EFFECT OF FINANCIAL RISK ON PERFORMANCE OF NON-FINANCIAL FIRMS LISTED AT NAIROBI SECURITIES EXCHANGE

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DECLARATION

This research project report is my original work and has not been submitted for the award of a degree in any other university.

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This research project report been submitted with my approval as the University Supervisor.

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DEDICATION

To my beloved family members, may God bless you all for your patience. I sincerely recognize your unwavering support for the entire period of the study. It is beyond expression through words.

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ABBREVIATIONS AND ACRONYMS

ANOVA:	Analysis of Variance
CFO:	Chief Finance Officer
NIM:	Net Income Margin
NSE:	Nairobi Securities Exchange
ROA:	Return on Assets
ROE:	Return on Equity
SPSS:	Statistical Package for Social Scientists
VIF:	Variance Inflation Factor

ABSTRACT

The study intended to establish how liquidity, leverage and equity price risks affect financial performance of non-financial firms. It used descriptive cross-sectional approach and longitudinal design. The population of the study included all listed firms at the Nairobi Securities Exchange as at 31st December 2019. Secondary data was employed sourced from Nairobi securities exchange database during 2015 to 2019. Statistical package for social scientists was used to produce inferential and descriptive statistics. It was established that R = 0.770 implying a positive association between financial risk and performance. Adjusted R^2 of 0.550 meant that 55% of variations in financial performance was caused by variations in liquidity risk, leverage risk, firm size and equity price risk. The analysis of variance found out that financial risks and financial performance are significantly related with $p < 0.05$. The implication was that equity price risk, firm size, leverage risk and liquidity risk reliably predict financial performance. Ensuing from the research objectives, the study concluded that financial risk affects financial performance of non-financial firms listed in Kenya. It was also concluded that financial risk and performance are significantly related. Further, it was concluded that the extent to which financial risks affected financial performance was moderate implying that there was a strong possibility of existence of other certain issues affecting financial performance other than the financial risks considered in this study. It recommended that managements should constantly work on effective management of financial risks to maximize financial performance. The management should ensure adoption of new techniques of financial risk management especially with the increased adoption of information communication technology.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Financial risk means uncertainty of returns regarding financial activities of a company. This may be due to unstable financial markets leading to losses as caused by stock price movements, changing value of the currency, interest rate movements and the general incapacity of a company to fulfill financial obligations (Wanjohi, Wanjohi & Ndambiri, 2017). This class of risks is related to financing and investment decisions made by a company. Kassi, Rathnayake, Louembe and Ding (2019) posit that financial risks face a number of companies since their valuation especially the listed companies rely on market-related factors that makes up financial risks. This further affect how such companies perform financially as well as their general competitive advantage. Financial performance studies the companies' financial health in relation to effective use of resources leading to maximization of profits and sustainability of wealth generation to shareholders (Naz & Naqvi, 2016). The implication is an existing relationship between financial risk and performance.

Modern portfolio theory is the fundamental theory. It justifies that in the management of financial risks, a consideration should be made on how a change in one asset price affects every other asset in the portfolio (Markowitz, 1952; Jones, 2017). The premise is that risks generally become lower when they are diversified. The agency theory is justified on the basis that when ownership and management is separated, conflicts exist (Jensen & Meckling, 1976; Ross, 1973; Panda & Leepsa, 2017). It therefore provides a mechanism to understand the different financial risk management preferences due to different risk profiles of agents and principals in an agency

relationship. Waqas and Md-Rus (2018) posit that the significance of financial distress theory is underlined on the high cost of financial distress. Predicting financial distress is therefore key to investors, lenders, and participants in the financial system (Baldwin & Scott, 1983).

Companies whose shares are listed are concerned about the extent to which they perform financially due to the requirement to uphold specific corporate governance codes and guidelines. Nairobi Securities Exchange (NSE) which has a mandate to develop and regulate operationalization of market efficiency has experienced several companies facing a decline in how they perform leading to some of the companies being delisted or put under administrative management in the recent past (Chebii, Kipchumba, & Wasike, 2011). The argument is that, when companies experience a decline in financial performance, their shares may end up trading below or near their par values as their they experience a sharp fall in the prices of their shares (NSE, 2019).

1.1.1 Financial Risk

It explains the variations or fluctuations in returns that the companies do not expect hence contributing to negative financial performance (Kioko, Olweny & Ochieng, 2019). They vary depending on the organization and the industry under study. They however include different types such as equity, liquidity, market, currency, asset-backed, foreign exchange and credit risk among others. Catherine (2020) asserts that market risks explains variations attached to changes in the market prices. Credit risks are attached to possible defaults in financial obligation between businesses giving rise to possible default. Finally, liquidity and cash flow risks relate to variations in expected return when a company has difficulties in getting financing.

The financial risks indicators include asset-backed risks, credit risk, foreign-exchange risks, currency risks, liquidity risks, stock market risks, leverage risks and equity-price risks. The current study focuses on liquidity, leverage and equity price risks. Liquidity risk implies likelihood of the company being incapable of settling obligations when expected to do so (Drehmann & Nikolaou, 2013). Leverage risk is a measure of variations in returns of a company based on the extent to which firms use equity and debt to finance its assets (Al-Slehat, 2020). The implication is, there is an increase in financial leverage in tandem with debt increase. Lastly, equity price risk is a measure of variations arising from security price volatility (Puspitaningtyas, 2017).

Financial risk creates an environment of possible losses, making it difficult to realize the set financial objectives. It is a reflection of uncertainty with respect to current and future changes that ends up affecting how a company can access and use finance in the short and long run (Zhongming, Frimpong & Guoping, 2019). The financial risks are in most cases dependent on each other for instance, there exist a strong link between exchange rates and interest rates. This dependence enables the management to institute a reliable mechanism to manage the risks. Ofosu-Hene and Amoh (2015) are therefore of the view that firms can benefit from financial risk management through protection of the ability of the company to make reliable financing and investment decisions.

