

**THE EFFECT OF FOREIGN EXCHANGE RISK MANAGEMENT STRATEGIES ON
THE FINANCIAL PERFORMANCE OF FOREX BUREAUS IN NAIROBI COUNTY**

BY

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DECLARATION

I, Otieno Caleb, do hereby declare that this research project is my original work and has, to the best of my knowledge, not been published or submitted for any degree award to any other University before.

Signature:

Date:

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This research project has been submitted for examination with my approval as the University supervisor.

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DEDICATION

This project is dedicated to my father, Charles K'onyango and Mum, Claris Otieno. Without their encouragement, understanding, support, and unconditional love, completion of this study could not have been possible.

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LIST OF ABBREVIATIONS

CBK- Central Bank of Kenya

CFROI- Cash Flow Return on Investment

CIRP- Covered Interest Rate Parity

DCF- Discounted Cash Flow

EAT- Earnings After Tax

IRP- Interest Rate Parity

IRR- Internal Rate of Return

KFBA- Kenya Forex Bureaus Association

PPP- Purchase Power Parity

ROE-Return on Equity

UCIRP- Uncovered Interest Rate Parity

ABSTRACT

Forex bureaus operate in an industry that is dynamic coupled with uncertainties, which if not properly understood and measures put in place to manage such unforeseen circumstances can be detrimental to the financial health of the bureaus. There is a growing literature linking foreign exchange risk management to bureaus performance and the results are diverse. This study thus sought to assess the effect of foreign exchange risk management strategies on financial performance of Forex bureaus in Nairobi County. A descriptive study design was utilized to examine and explore descriptive characteristics of several variables of interest. The target population for this study constituted the 65 Forex bureaus in Nairobi County licensed by the Central Bank of Kenya calling for a response rate of 71% (46 bureaus). The primary data was collected from the bureaus by use of self-administered questionnaires to principal dealers, senior accountants, and/or management personnel. Secondary data was obtained from the bureaus financial statements records at the Central Bank of Kenya. Using Statistical Package for Social Scientist (SPSS), multiple linear regression analysis was employed to examine the magnitude of influence of the independent variable on the respective dependent variable.

Findings show a significant relationship between earnings after tax, a determinant of financial performance and use of strategies such as forward contracts, money market hedge and currency options in hedging against foreign exchange risk exposure. All the other independent variables studied also showed a positive relationship. Further to that, descriptive statistics show that Chief Executive Officers were dominantly involved in defining the foreign exchange management policies while implementation was the charge of the either the financial manager or the finance officer in charge. From the findings of this research, the study recommends that forex bureaus should explore avenues to enhance capacities within them for managing foreign exchange risk for instance providing training opportunities inform of updating firm specific skills and more in house training. In addition, the management should opt for cost effective and innovative strategies such as Futures contracts and derivatives which are increasingly becoming popular in global market and can be used for hedging.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Central Bank of Kenya (2002), a forex bureau refers to an institution licensed and controlled by the Central Bank of Kenya and charged with the delegation to transact in buying and selling of foreign currency cash which is the core business accounting for approximately 75%, travelers cheque, banker's draft and bank transfers.

Forex bureaus were first established and licensed in January 1995 with the main objective of fostering competition and narrowing the exchange rate spread in the spot foreign exchange market. The forex bureaus are expected to engage in spot transactions and facilitate domestic money transfer if appointed as agents. Guidelines are issued by the Central Bank of Kenya with the aim of ensuring that forex bureaus conduct their business prudently and in compliance with the requirements of the Central Bank of Kenya Act. The guidelines describe the nature of business forex bureaus are supposed to undertake and spell out the "dos and don'ts." In addition, the guidelines provide for forex bureaus licensing requirements, operating conditions, inspection and regulatory enforcement actions by the Central Bank of Kenya (Kenya Forex Bureau Association, 2011).

Any entity involved in foreign exchange dealings is exposed to three foreign exchange risks namely Translation exposure, Transaction exposure and Economic exposure. The concept of translation exposure arises from the need to translate accounts that are denominated in foreign currencies into the local currency. It is the risk that a company's equities, assets, liabilities or income will change in value as a result of exchange rate changes. This occurs when a firm denominates a portion of its equities, assets, liabilities, or income in a foreign currency.

