THE EFFECT OF FOREIGN EXCHANGE RISK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA: A CASE OF STANBIC BANK

BY

CONSOLATA KIPTISYA

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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CONSOLATA KIPTISYA

A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfilment of the Requirement for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

SPRING 2017
DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution, or university other than the United States International University in Nairobi for academic credit.

Signed: ___________________________  Date: ___________________________

Consolata Kiptisya

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ___________________________  Date: ___________________________

Kephah Oyaro

Signed: ___________________________  Date: ___________________________

Dean, Chandaria School of Business
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ACKNOWLEDGEMENT

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DEDICATION
This report is dedicated to my husband Denis Limo, my parents Mr.&Mrs Tallam, my siblings: Francisca, Wycliffe and Ibrahim for their continued support, may God bless you all abundantly.
ABSTRACT

The objective of the study was to establish the effect of foreign exchange risk management on the financial performance of commercial banks in Kenya. The objective of the study were: What are the different methods of foreign exchange risk management used by commercial banks? What is the effect of foreign exchange risk on financial performance of commercial banks in Kenya? What are the methods used by commercial banks to predict forex and to manage the effect on financial performance?

The research used a descriptive research design. The target population comprised 100 employees in finance and treasury at Stanbic bank Kenya. The study used applied the sample size formula and arrived at a sample size of 80 employees out of which only 70 responded. The study made use of secondary data. The multiple linear regression analysis was applied to examine the extent of influence of the independent variable on the dependent variables.

The findings on the first objective revealed that majority agreed that the firm sets extensive budgeting systems to handle currency risk projections, it was also revealed that the institution has an up-to-date system that helps in handling currency risk projections. The study was set to financial instruments and techniques used by the bank to hedge against foreign exchange risk. The findings revealed that the frequently used hedging techniques are Cross-Currency Swaps, Options, and price adjustments.

The findings on the second objective revealed that majority agreed that liquidity risk has an effect on return on assets and return on equity, sound and dynamic financial risk management practices has translated into competitive advantage, and they apply more weight to assess the risk exposure during decision making. In addition, it was also revealed that the firm faces both internal and external financial risks.

For the third objective on the methods used to predict and manage foreign exchange, the findings revealed that majority frequently used foreign exchange exposure theory to manage foreign exchange. On the performance of the bank the findings revealed that most of the respondents agreed that the bank had the required level of capital to enable it withstand risks, management is efficient to determine the level of costs and profitability, and has seen increased ROE and ROA over the years. A correlation analysis was done between financial performance and methods of foreign exchange risk management, and methods used by commercial banks to predict forex and manage the effect on financial
performance revealed that there was a significant positive relationship between performance and Risk management.

The study concluded that uncertainty on the firm often carrying out foreign exchange exposure projections is an issue that firms need to address with immediate urgency. Stanbic bank is committed to hedge against forex risk by utilizing techniques such as Cross-Currency Swaps, Options, and price adjustments. It was also concluded that despite forex risk being an issue in the financial sector, liquidity risk also has an effect on return on assets and return on equity. The study also concluded that the bank has also increased performance and this could be as a result of the set funds to enable it to mitigate the risks, management is efficient to determine the level of costs and profitability.

The study recommended that the banks need carry out regular foreign exchange exposure projections in order to minimize some of the risks associated with foreign exchange risks. The firms also need to utilize the financial instruments and techniques effectively in order to better hedge against foreign exchange risk. The institution also needs to put special emphasis on liquidity management in order to minimize its risks as it has an effect on return on assets and return on equity. There is a need for education on the methods used to predict and manage foreign exchange and select the most appropriate method. Banks need to undertake effective cash management in order to have the required level of capital to enable it withstand risks.

For further studies there is a need to undertake a similar study in other commercial banks so as to be able to generalize the findings.
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### ABBREVIATION AND ACRONYMS

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<td>ANOVA-</td>
<td>Analysis of Variances</td>
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<td>FOREX-</td>
<td>Foreign Exchange</td>
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<td>GDP-</td>
<td>Gross Domestic Product</td>
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<td>ROA-</td>
<td>Return on Asset</td>
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<td>ROE-</td>
<td>Return on Equity</td>
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<tr>
<td>SPSS-</td>
<td>Statistical Package for Social Sciences</td>
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<tr>
<td>STD-</td>
<td>Standard Deviation</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

Foreign exchange rate risk management is based on the integral set in each banks call regarding foreign currency exposure (Allayannis, 2011). Currency risk hedging procedures entail eliminating or reducing this risk, and need understanding of all the ways in which the exchange rate risk may have an effect on the operations of economic agents and techniques to alter the resultant risk implications (Walker, 2012). Choosing the suitable hedging strategy is commonly a frightening task attributable to the complexities concerned in measuring accurately current risk exposure and selecting the suitable degree of risk exposure that have to be covered. The requirement for currency risk management began to arise when the breakdown of the Bretton Woods system and also the decline of the U.S. dollar peg to gold in 1973 rush (Papaioannou, 2011).

The issue of currency risk management for non-financial and monetary companies is managed separately from their core business and is sometimes dealt by their company treasuries. Most transnational companies have additional risk committees to manage the treasury’s strategy in managing the rate (and interest rate) risk (Lam, 2013). This shows the importance that companies have placed on risk management concerns and techniques. Conversely, international investors sometimes, but not all the time, manage their exchange rate risk on its own from the underlying assets and liabilities. Since their currency exposure is associated to translation risks on assets and liabilities denominated in foreign currencies, they have an inclination to contemplate currencies as a separate asset category requiring a currency overlay mandate (Allen, 2013).

Exchange rate volatility creates a risky business setting where there are uncertainties concerning future profits and payments. These are particularly exacerbated in countries where monetary instruments for hedging against exchange risk don’t seem to be developed, which is the case in several developing countries like Kenya (World Bank & MTTI, 2016). Forex risk is the risk connected with the sudden changes in exchange rates and exchange exposure because the extent to that surprising changes in exchange rates have an effect on the worth of a firm’s assets or liabilities (Butler, 2008).

Taggert and McDermott (2000) assert that forex connected companies are usually subject to forex risk on the cash payables and receipts in foreign currencies. Evan et al (2005)
defines forex risk management as a program of assessment (identification and quantification) and counterstrategies to mitigate the risk and saves firm’s value. Kirt additionally adds that the risk could be a financial risk to manage net worth creation and loss prevention in firm by internal and external monetary tools. Piet and Raman (2012) say spot rate changes are offset by changes in inflation although little companies might rely upon unstable currency rates for profits. In line with Featherson, Littlefield and Mwangi (2006), forex risk arises once fluctuation in relative values of currencies affects the competitive position or viability of an organization. companies are exposed to forex risk if the results of their initiatives rely upon future rate of exchanges and if exchange rate changes can't be totally anticipated. Generally, it includes firms who are exposed to, group action exposure, Economic exposure and Translation exposure (Salifu et al, 2007).

Foreign Exchange risk comes as an inequality between the assets control by a bank and therefore the loans that fund its record, associate surprising depreciation of the native currency against the USD will dramatically increase the value of mating debt relative to revenues. It may also negatively impact on the trustiness of the bank (hence the flexibility to boost new funds) and even generate some negative earnings, with serious consequences for the semi-permanent monetary stability of the bank (Moles, 2012). Banks area significantly prone to forex rate risk, since they operate in developing countries wherever the danger of currency depreciation is high.

The firm’s debt magnitude relation is the proportion of the firm’s debt in respect to the entire equity finance within the company’s capital structure (McMenamin, 2014). This key magnitude relation is splendidly referred to as associate indicator of the corporate’s future economic condition position and conjointly indicator of the monetary risk position of the company. It’s obtained by dividing the entire company debt with the entire shareholders’ funds. Profits is the distinction between revenue and price of products oversubscribed. Depending on state of affairs or call analysed performance indicators may be very appropriate. For mercantilism selections in company with massive assortment of product, profits expressed in cash terms has to be used to analyse monetary result on the extent of all product assortments or on the extent of huge product cluster. This enables seeing the monetary result while not digging into details.

Gross profits is the cleanest accounting measure of true economic profitableness. The farther down the operating statement one goes, the additional contaminated profitableness
measures become, and therefore the less connected they're to true economic profitableness. For instance, a firm that has each lower production prices and better sales than its competitors is unmistakably profitable. Even so, it will simply have lower earnings than its competitors (Abor, 2005). The return on Assets magnitude relation (ROA), conjointly referred to as revenue on investment, is a crucial profitableness magnitude relation as a result of it measures the potency with that the corporate is managing its investment in assets and utilizing them to get profit. It measures the quantity of profit attained relative to the firm's level of investment in total assets. The return on assets ratio is key to the asset management category of monetary ratios (Brealey et al, 2008).

Dufey (2005) contend that risk management departments that lack well trained personnel to man the departments are less effective and therefore the company was other time be susceptible to such currency risks. The use of forex management methods leads to reduced interchange exposure therefore marginal losses in line with Carter et al (2013) changes in charge per unit will influence a companies current and future expected money flows and ultimately, stock costs. The direction and magnitude of changes in rate of exchange on firm’s worth are a function of a firm’s hedging policy that indicates whether or not the firm utilizes operational hedges and money hedges to manage currency exposure and therefore the structure of its foreign currency money flows. Stacy and Williamson (2011) examine risk management and performance in a sample of corporations in fourteen firms listed on the johannesburg stock market. They notice that higher risk management is related to higher performance within the variety of Tobin's q and ROA.

Although there's a growing literature linking interchange risk management to company performance there's, equally, a growing diversity of results. The range of results may be partially explained by variations within the theoretical views applied, selected analysis methodologies, measuring of performance and conflicting views on general worker involvement in deciding and, in part, to the discourse nature of the individual firm (Carter et al, 2003). Even studies supported the integrative models of worker involvement; incorporating totally different theoretical views and varied worker attributes, give inconclusive results, suggesting that currency risk management has, at least, an indirect result on company performance (Adler & Dumas, 2010).
1.2 Statement of the Problem

Foreign exchange risk management is complicated and needs a radical understanding of the banks business wants, its internal and external surroundings and exposures to the money markets. Forex risk hedging has to be tailored round the banks mission and vision statements, operational infrastructure, risk exposure and risk appetite.

