs informed managerial decisions, misleads investors, and complicates regulatory contexts, highlighting the urgent need for integrated empirical research on liquidity, dividend policy, and firm size effects on NSE-listed firms to improve overall firm performance and shareholder value.

1.2 Research Objective

This study investigates the joint effect of firm liquidity, dividend policy, and firm size on the value of firms listed at the Nairobi Securities Exchange.

1.3 Research Hypothesis

H₀₁: There is no significant relationship between firm liquidity, dividend policy, and firm size, and the value of firms listed at the Nairobi Securities Exchange.

2.0 Literature Review

The literature review investigates the relations between firm liquidity, dividend policy, firm size, and the value of companies listed on the Nairobi Securities Exchange, incorporating both theoretical and empirical studies.

2.1 Theoretical Literature

The relationship between firm liquidity, dividend policy, and size significantly impacts firm value as outlined by various financial theories. The Operating and Cash Conversion Cycle (CCC) Theory by Richard & Laughlin (1980) emphasizes that superior liquidity management enhances operational efficiency and cash flow, leading firms with shorter CCCs to maintain higher liquidity, fulfill obligations, and sustain dividends, signaling financial health to investors (Husni, Rahim & Aprayuda, 2019; Oseifuah & Gyekye, 2016). Firms. Conversely, prolonged CCCs can restrict liquidity and negatively affect investment opportunities and dividends, diminishing firm value. The Dividend Signaling Theory suggests that dividend announcements inform investors of a firm's prospects; consistent payouts boost confidence and perceived value, particularly for liquid firms (Lintner, 1956; Bhattacharya, 1979; Miller & Rock, 1985). The Size Effect Theory reveals that larger firms typically distribute regular dividends and access capital markets better, while smaller firms often reinvest earnings, impacting immediate liquidity but potentially fostering long-term growth (Banz, 1981; Asness et al., 2018). Lastly, Agency Theory addresses how governance aligns shareholder interests with operational decisions, enhancing firm value through balanced liquidity management and dividend policies (Jensen & Meckling, 1976; Zogning, 2017). Thus, these theories illustrate that liquidity, dividend strategy, and firm size intricately shape firm value through operational efficiency, signaling, and strategic governance.

2.3 Empirical Review

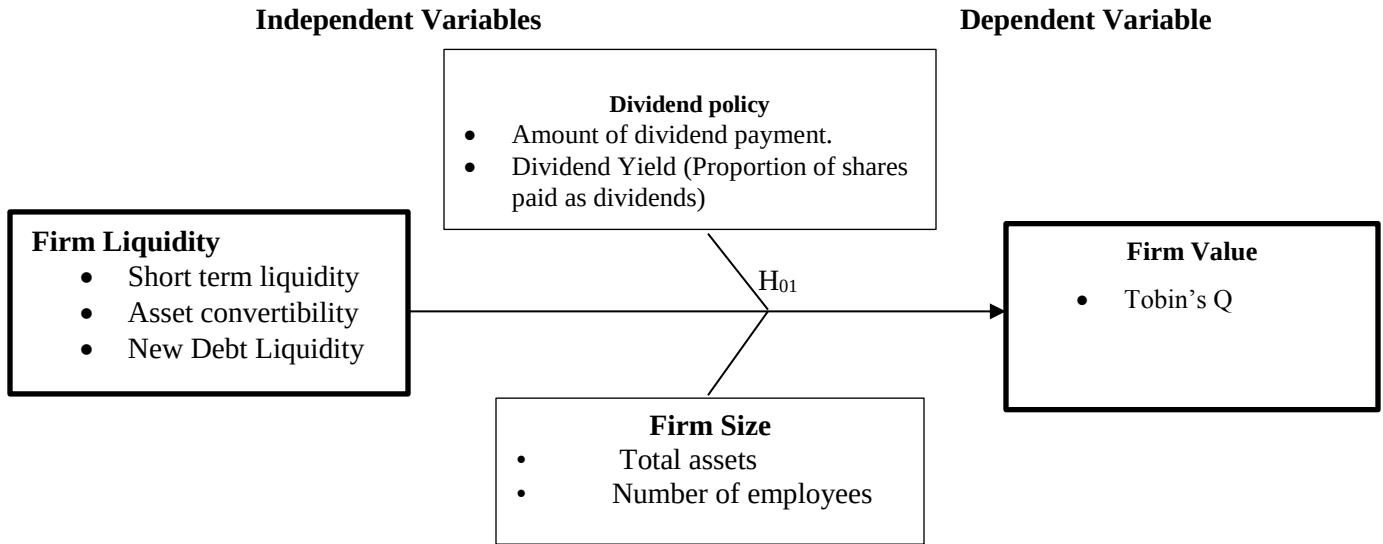
Empirical studies indicate that firm liquidity, dividend policy, and size collectively impact firm value, with varying effects across contexts. Research in China by Li et al. (2014) highlighted the