1.1.2 Financial Performance

It explains how a company generates high incomes, make good profits and effectively utilize the assets (Wangombe & Kibati, 2019). It therefore indicates how effectively companies put into use their resources in the generation of incomes. Companies with

high financial performance therefore have a predictable and sustainable going concern. Mwangi and Murigu (2015) opined that financial performance measures the creditworthiness, liquidity and cost-effectiveness of a company. Further, a company is considered financially healthy when it is in a position to generate high sales volume, make profits and manage its expenses in a sustainable way while maintaining a healthy asset and cash flow position overtime.

Financial performance indicators of a firm are grouped under capital adequacy, liquidity, leverage, solvency, and profitability ratios (Fatihudin, Jusni & Mochklas, 2018). This is because it is the capability of an organization to take charge of its resources. The importance of financial performance is that it enables companies to sustain their operations since high performing companies are considered to be financially healthy (Matar & Eneizan, 2018). Wamiori, Sakwa & Namusonge (2016) assert that financial performance can be evaluated using many financial indicators such as liquidity ratios, profitability ratios, gross income, profit before interest and tax and the asset valuation. Masindet, Ndambiri and Oluoch (2018) indicate that companies are deemed to be financially performing when in a position to maximize financial needs of the stakeholders.

1.1.3 Financial Risk and Financial Performance

Zhongming, Frimpong and Guoping (2019) posit that financial risk occurs due to uncertain loan and other credit repayments, illiquidity, unstable interest rates and fluctuations in foreign exchange rates. Due to these uncertainties, companies face possible variations in their expected financial returns attached specifically to the risks. According to Xing, Liu, Shen and Wang (2020), financial performance indicates staking the business situation of a firm, which can directly reflect the profitability and

business risk. They stated that the extent to which companies perform financially financial can be measured in term of sales growth, profit generation, and market share in the main product market.

Empirically, elements of financial risks either affects financial performance positively or negatively. Sujeewa (2015) found out that liquidity risks significantly negatively affect profit performance of financial institutions. Similarly, variations in interest rate negatively impact on earnings spread between assets and liabilities having same maturity hence subsequently affecting how they perform financially (Kolapo & Dapo, 2015). Liquidity risk generally affect how companies perform financially. This implies that it affects return on assets in the long run (Clemens, Iman & Robert, 2015). In another study, Aykut (2016) established that interest rate risk negatively and significantly affects the volatile nature of bank profits while foreign exchange risk significantly and positively affect bank return volatility whiles credit risk negatively affect bank returns volatility significantly.

1.1.4 Non-Financial Firms Listed at Nairobi Securities Exchange

The growth of Kenya's economy is facilitated by the Nairobi Securities Exchange which ensures that there is savings and investment done and capital is accessible to domestic and foreign firms. Financial performance of enlisted companies would majorly be realized when there is adequate operational efficiency of the exchange market. To achieve this milestone, Nairobi securities exchange has implemented several changes recently including automation of the market allowing stockbrokers to trade from any remote location (NSE, 2020). This has led to improved market price performance as well as parameters such as market size due to introduction of new investment vehicles.

The non-financial companies are grouped into different sectors and they are forty-five (45) in number (NSE, 2020). Less attention however has been directed to the manufacturing companies and agricultural sectors despite these sectors being of significance in the economy (Zelalem, 2020). Their contribution to the economy therefore forms a basis of the study as significant part of economic contribution. The reliance placed in the companies under these sectors cannot be underestimated both in the provision of employment and general economic significance.

1.2 Research problem

Financial risk would lead to organizational failure in their quest to realize financial objectives. This is due to uncertainties that make it difficult to execute financial plans effectively. Equally the existence of possible defaults on credit commitments, volatile interest rates, liquidity problems and variations in foreign exchange rates negatively affect use of the available assets and hence financial performance (Sadgrove, 2016). Gowsalya and Mohammed (2017) posit that financial risks determines the capability a company to realize high and sustainable profitability. The basis is that in order to diversify business and to escalate returns, companies should be knowledgeable of risks involved that significantly impact on measures of profitability (Naz & Naqvi, 2016).

Non-financial firms have declined in their financial performance in the recent past causing a major concern for regulators, especially of the listed companies. In a bid to have them revived, focus has shifted to how best they can be financially restructured to enable then achieve optimal financial performance. This would help improve financial and investment decision making for financial posterity (Kajirwa & Martin,

2019). Kenya Financial Sector Stability Report (2019) reported improved profit performance half way in 2018, compared to performance in 2016 and 2017 among the companies.

Several studies related to the variables under considerations exist. Kimathi, Galo and Melissa (2015) focused on leverage as the only element of risk affecting how non-financial firm perform financially and ignored other elements. Maniagi, Mukanzi and Mukanzi (2016) used stock return to measure financial performance while financial leverage was used as the financial risk element hence ignoring elements such as liquidity and equity risks. Kassi, Rathnayake, Louembe and Ding (2019) relevantly studied the similar concepts but was contextualized on Moroccan Stock Exchange.

From the aforementioned studies, the reality is that financial risks affect how firms achieve financial as well as non-financial objectives. The gap as stated exists on the basis of context and concept. Contextually, the current study deals with companies that are not in the financial sector as listed in Kenya while from a concept point of view, the study considers a combined effect of liquidity, leverage and equity price risk which none of the studies have focused on. The research therefore intended to address the question: "What is the effect of financial risk on financial performance of non-financial firms listed at Nairobi securities exchange?"

1.3 Research Objectives

To determine how financial risk affect performance of non-financial firms listed at NSE.

1.3.1 Specific Objectives

i. To establish the effect of liquidity risk on financial performance of non-financial firms.

ii. To determine the effect of leverage risks on financial performance of non-financial firms.

iii. To establish the effect of equity price risks on financial performance of non-financial firms.

1.4 Value of the Study

It offers a foundation into the critical area of financial risk management which is key in corporate finance. This research seeks to increase knowledge regarding financial risk and the general aspect of corporate finance. This would help establish more studies in corporate finance that would help improve understanding into the role it plays in performance of companies. It would therefore provide more insight into the variables under study that would encourage future research and to provide more areas of study for researchers.

The research findings would help regulate financial risk-related corporate decisions and actions. The possible negative effect of financial risks on corporate viability makes it the basis of the need for policy making. The study would help formulate best practice codes for corporate governance in relation to expected financial performance and risk-related factors.