Consequently, there are not any ‘one size fits all’ solutions (Piet & Raman, 2012). Challenges abound as banking establishments commit themselves to up risk management practices (Institute of International Finance). The massive share of the unbanked economically active individuals in Republic of Kenya has triggered the proliferation of formal and non-officially recognized banking establishments providing money services like savings, loans and remittances in addition to different social intervention services to a lot of Kenyans everywhere in the country. Despite the essential these establishments give their quest to liberate individuals from money insecurity- its patronage is thus huge that a collapse or misdirection of those establishments could deal a hefty economic shock to a lot of individuals within the country.

The banking system in Republic of Kenya is characterised by various pressing issues. These emanate from their calibre of target customers and therefore the apparently liberal and/or informal system of operations(Mwangi,2012). The speedy increase in growth of the private sector sector, international investment in microfinance, and a dose of good judgment, makes foreign currency risk management a very important topic for commercial banks. Seventy percent of cross-border, invariable investments are denominated in foreign currencies (meaning currencies apart from the currencies within which the banks are operating), resulting in banks with vital interchange exposure. Throughout the foremost recent international money crisis, some banks that depend upon foreign currency-denominated debt have suffered significant forex losses that threaten their overall viability (Littlefield & Kneiding, 2009). Several of the quality tools applied to hedge currency risk, like futures, swaps and options contracts, are either not obtainable in rising markets or, wherever accessible, are listed in illiquid and inefficient markets, creating the spread of products obtainable extraordinarily restricted. This has placed an additional burden on company treasurers to be able to notice adequate hedge to their exposures in exotic currencies.
In line with Njunge (2012) on forex rate risk management practices adopted by MFI’s in Republic of Kenya, Oduori (2012) did a study specializing in the methods employed by banks in combating rising operational, strategic and credit risks whereas Mutua (2013) did a survey of forex risk management practices by foreign owned industrial banks in Republic of Kenya. These previous studies have centered on the practices adopted by microfinance establishments and chosen banks in managing forex risk while not relating these management practices to a banks financial performance. With accumulated transactions using foreign currency, the fluctuations in exchange rates tend to cause vital foreign exchange risk. Therefore, the management of the forex risk ultimately affects the performance of the bank.

The study seeks to fill the information gap by analysing the result of exchange risk management on the money performance of Stanbic banks in Republic of Kenya. Previous analysis studies have provided a link between currency risk management and firm performance (Ankrom, 2007) with little or no conclusive results. Others Lee (2010) have shown that companies that have strong currency risk management frameworks have higher firm performance. The most characteristics of excellent risk management known in these studies include; leadership of the risk team, adequate compensation of the team and compliance with laws & best practices. there is a perception that firms with risk management departments are better performers. In recent times on the contrary, stress has double-gear towards general worker training in currency risk management.

1.3 Purpose of the study
The purposes of the study was to establish the effect of foreign exchange risk management on the financial performance of commercial banks in Kenya.

1.4 Research Questions
The study was guided by the following research questions:

1.4.1 What are the different methods of foreign exchange risk management used by commercial banks?

1.4.2 What is the relationship between foreign exchange risk and financial performance of commercial banks in Kenya?
1.4.3 What are the methods used by commercial banks to predict forex and manage the effect on financial performance?

1.5 Significance of the Study

1.5.1 Treasury and Risk Managers at Stanbic Bank

The study will enrich Treasury/Risk managers at the bank with the required knowledge on risk management in the Kenyan banking industry. Treasury Managers of other banks, insurance companies and other financial institutions could utilize the findings to facilitate the enforcement of forex risk management policies in financial organizations. The literature, findings and recommendations will complement the existing knowledge on foreign exchange risk management.

1.5.2 Stakeholders

This study is vital to current and prospective stakeholders in the financial sector, this is because it will offer an insight into how financial risk management affect financial performance of banks. The study will add value to investors as it will provide information on forex risks which will aid them in sound decision making.

1.5.3 Government

The information obtained was very useful to the Government and research institutions that could endeavour to add knowledge on intellectual capital. It will also add to existing literature on the subject and stimulate further exploration in the area. This study was very vital in knowledge addition on financial performance of commercial banks in Kenya.

1.5.4 Researchers and Academicians

The study will offer recent data to academicians and this can be used as a basis for further research. The study will also propose areas for further research.

1.6 Scope of the Study

The population of the study was 100 employees in treasury and finance at Stanbic bank operating in Kenya between the months of January to April 2017. Using sampling method, a sample of 80 respondents was selected. Challenge anticipated is low response rate due to the busy schedule of these employees and to mitigate this, questionnaires were
dropped and the respondents was given an ample time of three days to fill the questionnaires.

1.7 Definition of Terms
Processing Re-write Suggestions Done (Unique Article)

1.7.1 Monetary Performance
Financial performance is important for the triumph of a corporation and an appraisal of the practicability, solidity, and fertility of business (Rebbington, 2011)

1.7.2 Monetary Risk
Financial risk is company risk and cyclic showing of _ that is an objective law undecided by the need of individuals and entails each exposure and uncertainty, most probably consequence (Zhang et al., 2008).

1.7.3 Exchange Risk
Butler (2008) refers forex risk as risk connected with the sudden changes in exchange rates and exchange exposure because the extent to that sudden changes in exchange rates have an effect on the worth of a firm’s assets or liabilities.

1.7.4 Exchange Risk Management
Evan et al (2015) defines exchange risk management as a program of assessment (identification and quantification) and counterstrategies to mitigate rate of exchange risk and saves firm’s value.

1.8 Chapter Summary
This chapter has given the background data on analysis of economic performance and exchange risk management in industrial banks in African country. This chapter establishes the information gap within the study of economic performance and exchange risk within the industrial banks. Chapter 2 of this study has focussed on literature review on analysis of economic performance in commercial banks in Kenya and around the world. Chapter three will entail the methodology comprising the analysis style, the study population, knowledge assortment, and knowledge analysis strategies. Chapter dwells on data analysis, while chapter five will have the discussion of the results, conclusions and recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter highlights the importance of foreign exchange risk management, various categories of currency risks and various techniques used to manage foreign exchange risks as advanced by a number of scholars and predictive models used by banks to predict foreign exchange risk. The chapter also focuses on review of empirical studies, general literature review, and theoretical framework and finally the conclusions from literature review are presented.

2.2 Foreign Exchange Risk Management Strategies

Foreign exchange exposure is commonly addressed through a company’s management policies, intuition and former experiences (Holley and Kang, 2016). Forex risk mitigating methods embrace forward contracts, cross-currency swaps, options, leading and lagging, netting and value changes. Several studies conducted on strategies of risk management, most of them targeting financial performance impact on completely different entities (Tafri et al, 2011)

2.2.1 Forward Contracts and Cross Currency Swaps

A forward contract is the agreement to buy or sell particular quantity of an overseas currency at a specified worth for settlement at a present future date, or in a planned window of time. FX forwards facilitate investors manage the danger inherent in currency markets by predetermining the speed and date on at which they're going to purchase or sell a given quantity of exchange. The portfolio is therefore protected against a potential negative currency move and there are not any extra worth complications in execution from doing a spot trade. Deliverable forwards are contracts that are settled with the physical delivery of the foreign currency. Non-deliverable forwards include those that are cash-settled for the gain or loss on the worth of the contract (Marshall, 1997).

In 1982, Mathur performed a study based on the random sampling of the Fortune 500 organizations (noted in Batten et al., 1993). In that examination, Mathur (1982) determined enormous adoption of forward contracts amongst Fortune 500 corporations that had been involved in forex hedging, it's miles by using a long way the most usually followed hedging contraptions. This popularity is perhaps because of the long records of utilization, courting again to the early days of civilization and the buying and selling of
crop manufacturers. Ahead contracts have been the first financial derivatives derived from the ones early “purchase now but pay and supply later” agreements. In modern-day commercial enterprise world, ahead contracts are typically referred to as over-the-counter transactions among two or greater parties in which each consumer and supplier enter into an settlement for destiny transport of certain quantity of forex at an change rate agreed nowadays.

They're typically privately negotiated among two parties, now not always having standardized contract size and adulthood. each party inside the forward contracts are obligated to carry out in keeping with the terms and conditions as negotiated in the contracts even if the parties’ instances have changed. In different phrases, as soon as ahead settlement has been negotiated, both events must wait for the transport date to realize the earnings or loss on their positions. nothing occurs between the contracting date and transport date. indeed, a forward settlement cannot be resold or marked to market (in which all potential profits and losses are right away realized), due to the fact there is no secondary market for a forward contract (Solnik & McLeavey, 2004).

Even though, technically, the ahead agreement can be re-negotiated with the original counterparty, additionally it is nearly too highly-priced to continue with. In fact, the 39 counterparty is not obliged to continue with the renegotiation. forward contracts have one apparent drawback: they lack flexibility, and consequently do no longer permit agencies to react in a timely way to favorable market movements. This drawback is widely recounted and regularly grievance by means of authors and hedgers. So, why are ahead contracts still the most famous hedging device? it is believed that that is in particular due to the fact forward contracts permit the hedging of large volumes of transactions with extremely low charges. Certainly, the parties worried in negotiating ahead agreement are typically companies which might be exposed to forex hazard and their nominated banks. The nominated bank typically fees a carrier fee, of less than 1% of the face value of the hedge quantity, for performing as the counter-birthday celebration within the transaction. So it's far the nominal carrier price that is the low price (Alster, 2003).

A study by Bodnar and Richard (2008) indicate that the foremost often used methodology is forward exchange contract. With forwards, the firm are often totally qualified. However, some risks entail settlement risk that rate of exchange moves within the opposite way as either forecast, and counter party risk that the opposite party is unable to
perform on the contract, the high value of forward contracts can typically forestall corporations to exercise this tool to totally hedge their exposures.