Transaction exposure occurs when one currency must be exchanged for another, and a change in the foreign exchange rates occurs between the time a transaction is executed and the time it settled. Economic exposure is the degree to which a firm's present value of future cash flows are influenced by exchange rate fluctuations (Shapiro, 2002)

Economic risk such as volatility in interest rates, inflation and exchange rates can have adverse consequences as they can result in untimely bankruptcy and distress costs as well as increase the costs of borrowing funds. Hedging can reduce this volatility in cash flows because payments and receipts are forced to fluctuate in accordance with currencies thus the ideal currency should exhibit a low interest rate and weaken in value over the financing period. Forecasts also facilitate short-term investment by ensuring that the ideal currency for deposit exhibits a high interest rate and strengthen in value over the investment period. Capital budgeting decisions are also influenced by future currency values as bureaus attempt to make long term financing decisions (Madura, 1995). Foreign exchange risk is more critical to organization than other financial exposures like interest rate risk and default risk.(Brucaite & Yan, 2000)

1.1.1 Foreign Exchange Risk Management Strategies

Foreign exchange risk refers to the likelihood that unexpected change in exchange rates will alter the home currency value if foreign currency cash payment and receipts expected from a foreign source (David, 1997). For instance, a sudden depreciation of the Kenyan Shillings against the USD can increase the cost of servicing an obligation especially for business whose input resources are imported. A further decline in the currency may result to a negative balance of trade, which is highly correlated with the local economic conditions.

A number of studies have been taken to provide insight into the practices of managing each of the foreign exchange risk exposures. Methods forex bureaus can employ in managing transaction exposure include the use of forward hedge, money market hedge, risk shifting, pricing decisions, exposure netting, currency collars and foreign currency options. In managing economic exposure, bureaus can use market selection, pricing strategies, market management of exchange risk and planning for exchange rate changes. Translation exposure can be managed by adjusting fund flows, entering into forward contracts and exposure netting (Shapiro, 2002).

Money market hedge can be explained by considering a domestic company doing business with a foreign company getting into a money market hedge agreement to reduce its currency risk exposure. The domestic company will be able to lock in the value of the trade partner's currency in advance of an anticipated transaction. The benefit derived here is that the domestic company

creates certainty about how much the transaction would cost. Money market hedge helps domestic company's cover against exchange rate fluctuations that could dramatically alter the transaction's price.

Forward contracts are commitments to trade a specific amount of foreign currency at a specified price at a future date. This contract binds the parties in the foreign exchange market and lock in the exchange rate for the purchase or sale of a currency on a future date. The upside of this method of hedging is that it does not involve upfront payments especially when used by large corporations or banks. The downside is that it has little flexibility meaning that the contract buyer cannot shun the agreement if the locked in rate proves adverse.

Currency swap is an agreement between two parties to exchange currencies at the spot rate of current exchange rate. It involves the exchange of principal and interest in one currency for the same in another currency. Currency swaps require that the interest differential is covered for where the party receiving the currency with a higher interest rate pays the counter party the interest differential. Evans and Malhotra (1994) indicate that currency swaps provide an opportunity for customers to balance currency resources in situation where there are excess funds in one currency and shortage in the other. Currency option, another method of hedging gives a right but not an obligation to buy or sell a specific amount of currency at a specific price and time. Currency options provide exporters and importers a good avenue for hedging against foreign exchange risk. In addition, it can be used by donors in foreign currency funding or multinationals in foreign investments to hedge against exchange rate fluctuation risk.

Exposure netting involves compensating for one currency exposure with an exposure in the same or other currency. For currencies that have positive exposure correlation, one can adopt a long-short approach of exposure netting, resulting in gains for one currency position offsetting losses from the other. The aim hedging using this procedure is to reduce the company's vulnerability to exchange risk especially where foreign exchange exposure is managed as a single portfolio. Leading and lagging is mostly used by institutions that import goods or services and involves the alteration of normal payment or receipts in foreign exchange. In leading, one collects foreign currency receivables early when the foreign currency is expected to depreciate and paying foreign currency payables before they are due when a currency is expected to appreciate. Lagging on the other hand involves delaying collection of foreign exchange

receivables if that currency is expected to appreciate and delaying payables if the currency is expected to appreciate (Hill, 2001)

1.1.2 Financial Performance

It is a measure of how well a firm can employ its principal mode of business and generate revenues. The expression is used as a general measure of a firm's overall financial health over a given period. In determining the value of firms, there has been several sophisticated valuation techniques used such as Return on Equity (ROE), Discounted Cash Flow (DCF), Internal Rate of Return, and CFROI but ROE has been the most widely used. ROE focuses on returns to equity holders but if investors are not on the watch companies, can resort to synthetically maintain a strong ROE for a while and hide the deteriorating performance. Increase in debt leverage and stock buy backs funded through accumulated cash can help maintain a company's ROE even though operational profitability may be low. The impact of letting ROE deteriorate is usually instant since it affects the company's stock performance or value.

Return on Assets ratio measures the efficiency in which a company is managing its investment in assets and using them to generate profit. It is therefore a better financial performance indicator than income statement profitability measures like return on sales. (Brealey et.al, 2008).

1.1.3 Effect of Foreign Exchange Risk Management on Financial Performance

There are numerous diverse information with various results linking foreign exchange risk management to forex bureau performance. The diversity is attributed to differences in theoretical views applied, different research methodologies employed and instruments used to measure performance.