In practice, management and staff of listed non-financial companies would find it as a strong basis of financial and investment decision making. They would learn the need to manage the financial risks to optimize corporate performance. They would also

find a way of achieving and sustaining competitive advantage through effective understanding of the effects of those risks. The study will equally estimate how sensitive the various risks are.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This section involved discussion of the key theories underlying the variables studied development of a conceptual framework and identified the research gaps.

2.2 Theoretical Review

The theories focused on comprise modern portfolio theory, agency theory and financial distress theory as follows:

2.2.1 Modern Portfolio Theory

It was developed by Markowitz (1952). It gives an explanation on how to maximize expected returns as well as how to minimize risks. This can be realized through careful choice of assets making up the portfolio. According to Bodie, Kane and Marcus (2018), efficiency of a portfolio is measured by the high level of returns for any amount of risk achieved by optimally diversifying assets held by a company. It emphasizes that companies would reduce risk exposure through holding optimal portfolio that is considered as a sign of rational financial and investment decision making.

The justification of the theory is based on its suitability for large companies especially the case of listed companies that have large asset base through commitment of huge sums of money. It would help the management of such companies to diversify investments to help reduce risks and improve financial performance (Fatemi, Glaum & Kaiser, 2017). The theory also helps to assess the use of risk-return trade-off argument in the analysis of rational investment decision making. Expected financial

performance is achieved when assets held can be combined optimally for maximum gain (Parrino, Kidwell & Bates, 2015).

The theory faces criticisms from scholars who doubt it viability. Their argument is that its model is not in line with the real-world situation in that it lacks insights regarding personal issues, the environment and socio-cultural perspectives of modern-day investment. In the wake of the financial crisis in 2008, the theory seemed inadequate in explaining market behaviors (Lo & Mackinlay, 2010).

2.2.2 Agency Theory

It was propounded by Jensen and Meckling (1976) and Ross (1973). It states that an agency relationship exists among parties in the governance of an enterprise. The owners would be the principal while the management team are the agents. The principal's expectation is that agents would help them in growing their capital and interests. In many cases however, agents make decisions that serve their personal interest leading to an agency conflict. According to Panda and Leepsa (2017), when the owners are separate from the management team, a possible conflict would arise because of different risk profiles, different information held and moral hazards.

The theory gives an insight on how shareholders can protect their investment through the use of independent auditors, monitoring of management decisions and putting in place investment oversight to reduce financial risks when making investment decisions (Hastori, Siregar, Sembel & Maulana, 2015). It helps in performance management especially with respect to financial risk management. The assumption is that employees have economic self-interest that requires to be monitored to reduce possible conflicts (Evans & Tourish, 2016).

2.2.3 Financial Distress Theory

It was developed by Baldwin and Scott (1983). It states that companies that are not in a position to perform their financial commitments and fulfill underlying financial obligations are financially distressed. This may be indicated by poor financial performance, inability to fulfil long term financial obligations and failure to execute financial-related contracts (Balan, Robu & Jaba, 2015). When financial risks are not managed effectively, there will be erosion of financial assets of the company. This may make the companies to be financially distressed, leading to a fall in financial performance. Companies having challenges of financial risk management experience high leverage, dividends in arrears, negative net assets and increasing losses.

The application of the theory benefits the company on the basis that companies that are financially distressed need to assess their level of financial risks and how effectively they are identified and managed. Companies with effective financial risk management are likely to deal with financial distress situations easily (Saji, 2018). Assessment of possible financial distress and prediction of financial risks are critical to investment decisions made by companies. It should be noted that financially distressed companies may be due to managerial incompetence who are unable to study and act on the business trend (Menicucci & Paulucci, 2016).

2.3 Determinants of Financial Performance

Mirza1 and Javed (2013) posit that there are several determinants including leverage risks, risks, firm size, financial risks, liquidity risks, equity price risks, firm size, capital structure, profitability, economic conditions, corporate governance and firm characteristics and policies. The current study focuses on financial risks, liquidity risks, leverage risks, equity price risk and firm size as follows:

2.3.1 Financial Risks

Elements of financial risk can impact financial performance of a company positively or negatively. According to Sujeewa (2015), liquidity risks impacts negatively but significantly profit performance of firms. Similarly, variations in interest rate negatively impact on earnings spread between assets and liabilities having same maturity hence subsequently affecting how they perform financially (Kolapo & Dapo, 2015). Liquidity risk generally affect how companies perform financially. This implies that it affects return on assets in the long run (Clemens, Iman & Robert, 2015). In another study, Aykut (2016) established that foreign exchange risk significantly and positively affects bank return volatility.

2.3.2 Liquidity Risk

It is the inability of an enterprise to effectively manage its current assets and liabilities (Demirgüneş, 2016). Companies with liquidity problems in most cases have insufficient cash to offset short term financial obligations and to help in the maximization of investment returns. Liquidity performance optimizes financial performance due to minimum cash-flow problems (Rehman, Khan & Khokhar, 2015). Companies that are not liquid enough would therefore not have an opportunity to optimize the use of the available current assets and liabilities.

2.3.3 Leverage Risk

It analyses the mixture of debt and equity in the financial structure which affects maximization of shareholders' wealth (Abubakar & Garba, 2019). Companies that use excessive debt levels are likely to be financially distressed due to possible bankruptcy. The use of debt can also benefit a company especially when debt is cheaper as well as

the tax-related advantages, unless the company exhausts its tax shield. The essence is that the level of leverage affects financial performance. Highly geared companies have unfavorable exposure to financial distress through bankruptcy-related issues.

2.3.4 Equity Price Risk

According to Kamau and Njeru (2013), equity price risk is the possibility of variations in investment returns arising from volatile price of assets. Puspitaningtyas (2017) posit that the extent to which the prices of assets are volatile affect the liabilities and subsequently financial performance of firms. Mustofia, Puspitaningtyas and Sisbintari (2014) further state that equity price risks affect assets and liabilities of the company making its consideration key in corporate financial performance. When the price of assets and securities fluctuate, the value of the company varies and this significantly affect the way the firm performs.