On the other hand, Sun et al (2011) adds currency swap where in the case counterparties exchange equal initial principal of 2 completely different currencies by spot rate and comparative advantage even though a pricey third party offsets default risk. Normal terms, a currency swap is when 2 parties, normally between a bank and an organization agree to exchange payments denominated in one currency for payments denominated in another, the standard aim to exchange money flows scheduled in an unsought currency with flows in a desired currency to boost capital in currencies of no vital revenues (Engles 2012). Having raised the capital however, the corporate might need to swap its compensation into a currency within which it has future operational revenues.

First delivered in the early Eighties, swaps have grown to turn out to be one of the mainstream economic units inside the world (Solnik & McLeavey, 2004). In 2001, the Australian Bureau of information (ABS) carried out a survey which confirmed that swaps have been the second maximum popular spinoff amongst Australian companies worried in hedging (ABS, 2001). Swaps are not change-traded derivatives (Solnik & McLeavey, 2004), they may be over the counter transactions; the main individuals encompass primary business and investment banks, which belong to the global Swaps and Derivatives affiliation (ISDA). This association has pioneered efforts in identifying and lowering danger associated with the use of swaps. Chartered in 1985, their paintings sincerely started out in 1984 when a group of 18 switch sellers and their suggestion began to increase general phrases of hobby price swaps (ISDA, 2006).

Today, the ISDA represents 725 member establishments from 50 international locations on six continents. It is forty-nine the most important worldwide financial change affiliation, in terms of wide variety of member corporations. These member institutions range from the sector’s major establishments that deal in privately negotiated derivatives to end customers that depend upon over-the-counter derivatives to efficiently manipulate their publicity to economic threat. Organizations undertake swaps to control their long-term publicity to forex and hobby rate danger (Hull, 2006). Foreign money swaps can be negotiated for a wide range of maturities for up to ten years (Hughes & MacDonald, 2002). If finances are extra high priced in a single country than every other, a price can be required to atone for the hobby differential.
2.2.2 Options, Leading and lagging

An option may be a distinctive money instrument or contract that confers upon the holder or the client thereof the right, however not an obligation, to shop for or sell an underlying product, at a such price, on or up to a such date. In short, the option client will merely let the right lapse by not exercising it. On the opposite hand, if the option client chooses to exercise the right, the vendor of has an obligation to perform the contract in keeping with the policy terms (Hendershott, 2009). The quality underlying a currency choice are often a spot currency or a derivative on a currency. an option on a spot currency offers client the right to shop for or sell the aforesaid currency against another currency, whereas an option on a currency derivative offers client the right to determine a protracted or short position within the relevant currency futures contract. options on spot currencies are ordinarily offered within the interbank over-the-counter markets, whereas those on currency futures are listed on exchanges (Bodnar & Richard, 2008).

Currency choice may be a legal instrument wherever the owner has the right however not the duty to exchange cash denominated in one currency into another currency at a pre-agreed rate on a such date. It therefore avoids potential exposure as counterparties have free and open option to trade currency quantity at such rate before end date. A study by (Ross et al 2005) states the holder could obtain a call option whereas a writer could sell a put option.

The alternatives markets offer two varieties of contracts: the American and the European. The style of an alternatives contract dictates whilst it could be exercised. The American options settlement offers the purchaser (holder) the right to work out the choice at any time between the date of writing and the expiry date; the alternatives settlement, on the other hand, can most effective be exercised on its expiration date, but now not earlier than the expiry date (Moffett et al., 2006). In Australia, the Australian inventory trade (ASX) simplest offers standardized options contracts. however, foreign places alternatives markets do offer options contracts in bureaucracy: custom designed and standardized. The customized options contracts are also called the over-the-counter (OTC) options. Additionally, it is written by means of banks for US dollars against the British pound sterling, Swiss francs, jap yen, Canadian bucks and the euro (Bodnar & Richard, 2008).

These customized options contracts can be tailor-made to match person desires, in phrases of transport dates, agreement size and strike rate. Moffett et al. (2006) claimed
that the settlement size of those over the counter options contracts can reach $1 million or greater with maturity of up to one or years. The standardized alternatives contracts are also referred to as alternate traded alternatives (ETOs). These standardized options contracts were first brought within the united states by the Philadelphia inventory alternate (PHLX) in December 1982. Different markets which includes the Chicago Mercantile change later accompanied healthy-like the futures contracts, these exchanges traded alternatives are settled via a clearinghouse. The clearing house acts because the middleman and handles both aspects of an options transaction performing because the counterparty of all options contracts, the clearinghouse guarantees the fulfilment of those contracts (Bodnar & Richard, 2008).

A lead strategy involves making an attempt to accumulate overseas currency property handiest once a remote currency is expected to depreciate and paying overseas foreign money liabilities earlier than they're due when a currency is expected to appreciate. On the alternative hand, a lag method entails delaying the collection of overseas forex belongings if that forex is anticipated to apprehend and delaying liabilities if the foreign money is predicted to depreciate (Ward 2010). Leading and lagging includes fast bills from weak forex nations and delaying in flows from study foreign money international locations to vulnerable currency countries. However, lead and lag techniques are frequently difficult to put into effect. The firm should be in position to exercising a few controls over charge phrases, main and lagging may be a zero sum game, it is whereas one party edges, the counterpart loses. Consequently, the earnings won from taking gain of trade could also be outweighed via the price of losing business because of the 0 sum nature of this system (Abor, 2015). The practice of leading and lagging has evolved together of the many techniques of hedging against damaging impact of charge movements.

2.2.3 Netting and Price Adjustments
Netting is a system utilized in international transactions, by international firms and involves reducing fund transfers between affiliates to solely a netted quantity. It needs a firm to possess centralized organization of its money management(Wang,2014). There are primarily 2 styles of payments netting. These include; Bilateral netting payment is valuable solely to the extent that subsidiaries sell back and forth to every alternative. International netting involves the transfers of a netted quantity among 3 or more affiliates, the employment of payments netting reduces the physical flow of another. As a result,
measurable costs like the value of buying forex, the opportunity cost of the float (time in transit) and alternative dealings prices are decreased or accommodated. Netting systems are established to scale back the prices related to inter-affiliate money transfers that result from business transactions. The payoff from international netting systems are often massive relative to their expense (CFTC, 2011).

Price changes involve dynamical costs in several manners. Once the native currency of a subsidiary is devaluating, the subsidiary will increase the worth, therefore as to cancel the impact of devaluation (Tang 2004). This system is especially utilized in countries where devaluation is high and wherever spinoff markets are economical. However, as a drawback of this methodology, costs cannot be raised without any thought regarding competitors as a result of if prices increase an excessive amount of the consumer can opt for constant cheaper product/service from a competitor. Flexibility could also be exhibited within the ability to go through changes within the price of inputs or within the general level of worth to customers through frequent price changes (Jacque & Lorange, 2014).

2.3 Relationship between the Performance and Foreign Exchange Risk

According to Boermans (2011), the great monetary performance must be generated from that monetary risk cannot be avoided. The monetary performance and financial risk got to be evaluated together as a result of them being mutually beneficial that facilitate company sustainability or closure and are influenced by microeconomic and macroeconomic variables as follow as: balance sheet, real interest rate, inflation, capitalization, and therefore the growth of GDP. Each firm is willing to grow and to enhance performance borrowing and generating the financial gain (Tafri et al., 2009). The borrowing to enhance the company performance could provoke the firm’s default on loan payment.

2.3.1 Implication of Corporate Financial Performance and Exchange Risk

Firm success or failure is decided by the monetary performance (Samad & glenn, 2012). The monetary performance failure defines the financial risk (Peng et al., 2011) and this signifies the company likelihood of profit loss based on the characteristics of the firm. The liquidity risk indicates the negative association of firm’s performance (Shen et al., 2009) and this finding is comparable of Dimitropoulos et al., and Tabarin et al., (2013), additionally, Tafri et al., (2009) found a negative impact on ROA and positive impact on
ROE. In alternative word the liquidity risk have an impression on ROA and ROE consistent with Al-Khour (2011) findings, the liquidity risk contributes negatively and statistically significant to ROA, and contributes absolutely to ROE. The findings of Ruziga (2013), the liquidity risk imposes a positive result on on ROA and ROE. consistent with Haneef et al (2012) found that the firm with high profitableness is engaged into less creation of revenue and unlikely affected within the area of credit risk. The poor management directly influences weak operative prices and customers’ credit quality that cause the financial loss.

Muharam (2013) studied the influence of elementary factors on the monetary risk within the banking industries: Comparative study between Islamic banks and conventional banks in Indonesia from 2007 to 2011, found that ROE with significant and negative influence on the monetary risk, whereas the ROA with insignificant and positive influence on financial risk. His analysis has essentially found the liquidity risk to ROE with positive and significant result. The firm’s monetary risks are similar as employing a risk as company financial risk. One the company objective is to scale back the forex risk exposure that provokes the instability of earnings or income (Husni, 2011).

Financial theory shows that modifications in the exchange price can produce a shift in stock prices, immediately in the case of establishment corporations, exporting and uploading corporations, corporations which import part of their inputs and in a roundabout way for other companies. Exchange rate movements have an effect on each the fees of imported completed goods and the prices of imported inputs, therefore influencing indirectly the ones agencies that compete with such corporations (Grambovas & McLeay, 2006). Alternate prices may also affect a company via a ramification of enterprise operation models: a firm may additionally produce at home for export income as well as domestic income, a company might also produce with imported as well as home additives, a company may also produce the equal product or an extraordinary product at plant life abroad.

The type of the company has to be broadly sufficient to capture all of these channels. The firm defined beneath is a multinational firm (producing and promoting at domestic and overseas) that makes use of both overseas and home additives. Economic theory shows that changes within the exchange price can produce a shift in stock prices, at once within the case of establishment firms, exporting and importing groups. Companies which
import part of their inputs and circuitously for other businesses, trade rate movements have an effect on each the charges of imported completed goods and the fees of imported inputs, for this reason influencing not directly those corporations that compete with such corporations (Grambovas & McLeay, 2006). Alternate rates might also affect a firm via an expansion of enterprise operation fashions: a firm may also produce at domestic for export sales as well as home income, a firm might also produce with imported as well as home components, a company can also produce the same product or a distinctive product at plant life overseas. The model of the firm should be broad sufficient to capture all of these channels. The firm defined below is a multinational company (producing and promoting at home and overseas) that uses each overseas and domestic additives. overseas foreign money exposures arise every time a company has an profits or expenditure or an asset or liability in a currency aside from that of the balance-sheet forex.

