

Financial Risk Management and Financial Performance of Investment Firms Listed at Nairobi Securities Exchange, Kenya

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Abstract

Financial performance is a crucial aspect for investment firms as it reflects their overall stability and communicates their financial well-being to investors. Some investment firms in Kenya are currently experiencing a decline in financial performance. This study focused on four dimensions of financial risk management (interest rate risk, exchange rate risk, inflation rate risk, and liquidity risk) to examine the effectiveness of risk management strategies in enhancing financial performance. The study equally assessed the moderating effect of firm size. Primary and secondary data sources were utilized, with a sample size of 40 respondents selected from the five listed investment firms. Data collection spanned eight years from 2014 to 2021. Multiple regression analysis, descriptive statistics, and diagnostic tests were employed. The study found that effective management of interest rate risk, exchange rate risk, inflation rate risk, and liquidity risk significantly affect financial performance. Additionally, firm size was found to moderate the relationship on financial performance. The study imparts valuable understandings regarding the significance of strategies for managing financial risks within investment firms. The study recommends management support for managing exchange rate risk through strategies like currency invoicing, leading and lagging, and exposure netting. It suggests the use of appropriate financial instruments such as forward rate agreements and options, as well as maintaining a diverse bond portfolio, to improve the management of interest rate risk. Effective liquidity risk management, including techniques such as cash flow forecasting and optimizing net working capital, is also highlighted. Managing inflation rate risk requires portfolio adjustment techniques, necessary spending adjustments, and continuous monitoring of changing inflation dynamics. Furthermore, the study recommends that policymakers in Kenya encourage investment firms to provide comprehensive risk disclosures in their financial reports. By implementing these recommendations, investment firms can enhance their financial performance and strengthen their risk management practices.

Keywords: *Financial Risk Management, Financial Performance, Interest Rate Risk Management, Exchange Rate Risk Management, Inflation Rate Risk Management, Liquidity Risk Management, Investment Firms.*

I. Introduction and Background

Enhancing financial performance is a crucial objective for companies, as it contributes to the growth of shareholder wealth and overall profitability. Effective management of financial risks plays a vital role in improving a firm's financial performance by mitigating risks such as interest rate, inflation rate, exchange rate, and liquidity risks. While the Modigliani-Miller Theorem emphasizes profit maximization regardless of risk, practical considerations necessitate risk management due to market imperfections and the potential for financial distress. Stakeholders evaluate a company's financial performance to assess its viability and its ability to meet shareholder expectations. Investment firms, in particular, play a significant role in the Kenyan economy as intermediaries between businesses and investors, relying on their financial performance to provide quality financial services and engage in capital-raising activities.

Financial risk management is essential for maximizing profitability and return on assets while considering the company's risk tolerance. It involves the identification, analysis, and mitigation of risks such as interest rate, exchange rate, inflation rate, and liquidity risks. According to Kaupys (2003), managing interest rate risk involves taking measures to control the impact of interest rate fluctuations on investments and financial assets. Ndallah (2018) suggests utilizing interest hedging tools/instruments for managing interest rate risk. Exchange rate risk management refers to a set of procedures that enable a company to manage currency risk effectively (Moyo & Tursory, 2020). Popular methods for managing exchange rate risk, as suggested by Tihamiyu (2019), include off-balance-sheet financial instruments like options, swaps, futures, and forwards, as well as on-balance-sheet transactions such as borrowing and lending, leading and lagging, and matching.

Inflation rate risk management involves adopting measures to mitigate the risk of inflation negatively impacting investment performance and asset value. According to Heise (2019), inflation hedging instruments and adjusting spending habits when inflation is expected are effective methods for managing inflation rate risk. Liquidity risk management refers to a company's ability to meet its financial obligations and repay debt within specified timeframes (Njue, 2020). Adequate liquidity is crucial for a company's survival, and a lack of liquidity can lead to financial crises that adversely affect performance (Kitere *et al.*, 2019). Liquidity risk management techniques, as identified by Ogol (2011), include cash flow matching and working capital monitoring.