2.3.5 Firm Size

Companies with large resource capacity and asset level enjoys economies of scale. This makes them to be financially healthy as compared to smaller companies (Eyigege, 2018). Large companies are also deemed to have organized resource-base and equipment of good quality that facilitates good financial performance. This equally makes larger companies to be in a position to compete better than the smaller ones in terms of market, operational and man power performance. The size of the firm therefore ensures efficiency and effectiveness hence improving financial performance (Khan, Nouman & Khan, 2015). Large companies also attract better personnel and they are highly resourceful and capable than companies with little capacity and resources.

2.4 Empirical Review

Matayo and Muturi (2018) studied the effects of financial risk on how large supermarkets in Nairobi perform financially. It adopted a description approach quantitatively. It targeted a population of thirteen (13) large-scale supermarkets licensed by county government of Nairobi. The study was a census of entire large supermarkets in Nairobi. The collection of already available information was done using data collection sheets. The data analysis was done through description and inferential analysis using SPSS. It was concluded that financial risk statistically and significantly affects financial performance.

Kibera and Muturi (2018) studied how financial risk management affect the extent to which listed firms perform financially. The study was contextualized at the NSE Description of data collected was adopted for this research. It targeted all major financial staff 61 enterprises. It was therefore a census survey. It used semi-structured questionnaires to help in the collection of primary data. Coding of the data collected was done in SPSS to enable analysis through description and inferential procedures. It concluded that when companies put in place mechanisms to avoid risks, their profit-making ability improves overtime.

Mugetha (2019) assessed the extent to which liquidity affects how listed firms perform financially. The research used panel approach. The target was the sixty-four (64) listed firms hence it was a census survey. The extraction of the already available information was done through reliance on published financial statements. Hypothesis testing was undertaken at 95% confidence interval. The conclusion was that liquidity positively and significantly contributes to financial performance.

Agura and Oluoch (2017) studied how financial risks affect market performance of listed manufacturing companies. They utilized descriptive survey approach. The duration of the study was between January 2008 to December 2016. The study adopted purposive sampling. Published information was employed as gathered from the quarterly interest and exchange rates. The conclusion was that default rate, credit rate and rate of risk exchange impacted significantly but negatively on market performance.

Kamau and Njeru (2016) studied how liquidity risk affect financial performance of insurance companies. Descriptive approach was utilized. The antecedents of the independent variable included operational, market and credit risk. The targeted population were the six (6) listed insurance firms for the period 2012-2015. Reliance was also placed on published information of the financial statements of enterprises for the given duration of the project. It concluded that operational, market and credit risks negatively affect financial performance.

Maniagi, Mukanzi and Mukanzi (2016) assessed the extent to which financial risk affect stock return of non-financial companies. The research adopted quantitative approach. The targeted group was the 46companies as at January 2016. The study sampled forty (40) companies. The extraction of already existing information was from the NSE annual reports. The data was analyzed through description and inferential statistics. It concluded that business and credit risk have negatively and significantly correlate with stock return. Liquidity risk was however found to be positively correlated to stock return.

Kimathi, Galo & Melissa (2015) studied how the use of loans in financing affect how enterprises under the non-monetary sector perform. It was a census survey of all listed non-financial firms. Published financial information was used as the source of data. It adopted a causal design. The conclusion from the outcomes was that irrespective of the level of loans used in the financial structure, performance does not vary significantly. Further the study found out that the use of loans negatively affects firm performance.

Chepkemoi, Ndung'u and Kahuthia (2019) studied market risk and its effect on non-financial companies perform financially. This research employed longitudinal approach. The period scope was a five-year period from 2008 to 2017. The focus was on statement of financial position items including ratio analysis. Nine listed commercial banks in Kenya were studied. Regression analysis was undertaken using panel data. The conclusion was that commercial banks performance was affected by interest rate changes.

Mirza1 and Javed (2013) examined the performance of enterprises based on profitability and how it is linked with multiple determinants for 60 Pakistan companies included in Karachi stock exchange ranging from 2007 to 2011. It was established that corporate governance, ownership structure and capital structure strongly affect performance.

Ajibade, Oyedokun and Onibiyo (2018) conducted an empirical examination of the effect of unsystematic risk on the financial performance of selected manufacturing firms in Nigeria. It adopted the ex-post facto research design by obtaining secondary data from the annual financial reports of the selected companies as well as from the

publications of the Nigeria Stock Exchange (NSE). The study employed descriptive and Ordinary Least Squares regression model. It established that unsystematic risk significantly and positively affects the Gross Profit of the selected firms.

2.5 Summary of Literature and Research Gaps

The contextual gaps are represented by the studies that are conducted in other countries as well as those studies that focus on other firms other that listed non-financial firm in Kenya. Matayo and Muturi (2018) focused on large supermarkets in Nairobi while the study by Kamau and Njeru (2016) was based on insurance companies. Other studies indicated contextual gaps on the basis of being undertaken in other countries. The study by Mwelu, Rulangaranga, Watundu, Kaberuka and Tindiwensi (2016) was conducted in Uganda while the study by Ajibade, Oyedokun and Onibiyo (2018) focused on manufacturing firms in Nigeria. The context of Bărbuță-Mișu, Madaleno and Ilie (2019) was European countries.

Methodological gap exists in the study by Kibera and Muturi (2018) that relied on primary data and considered all the listed firms. The study by Ajibade, Oyedokun and Onibiyo (2018) was an empirical examination using an ex-post facto research design. The study by Mugetha (2019) identified conceptual gaps by focusing on only liquidity risk as the financial risk under study. The study by Maniagi, Mukanzi and Mukanzi (2016) focused on stock return as the antecedent of financial performance as opposed to the current study that focused on financial performance.

2.6 Conceptual Framework

The antecedents of financial risk include liquidity, leverage, foreign exchange and equity price risk while Return on Assets (ROA) measures financial performance. The control variable included firm size. The framework is as shown in Figure 2.1.

Independent Variables   **Dependent Variable**

```
┌─────────────────────────────┐           ┌─────────────────────────────┐
│ Financial Risks             │           │ Financial Performance       │
│   ▪ Liquidity Risk          │ ───────►  │   ▪ Return on Assets        │
│   ▪ Leverage Risk           │           │                             │
│   ▪ Equity Price Risk       │           │                             │
└─────────────────────────────┘           └─────────────────────────────┘


┌─────────────────────────────┐
│ Control Variable            │ ───────────────────►
│   ▪ Firm Size               │
│                             │
└─────────────────────────────┘
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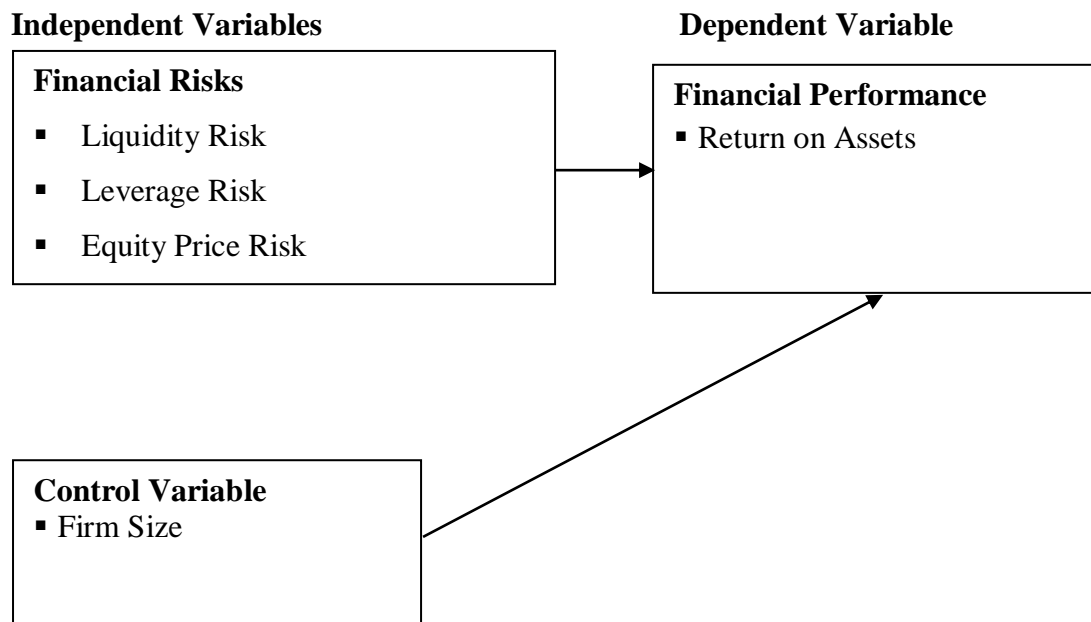
Figure 2.1: Conceptual Framework

Source: Researcher (2020)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section included the approach adopted by the study. It equally comprised of the targeted population, sampling design, and methods of gathering and analyzing data.

3.2 Research Design

It adopted descriptive cross-sectional approach and longitudinal design. The approach required the researcher to collect data about peoples' character, views, feelings and previous encounters as a basis of generalization of the findings about the issue under research. The approach involved asking questions and tabulating the responses received (Rezigalla, 2020). Descriptive approach enabled the analysis, interpretation and reporting of what was found out without manipulating the information collected. This made the reported findings to be authentic hence facilitating adoption and application of the study recommendations.

Setia (2016) posit that the aim of descriptive cross-sectional design to offer estimates of the variables dealt with in the entire population. Cross-sectional studies usually focus on gathering suitable information within specific time lines. The fact is, no attachment was made on duration, given that the required information was gathered basically with reference to the current duration of data gathering.

3.3 Population of the Study

The study targeted all non-financial firms listed at the NSE market as at 31st December 2019. They were forty-five (45) and were classified as given in appendix I.

Since this was a relatively small population, it was a survey of all the forty-five (45) firms.

3.4 Data Collection

The secondary data used related to how the companies performed over the period that bear relevance to the concepts under concern. Data was collected on variables that helped to compute liquidity ratio, debt-equity ratio, price volatility and return on assets. Data was also collected on total assets for all the listed non-financial companies. The data source was therefore the published financial statements covering duration of study reported by the NSE annual reports.

3.5 Diagnostic Tests

Multicollinearity was evaluated using Variance Inflation Factors (VIF). The desired estimate was not to exceed 10. The testing of heteroscedasticity was done using the Koenker test and desirable values were expected to exceed 0.05. Autocorrelation was then assessed through the use of Durbin-Watson test. In this test, statistics of around two (2) was considered an indication of lack of serial correlation.

3.6 Data Analysis

Statistical package for social scientists was employed to produce inferential and descriptive statistics. The specific objectives were analyzed using simple linear regression while for the general objective, the multiple regression analysis helped in determining how financial risk affects performance. The multiple regression model utilized was as follows:

$FP = a + \beta_1 LR_1 + \beta_2 LE_2 + \beta_3 EP_3 + \beta_4 FS_4 + \varepsilon$

Where:

Y = Financial Performance (Dependent variable).

a = Constant

β= Beta Coefficient

LR_1= Liquidity Risk

LE_2= Leverage Risk

EP_3= Equity Price Risk

FS_4 = Firm Size

ε = Error term.

3.7 Operationalization of Variables

The constructs included here were financial risk as predictor variable and financial performance as predicted variable. The analysis helped in the understanding how the variables were measured.

Table 3.1: Operationalization of Study Variables

Variables	Measurement and Formula	Source
Liquidity Risk	▪ Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Rehman, Khan and Khokhar (2015)
Leverage Risk	▪ Debt-Equity Ratio = $\frac{\text{Total Liabilities}}{\text{Total Equity}}$	Zelalem (2020)
Equity Price Risk	▪ Price Volatility = $\frac{\text{Equity Price}_2 - \text{Equity Price}_1}{\text{Equity Price}_1}$	Mustofia, Puspitaningtyas and Sisbintari (2014)
Financial Performance	▪ Return on Assets = $\frac{\text{Net Income}}{\text{Average Assets}}$	Fatihudin, Jusni and Mochklas (2018)
Firm Size	▪ Year-end total assets	Khan, Nouman and Khan (2015)

Source: Research Data (2020)

3.8 Tests of Significance

The determination of the significance of each variable under study was done using the t-test, p-values and F-test. F-test and p-values assisted in testing the relevance of the regression model. R^2 and beta coefficients were also computed.

CHAPTER FOUR

DATA ANALYSIS, DISCUSSION AND FINDINGS

4.1 Introduction

This part provides how data was analyzed and discussion of findings. The findings were based on research objective. Reliable data was not obtained from Uchumi supermarket that was delisted while Kenol Kobil Limited (Kenya) suspended from the NSE February 2019. This affected the reliability of data.

4.2 Diagnostic Tests

4.2.1 Multicollinearity Test

Multicollinearity depicts two or more IV in a multiple regression model as very much correlated. It was evaluated using VIF and tolerance values. According O'Brien (2007), desirable VIF value should range between 1 and 10.

Table 4.1: Multicollinearity Test

Variables	Tolerance	VIF
Liquidity Risk	0.678	1.475
Leverage Risk	0.781	1.280
Equity Price Risk	0.949	1.054
Firm Size	0.824	1.213

Source: Research Data (2020)