Indeed, exposures can arise even for corporations and not using an income, expenditure, asset or liability in a foreign money one of a kind from the stability-sheet currency. When there's a circumstance usual wherein the forex hazard arises every time a company has an profits or expenditure or an asset or liability in a foreign money other than that of the balance-sheet foreign money. Indeed, exposures can rise up even for groups with no income, expenditure, asset or legal responsibility in a forex one of a kind from the balance-sheet currency. While there's a situation generic wherein the change charges grow to be extraordinarily unstable the change rate moves destabilize the flows of cash for a commercial enterprise notably. Such destabilization of cash flows that affects the profitability of the commercial enterprise is the danger from overseas forex exposures.

2.3.2 Foreign Exchange Risk Management

The management of monetary risks helps to avoid the monetary distress and rising the company financial performance however once more to stay a tax constant. The company risk ought to be structured so as to attenuate the volatility or avoiding giant losses. The instability reduction in income or earnings and hindrance of losses facilitate to better set up the liquidity wants. This reduction of money flow and earnings influence the shortcoming of accessible funds and consumption of equity for company funding (Haneef et al., 2012). The great strategy of liquidity maintenance is to avoid the company losses; the
management ought to take enough time to investigate the firm’s monetary stand at the most tolerated loss.

The attention of monetary risk management influences the financial performance. The monetary risk is inherent in company establishments however those that implement the monetary risk strategy into company business set up and company financial performance are largely accomplishable to their strategic and operation objectives (Husni, 2011). Risk management is that the principle to corporate monetary performance. The firm’s aim is to realize an acceptable balance financial risk and alternatively, minimizing the potentiality of the adverse effects on its company monetary performance (Shen et al., 2009). The sound and dynamic financial risk management to perform financially in dynamic manner and all told business industries that translate the competitive edge of generating the profits with growth increase.

Basically, within the business the monetary risk presents the opportunities, the firms with competition edge takes benefits in rising its monetary performance. Therefore, the company establishments got to remember of the way to manage the monetary risk (Muharam, 2013), consistent with (Luy, 2010), the great shareholders ‘return indicates the firm’s performance because the one of company management objectives. These objectives return at the cost of the danger increase, company establishments face completely different risk such as: rate of interest risk; market risk; credit risk; off balance risk; technology and operational risk; foreign exchange risk; and financial condition risk (Greuning & Bratanovic, 2009).

These are internal and external risk that harms the company monetary performance however this project checked out the internal risk that breaks the monetary performance of an organization, the problems of economic risk in commercial banks have the negative effect on economic process because they result in corporate underperformance. The corporate institutions with better risk management experience the following advantages (Owojori et al., 2011): (1) obedience function towards the rule; (2) opportunity and reputation increase to attract more wide customers to build the fund resources; (3) profitability and efficiency increase. Luy (2010) found those firms with advanced risk management are with greater credit availability take out to increase the productive assets and firms’ profit.
According to Jansson and Biel (2011), the ethical investor is driven by the corporate values than financial achievement gains, such investors may apply more weight to assess the risk exposure during their decision-making procedures because it indicates the volatility of performance and the solvency of assets, this expresses the level of corporate decline or mortality of a firm in terms of performance and risk management. The financial risk entails the corporate financial performance variability.

2.3.3 Accounting Measure

The authors mostly distinguish the financial risk or financial performance from accounting risk or accounting performance for measuring the variability (Eccles et al., 2011). The accounting measures control the financial risk management influencing the firm’s financial performance. Eccles et al., (2011) also found that the accounting returns are very suitable to measure the asset utilization showing the shareholders values in order to attract the external funds. Normally, managers make decisions combining a concern with an improvement of corporate financial performance with the risk appetite as indicated by the shareholders. These decisions involve a choice between the maximum of safety and liquidity in the one way given by currency or non-monetary assets choice, if or not financial, with less liquidity, high risk with a return expressed in the forms of interest payment, dividend, profit, or which is indicated by the likelihood of appreciation of market value.

According to Daly (2011) an increase in risk boots the performance of corporate future in terms of investment whereby the high risk, the high return, this implies a positive relationship. The low corporate performance with the increase of risk makes down the company because of the low performance is a sign of poor financial position and the company loses the investors attraction with negative relationship implication. The improvement of corporate insolvency influences the firm’s performance. According to Dang (2010), bankruptcy risk, beta, unsystematic risk, book-to-market -equity ratio and debt-to-equity ratio are shown through the financial risk of firm’s procedures with the following of three different financial ratio such as the: (a) return on asset, (b) return on equity, and (c) return on sales while the financial risk procedures are divided into four various measures such as: (a) financial risk procedures; (b) bankruptcy procedures; (c) stock performance procedures, (d) strategic risk procedures.
Return on asset, return on equity, and return on sales are company indicators and mix these 3 ratios with the applying as monetary procedures (Shen et al., 2009). The analysis done on risk return indicates that there's a powerful relationship between the financial performance and monetary risk. Husni (2011), found that the high corporate return is expounded to low risk thus the poor performance appears to lift the risk assumption however once more the belief of risk expresses the poorest future performance.

2.4 Methods used by banks to predict Foreign Exchange Risk

2.4.1 International Fisher Effect Theory

This model was developed by Irving Fisher in his book the speculation of Interest (1930). It uses market interest rates instead of inflation rates to elucidate why exchange rates alternate over time. The International Fisher impact states that exchange rates changes are balance out by interest rate changes. The Fisher theory merely argues that real interest rates across countries was equal as a result of the chance of arbitrage opportunities between money markets that usually occurs in the type of capital flows. Real interest rate equality implies that the country with the upper interest rate ought to even have higher rate of inflation that, in turn, makes the real worth of the country’s currency decrease over time. The link between relative interest rates and exchange rates is explained at intervals the interest rate theory of exchange rate expectations. Nominal interest rate differentials between 2 countries tend to mirror rate of exchange fluctuations. Giddy (1977) called this the international Fisher effect, an in-depth relationship to the Fisher effect, a development discovered by Irving Fisher (1896).

If the international Fisher impact holds, interest rates in appreciating currencies tend to be low enough, and in depreciatory currencies high enough, to offset expected currency gains and losses. The International Fisher effect (IFE) theory suggests that foreign currencies with comparatively high interest rates can tend to depreciate as a result of the high nominal interest rates replicate expected rate of inflation (Madura, 2010). Does the interest rate differential really facilitate to predict future currency movement? obtainable proof is mixed as in the case of PPP theory. Within the long-term, a relationship between interest rate differentials and sequent changes in spot exchange rate appears to exist however with wide deviations within the short run (Hill, 2004). The international Fisher impact is understood to not be a decent predictor of short changes in spot exchange rates (Cumby & Obstfeld, 1981).
The international Fisher impact (IFE) principle suggests that overseas currencies with tremendously high hobby quotes tend to depreciate because the high nominal interest prices mirror expected charge of inflation (Madura, 2010). In the long-run, a courting between interest charge differentials and subsequent changes in spot exchange price appears to exist but with vast deviations within the brief run (Hill, 2004). The global Fisher effect is known no longer to be an amazing predictor of brief-run adjustments in spot change costs (Cumby and Obstfeld, 1981). This inconstancy may be defined via the fact that there’s a whole host of factors that would cause change rates fluctuations, those include forex supply and demand, stability of payments troubles, growing inflation, hobby price, national profits, monetary coverage, expectancies and speculations (Khalwaty, 2000).

Thomas (1985) took a look at of the IFE principle by way of examining outcomes of buying future contracts of currencies with higher interest fee that contained discounts (relative to the spot rate) and selling futures on sixteen currencies with low hobby charge that contained rates. Contrary to the IFE principle the look at observed that 57 percent of the transactions created by means of this method were worthwhile. The common benefit become higher than the common loss. If the IFE concept holds, the high hobby fee currencies ought to depreciate even as the low hobby price currencies need to admire, consequently yielding insignificant earnings with the aid of the transactions. Adler and Lehman (1983), Adler and Dumas (1983), all determined proof of big variant in the dating among inflation fee differential and exchange charge. Hakkio (1986) observed but that even within the long-run, the relationship among inflation quotes differentials and trade rates become not perfect but diagnosed the usage of inflation differentials in forecasting lengthy-run actions in change rates.

The relationship between interest rate and inflation, first recommend via Fisher (1930), postulates that the nominal hobby fee in any period is same to the sum of the actual hobby fee and the expected charge of inflation that is termed the Fisher impact. Fisher (1930) hypothesized that the nominal hobby fee can be decomposed into additives, an actual fee plus a predicted inflation rate. He claimed a one-to-one dating among inflation and interest fees in a world of perfect foresight, with real hobby costs being unrelated to the predicted price of inflation and determined entirely by using the actual factors in an financial system, which includes the productiveness of capital and investor time preference. that is an important prediction of the Fisher hypothesis for, if real interest
quotes are related to the anticipated price of inflation, modifications within the actual charge will now not result in full adjustment in nominal rates in reaction to predicted inflation.

2.4.2 Purchasing Power Parity

The purchasing power Parity (PPP) turned into first developed by means of the Swedish economist Gustav Cassel in 192os to observe the relationship between the trade charges of different international locations. The PPP holds if and while change charges pass to offset the inflation price differentials among nations. The PPP is likewise described as the premise of the “law of 1 charge” which asserts that the change fee between currencies should be same to the ratio of the charge level of equal goods and offerings in the countries. The purchasing strength Parity (PPP) theorem explains the relationship among relative costs of products and change quotes. The PPP theorem propounds that under a floating exchange regime, a relative exchange in purchasing power parity for any pair of forex calculated as a price ratio of traded items would have a tendency to be approximated by a trade in the equilibrium fee of change among these currencies (Shapiro & Rutenberg, 1976).