Financial performance measures a company's overall financial well-being over a specific period and demonstrates its effectiveness in meeting shareholders' financial expectations (Omondi, 2020). Generating a profit stands as a central objective for enterprises, with financial performance encompassing the augmentation of shareholder value (Pandey, 2005). Diverse indicators exist to assess the financial performance of distinct entities, including ROA (Return on Assets), ROI (Return on Investment), or ROE (Return on Equity), as recommended by Natufe and Evbayiro-Osagie (2023). Financial performance analysis often involves examining essential financial ratios calculated over the past three to five years or more (Egolum *et al.*, 2020).

II. Research Problem

Investment firms play a crucial role in the Kenyan economy by attracting investors and maximizing returns. The financial performance of these firms is influenced by their ability to anticipate and mitigate financial risks. Although there are guidelines available to help investment firms manage risks stemming from the micro and macro environment, some companies continue to face challenges in effectively controlling risks, which has a detrimental effect on their financial performance. The analyzed companies displayed diverse outcomes in terms of performance, with a majority of them reporting a decrease in their Return on Assets (ROA). For instance, Centum's ROA was 3.63% in 2014, which then increased to 11.78% in 2015, but subsequently declined to 3.63% in 2016, 2.55% in 2017, and 1.08% in 2018. Similarly, Olympia witnessed a decrease in ROA from 0.64% in 2019 to 0.34% in 2020, and further dropped to -0.08% in 2021.

The studies conducted by Moyo and Tursory (2020), Elgulum *et al.* (2020), and Adu *et al.* (2016) regarding financial risk management and financial performance have been based on observations from nations with different economic, social, and legal systems than Kenya, making it difficult to generalize those findings to Kenya. Furthermore, scholars have conceptualized the idea differently and analyzed financial performance in various areas, yielding inconsistent results, making research conclusions unclear and varied. Some researchers, such as Kamchira (2020) and Kitere *et al.* (2019), argue that financial risk management has a significant effect on financial performance. On the other hand, Oudat and Ali (2021) and Kahihu *et al.* (2021) found insignificant results. As a result, empirical research produced conflicting results in addition to being unable to determine whether or not financial risk management actually affects financial performance. This research aimed to tackle this overarching inquiry by examining the effect of financial risk management on the financial performance of listed investment firms, Kenya.

III. General Objective

To determine the effect of financial risk management on financial performance of listed investment firms at Nairobi Securities Exchange, Kenya.

IV. Specific Objectives

- i. To assess the effect of interest rate risk management on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.
- ii. To determine the effect of exchange rate risk management on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.
- iii. To evaluate the effect of inflation rate risk management on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.
- iv. To assess the effect of liquidity risk management on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.
- v. To examine the moderating effect of firm size on the relationship between financial risk management and financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.

V. Research Hypotheses

The study sought to test the following null hypotheses:

H₀₁: Interest rate risk management has no significant effect on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.

H₀₂: Exchange rate risk management has no significant effect on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.

H₀₃: Inflation rate risk management has no significant effect on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.

H₀₄: Liquidity risk management has no significant effect on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.

H₀₅: Firm size has no significant moderating effect on financial performance of investment firms listed at Nairobi Securities Exchange, Kenya.

VI. Scope of the Study

The study specifically focused on the five listed investment companies, Kenya. Its primary goal was to pinpoint the particular categories of financial risk management approaches adopted by these listed investment enterprises and scrutinize their influence on financial performance. To accomplish its objectives, the study employed an explanatory research design. The analysis of data involved the utilization of multiple regression analysis and descriptive statistics. The data collection process spanned eight years, from 2014 to 2021, and encompassed both primary and secondary data sources.