Table 4.1 shows that observed all VIF values ranged between 1.054 and 1.475 while tolerance values ranged between 0.678 and 0.949. This was within the desired values hence lack of multicollinearity.

4.2.2 Heteroscedasticity Test

To assess this, Breusch-Pagan and Koenker was carried out. The appropriateness of Koenker test for Heteroscedasticity was informed by the small sample size (44), the Koenker Test for Heteroscedasticity was deemed appropriate. From the findings, it was found that p= .2151. This was higher than (0.05). The implication was that the data is homoscedastic.

4.2.3 Autocorrelation Test

Autocorrelation was then tested through the use of Durbin-Watson test. The Durbin-Watson was found to be d = 2.041. This was between the required range of $1.5 < d < 2.5$. The implication is that there was no auto-correlation. This outcome is provided in Table 4.2:

Table 4.2: Autocorrelation Test

Model	Durbin Watson Test
Liquidity risk, leverage risk, equity price risk, firm size and financial performance	2.041

Source: Research Data (2020)

4.2 Effect of Financial Risk on Financial Performance

Pearson correlation was computed to ascertain how liquidity risk, leverage risks, equity price risks, firm size and financial performance correlate as shown in Table 4.3:

Table 4.3: Correlation Matrix

		Liquidity Risk	Leverage Risk	Firm Size	Equity Price Risk	Return on Assets
Liquidity Risk	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	44				
Leverage Risk	Pearson Correlation	.447**	1			
	Sig. (2-tailed)	.002				
	N	44	44			
Firm Size	Pearson Correlation	.399**	.226	1		
	Sig. (2-tailed)	.007	.140			
	N	44	44	44		
Equity Price Risk	Pearson Correlation	-.114	.083	.079	1	
	Sig. (2-tailed)	.460	.594	.611		
	N	44	44	44	44	
Return on Assets	Pearson Correlation	.710**	.332*	.543**	.041	1
	Sig. (2-tailed)	.000	.028	.000	.793	
	N	44	44	44	44	44

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

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.3 indicate that liquidity and return on assets positively and significantly correlate (r = .710; p< 0.05) while leverage and return on assets weakly but positively correlate in a significant way (r = .332; p< 0.05). The findings also indicate that firm size and return on asset have a positively moderate and significant correlation (r = .543; p< 0.05). The correlation between equity price risk and return on assets is however not significant and it is very weak (r = .041; p>0.05). The implication is that improved liquidity, leverage levels and firm size leading to improvement in financial performance while a positive change in equity price risk negatively affect financial performance though not significantly.

4.3 Regression Analysis

In Table 4.4, R = 0.770 implied that financial risk and performance are positive related among non-financial firms. The adjusted R^2 of 0.550 mean that 55% of changes in financial performance is caused by changes in liquidity risk, leverage risk, firm size and equity price risk.

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770[a]	.592	.550	10.44355

a. Predictors: (Constant), Equity Price Risk, Firm Size, Leverage Risk, Liquidity Risk
b. Dependent Variable: Return on Assets

This shows that there is moderate relationship such that the predictors that the study had used do not have an effect of higher magnitude on how non-financial companies listed in Kenya perform financially. This implied the presence of certain issues affecting financial performance other than the financial risks considered in this study such as interest risk, commodity risk and currency risk.

4.3.1 Analysis of Variance

Table 4.5 indicate that financial risks and performance significantly relate as given by $p < 0.05$. This implies that equity price risk, firm size, leverage risk and liquidity risk reliably predict how listed non-financial companies at the NSE perform financially.

Table 4.5: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	6178.098	4	1544.525	14.161	.000[b]
1	Residual	4253.638	39	109.068		
	Total	10431.736	43			

a. Dependent Variable: Return on Assets
b. Predictors: (Constant), Equity Price Risk, Firm Size, Leverage Risk, Liquidity Risk

Table 4.5 also indicate the suitability of the model in estimating how equity price risk, firm size, leverage risk and liquidity risk are reliable in predicting financial performance.

4.3.2 Regression Coefficients

Table 4.6 indicates individual linkage of various predictors to with financial performance and their coefficient betas. The findings indicate that liquidity risk, total assets and equity price risk have a positive coefficients showing that a positive increase in liquidity risk, total assets and equity price risk positively affect financial performance as given by β=.608, β =.297 and β=.088 respectively.

Table 4.6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	-17.396	3.482		-4.997	.000
	Liquidity Risk	2.729	.557	.608	4.895	.000
1	Leverage Risk	-.055	.466	-.014	-.117	.907
	Total Assets	1.570	.595	.297	2.639	.012
	Equity Price Risk	.004	.005	.088	.800	.408

a. Dependent Variable: Return on Assets

Further, the findings indicate that leverage risk have a negative coefficient given $\beta=-.014$. Regarding significance, the study found out that liquidity risk and total assets significantly affect how companies perform financially given by $p<0.05$ respectively. The implication is that liquidity risk and total assets significantly affect financial performance. This is also an indication that leverage risk and equity price risk having $p=.907$ and $p=.408$ with $p>0.05$ do not significantly affect financial performance. The regression model would therefore be as follows:

FP =-17.396 + 0.608LR$_1$ − 0.014LE$_2$ + 0.088EP$_3$ + 0.297FS$_4$ + ε

Where:

Y = Financial Performance (Dependent variable).

a = Constant

β= Beta Coefficient

LR$_1$= Liquidity Risk

LE$_2$= Leverage Risk

EP$_3$= Equity Price Risk

FS$_4$ = Firm Size

ε = Error term.

4.4 Discussion of Findings