Consistent with the PPP, growth inside the charge stage of a rustic will cause depreciation of its change charge relative to different countries, thereby preserving the relative price of identical items the identical across nations. This principle shows that change price modifications were offset with the aid of relative fee indices/inflation for the reason that law of 1 fee should maintain. PPP follows from the law of 1 rate, which states that in competitive markets, identical items will sell for same prices whilst valued inside the same currency. It relates to an individual product and its generalization is absolutely the model of PPP. Relative PPP pertains to modifications in costs and trade quotes, instead of on absolute rate stages. It states that trade in change costs is proportional to the exchange in the ratio of the 2 international locations’ rate levels, structural relationships final unchanged.

The assumptions for PPP to hold are that items are same, all items are tradable, there are not any transportation prices, facts gaps, taxes, tariffs, or regulations of exchange, and alternate fees are influenced simplest by means of relative inflation costs. because of those restrictive assumptions and empirical violation of the law of one charge that's the building block of PPP, economic fashions of exchange price willpower became followed.
Seeing that currencies are taken into consideration property, change prices are asset charges that modify to equilibrate global change in monetary property. Like different asset expenses, alternate quotes are decided through expectancies approximately the destiny, considering currencies are treated as property this method is called the asset method.

2.4.3 Foreign Exchange Exposure Theory

Contemporary foreign exchange exposure theory (Buckley, 2000; Levi, 1996; Shapiro, 2003) is of the opinion that rate fluctuations ought to have an effect on the worth of a transnational company primarily via foreign sales and foreign (net) assets, which got to be denominated within the domestic currency of the parent company. Despite that, the earliest empirical studies on the subject (Levi, 2009; Amihud, 2009; Jorion, 2010.), though specializing in corporations with wide operations abroad, fail to indicate a big impact of fluctuations in exchange rates on the stock price of transnational corporations. More recent studies (Jongen et al., 2006; Gao, 2000; Bartov et al. 1996; Bodnar & gentry, 1993), however, are consistent with money theory and notice that exchange rate movements, through their result on sales and internet assets values, are a crucial element in deciding firm price.

2.4.4 Interest Rate Parity Theory

Concept that any inequality within the interest rates of two countries is equalised by the movement in their currency exchange rates (Huang, 2009). This theory states that the rate differential between 2 countries is equal to the differential between the forward exchange rate and also the spot exchange rate. Interest rate parity plays an important role in exchange markets, connecting interest rates, spot exchange rates and exchange rates (Roll & Yan, 2000). Most importantly to our purpose, Bilson and Hsieh (1983), Huang (2009), have shown that the theory relating interest-rate variations among countries to succeeding exchange rate changes (uncovered interest-rate parity) appears to have de-escalated throughout the recent float. As a consequence, exchange-rate changes are not any longer ruled by international interest differentials. Hacche and reformist (1981) and Meese and Rogoff (1983) have demonstrated that alternative plausible economic theories, like purchasing power parity and also the financial model, also add very little to stochastic process forecasts of exchange rates, at least at horizons of below a year. These studies all reported robust rejections of uncovered interest-rate parity. Succeeding studies have
confirmed these results, there's additionally an energetic theoretical literature, that tries to see if the failure of uncovered interest parity is because of risk aversion or market segmentation instead of market unskillfulness. In distinction, Roll and Yan (2000) counsel that forward exchange rates are unbiased predictors of succeeding spot rates and there's extremely no forward premium puzzle.

2.4.5 Arbitrage Pricing Theory

The underlying principle of the valuation theory involves the popularity that the anticipated come back on any asset is also charted as a linear calculation of relevant macro-economic factors in conjunction with market indices (Ross, 1976). It's expected that there'll be some rate of modification in most if not all of the relevant factors. Running situations utilizing this model helps to make a value that's just to the anticipated performance of the asset (Roll & Yan, 2000). The specified results that the asset value can equal to the anticipated value for the end of the amount cited, with the end value discounted at the rate understood by the Capital asset valuation Model. It's understood that if the plus value gets off track, that arbitrage can facilitate to bring the price back to affordable perimeters (Ross, 1976)

2.5 Chapter Summary

This chapter reviews the literature in regard to the research questions. The chapter begins with the introduction and consequently literature of the specific objectives of the study. The next chapter dwells on the research methodology
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out various stages and phases that was followed in completing the study. It indicates the research design that was used, the population of the study, the size of the sample, sources of data, the procedure of data collection and analysis of data and method of data presentation.

3.2 Research Design

The research followed a descriptive research design to accumulate and examine data within the manner to drag together the relevance of the research reason with financial process. Descriptive survey studies portray a correct profile of men and women, occasions, or account of the characteristics, for example behaviour, critiques, abilities, beliefs, and understanding of a selected individual, scenario or organization (Burns and Grove, 2003). The gathering layout has been used to determine a dating among diverse standards (Dubihela & Sandada, 2014).

In line with Mutua, Oteyo and Njeru (2013), descriptive layout reports determine how things are and try to describe these things with values, attitudes, behaviour and traits. A research design indicates both the investigation plan and studies trouble structure to possess empirical evidence on associated troubles. The information evaluation and information series is a framework to be used and given through the studies layout (Cooper & Schindler, 2008). The study used as a monetary performance has based variable and overseas danger management strategies as unbiased variables. After analysing the connection between monetary overall performance and financial risk, the studies will provide the unique and applicable suggestions.

3.3 Population and Sampling Design

3.3.1 Population

According to Easton and McColl (2012), population is a combination of people, animals, plants or things from which data can be collected. It indicates the analysis of entire units or total elements collection on which the study was conducted (Cooper &
The target population of this research includes employees who are managers, or work at the treasury and finance employees at the head office of Stanbic bank Kenya as shown in table 3.1.

### 3.1 Population

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Finance</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

(Source, HR Stanbic bank 2017)

### 3.3.2 Sampling Design

The sampling body shows all of the populace factors that are uncovered to statistics series (Smith & Albaum, 2012). Cooper and Schindler (2008) imply the sampling frame as all the populace elements that can be on hand by the point of records collection. The sampling ought to allow the subsequent: accuracy of effects, decrease cost, multiplied velocity of facts collection and availability of populace elements that is to make sure accuracy, completeness, and relevance has been attained for this study objective.

\[
\text{Sample size} = \frac{N}{1 + N(e)^2}
\]

Where \( N = \text{Population} \)

\( e = \text{error} \)

\[
= \frac{100}{1 + 100(0.05)^2} = 100
\]

\[
= 1.25
\]

\[
= 80
\]
3.3.2.2 Sampling Technique

The sampling technique is standard choices technique from the population so one can stand on behalf of that populace (Collins & Hussey, 2006). The object, nature and scope of the study are factors that determine a particular method if it's miles a sample random kind or diverse kinds (Hyers, 2006). The non-probability sampling technique changed into used because this study was purposive random sampling. A sample of eighty respondents became taken under consideration from the populace of this have a look at. The drawn pattern drawn turned into a consultant of the whole population of commercial banks for achievement of statistical performance, reliability, and credibility of this research finding (Cooper & Schindler, 2007).

3.3.2.3 Sample Size

The sample length is described as a subset or a combination of sampling devices that does not contain the complete set of sampling units which is defined as the population of a sampling unit from any populace (Garson, 2012). According to Ader, Mellenbergh and Hand (2008), there are motives that the researchers are hardly ever to survey the complete population due to the excessive value of and the dynamism of the populace may also exchange along the time. The cautious alternatives of pattern need to be carried out for purchasing a great consultant of the populace (Denscombe, 2008).

**Table 3.2: Sample Size**

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury</td>
<td>44</td>
<td>55</td>
</tr>
<tr>
<td>Finance</td>
<td>36</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

Researchers use the facts series as most beneficial method to gain applicable information for cause of analysis. The statistics is simply about all records needed by way of researcher to reap correct findings and soundly possible observations (Mugenda & Mugenda, 1999). This look at used questionnaires to draw statistics on foreign exchange risk strategies.
3.5 Research Procedures

The guidance for data series become designed within the following approaches: research questions identification had been addressed, key issues identity that become used, the knowledge of appropriately primary records with ensuring certification form expert our bodies, the statistics identification that became analysed and recorded in template. The questionnaire became divided into four sections with the first component masking the demography, whilst the opposite three addressing the diverse objectives of the research. The questions used a 5 factor Likert scale wherein the respondents have been supposed to signify their stages of response to the various questions asked.

3.6 Data Analysis Methods

Records analysis used as a studies method for the systematic, objective and qualitative description of content material manifestation of a communiqué (Cooper & Schneider, 2011). The method for analysing data includes the utilization of the proper analytical tools to deal with the studies questions of the study. They have a look at changed into an assessment of foreign exchange threat control to set up the connection among foreign exchange danger control and financial overall performance of business banks in Kenya, statistics collected from take a look at was looked after, edited and corded to have the specified satisfactory and accuracy.

It was entered into SPSS (version 21) for era of frequency tables, charts, correlations and regressions with a purpose to assist within the evaluation. The more than one linear regression evaluation became used to look at the volume of effect of the unbiased variable at the based variables. The regression model is a multivariate version declaring the commercial banks ROA as a function of the selected forex hazard control strategies.

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \]

Where:

- \( Y \) = ROA of the commercial banks in Kenya which is a profitability measure is the value of the dependent variable.
- \( \beta_0 \) - Constant/Y intercept
- \( X_1 \) - different methods of foreign exchange risk management
$X_2$ - effect of foreign exchange risk

$X_3$ - methods used by commercial banks to predict forex

$\varepsilon$ - Error term

### 3.7 Chapter Summary

This chapter has emphasized on the research design, the study of population size, sampling technique, sampling frame, sample size, research procedure, data analysis and presentation tools that was used. Data analysis and data collection were identified to enrol this research. Chapter four will give the results and finding of the study and finally chapter five will give the summary, discussion, conclusions and recommendations.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the findings from the data analyzed with regard to the demography, and the respective research questions of the study, which are: What are the different methods of foreign exchange risk management used by commercial banks? What is the relationship between foreign exchange risk and financial performance of commercial banks in Kenya? What are the methods used by commercial banks to predict forex and manage the effect on financial performance?