VII. Value of the Study

The study holds significant importance for various stakeholders. Its primary objective was to enhance the existing literature on financial risk management and financial performance, taking into consideration the size of the firms. Investment firm management can derive valuable insights from the research regarding effective financial risk management strategies, enabling them to mitigate financial risks and enhance their firms' financial performance. The research findings are also beneficial for investors who have invested in or plan to invest in investment firms, providing them with valuable information to make informed decisions. Additionally, the study has identified limitations that can guide future researchers in identifying unaddressed gaps in the field, making it valuable for academicians, scholars, and future financial researchers. Furthermore, the study offers indications for further research, allowing future researchers to explore new areas within this domain.

The study might also be useful for the Kenyan government in terms of regulating investment firms in the country, as the results aid policymakers in formulating policies that benefit both the firms and the local economy. The literature review, empirical analysis, and research findings have relevance for researchers as they delve into the interconnectedness between effective financial risk management strategies and financial performance. This, in turn, facilitates the development of conceptual and empirical models that can address financial performance issues and yield higher profits and returns.

VIII. Review of Literature

a) Theoretical Review

i. Arbitrage Pricing Theory

The Arbitrage Pricing Theory (APT) is a financial model developed by Stephen Ross (1976) that helps identify the risk factors impacting asset prices. It utilizes macroeconomic factors as a linear function to estimate expected returns on assets, considering the sensitivity to different risk factors. The APT model is considered a superior alternative to the Capital Asset Pricing Model (CAPM) as it takes into account multiple risk factors and assumes occasional mispricing in markets (Baariu & Peter 2021). Arbitrageurs use APT to profit from deviations in asset prices from their fair value, exploiting inefficiencies in the market without taking on additional risk (Kamau & Maina 2019). By understanding the underlying risk factors that drive asset prices, APT aids investors in making informed decisions about portfolio construction and asset allocation, leading to better risk-adjusted returns over time.

ii. Expectations Theory of Exchange Rates

The Expectations Theory was first proposed by Muth (1967). The Expectations Theory of Exchange Rates (ETER) suggests that market participants form expectations about future exchange rates based on available market information and that these expectations influence their trading decisions (Gerlach & Smets, 1997). According to Shapiro (2005), currency values depend on expectations regarding future exchange rate movements, which are influenced by economic, political, and social factors. The theory assumes that forecasts are unbiased and that individuals learn from their mistakes, understand how the economy and government policies affect

macroeconomic variables, and have expectations about the future. This theory is important in understanding how stakeholders predict future exchange rates and how fluctuations in exchange rates are influenced by different expectations. Implementing exchange rate risk management strategies is crucial to address these fluctuations, enabling companies to optimize transactions and assess the effectiveness of risk management strategies for better financial performance.

iii. Modern Portfolio Theory

Propounded by Harry Markowitz (1952), Modern Portfolio Theory (MPT) represents an investment tactic geared towards attaining the utmost attainable return commensurate with a specific risk level. MPT underscores the significance of diversification to reduce unsystematic risk while acknowledging that systematic risk cannot be mitigated through diversification. By combining assets with different returns that are not perfectly correlated, MPT seeks to lower the variance of portfolio returns (Omosore *et al.*, 2011). The theory assumes that investors are risk-averse and will prefer less risky investments for a given level of return. MPT provides a mathematical framework for portfolio construction, asset allocation, and risk management, allowing investors to optimize their portfolios and balance risk and reward (Johar *et al.*, 2021). The theory highlights the significance of financial risk management in minimizing risks and maximizing returns, and it guides managers in utilizing diversification and various financial management techniques to achieve these objectives. Overall, MPT serves as a valuable tool for constructing portfolios that aim to maximize returns while effectively managing risk through diversification and asset allocation.

b) Empirical Review

The study reviewed several empirical works as captured hereunder.

i. Interest Rate Risk Management and Financial Performance

Kamchira (2020) previously conducted an investigation into the impact of effectively managing interest rate risk on the financial performance of Kenya's listed banks, spanning a decade (2009-2018). The findings highlighted a significant effect between interest rate risk and financial performance. In a separate study, Shetty and Yadav (2019) carried out an analysis to assess the influence of interest rate risk on the profitability of Indian commercial banks. This study encompassed a sample of 43 Indian commercial banks across an 11-year period from 2008 to 2018. The outcomes revealed a substantial positive correlation between interest rate risk and both ROA and ROE in the context of Indian commercial banks.