Forex managers can implement mitigation measures as a competitive advantage to stabilize financial performance in dynamic currency markets for example foreign fixed deposits earn interest with a saved principal. It depends on other currency capabilities, real-time economic use of foreign management strategies helps forex bureaus to reduce foreign exchange risk exposure hence minimize losses. Fluctuation in exchange rates can influence a firm's current and future expected cash flow and ultimately stock prices. The direction and magnitude of changes in exchange rate of a firm's value are a function of a firm's corporate hedging policy which

indicates whether the firm utilizes operational hedges and financial hedges to manage currency exposure and the structure of its foreign currency cash flows (Carter et al, 2003).

Bradley and Mole (2002) notes that foreign exchange risk management is a financial function and thus affects the firm's financial position. Volatile exchange rates do reduce cash flows and profitability of any firm. Belk (2002) states the aim of foreign exchange risk management as limiting volatile forex exposure on the firm's financial performance whereas Shapiro (2006) describes performance in terms of higher profit margin, sales growth and overall liquidity of firm. This relates how currency risk assessment stimulates financial objectives. Forex managers can implement mitigation measures as competitive advantage to stabilize financial performance in dynamic currency markets for example foreign fixed deposits earn interest with a saved principal. It depends on other currency capabilities, real-time economic quotes and reliable payment by wires or online offers of cross-currency deals. Evans et al, (1985) notes efficient cash control promotes profitability by incorporating exposure into the firm's operational and long term planning. Secured profits and cost control will arrest possible financial distress of forex related firms like forex bureaus.

For Optimal financial performance, forex risk management need be specific to strategies and high efficiency of market information to select ideal tools for sales and profits. Handling currency fluctuation with risk management strategies is befitting in today's enormous size of the forex market of speed and liquidity unlike other markets. Losses exist, but profits are even higher. However, just like any other speculative trade, enlarged risks come along with probability for a higher profit/loss. Regardless of forex rate changes, profits or losses prevail with caution of the rate spread. This is consequently translated into the firm's performance through documentary evidence namely statement of comprehensive income and financial position. In the end currencies inventory is converted into the local currency (Rashul, 2011).

1.1.4 Forex Bureaus in Nairobi County

Forex bureaus were established and first licensed in January 1995 with the main objective of fostering competition and narrowing the exchange rate spread in the spot foreign exchange

market. The forex bureaus are expected to engage in spot transactions and may facilitate domestic money transfer if appointed as agents.

The Forex Bureau market has experienced rapid growth in the recent past, with the number of operating bureaus having increased to 126 as at December 2010. This rapid growth is attributed to increased demand in foreign exchange and money transfer business. It has therefore become necessary to review the Forex Bureau Guidelines in order to streamline the sector and address emerging challenges and opportunities (KFBA, 2011). As authorized dealers, forex bureaus conduct business and are regulated under the provisions of the Central Bank of Kenya Act (Cap 491). These guidelines are therefore issued under Section 33K of the Central Bank of Kenya Act.

Despite having these guidelines, forex bureaus have consistently engaged in activities that violate various sections of the guidelines such as establishing letters of credit, acting as custodians of foreign currency on behalf of customers, transacting in third party cheques and telegraphic transfers without the approval of the CBK thus creating avenues for fraud, tax evasion and money laundering. The revised guidelines have therefore managed to streamline the exchange industry to ensure market discipline and enable Central Bank to enforce an appropriate network for regulation and supervision keeping in check money laundering activities and related financial crimes. This has provided the sector the opportunities for the sector to re-align itself in order to enhance competition in the market and serve a market segment largely excluded from the mainstream banking sector due to the size and frequency of the transactions.

Apart from ensuring market discipline, the regulations have also attracted more entrants into the forex market with the number of dealers increasing from one hundred and eleven (111) in 2011 to one hundred and twenty six (126). The increase may also be attributed to the increasing level of foreign direct investment and frequent campaigns to ease both bilateral and multilateral trade regulations between Kenya and its international trade partners. The guidelines also ensure proper management of information system that facilitates the collection and processing of statistical data and information required providing audit trails for use by internal auditors, external auditors and the CBK. In addition, the central bank requires each bureau to submit daily indicative closing Kenya shillings exchange rates, daily returns of foreign exchange transactions, weekly returns, quarterly balance sheet and profit and loss accounts and audited balance sheet and profit and loss account.

Foreign exchange bureaus in their daily activities are exposed to Translation risk exposure, Transaction risk exposure and Economic risk exposure. Transaction risk exposure occurs when one currency must be exchanged for another, and a change in the foreign exchange rates occurs between the time a transaction is executed and the time it settled. It's the most prominent of all the risks foreign exchange bureaus are exposed to. In their effort to manage these risks, forex bureaus engage in foreign exchange risk management strategies such as Money market hedge, Currency swaps, