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*Cashflow and Stock Market Prices: Evidence from  
Nairobi Securities Exchange*

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## Cashflow and Stock Market Prices: Evidence from Nairobi Securities Exchange

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### **Abstract**

*Cash is usually at the beginning and end of the company operating cycle and cash reserves are important for both passive hedging purposes and proactive investment purposes. This study aimed to assess the effect that cash flow has on stock market prices of companies listed at the Nairobi Securities Exchange (NSE). The research design employed regression and correlation analysis using four predictor variables. Secondary data covering the years 2010 to 2021 was obtained at the NSE and company financial reports. The study population was all NSE listed firms, and a sample of 10 companies was selected randomly from each segment. The study found that cash flow had an inverse relationship with stock prices, while profitability, liquidity, and debt had a positive relationship. Stock prices' inverse relationship with cashflow supports the Free Cash Flow Theory while the uni-directional relationship with liquidity and debt contradicts the Irrelevance Theorem. The study recommends more focus on cash flow while making investment decisions and further research to determine optimal levels of cash reserves for companies.*

**Keywords:** Cashflow; Stock Market Prices; Nairobi Securities Exchange

### **Introduction**

A company's primary goal is to generate value for shareholders. Investors in the stock market want dividend yield and capital gains from a company's profitability. Profitability and cash flow are key corporate financial performance indicators, and investors may use internal measures such as cash flows to make investment decisions. The relationship between company performance and stock prices has been studied extensively, with most studies finding a significant positive relationship. Fundamental analysis, which includes measures such as cash flow ratios and debt ratios, is increasingly popular among investors. Financial performance results show how a firm deploys its resources, including assets, to generate value. Investors utilize financial performance to assess firms in the same industry or to compare industries or sectors (Bender & Ward, 2009; Bayrakdaroglu, Mirgen, & Kuyu, 2017).

Cashflow is essential for a business to remain a going concern and make long-term investments. A business can increase its cashflow by raising prices, reducing costs, and reducing sales on credit. During economic downturns, managers tend to hold cash reserves, but there are also hidden agency costs associated with holding on to cash. In financial statement analysis, various ratios are used to measure a company's liquidity,

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operating efficiency, debt management, profitability, and market value. Cashflow analysis focuses on activities that have a direct impact on the flow of funds, such as inventory, credit terms, receivables, and payables, and enables early identification and mitigation of cashflow risks. Free cashflow is the purest form of cashflow and is the product of subtracting capital expenditures, working capital, and dividend payments from cash generated by operations (Anderson & Carverhill, 2005; Brigham & Houston, 2009; Nour, 2012).

Stock market prices are affected by financial, monetary, international trade policy, and macro-economic variables, as well as internal elements such as a company's financial records. The prices are determined by the aggregate supply and demand of the shares. Prices will then shift depending on demand and supply factors. Over the long term, stock prices may also be determined by a company's financial performance in addition to market forces. The return on investment on a stock is determined by price changes and stock value is a significant factor that influences investors' investment decisions. Share market values fluctuate rapidly due to the dynamics of demand and supply, and prices are determined by the equilibrium reached between buyers and sellers (Anwar, 2017; Sharma, 2011; Zakir & Khanna, 1982).

This study is anchored on four theories related to the internal workings of a company and stock market prices. These theories include: Capital Structure Irrelevance, Trade-Off, Pecking Order, and Free Cashflow. Criticism of Capital Structure Irrelevance Theory is used to illustrate the relevance of a company's sources of funding in determining the worth of a firm. The Trade-Off Theory explores the concept of the balance between how much the debt costs and the tax savings emanating from the same. Pecking Order Theory is used to show the level of preference of various forms of funding available to a company. And the Free Cashflow Theory illustrates the conflict between management and shareholders in the allocation of funds within a company (Modigliani and Miller, 1958; Litzenberger, 1973; Myers and Majluf, 1984; Jensen, 1986).

The Irrelevance Theorem, a theory put forward by Modigliani and Miller in 1958, formed a major part of the study's theoretical framework. The researchers proposed that the value of a company and its funding sources are independent of each other. However, this theory was challenged, as it was based on assumptions that could not be completely substantiated in real-life situations. Researchers started to emphasize the value of taxation, transaction fees, and the cost of debt, all of which are financial market characteristics that Modigliani and Miller had assumed away (Modigliani and Miller, 1958; Stiglitz, 1969). Additionally, the

study also looked into the Trade-Off Theory, that proposes the need for businesses to pursue levels of external funding that optimises the benefits of tax deductibility of increased borrowing with the higher likelihood of default. This theory suggests that companies should seek to balance the cost of bankruptcy with the tax advantages of borrowing (Litzenberger, 1973).