The researcher conducted a correlation analysis and established that liquidity risk and return on assets strongly relate positively and significantly ($r = .710$; $p < 0.05$) while leverage and return on assets weakly but positively and significantly correlate ($r = .332$; $p < 0.05$). Firm size and return on asset equally had a positively moderate and significant correlation ($r = .543$; $p < 0.05$). Further, the study established that equity price risk does not significantly correlate with return on assets ($r = .041$; $p > 0.05$). The findings imply that improved liquidity, leverage levels and firm size leads to improved financial performance while a positive change in equity price risk negatively affect financial performance though insignificantly.

It was also established that $R = 0.770$ meaning financial risk and performance of non-financial firms are positively related. The adjusted R^2 of 0.550 meant that 55% of variations in financial performance is caused by variations in liquidity risk, leverage risk, firm size and equity price risk. The study also established a strong possible existence of certain issues affecting financial performance other than the financial risks considered in this study.

The analysis of variance found out that financial risks and performance significantly relate given $p < 0.05$. The implication was that equity price risk, firm size, leverage risk and liquidity risk reliably predict financial performance of listed non-financial firms at the NSE. It was further established that the F statistic was 14.161 and significant at $p = 0.000$ implying that the model was reliable in estimating the linkage between equity price risk, firm size, leverage risk and liquidity risk reliably predict financial performance.

Finally, the regression coefficients established that liquidity risk, total assets and equity price risk have a positive coefficients showing that a positive increase in liquidity risk, total assets and equity price risk positively affect financial performance given by β=.608, β =.297 and β=.088 respectively. It was further found out that leverage risk has a negative coefficient implying that an increase in leverage decreases financial performance given β=-.014. The study also found out that liquidity risk and total assets significantly affect financial performance indicated by p<0.05 respectively implying that liquidity risk and total assets significantly affect financial performance. Leverage risk and equity price risk however had p=.907 and p=.408 with p>0.05 do not significantly affect how the companies perform financially.

The study findings agree with those of Matayo and Muturi (2018) who also found out that financial risk statistically and significantly affects financial performance. The study by Mugetha (2019) equally established that liquidity positively and significantly contributes to financial performance. Bărbuță-Mișu, Madaleno and Ilie (2019) also found out that liquidity and leverage positively affect firm performance. This conclusion was also consistent by the conclusion reached by Mustofia, Puspitaningtyas and Sisbintari (2014). They concluded that equity price risks affect assets and liabilities of the company making its consideration key in corporate financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The section outlines the result of the study done. It alludes to the previous sections hence providing a summary, necessary propositions, the key challenges encountered and insights that can build grounds for enhancing knowledge in similar areas.

5.2 Summary of Findings

The multiple regression analysis established that R = 0.770 implying a positive link between financial risk and performance. Adjusted R^2 of 0.550 meant that 55% of variations in financial performance was caused by variations in liquidity risk, leverage risk, firm size and equity price risk. The study also established a moderate relationship to the extent that the predictors used in the study might not have high impact on financial performance. This meant a strong possible existence of certain issues affecting financial performance other than the financial risks considered in this study.

The analysis of variance found out that financial risks significantly relate between with financial performance at 0.000 (p<0.05). The implication was that equity price risk, firm size, leverage risk and liquidity risk reliably predict financial performance.

5.2.1 The Effect of Liquidity Risk on Financial Performance

It was established that liquidity risk and return on assets positively and significantly correlate (r = .710; p< 0.05) implying that positive variations in liquidity leads to positive improvement in financial performance. The regression coefficients also established that liquidity risk and financial performance have a positive coefficients

showing that a positive variation in liquidity positively affect financial performance given by β=.608. The findings further established that liquidity risk significantly affect financial performance indicated by p<0.05.

5.2.2 The Effect of Leverage Risks on Financial Performance

It was established that leverage risk and return on assets weakly but positively and significantly correlate (r = .332; p< 0.05). The regression coefficients also established that leverage risk have a negative coefficient given β=-.014. The study also found out that leverage risk does not have insignificantly affect financial performance given p=.907 with p>0.05.

5.2.3 The Effect of Equity Price Risks on Financial Performance

It was established that equity price risk and return on assets correlate insignificantly (r = .041; p>0.05). The implication is that variations in equity prices do not have a significant correlation with return on assets. Further, equity price risk was found to be positively correlated with financial performance given β=.088.

5.3 Conclusion of the Study