ii. Exchange Rate Risk Management and Financial Performance

Egulum *et al.* (2020) carried out research with the objective of exploring the impact of fluctuations in exchange rates on the financial performance of companies listed in Nigeria. The study employed secondary data gathered over a span of 12 years, specifically ranging from 2007 to 2018. The findings revealed a statistically significant negative impact of exchange rate fluctuations on both ROCE and ROE. However, the influence on ROA was found to be positive but statistically insignificant. In a causal research investigation carried out by Odhiambo (2019), the primary focus was to analyze the effect of foreign exchange rate risk on the financial performance of commercial banks in Kenya. The study specifically honed in on 42 active commercial banks in Kenya during the timeframe from 2013 to 2017. The outcomes unveiled a significant influence of foreign exchange rate risk on the financial performance of these banks. Diminishing foreign exchange risk culminated in amplified ROE, with exchange rate risk standing out as the most substantial driver of financial performance. In a separate inquiry conducted by Were (2015), the scrutiny centered on the repercussions of foreign exchange risk management practices on the financial performance (ROA) of multinational corporations operating within Kenya. The study entailed a sample comprising thirty multinational enterprises. Secondary data extracted from annual reports covering a five-year span, spanning from 2010 to 2014, was amassed, and a descriptive research approach was employed. The results demonstrated that the utilization of currency swap contracts, options, and forward exchange contracts had a significant impact on the financial performance of multinational firms.

iii. Inflation Rate Risk Management and Financial Performance

Kahihu *et al.* (2021) conducted an investigation that delved into the correlation between the financial performance of microfinance firms in Kenya and their approaches to managing inflation rate risk. The study made use of secondary data and centered on evaluating performance through the ROE metric. Employing an explanatory research design, the study employed a comprehensive approach, incorporating all 13 registered deposit-taking microfinance institutions in Kenya, covering the period from 2014 to 2018. However, the findings suggested that the management of inflation rate risk did not yield a substantial impact on financial performance. In a separate study, Moyo and Tursoy (2020) undertook an examination to scrutinize the influence of inflation and exchange rates on the financial performance of commercial banks in South Africa. The research spanned from 2003 to 2019, with ROE serving as the gauge of financial performance. The results of the study revealed a significant correlation between ROE and inflation. Adu *et al.* (2016) conducted an investigation employing secondary data from the years 2004 to 2013, coupled with panel data from five banks in Ghana. The primary aim was to assess the impact of inflation on the financial performance of the banking sector. The outcomes of the study demonstrated a statistically significant detrimental effect of inflation on the banks' performance.

iv. Liquidity Risk Management and Financial Performance

Njue (2020) conducted a study aiming to examine the impact of liquidity management on the financial performance of microfinance institutions in Kenya. The study utilized a combination of primary and secondary data, covering a period of five years from 2012 to 2016. Descriptive and inferential statistics were used as analytical tools, with ROE employed as a measure of performance. The research encompassed the entire population of 26 MFIs operating in Kenya. The results indicated that implementing effective liquidity management practices had a positive influence on the overall financial performance of MFIs, leading to increased earnings and sales. In their research study, Sathyamoorthi *et al.* (2020) aimed to evaluate the influence of liquidity management techniques on the financial well-being of commercial banks in Botswana. The study utilized ROA and ROE as indicators to assess the banks' financial performance. The research included all nine commercial banks operating in Botswana and spanned a duration of nine years from 2011 to 2019. Descriptive statistics, correlation analysis, and regression analysis were employed to analyze the data. The findings of the study demonstrated a positive correlation between liquidity management measures and the performance of commercial banks in Botswana.

v. Firm Size and Financial Performance

Gacheru (2021) conducted a research investigation aimed at assessing the impact of financial risks on the financial performance of listed investment firms, Kenya. The study employed secondary data collected from 2011 to 2018. The study's outcomes unveiled a notable and positive correlation between firm size and financial performance, quantified using Return on Equity (ROE). On the other hand, Alabdullah *et al.* (2018) conducted a research study in Jordan, aiming to analyse firm financial performance and the interrelation between board size and firm size. The study employed Return on Assets (ROA) and Return on Equity (ROE) as metrics to gauge financial performance. The study's findings indicated that firm size did not yield a significant influence on financial performance.

IX. Methodology

The study adopted the positivism research philosophy, which emphasizes that scientific propositions can only be considered true if supported by empirical evidence (Crossan, 2003). To gain a deeper understanding of the issue and develop a well-investigated model, an explanatory research approach was employed. Mugenda and Mugenda (2009) states that explanatory design is the suitable research design for studies with constructed hypothesis that explain the interaction between the variables. The target population consisted of the five listed investment firms, and a purposive sampling technique was used to select 40 respondents from these firms. The process of data collection spanned a duration of eight years, covering the period from 2014 to 2021, encompassing both primary and secondary data sources. Primary data was obtained through the distribution of questionnaires, while secondary data was acquired from the audited financial accounts of the investment firms and the NSE handbooks.

To scrutinize the data and ascertain the significance of the correlation between predictor variables and the outcome variable, multiple regression analysis was utilized. This approach was endorsed by MacKinnon & Fairchild (2009). The analysis was performed using SPSS software (version 26.0) with a confidence level of 95%. Descriptive statistics, such as means, standard deviation, maximum and minimum values, were also used to aid in data analysis. Diagnostic tests, including checks for multicollinearity, normality, and heteroscedasticity, were conducted to ensure that the data met the necessary assumptions for multiple regression analysis. Furthermore, the research investigated the moderating effect of firm size, aiming to explore how the size of the firms influenced the observed relationships between the variables.

The study was analysed using the multiple linear regression model.

$$FP = \beta_0 + \beta_1 IRRM + \beta_2 ERRM + \beta_3 FRRM + \beta_4 LRM + \varepsilon$$

Where:

FP = Financial Performance (measured by ROA);

IRRM = Interest rate risk management;

ERRM = Exchange rate risk management;

FRRM = Inflation rate risk management;

LRM = Liquidity risk management;

β_0 = The constant term;

$\beta_1, \beta_2, \beta_3, \beta_4$ = The regression coefficients;

ε = Error term.

X. Results and Findings

The study's findings revealed that the regression model used is a good fit, as evidenced by the Adjusted R Square value of 0.654. This implies that financial risk management variables account for 65.4% of the observed variations in the financial performance of investment firms. The ANOVA test outcomes affirm the model's reliability, being statistically significant at the 5% level. The statistical assessment reveals a noteworthy correlation, marked by an F statistic of 17.01 and a p-value of 0.000, falling below the 0.05 threshold. This result validates the substantial role of financial risk management in forecasting the financial performance of investment firms.

Table 1: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	1.223	0.134		9.127	0.000
	IRRM	0.263	0.115	0.266	2.287	0.025
	ERRM	0.350	0.144	0.352	2.431	0.017
	FRRM	0.388	0.159	0.487	2.440	0.020
	LRM	0.230	0.080	0.233	2.875	0.007
	Firm Size	0.003	0.001	0.166	3.234	0.002
a. Dependent Variable: Financial Performance						

The results obtained from the coefficient Table 1 above, indicated a significant effect of interest risk management on financial performance, as substantiated by the p-value ($p = 0.025 < 0.05$). This suggests that skilful handling of interest rate risks contributes to the enhancement of financial performance. These observations align with Kamchira's (2020) research, which showcased the influence of interest rate risk management on the financial performance of publicly listed banks, Kenya. Additionally, these findings are congruent with the conclusions drawn by Shetty and Yadav (2019), who identified a significant correlation between interest rate risk and the Return on Assets (ROA) and Return on Equity (ROE) of commercial banks in India.