significant influence of dividend levels and liquidity on share price premiums. In Kenya, Banafa (2016) found that firm size and liquidity positively affected non-financial firms' performance at the Nairobi Securities Exchange. Additionally, Van der Merwe and Botha (2023) in South Africa noted that dividend policy, firm size, and return on equity positively influenced corporate value, with liquidity serving as a moderating factor. These findings emphasize liquidity's role in directly affecting firm value and its interaction with other financial policies in determining corporate valuation.

Additional studies support the joint effects of liquidity, firm size, and dividend policy on firm value across both developed and emerging markets. Clarkson and Tate (2021) revealed that in the London Stock Exchange, liquidity and firm size are strong predictors of firm value, while dividend policy has a negative influence, highlighting sector- and market-specific differences. Wanjiru and Otieno (2020) found that in Kenya's manufacturing sector, the combination of liquidity, firm size, and dividend policy enhances firm value, suggesting that firms with adequate liquidity and larger sizes can better generate shareholder value. Further research by Chen et al. (2021) and Nguyen et al. (2021) indicates that the individual impacts of liquidity and dividend policy might be negligible when considered alone; however, their interaction with firm size and profitability significantly affects firm valuation. The interplay between liquidity, dividends, and firm size significantly affects operational efficiency, investor confidence, and market perceptions, as evidenced across sectors like finance, manufacturing, and telecommunications.

2.4 Conceptual Framework

Figure 1.1 illustrates a conceptual framework that examines how firm liquidity, dividend policy, and firm size collectively affect firm value (H_{01}). Higher liquidity leads to increased dividend distribution, which, along with greater firm size, is expected to boost firm value. Liquidity was assessed through short-term liquidity, asset convertibility, and new debt liquidity, while dividend policy was measured via dividend yield and payment amounts. Firm size was defined by total assets and employee count, with firm value evaluated using Tobin's Q. Hypothesis H_{01} underscores the integrated influence of these elements on firm valuation.



3.0 Methodology

This study utilized a positivist research philosophy to analyze the relationships among firm liquidity, dividend policy, firm size, and firm value, emphasizing objectivity and evidence-based analysis. Data were gathered from the audited financial statements of 63 companies listed on the Nairobi Securities Exchange (NSE) for the period 2008 to 2022, ensuring accuracy and compliance with regulatory standards. A descriptive longitudinal research design was employed to observe trends over time and assess the hypothesized relationships. The operationalization of firm liquidity, dividend policy, and firm size was achieved through various financial ratios and indicators, such as the current ratio and dividend payout ratio, while firm value was quantified using Tobin's Q. To validate the model's reliability, several panel data diagnostics, including tests for poolability, heteroscedasticity, and multicollinearity, were performed. The study utilized regression analyses to test hypotheses regarding the impact of liquidity, dividend policy, and firm size on firm value. Initially, simple linear regression assessed liquidity's effect, followed by stepwise regression to evaluate the contribution of dividend policy. Additional analyses included firm size to further determine its influence on firm value. Additionally, multiple regression analyzed the collective impact of liquidity, dividend policy, and firm size on firm value. The Sobel test was utilized to determine the significance of mediation effects, with Stata software used for statistical analysis, and results interpreted through standard inferential techniques.

4.0 Findings

The study analyzed 63 firms on the NSE as of 2022, utilizing 15 years of financial data, resulting in 945 potential observations. A total of 765 complete observations were recorded, yielding a response rate of 80.95%, which aligns with earlier studies. The high response rate is largely due to accessible financial statements on the firms' websites and the NSE, with missing data for certain variables excluded to ensure the remaining data supported a robust analysis. Further, descriptive statistics provide an overview of liquidity, dividend policy, firm size, and firm value. Liquidity, indicated by metrics such as short-term liquidity, asset convertibility, and new debt liquidity, reflects a general moderation with a mean current ratio of 0.4722, liquidity is marked by a low cash holding compared to current assets (mean = 0.1885) and a debt capacity reliance of 0.3904. Positive skewness in short-term (0.181) and new debt liquidity (0.197) suggests some firms possess better liquidity positions, while kurtosis values hint at a slight excess of extreme values compared to a normal distribution. Dividend policy has a mean payout ratio of 0.4146, and the average shareholder returns are 0.0487. Firm size, evaluated using the natural logarithm of total assets and employee count, displays considerable variability with larger firms affecting the distribution positively. Firm value, as measured by Tobin's Q, averages 1.5686, indicating valuations slightly above book value. Overall, the distributions approximate normality, facilitating further statistical analysis.