The conclusion made was that financial risk significantly affect financial performance. Further, financial risks moderately affected financial performance was moderate to the extent that there is a strong possibility of existence of other certain issues affecting financial performance other than the financial risks considered in this study. It was also concluded that liquidity risk had a strong positive and significant correlation to the extent that positive variations in liquidity leads to positive improvement in financial performance. It was also concluded that liquidity risk

significantly affected financial performance. This meant that any variations in liquidity significantly lead to variations in financial performance.

Leverage risk was also found to have a weak positive but significant correlation. The basis was that an increase in leverage risk led to decreased financial performance. Leverage risk was also found not to have significant effect on financial performance. Finally, the study concluded an existence of a weak and insignificant correlation between equity price risk and return on assets.

5.4 Recommendations of the Study

The managements of listed non-financial firms need to constantly work on effective management of financial risks to maximize financial performance. The management could reduce financial risks by ensuring efficient working capital and debt management. The management of the firms could also invest in latest technologies to facilitate working capital management to maximize financial performance.

The study further recommends the need to focus on how companies use loans to finance their businesses. Excessive use of loans exposes companies to bankruptcy especially if they cannot make debt repayments. In spite of this, the use of loans increases possible return on investment and enhance their use of tax advantages. The study has established that high leverage affects financial performance. Listed firms must therefore work to reduce some debt to help improve financial performance through reduced cases of bankruptcy exposure.

5.5 Limitations of the Study

There is need to assess how the findings would be consistent when all sectors are involved would interest future studies. Secondly, annual data was obtained. Due to the

fact that the Kenyan economy is developing, the use of quarterly data would be more accurate and reliable on carrying out the relevant empirical study.

Finally, this research used only quantitative method to identify the relationship between the variables. Incorporation of qualitative aspect to design the research, it would have offered more elaborated understanding of the financial risk management issues.

5.6 Suggestions for Further Studies

The current study was successfully and exhaustively done. However, it only used already available data from audited financial statements of the companies. The use of both secondary and primary data would provide a good mix for further deduction of the findings.

The study also asserts the need to focus on other non-bank financial institutions including micro finance institutions (MFIs) due to their increased role development activities. Equally, further research may focus on how to examine adoption of financial risk management strategies and how it is affecting their financial performance.

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APPENDIX I: LISTED FIRMS AT THE NSE

AGRICULTURAL
Eaagads Ltd
Kakuzi Plc

AUTOMOBILES & ACCESSORIES
Car & General (K) Ltd

COMMERCIAL AND SERVICES
Deacons (East Africa) Plc
Eveready East Africa Ltd
Express Kenya Ltd
Kenya Airways Ltd
Longhorn Publishers Plc
Nairobi Business Ventures Ltd
Nation Media Group Ltd
Sameer Africa Plc
Standard Group Plc
TPS Eastern Africa
Uchumi Supermarket Plc
WPP Scangroup Plc

CONSTRUCTION & ALLIED
ARM Cement Plc
Bamburi Cement Ltd
Crown Paints Kenya Plc
E.A.Cables Ltd
E.A.Portland Cement Co. Ltd

ENERGY & PETROLEUM
KenGen Co. Plc

Kenya Power & Lighting Co Ltd
Total Kenya
Umeme

INVESTMENT
Centum Investment Co Plc
Home Afrika Ltd
Kurwitu Ventures Ltd
Olympia Capital Holdings ltd
Trans-Century Plc

INVESTMENT SERVICES
Nairobi Securities Exchange Plc

MANUFACTURING & ALLIED
B.O.C Kenya Plc
British American Tobacco Kenya Plc
Carbacid Investments Ltd
East African Breweries Ltd
Flame Tree Group Holdings
Kenya Orchards Ltd
Mumias Sugar Co. Ltd
Unga Group Ltd

TELECOMMUNICATION
Safaricom Plc

REAL ESTATE INVESTMENT TRUST
Stanlib Fahari I-Reit

EXCHANGE TRADED FUNDS
New Gold ETF

Source: NSE (2020)

APPENDIX II: SUMMARY OF DATA

Company	Liquidity Risk	Leverage Risk	Firm Size	Equity Price Risk	Return on Assets
Eaagads Ltd	6.39	2.07	5.92	20.5	8.43
Kakuzi Plc	5.27	1.2	5.68	329	7.36
Kapchorua Tea	1.15	0.41	1.3	79	0.35
Limuru Tea Co.	0.22	0.19	0.41	500	-2.03
Sasini Plc	1.82	1.1	2.11	26.5	1.96
Williamson Tea	0.77	0.18	0.91	150	-0.32
Car & General (K)	5.03	2.35	5.75	21.5	8.11
Deacons (E.A)	0.72	0.46	0.14	3.5	-23.62
Eveready East A.	0.61	0.04	0.72	2.3	-25.06
Express Kenya L	0.63	-3.19	0.91	3.75	-23.41
Kenya Airways	0.38	-7.16	0.07	6	-9.57
Longhorn Pub.	4.35	1.33	6.15	5.05	6.42
Nairobi Bus. V.	0.57	0.11	0.14	0	-5.85
NMG	7.01	2.05	6.99	116	11.76
Sameer Africa	0.42	0.71	8.3	2.8	-18.67
Standard Group	0.9	0.3	6.52	37	-2.98
TPS Eastern A.	0.97	0.53	7.2	32.5	0.21
WPP Scangroup	2.3	1.03	7.03	19	3.24
ARM Cement	0.4	0.45	7.5	13	-8.8
Bamburi Cem.	5.46	1.14	7.6	180	7.54
Crown Paints	2.09	0.3	6.44	80	3.24
E.A.Cables Ltd	0.62	0.11	6.68	35.75	-7.27
E.A.Portland	9.46	3.29	7.43	12.8	15.25
KenGen Co. Plc	1.29	2.76	8.56	6.55	2.02
Kenol Kobil	10.42	4.01	8.28	14	22.25
KPLC	1.32	2.76	8.45	7.95	0.53
Total Kenya Ltd	2.76	2.07	7.44	23.5	6.32
Umeme Ltd	4.73	1.11	6.28	13.4	5.57
Home Afrika	0.84	0	7.87	1	-1.81
Kurwitu V.	0.43	1.18	8.05	1500	-2.57
Olympia Capital	0.54	0.24	6.07	3.4	0.07
Trans-Century	0.45	-20.92	6.9	6	-2.56
NSE	8.75	2.01	6.31	19.7	6.09
B.O.C Kenya	2.03	0.6	6.26	107	2.94
BAT	3.13	1.94	7.18	760	4.2
Carbacid Inv.	6.7	2.07	6.5	12.15	8.22
EABL	9.66	3.61	7.75	259	11.71
Flame Tree Group	1.39	0.14	1.09	4.55	1.16
Kenya Orchards	1.98	2.99	7.9	97	6.53

Company	Liquidity Risk	Leverage Risk	Firm Size	Equity Price Risk	Return on Assets
Mumias Sugar	0.13	0.07	0.06	1.1	-63.67
Unga Group Ltd	2.08	1.21	6.9	30.25	5.25
Safaricom Plc	15.61	7.01	8.14	18	48.99
Stanlib Fahari I-R	3.6	0	9.57	107	4.24
New Gold ETF	1	1.33	4.95	1265	0.3