The examination of exchange rate risk management revealed a significant effect, supported by the p-value ($p = 0.017 < 0.05$), illustrating the positive impact of skilful exchange rate risk management on enhanced financial performance. These findings harmonize with Were's (2015) investigation, which showcased the substantial effects of currency swap contracts, options, and forward exchange contracts as tools for managing exchange rate risk on the financial performance of multinational corporations. Furthermore, Odhiambo's (2019) study unveiled a significant correlation between foreign exchange rate risk and the financial performance of commercial banks in Kenya. Likewise, the scrutiny of inflation rate risk management exposed a notable influence, substantiated by the p-value ($p = 0.020 < 0.05$), indicating that proficient management of inflation rate risk leads to heightened financial performance. However, these results diverge from the findings of a study conducted by Kahihu *et al.* (2021), which revealed no impact of inflation rate risk management on the financial performance of microfinance institutions, Kenya.

Effective management of liquidity risk was observed to exert a significant effect, as indicated by the p-value ($p = 0.007 < 0.05$). This suggests that adept handling of liquidity risk contributes to enhanced financial performance. These findings are consistent with the assertions made by Njue (2020), highlighting the importance of effective liquidity management techniques in enhancing the overall financial performance of microfinance institutions, leading to increased earnings and sales. The statistical analysis on firm size results showed a p-value ($p=0.002<0.05$) which means that they were statistically significant, indicating that firm size plays a significant moderating role. These findings support the findings of a previous study by Gacheru (2021), in which ROE was utilized as the metric for measuring financial performance. Gacheru's research showcased a notable connection between company size and financial performance. Nevertheless, these findings oppose the assertions made by Alabdullah *et al.* (2018), who concluded that firm size did not impact financial performance.

XI. Conclusion

This study provides valuable insights into the significance of financial risk management strategies for investment firms. Effective management of interest rate risk, exchange rate risk, inflation rate risk, and liquidity risk were found to have a significant effect on financial performance. Additionally, the study highlights the moderating role of firm size, indicating that the effect of financial risk management strategies on financial performance varies depending on the size of the firm. This research emphasizes the importance of implementing comprehensive risk management strategies tailored to the specific needs of investment firms for enhancing financial performance.

XII. Recommendations

Investment firms operate in an environment where interest rates significantly influence financial markets and investment returns. Investment companies should incorporate interest rate risk management into their strategic planning and utilize appropriate financial instruments such as forward rate agreements and options. Maintaining a diversified bond portfolio is also crucial to navigate interest rate fluctuations effectively. Investment firms need also to prioritize effective management of risks related to inflation rates. This includes employing portfolio adjustment techniques, making necessary spending adjustments, effectively communicating and implementing inflation rate risk management efforts, and staying vigilant in monitoring and adapting to changing inflation dynamics.

Investment companies should improve their approaches to handling risks related to foreign exchange rates. Strategies like currency invoicing, leading and lagging, and exposure netting should be implemented. The use of foreign exchange derivatives like forward rate agreements and options can further enhance financial risk management. Further, investment firms must address liquidity risk by implementing practices such as cash flow forecasting and optimizing net working capital. Investment firms should also consider the moderating impact of firm size and tailor their strategies accordingly. Firm size plays a significant role in determining resource allocation, risk tolerance, and the ability to handle financial risks effectively. A customized approach to financial risk management is necessary, considering the unique characteristics associated with different firm sizes.

Moreover, the policymakers in Kenya should encourage investment firms to provide comprehensive risk disclosures in their financial reports, including details about risk management strategies, effectiveness, and potential consequences on financial performance. Standardized reporting frameworks and guidelines should be established to enhance consistency and comparability among firms. By encouraging investment firms to provide such comprehensive risk disclosures, policymakers can enhance transparency and ensure that investors have access to essential information for making informed decisions.

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