Table 1: Descriptive Statistics

Variable	N	Range	Min	Max	Mean	Std Dev	Skewness	Kurtosis
Short-term liquidity	912	1.388	-0.156	1.232	0.472	0.266	0.181	2.470
Asset convertibility	912	0.346	0.021	0.367	0.189	0.099	0.095	1.827
New debt liquidity	912	1.054	-0.067	0.988	0.390	0.210	0.197	2.450
Composite liquidity	912	0.929	-0.068	0.862	0.350	0.191	0.158	2.249
Dividend payments	912	1.195	0.001	1.196	0.415	0.277	0.212	-0.160
Dividend yield	912	0.147	0.024	0.123	0.049	0.031	-0.021	-0.646
Composite dividend	912	0.671	0.013	0.660	0.232	0.154	0.096	-0.403
Ln total assets	912	15.525	9.341	24.866	16.605	4.556	0.131	-1.176
Ln employees	912	5.624	0.035	5.659	2.785	1.647	0.038	-1.214
Composite size	912	10.575	4.688	15.263	9.695	3.102	0.085	-1.195
Q ratio	912	3.898	0.040	3.938	1.569	0.815	0.215	-0.591

Diagnostic tests validated the effectiveness of the panel data analysis, with the Chow test indicating that pooled OLS was unsuitable ($F = 5.43$, $p < 0.001$), thus favoring a fixed-effects model. The

Modified Wald test revealed heteroskedasticity among firms ($p < 0.001$), which was managed through robust and clustered standard errors. The Wooldridge test showed no significant autocorrelation ($p = 0.0534$), while Pesaran's test identified cross-sectional dependence ($p = 0.0231$), also rectified with robust standard errors. The Hausman test affirmed the appropriateness of fixed-effects modeling ($p < 0.001$). Additionally, multicollinearity was not a problem, as all variance inflation factor (VIF) values were below 10. Unit root tests verified the stationarity of all variables, making co-integration tests redundant.

Table 2: Summary of Diagnostic Tests

Diagnostic Test	Purpose	Test Used	Findings	Decision
Poolability	Check if pooled OLS fits	Chow Test	$p = 0.000$, null rejected	Use FE or RE model
Heteroskedasticity	Check constant variance	Modified Wald Test	$p = 0.000$	Used robust/clustered SEs
Autocorrelation	Check serial correlation	Wooldridge Test	$p = 0.0534$	No autocorrelation
Cross-sectional dependence	Check correlation across entities	Pesaran's Test	$p = 0.0231$	Corrected using robust/clustered SEs
Hausman Test	Choose FE vs RE	Hausman	$p = 0.000$	FE preferred
Multicollinearity	Check variable independence	VIF	All VIF < 10	No multicollinearity
Unit Root	Check stationarity	ADF Test	$p = 0.000$	Data stationary
Co-integration	Long-term relationship	N/A	Variables stationary	Test not needed

Correlation analysis demonstrated notable positive associations between liquidity and firm value, with Tobin's Q showing significant correlations for short-term liquidity ($r = 0.460$, $p < 0.01$), asset convertibility ($r = 0.575$, $p < 0.01$), and new debt liquidity ($r = 0.559$, $p < 0.01$). The dividend policy also had a positive relationship with firm value, specifically regarding the proportion of shares paid as dividends ($r = 0.083$, $p < 0.05$), although the overall dividend payments were not significantly correlated ($r = 0.060$). Furthermore, asset convertibility and new debt liquidity were positively correlated with the dividend payout proportion ($r = 0.084$, $p < 0.05$; $r = 0.086$, $p < 0.01$). Additionally, firm size exhibited a strong positive correlation with liquidity ($r = 0.625$, $p < 0.01$), suggesting that larger firms tend to maintain higher levels of liquidity.