Share prices are influenced by various fundamental business variables such as profitability, debt, liquidity, and operations. These variables are usually measured and expressed in the form of ratios. Cashflow, which is the difference between cash that flows into and out of the firm, is an important variable as it indicates the amount of cash generated by a company and the buffer it provides. Profitability, measured by return on capital employed, indicates changes in company equity vis a viz financial performance, a measure of how efficiently a firm utilizes the resources at its disposal. Debt, measured by debt ratio, illustrates the level of borrowing a company has and is used to estimate the level of default exposure. Liquidity, measured using liquidity ratios, assesses a firm's current liabilities against its most liquid assets and relays information regarding an organisation's ability to pay off its most immediate debt obligations (Subramanyam & Wild, 2009; Brealey, 1991; Reider, 2003).

Several studies on the use of financial statement information by market participants to make judgments and predict future revenue fluctuations were reviewed. Seng and Hancock (2012) found that basic indicators, such as earnings per share changes, are strong predictors of both short and long range revenue fluctuations, and that this link is influenced by contextual factors such as past earnings announcements, industry participation, macroeconomic factors, and the jurisdiction of incorporation. The study supports the use of basic analysis in forecasting future profit fluctuations. Benard and Thomas (1990) found that share values are not a complete representation of how the current income affects future income and demonstrated how pricing responses to earnings releases for subsequent quarters could be anticipated using present quarter results. Nirmala et al. (2011) established that dividends, profitability, the price-earnings ratio, and debt all have a significant impact on stock prices. Aurangzeb (2012) found that exchange rates and foreign direct investment affects share prices positively, but impact of interest rates on the same is negative.

Anwaar (2017) who utilized one dependent variable and five predictors to determine how the changes in share prices are explained by a firm's performance established that performance is positively related to movement in share values. Sa, Yunitab, and Iradianty (2016) revealed that both net profit margin (NPM)

and return on assets (ROA) had a partial influence on prices. While, gross profit margin (GPM), inflation, and return on equity (ROE) had no effect. Further, the combined influence of all the predictors on stock returns was considerable. Overall, these studies suggest that comprehensive financial statement information and contextual factors can be used to predict future revenue fluctuations and inform market makers' judgments.

With regard to companies that carry out sustainability reporting, Ratemo (2015) established that stock prices affect ROA. In a study comprising 67 NSE-listed companies, Ngunjiri (2016) revealed a considerable link between a firm's profitability and dividend payout and share market performance. Njogu (2017) in a study involving nine companies in Kenya found that the most important predictors of share price performance immediately after listing were per share values of earnings and dividends.

### **Research Problem**

The study was conceptualized to assess the effect of company performance, as measured by financial ratios, on share prices and to examine whether these ratios can influence investment decisions. The study's uniqueness is evident in its quest to establish the effects of a broad array of internal business fundamentals on stock prices, an area that other studies have not explored in depth. The study analyzed fundamental factors affecting stock prices, with selected internal business ratios also being among the control variables. The study focused on NSE listed entities, a bourse for which few studies have been conducted on the relationship between company fundamentals and share prices.

The link between growth of revenue and market returns has long been a source of debate in business and academia. In Kenya, corporations listed on the NSE have repeatedly recorded disproportionately large accounting profits in recent years, with no discernible or proportional impact on share prices. This raises the question of the degree to which revenue growth affects stock prices and whether other fundamental business factors have a role to play. It is evident that financial statement information is helpful and relevant if it can be used to anticipate future earnings fluctuations and profits. The researcher examined the link between fundamentals of business and share prices, focusing on NSE listed firms. The aim was to promote increased understanding of the relationship between firm performance and share prices while utilizing the Kenyan stock market (Seng & Hancock, 2012).

## Research Methodology

The research was quantitative in approach and adopted a descriptive research design. The sample comprised of 10 companies drawn from each of the segments of the NSE. The research utilized secondary data covering the years 2010-2021. The independent variables were lagged optimally by two years ( $n=2$ ). The resulting multiple regression model was as follows:

$$Y_t = \alpha + \beta_1 X_{1i,(t-n)} + \beta_2 X_{2i,(t-n)} + \beta_3 X_{3i,(t-n)} + \beta_4 X_{4i,(t-n)} + \epsilon$$

Meaning of the symbols and their measurement in shown in Table 1:

**Table 1: Dependent and Independent Variables**

Symbol	Variable	Measurement Method
$Y_t$	Share price	Average Annual Share Price = Total of monthly share prices $\div$ 12
$X_1$	Cash Flow Coverage Ratio (CCR)	Operating Cash Flow $\div$ Total Debt
$X_2$	Return on Capital Employed (ROCE)	Earnings Before Interest and Tax $\div$ Capital Employed
$X_3$	Current Ratio (CR)	Current Assets $\div$ Current Liabilities
$X_4$	Debt Ratio (DR)	Total Debt $\div$ Total Assets
$t$	Base year	2012
$t-n$	Lag	
$i$	Company $i$	

## Results and Discussions

Data was retrieved from both annual corporate reports of the 10 firms and the NSE.