4.1.1 Response Rate

The researcher issued 80 questionnaires and only 70 were filled and returned giving a response rate of 87.5% as shown in table 4.1. The response rate was sufficient for the study.

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>Questionnaires</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filled and collected</td>
<td>70</td>
<td>87.5</td>
</tr>
<tr>
<td>Non Responded</td>
<td>10</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2 Demographic factors

4.2.1 Gender

The research was set to investigate the distribution of the respondents based on gender. From the study majority of the respondents were male with a response rate of 54.3% while female had a response rate of 45.7 % as shown below in figure 4.1, both genders was well represented and therefore implies a lack of bias in the sample selection.

![Figure 4.1: Demographic Statistic](image)

Figure 4.1: Demographic Statistic

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As shown in figure 4.2 the research was set to investigate the distribution of the respondents based on their education levels. From the study majority of the respondents were degree holders with a response rate of 65.7% while masters had a response rate of 20%, diploma holders were 8.6% while PHD holders were 5.7% as shown below in figure 4.2. The findings shows that the respondents were well educated to understand the questions asked.

![Figure 4.2: Education](image)

### 4.2.3 Tenure
As shown in figure 4.3 the research was set to investigate the distribution of the respondents based on their tenure at the bank. From the study majority of the respondents had been at the bank for 6-9 years with a response rate of 48.6%, those of 3-5 years 25.7%, less than 2 years were 14.3% while those for 10 years and above were 11.4% as shown below in figure 4.3

![Figure 4.3: Tenure](image)

### 4.3 Methods of Foreign Exchange Risk Management Used by Commercial Banks
The first objective of the study sought to establish methods of foreign exchange risk
management used by commercial banks. Respondents were awarded opportunity to respond and on a five point Likert scale.

4.3.1 Descriptive Of Foreign Exchange Rate Exposure

The findings revealed that majority agreed that the firm sets extensive budgeting systems to handle currency risk projections (4.03), it was also revealed that the institution has an up-to-date system that helps in handling currency risk projections (4.11). There was however, uncertainty on the firm often carrying out foreign exchange exposure projections (3.6). The respondents however disagreed that the firm purchases exchange rate forecasts from the foreign exchange advisory services to make its own forecasts as indicated in table 4.2.

Table 4.2: Descriptive Of Foreign Exchange Rate Exposure

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The firm often carries out foreign exchange exposure projections</td>
<td>3.60</td>
<td>1.866</td>
</tr>
<tr>
<td>Extensive budgeting systems to handle currency risk projections</td>
<td>4.03</td>
<td>1.465</td>
</tr>
<tr>
<td>Purchases exchange rate forecasts from the forex advisory services to make its own forecasts</td>
<td>2.89</td>
<td>1.510</td>
</tr>
<tr>
<td>Up-to-date system that helps in handling currency risk projections</td>
<td>4.11</td>
<td>1.471</td>
</tr>
</tbody>
</table>

4.3.2 Descriptive On Financial Instruments and Techniques Used for Hedging

The study was set to financial instruments and techniques used by the bank to hedge against foreign exchange risk. The findings revealed that the frequently used hedging techniques are Cross-Currency Swaps (4.00), Options (4.71), and Price Adjustments (4.17). Most respondents were not sure about use of leading and lagging (3.60), and netting (3.80) as shown in table 4.3

Table 4.3: Descriptive on Financial Instruments and Techniques Used for Hedging

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-Currency Swaps</td>
<td>4.00</td>
<td>1.138</td>
</tr>
<tr>
<td>Options</td>
<td>4.71</td>
<td>1.152</td>
</tr>
<tr>
<td>Leading and Lagging</td>
<td>3.60</td>
<td>1.288</td>
</tr>
<tr>
<td>Netting</td>
<td>3.80</td>
<td>1.023</td>
</tr>
<tr>
<td>Price Adjustments</td>
<td>4.17</td>
<td>1.165</td>
</tr>
</tbody>
</table>

4.4 Relationship between Foreign Exchange Risk and Financial Performance

The second objective of the study sought to establish the relationship between foreign
exchange risk and financial performance. Respondents were awarded opportunity to respond and on a five point likert scale.

4.4.1 Relationship between Foreign Exchange Risk and Financial Performance

The findings revealed that majority agreed that liquidity risk has an effect on return on assets and return on equity (4.66), sound and dynamic financial risk management practices has translated into competitive advantage (4.23), and they apply more weight to assess the risk exposure during decision making (4.06). In addition, it was also revealed that the firm faces both internal and external financial risks (4.37).

Despite the positive response, there was uncertainty on the institution having financial risk management envisioned in its strategic and operation objectives (3.11), and whether as a bank, the institution considers high-risk investment to gain high returns (3.09) as indicated in table 4.4.

Table 4.4: Relationship between Foreign Exchange Risk and Financial Performance

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity risk has an effect on return on assets and return on equity</td>
<td>4.66</td>
<td>1.305</td>
</tr>
<tr>
<td>Financial risk management is envisioned in our strategic and operation objectives</td>
<td>3.11</td>
<td>1.157</td>
</tr>
<tr>
<td>Our sound and dynamic financial risk management practices translate to competitive advantage</td>
<td>4.23</td>
<td>1.071</td>
</tr>
<tr>
<td>We face both internal and external financial risks</td>
<td>4.37</td>
<td>1.339</td>
</tr>
<tr>
<td>We apply more weight to assess the risk exposure during decision making</td>
<td>4.06</td>
<td>1.162</td>
</tr>
<tr>
<td>As a bank, we consider high-risk investment to gain high returns.</td>
<td>3.09</td>
<td>1.197</td>
</tr>
</tbody>
</table>

4.5 Methods Used to Predict and Manage Foreign Exchange

The third objective of the study sought to establish the relationship between foreign exchange risk and financial performance. Respondents were awarded opportunity to respond and on a five point Likert scale.

4.5.1 Descriptive on the Methods Used to Predict and Manage Foreign Exchange

The findings revealed that majority frequently used foreign exchange exposure theory to manage foreign exchange, however majority were neutral about using International Fisher Effect Theory (3.23), Purchasing Power Parity (3.37), Interest Rate Parity Theory (3.54),
least frequently used model was Arbitrage Pricing Theory (2.80) as shown in table 4.5

Table 4.5: Descriptive on the Methods Used to Predict and Manage Foreign Exchange

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Fisher Effect Theory</td>
<td>3.23</td>
<td>1.140</td>
</tr>
<tr>
<td>Purchasing Power Parity</td>
<td>3.37</td>
<td>1.395</td>
</tr>
<tr>
<td>Foreign Exchange Exposure Theory</td>
<td>4.86</td>
<td>1.287</td>
</tr>
<tr>
<td>Interest Rate Parity Theory</td>
<td>3.54</td>
<td>1.358</td>
</tr>
<tr>
<td>Arbitrage Pricing Theory</td>
<td>2.80</td>
<td>1.605</td>
</tr>
</tbody>
</table>

4.5.2 Descriptive on the Performance of The Bank

The findings revealed that most of the respondents agreed that the bank has the required level of capital to enable it withstand risks (4.06), management is efficient to determine the level of costs and profitability (4.23), and has seen increased ROE and ROA over the years (4.00). There was however most of respondents who were not sure about the institution having enough cash to fulfil its obligations (3.89) a high nonperforming loan to gross loans ratio (3.09).

Table 4.6: Descriptive on the Performance of The Bank

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have the required level of capital to enable us withstand risks</td>
<td>4.06</td>
<td>1.211</td>
</tr>
<tr>
<td>Management able to determine the level of costs and profitability.</td>
<td>4.23</td>
<td>1.114</td>
</tr>
<tr>
<td>We have enough cash to fulfil our obligations</td>
<td>3.89</td>
<td>1.207</td>
</tr>
<tr>
<td>We have a high nonperforming loan to gross loans ratio</td>
<td>3.09</td>
<td>1.463</td>
</tr>
<tr>
<td>We have seen increased ROE and ROA over the years</td>
<td>4.00</td>
<td>1.475</td>
</tr>
</tbody>
</table>

4.7 Inferential Statistics

The study utilized inferential statistic with the aim of inferring from the sample of the study to the population by determining the probability of characteristics of population based on the characteristics the sample. This was also necessary in order to aid in assessing the strength of the relationship witnessed between the independent and dependent variables.

4.7.1 Correlation Between Financial Performance and Co Variables

A correlation analysis was done between financial performance and methods of foreign
exchange risk management, and methods used by commercial banks to predict forex and manage the effect on financial performance and the results are displayed in table 4.7.

The findings revealed that there was a significant positive relationship between performance and Risk management (0.894), forex risk (0.759) and prediction model (0.882) as shown in table 4.7. The results imply that with every increase in risk management there is an increased performance in the institution. In addition, the bank is exposed to forex risk due to increased forex trade which implies increased performance through transactions. The findings also show an increased performance as a result of the adoption of prediction models.