Table 3. Correlation Matrix for Individual Predictor Variables

Variable	Short-term liquidity	Asset convertibility	New debt liquidity	Amount of dividend payment	Dividend yield	Total assets (Ln)	Number of employees (Ln)
Short-term liquidity	1						
Asset convertibility	0.462**	1					
New debt liquidity	0.468**	0.628**	1				
Amount of dividend payment	0.021	0.015	0.020	1			
Dividend yield	0.063	0.084*	0.086**	0.383**	1		
Total assets (Ln)	0.397**	0.617**	0.560**	-0.001	0.113**	1	
Number of employees (Ln)	0.150**	0.162**	0.167**	0.022	0.057	0.091**	1

Note: **p < 0.01, *p < 0.05

4.1 Inferential Analysis

Table 4 demonstrates a strong fit to the data, demonstrated by a within R² value of 0.9506, meaning that 95.06% of the variability in firm value is explained by the included predictors. The F-statistic of 4128.45 (p = 0.000) confirms the overall significance of the model. Additionally, the rho value of 0.0774 implies that only 7.74% of the variance can be attributed to unobserved firm-specific effects. When analyzing individual predictors, liquidity stands out as a critical factor with a strong positive impact on firm value, represented by a coefficient of 1.0057 and a p-value of 0.000, with a 95% confidence interval ranging from 0.9833 to 1.0281. This leads to the rejection of the null hypothesis, confirming that liquidity significantly influences firm value. In contrast, dividend policy, with a coefficient of -0.0306 and p-value of 0.529, along with firm size, with a coefficient of 0.0021 and p-value of 0.451, do not show statistical significance. This implies that they do not meaningfully affect firm value in the context of this analysis. Thus, liquidity emerges as the primary determinant of firm value, whereas dividend policy and firm size do not hold significant influence when liquidity is accounted for in the model.

Table 4: Joint Effect of Liquidity, Dividend Policy and Firm Size on Firm Value

Fixed-effects (within) regression	Number of obs	=	816
Group variable: Firms_num	Number of groups	=	51
R-sq: within = 0.9506	Obs per group: min	=	16
between = 0.9961	avg	=	16.0
overall = 0.9743	max	=	16
	F(3,50)	=	4128.45
corr(u_i, Xb) = -0.0809	Prob > F	=	0.0000

(Std. Err. adjusted for 51 clusters in Firms_num)

TobinQ	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
Compositeliquidity	1.005698	.0111424	90.26	0.000	.9833179 1.028078
CompositeDiv	-.0306128	.0483109	-0.63	0.529	-.1272164 .0659907
CompositeSize	.0021347	.0028105	0.76	0.451	-.0035105 .0077798
_cons	.032721	.035802	0.91	0.365	-.0391893 .1046314
sigma_u	.03804492				
sigma_e	.13132558				
rho	.07742748	(fraction of variance due to u_i)			

5.0 Conclusions, Limitations and Recommendations

The study analyzed the interplay between firm liquidity, dividend policy, firm size, and firm value among firms listed on the NSE. It revealed that liquidity serves as the most critical and consistent determinant of firm value, exerting a significant positive influence across various models. Additionally, it indicates that dividend policy does not significantly affect the relationship between liquidity and firm value; rather, liquidity directly impacts firm value. Furthermore, firm size was identified as a significant moderator in the liquidity-value relationship, indicating that larger firms can better capitalize on liquidity to enhance their overall value. In terms of cumulative effects, while liquidity, dividend policy, and firm size collectively influenced firm value, liquidity was the primary driver with dividend policy and size contributing less substantially. The research established that effective liquidity management is vital for augmenting firm valuation, especially in the context of the NSE, where larger firms' exhibit enhanced capacities to leverage liquidity. Conversely, the study emphasized the limited role of dividend policy in this dynamic.

However, the study also encountered limitations that constrain the applicability of its conclusions. It primarily focused on listed firms within Kenya, which may affect the generalizability of the

findings to unlisted firms or firms in different countries. The use of a descriptive research design and reliance on secondary quantitative data, while robust, might not fully capture the qualitative aspects of managerial decision-making or establish causal relationships. Furthermore, the study examined only select indicators of liquidity, dividend policy, and firm size, overlooking potentially significant variables such as liquidity risk, market liquidity, corporate governance, and sector-specific performance measures. In light of these limitations, future research is encouraged to delve deeper into specific components of current assets—such as cash, inventory, and accounts receivable—to ascertain their individual impacts on firm value. Additionally, incorporating non-financial measures and conducting sector-specific analyses could clarify whether the identified relationships are consistent across various industries. Future studies might also explore additional mediating and moderating factors like corporate governance practices, macroeconomic conditions, and longitudinal analyses to reveal causal relationships over time. Overall, the findings highlight the pivotal role of liquidity management in firm valuation, supported by the fact that firm size enhances this effect, while dividend policy remains relatively less influential.

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