Descriptive statistics of the data are shown in Table 2.

**Table 2: Descriptive Statistics**

Variable	Minimum	Maximum	Mean	Std. Deviation
Share Prices	3.8125000	834.6666667	113.420283333	187.4248607229
Cash flow Coverage Ratio (CCR)	-.4395181	2.1128087	.309745821	.4135122061
Return on Capital Employed (ROCE)	-.3708910	.8666321	.270687440	.2124802394
Current Ratio (CR)	.0900431	8.5849455	1.507652555	1.2881095352
Debt Ratio (DR)	.0484260	.7862621	.429703482	.1978418735

The mean column in Table 2 presents the average study ratios from company financials in the study. On average companies held cash that could cover just over 30% of total debt; current assets that could cover current liabilities more than 1.5 times and debt of more than 42% of assets. The average return on capital employed was 27%.

Results of the multiple regression are detailed in Tables 3 and 4.

**Table 3: Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.767 <sup>a</sup>	.588	.571	.65529975

**Table 4: Analysis of Variance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.205	4	14.551	33.886	.000 <sup>b</sup>
	Residual	40.795	95	.429		
	Total	99.000	99			

**Table 5: Coefficients of Regression**

Model		Unstandardized		Standardized		
		Coefficients		Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.780	.242		-7.348	.000
	Cash flow Coverage	-.438	.184	-.181	-2.380	.019
	ROCE	3.927	.358	.834	10.957	.000
	Current Ratio	.298	.054	.384	5.482	.000
	Debt Ratio	.938	.356	.186	2.632	.010

a. Dependent Variable: Zscore: Share Prices

The study model's goodness of fit is presented in Table 3, and a summary of the model can be found in Table 4. The results show a significant relationship between predictors and financial performance, with a 76.7% change in the dependent variable emanating from changes in the predictors. Table 5 shows that cash flow coverage, ROCE, current ratio, and debt ratio are all significant predictors of stock market prices at a significance level of  $\alpha = 0.05$ . This suggests that market prices of shares of firms listed in the NSE are influenced by all the predictor variables. The coefficients for the significant predictors (B) indicate the change in stock market prices caused by a unit change in the respective predictors. A unit change in cash flow coverage results in a change of -0.438 in stock market prices, while a unit change in ROCE results in a change of 3.927 units, a unit change in current ratio results in a change of 0.298 units and a unit change in debt ratio results in a change of 0.938 units in stock market prices. The relationship between three of the significant predictors and stock prices was uni-directional, while one of them (cash flow coverage) had an inverse relationship.

The analytical model which was

$$Y_t = \alpha + \beta_1 X_{1i,(t-n)} + \beta_2 X_{2i,(t-n)} + \beta_3 X_{3i,(t-n)} + \beta_4 X_{4i,(t-n)} + \epsilon$$

Can therefore be written as the following regression equation:

$$Y = -1.780 - 0.438X_1 + 3.927X_2 + 0.298X_3 + 0.938X_4$$



## **Conclusions and Recommendations**

The study concludes that cash flow has an inverse relationship with share prices, meaning that investors are not attracted to companies with high levels of cash reserves, supporting the notion put forward by the Free Cash Flow Theory that shareholders would rather be paid dividends than management holding onto cash. The study also found a significant positive relationship between on one hand ROCE, current ratio and debt ratio and on the other, share prices, contradicting the findings of previous studies by Modigliani and Miller (1958), Sa et al (2016) and Anwar (2017). The study recommends that investors change their view on cash flow by being more thorough and working to establish cash flow levels before investing, and companies should put in place governance structures that promote transparency to eliminate suspicion of engagement in value-destroying investments. Policymakers should also help draw attention to internal business metrics through general awareness creation.

The study had limitations because it utilized a 10-year sample timeframe which is deemed small, and only looked at one stock market. Further research is recommended on the reasons why investors focus on profitability measures and not internal measures, especially cash flow. Further research should be done on what the optimal level of cash reserves should be. In addition, such a study could find out whether per capita income and disposable income in a country affect investor preference for dividends and by extension cash reserve levels. Future research could explore the possibility of a lag effect, or whether investors tend to invest in the tangible economy before moving into the less familiar capital markets, and only if they have extra funds.

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