Table 4.7: Correlation between Financial Performance and Co Variables

<table>
<thead>
<tr>
<th></th>
<th>Performance</th>
<th>Risk Management</th>
<th>Forex Risk</th>
<th>Prediction Models</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correlation</strong></td>
<td>Pearson</td>
<td>Pearson</td>
<td>Pearson</td>
<td>Pearson</td>
</tr>
<tr>
<td>Performance</td>
<td>1</td>
<td>.894**</td>
<td>.759**</td>
<td>.882**</td>
</tr>
<tr>
<td>Risk Management</td>
<td>.894**</td>
<td>1</td>
<td>.659**</td>
<td>.776**</td>
</tr>
<tr>
<td>Forex Risk</td>
<td>.759**</td>
<td>.659**</td>
<td>1</td>
<td>.943**</td>
</tr>
<tr>
<td>Prediction Models</td>
<td>.882**</td>
<td>.776**</td>
<td>.943**</td>
<td>1</td>
</tr>
</tbody>
</table>

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

4.7.2 Regression Analysis

The research performed a regression analysis to determine the effects of Risk Management, Forex Risk and Prediction Models on financial performance. The results showed that the $R^2$ value was 0.901 hence 90.1% of the variation in the performance was explained by the variations in the causal factors as illustrated in table 4.8

Table 4.8: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.949a</td>
<td>.901</td>
<td>.891</td>
<td>.40688</td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.901</td>
<td>df1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>93.617</td>
<td>df2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3a</td>
<td>Sig. F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>1000</td>
</tr>
</tbody>
</table>

a. Predictors: (Performance), Risk Management, Forex Risk and Prediction Models
An ANOVA analysis was done between performance and other causal factors at 95% confidence level, the F critical was 93.617 and the P value was (0.000) therefore significant the results are illustrated below in table 4.9

Table 4.9: Anova of performance and other causal factors

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>46.495</td>
<td>3</td>
<td>15.498</td>
<td>93.617</td>
<td>.000b</td>
</tr>
<tr>
<td>1 Residual</td>
<td>5.132</td>
<td>31</td>
<td>.166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.627</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance  
b. Predictors: (Constant), Risk Management, Forex Risk and Prediction Models

With regard to Table 4.10, the equation \( Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \) becomes:

\[
Y = -0.205 + 0.858X_1 - 0.474X_2 + 0.827X_3
\]

Where Y is the dependent variable performance

\( X_1 \) – Risk management

\( X_2 \) – Forex Risk

\( X_3 \) – Prediction Model

The regression equation illustrated in Table 4.10 established that taking all factors into account (Risk Management, Forex Risk and Prediction Models) all other factors held constant performance will drop by 0.205. The findings presented also showed that with all other variables held at zero, a unit change in risk management would lead to a 0.858 increase in performance and a unit change in forex risk will also lead to 0.474 decline in performance. Moreover, the study also showed that a unit change in prediction models would result in 0.827 change in performance. Only the variables risk management and prediction models was significant \((p<0.05)\) therefore making the equation insignificant as shown in table 4.10
Table 4.10: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-.205</td>
<td>-.319</td>
<td>.644</td>
<td>.752</td>
</tr>
<tr>
<td>Risk Management</td>
<td>.858</td>
<td>.464</td>
<td>4.854</td>
<td>.000</td>
</tr>
<tr>
<td>Forex Risk</td>
<td>-.474</td>
<td>-.352</td>
<td>-1.937</td>
<td>.062</td>
</tr>
<tr>
<td>Prediction Models</td>
<td>.827</td>
<td>.854</td>
<td>3.945</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance

4.8 Chapter Summary

This chapter has brought forward the results and findings as obtained from the analysis done. The first section offers the findings on demographic factors, the second section on the different methods of foreign exchange risk management used by commercial banks. The third offers findings on the relationship between foreign exchange risk and financial performance of commercial banks in Kenya. The fourth offers the results on the methods used by commercial banks to predict forex and manage the effect on financial performance. The final section has offered findings on the effects of Risk Management, Forex Risk and Prediction Models on financial performance. Chapter five discusses the findings in relation to other studies and conclusions and recommendations are drawn.
CHAPTER FIVE

5.0 DISCUSSION CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter compares the findings to the literature reviewed, it also offers the conclusions and recommendations for the study. This is done in line with the specific objectives of the study. Recommendations for further studies is also highlighted.

5.2 Summary Of Findings

The objective of the study was to establish the effect of foreign exchange risk management on the financial performance of commercial banks in Kenya. The objective of the study were; What are the different methods of foreign exchange risk management used by commercial banks? What is the effect of foreign exchange risk on financial performance of commercial banks in Kenya? What are the methods used by commercial banks to predict forex and to manage the effect on financial performance?

The research used a descriptive research design. The target population comprised 100 employees in finance and treasury at Stanbic bank Kenya. The study used applied the sample size formula and arrived at a sample size of 80 employees out of which only 70 responded giving a response rate of 87.5%

The findings on the first objective revealed that majority agreed that the firm sets extensive budgeting systems to handle currency risk projections, it was also revealed that the institution has an up-to-date system that helps in handling currency risk projections. There was however, uncertainty on the firm often carrying out foreign exchange exposure projections. The respondents however disagreed that the firm purchases exchange rate forecasts from the foreign exchange advisory services to make its own forecasts. The study was set to financial instruments and techniques used by the bank to hedge against foreign exchange risk. The findings revealed that the frequently used hedging techniques are Cross-Currency Swaps, Options, and price adjustments. Most respondents were not sure about use of leading and lagging, and netting.

The findings on the second objective revealed that majority agreed that liquidity risk has an effect on return on assets and return on equity, sound and dynamic financial risk management practices has translated into competitive advantage, and they apply more
weight to assess the risk exposure during decision making. In addition, it was also revealed that the firm faces both internal and external financial risks.

For the third objective on the methods used to predict and manage foreign exchange, the findings revealed that majority frequently used foreign exchange exposure theory to manage foreign exchange, however majority were neutral about using International Fisher Effect Theory, Purchasing Power Parity, Interest Rate Parity Theory, and the least frequently used model was Arbitrage Pricing Theory. On the performance of the bank, the findings revealed that most of the respondents agreed that the bank had the required level of capital to enable it withstand risks, management is efficient to determine the level of costs and profitability, and has seen increased ROE and ROA over the years. There was however most of respondents who were not sure about the institution having enough cash to fulfil its obligations, or a high nonperforming loan to gross loans ratio.

A correlation analysis was done between financial performance and methods of foreign exchange risk management, and methods used by commercial banks to predict forex and manage the effect on financial performance revealed that there was a significant positive relationship between performance and Risk management (0.894), forex risk (0.759) and prediction model (0.882). The R² value was 0.901 hence 90.1% of the variation in the performance was explained by the variations in the causal factors.

5.3 Discussion

5.3.1 Methods of Foreign Exchange Risk Management Used

The findings on the first objective revealed that majority agreed that the firm sets extensive budgeting systems to handle currency risk projections. Abor (2015) also established that the long-term objective of cash planning in an international environment is to match cash inflows with cash outflows, thereby limiting the multinational’s foreign currency exposure to only those cash flows (e.g., profits, royalties, fees) that will be repatriated from a foreign operation to the multinational. Cash budgeting in combination with capital budgeting approaches can be used to evaluate investments that will manage the long-run economic exposure and match the cash inflows and cash outflows in the same currency. While seeking to attain the long-term objectives stated in its strategic plan, a global business must also manage short-term cash flows from foreign operations.
It was also revealed that the institution has an up-to-date system that helps in handling currency risk projections. Boermans (2011) established that corporations ought to establish coverage systems that facilitate the observation and management of assets pledged as collateral for borrowed funds. He adds that the coverage systems ought to be corresponding with borrowing activities and therefore the institution’s strategic plans. Firms with restricted amounts of long-run borrowings could also be ready to monitor collateral levels adequately by reviewing monthly or quarterly reports. Management ought to take into account potential changes to collateral needs in income projections, stress tests, and contingency funding plans. Establishments ought to remember of the operational and temporal order needs related to accessing collateral at its physical location (such as a protector establishment or a securities settlement system wherever the collateral is held).

The study was set to financial instruments and techniques used by the bank to hedge against foreign exchange risk. The findings revealed that the frequently used hedging techniques are Cross-Currency Swaps, Options, and price adjustments. Foreign exchange exposure is commonly addressed through a company’s management policies, intuition and former experiences (Holley & Kang, 2016). Forex risk mitigating methods embrace forward contracts, cross-currency swaps, options, leading and lagging, netting and value changes. Several studies conducted on strategies of risk management, most of them targeting financial performance impact on completely different entities (Tafri et al, 2011).

Most respondents were not sure about use of leading and lagging, and netting, similarly, Ward (2010) say lead and lag methods are often troublesome to implement. The firm should be in position to exercise some control over payment terms. Leading and lagging may be a zero sum game, that’s whereas one party edges, the counterpart loses. Therefore, the profit gained from taking advantage of exchange could also be outweighed by the value of losing business because of the zero-sum nature of this methodology (Abor, 2015). The practice of leading and lagging has developed collectively of the many strategies of hedging against adverse impact of rate movements.

5.3.2 Effect of Foreign Exchange Risk on Financial Performance

The findings on the second objective revealed that majority agreed that liquidity risk has an effect on return on assets and return on equity, according to Boermans (2011), the great monetary performance must be generated from that monetary risk cannot be
avoided. The monetary performance and financial risk got to be evaluated together as a result of they are mutually beneficial that facilitate company sustainability or closure and are influenced by microeconomic and macroeconomic variables as follow as: balance sheet, real interest rate, inflation, capitalization, and therefore the growth of GDP. Each firm is willing to grow and to enhance performance borrowing and generating the financial gain (Tafri et al., 2009). The borrowing to enhance the company performance could provoke the firm’s default on loan payment.

In addition, Return on asset, return on equity, and return on sales are company indicators and mix these 3 ratios with the applying as monetary procedures (Shen et al., 2009). The analysis done on risk return indicates that there's a powerful relationship between the financial performance and monetary risk. Husni (2011), found that the high corporate return is expounded to low risk thus the poor performance appears to lift the risk assumption however once more the belief of risk expresses the poorest future performance.

It was also sound and dynamic financial risk management practices has translated into competitive advantage, Firm success or failure is decided by the monetary performance (Samad & glenn, 2012). The monetary performance failure defines the financial risk (Peng et al., 2011) and this signifies the company likelihood of profit loss based on the characteristics of the firm. The liquidity risk indicates the negative association of firm’s performance (Shen et al., 2009) and this finding is comparable of Dimitropoulos et al., and Tabarin et al., (2013), additionally, Tafri et al., (2009) found a negative impact on ROA and positive impact on ROE.

The findings revealed that the bank apply more weight to assess the risk exposure during decision making. Haneef et al., (2012) noted that the great strategy of liquidity maintenance is to avoid the company losses; the management ought to take enough time to investigate the firm’s monetary stand at the most tolerated loss. Husni (2011) adds that the attention of monetary risk management influences the financial performance. The monetary risk is inherent in company establishments however those that implement the monetary risk strategy into company business set up and company financial performance are largely accomplishable to their strategic and operation objectives. Shen et al., (2009) notes that the sound and dynamic financial risk management to perform financially in
dynamic manner and all told business industries that translate the competitive edge of generating the profits with growth increase.

In addition, it was also revealed that the firm faces both internal and external financial risks and this concurs with Jansson and Biel (2011) who also noted the same. Owojori et al., (2011) noted that the corporate institutions with better risk management experience the following advantages (1) obedience function towards the rule; (2) opportunity and reputation increase to attract more wide customers to build the fund resources; (3) profitability and efficiency increase. Luy (2010) found those firms with advanced risk management are with greater credit availability take out to increase the productive assets and firms’ profit.

5.3.3 Methods Used to Predict Forex and Effect On Financial Performance

For the third objective on the methods used to predict and manage foreign exchange, the findings revealed that majority frequently used foreign exchange exposure theory to manage foreign exchange. Contemporary foreign exchange exposure theory (Buckley, 2000; Levi, 1996; Shapiro, 2003) is of the opinion that rate fluctuations ought to have an effect on the worth of a transnational company primarily via foreign sales and foreign (net) assets, which got to be denominated within the domestic currency of the parent company.

Despite that, the earliest empirical studies on the subject (Levi, 2009; Amihud, 2009; Jorion, 2010), though specializing in corporations with wide operations abroad, fail to indicate a big impact of fluctuations in exchange rates on the stock price of transnational corporations. More recent studies (Jongen et al., 2006; Gao, 2000; Bartov et al. 1996; Bodnar & gentry, 1993), however, are consistent with money theory and notice that exchange rate movements, through their result on sales and internet assets values, are a crucial element in deciding firm price.

However, majority were neutral about using International Fisher Effect Theory, Purchasing Power Parity, Interest Rate Parity Theory. The International Fisher effect (IFE) theory suggests that foreign currencies with comparatively high interest rates can tend to depreciate as a result of the high nominal interest rates replicate expected rate of inflation (Madura, 2010). The issue that is however controversial is: does the interest rate differential really facilitate to predict future currency movement? obtainable proof is
mixed as in the case of PPP theory. Within the long-term, a relationship between interest rate differentials and sequent changes in spot exchange rate appears to exist however with wide deviations within the short run (Hill, 2004). The international Fisher impact is understood to not be a decent predictor of short changes in spot exchange rates (Cumby & Obstfeld, 1981).

A correlation analysis was done between financial performance and methods of foreign exchange risk management, and methods used by commercial banks to predict forex and manage the effect on financial performance revealed that there was a significant positive relationship between performance and Risk management, forex risk and prediction model. The $R^2$ value was 0.901 hence 90.1% of the variation in the performance was explained by the variations in the causal factors.

According to Daly (2011) an increase in risk boosts the performance of corporate future in terms of investment whereby the high risk, the high return, this implies a positive relationship. The low corporate performance with the increase of risk makes down the company because of the low performance is a sign of poor financial position and the company loses the investors attraction with negative relationship implication. The improvement of corporate insolvency influences the firm’s performance. According to Dang (2010), bankruptcy risk, beta, unsystematic risk, book-to-market -equity ratio and debt-to-equity ratio are shown through the financial risk of firm’s procedures with the following of three different financial ratio such as the: (a) return on asset, (b) return on equity, and (c) return on sales while the financial risk procedures are divided into four various measures such as: (a) financial risk procedures; (b) bankruptcy procedures; (c) stock performance procedures, (d) strategic risk procedures.

5.4 Conclusion

5.4.1 Methods of Foreign Exchange Risk Management Used

Stanbic bank has set budgeting systems to handle currency risk projections, and having an up-to-date system is a good way for handling currency risk projections. Uncertainty on the firm often carrying out foreign exchange exposure projections is an issue that firms need to address with immediate urgency. Stanbic bank is committed to hedge against forex risk by utilizing techniques such as Cross-Currency Swaps, Options, and price adjustments.
5.4.2 Effect of Foreign Exchange Risk on Financial Performance

Despite forex risk being an issue in the financial sector liquidity risk also has an effect on return on assets and return on equity. Use of sound and dynamic financial risk management practices has translated into competitive advantage in the sector. The bank has also applied more weight to assess the risk exposure during decision making and this could be to curb firm both internal and external financial risks.

5.4.3 Methods Used to Predict Forex and Effect on Financial Performance

Most preferred theories of predicting forex risk is foreign exchange exposure theory to manage foreign exchange and this could be associated to its importance with effect to foreign currency. The bank has also increased performance and this could be as a result of the set funds to enable it to mitigate the risks, management is efficient to determine the level of costs and profitability,

5.5 Recommendation

5.5.1 Recommendation for improvement

5.5.1.1 Methods of Foreign Exchange Risk Management Used

With the apparent impact of forex risk on firms, the banks need carry out regular foreign exchange exposure projections in order to minimize some of the risks associated with foreign exchange risks. The firms also need to utilize the financial instruments and techniques effectively in order to better hedge against foreign exchange risk.

5.5.1.2 Effect of Foreign Exchange Risk on Financial Performance

Special emphasis need to be put on liquidity management in order to minimize its risks as it has an effect on return on assets and return on equity. Policies and strategies also need to be put in place to guarantee sound and dynamic financial risk management practices which could translate into competitive advantage.
5.5.1.3 Methods Used to Predict Forex and Effect on Financial Performance

There is a need for education on the methods used to predict and manage foreign exchange and select the most appropriate method. Banks need to undertake effective cash management in order to have the required level of capital to enable it withstand risks. With the significant positive relationship between performance and Risk management; forex risk; and prediction model firms need to maintain a balance.

5.5.2 Recommendation for further studies

This study focused on the effect of foreign exchange risk management on the financial performance of Stanbic bank and there is a need to undertake a similar study in other commercial banks so as to be able to generalize the findings.
REFERENCES


APPENDIX I: QUESTIONNAIRE

QUESTIONNAIRE ON THE RELATIONSHIP BETWEEN FOREIGN EXCHANGE TRADING AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED ON THE NAIROBI SECURITIES EXCHANGE

The purpose of this questionnaire is to collect information on the relationship between foreign exchange trading and financial performance of commercial banks. All the information collected will be treated as private and confidential and will only be used for research purposes. Your assistance in completion of this questionnaire is highly appreciated.

Section 1: General Information

Tick the appropriate response from the alternatives provided.

1.1. Indicate your Gender:

Male ☐ Female ☐

1.2. Indicate your level of education

a. Diploma ☐ b. Bachelor ☐
   c. Masters ☐ d. Doctorate ☐

1.3. How long have you been working in the banking industry?

a. Less than 2 years ☐ b. 3 – 5 years ☐
   c. 6 – 9 years ☐ d. 10 years and above ☐
Section 2: Foreign Exchange Rate Exposure

2.1. Please tick (√) the appropriate answer from the alternatives provided:

Where Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1)

Foreign Exchange Risk Quantification

<table>
<thead>
<tr>
<th>Variable</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The firm often carries out foreign exchange exposure projections</td>
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<tr>
<td>The firm sets extensive budgeting systems to handle currency risk projections</td>
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<tr>
<td>The firm purchases exchange rate forecasts from the foreign exchange advisory services to make its own forecasts</td>
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<tr>
<td>We have an up-to-date system that helps in handling currency risk projections</td>
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</tbody>
</table>

2.2 Indicate the extent to which the following financial instruments and techniques are used by your bank to hedge against foreign exchange risk.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Most frequently</th>
<th>frequently</th>
<th>Neutral</th>
<th>Least frequent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-Currency Swaps</td>
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<td></td>
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</tr>
<tr>
<td>Options</td>
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<tr>
<td>Leading and Lagging</td>
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<tr>
<td>Netting</td>
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<tr>
<td>Price Adjustments</td>
<td></td>
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</tbody>
</table>
Section 3: Relationship Between Foreign Exchange Trading And Financial Performance

3.1. For the statements below, tick (√) where appropriate

Where Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1)

<table>
<thead>
<tr>
<th>Variable</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity risk has an effect on our Return on assets and return on equity.</td>
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<tr>
<td>Financial risk management is envisioned in our strategic and operation objectives</td>
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<tr>
<td>Our sound and dynamic financial risk management practices translate to competitive advantage</td>
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<tr>
<td>We face both internal and external financial risks</td>
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<tr>
<td>may apply more weight to assess the risk exposure during decision making</td>
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<tr>
<td>As a bank, we consider high risk investment to gain high returns.</td>
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</tbody>
</table>

Section 4: strategic options to manage the effect of foreign exchange risk exposure

4.1. Tick ( √ ) the appropriate answer from the alternatives,

Indicate the extent to which the following Models are used by banks to predict Foreign Exchange Risk

<table>
<thead>
<tr>
<th>Model</th>
<th>Most frequently</th>
<th>frequently</th>
<th>Neutral</th>
<th>Least frequent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Fisher Effect Theory</td>
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<tr>
<td>Purchasing Power Parity</td>
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<tr>
<td>Foreign Exchange Exposure Theory</td>
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<tr>
<td>Interest Rate Parity Theory</td>
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<tr>
<td>Arbitrage Pricing Theory</td>
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</tbody>
</table>

Section 5: performance of the bank
5.1. For the statements below, tick (√) where appropriate

Where Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1)

<table>
<thead>
<tr>
<th>Variable</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>As a bank we have the required level of capital to enable us</td>
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<td>withstand risks</td>
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<tr>
<td>management is efficient to determine the level of costs and</td>
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<tr>
<td>profitability.</td>
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<td>We have enough cash to fulfil our obligations</td>
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<tr>
<td>We have a high nonperforming loan to gross loans ratio</td>
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<tr>
<td>We have seen increased ROE and ROA over the years</td>
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</tbody>
</table>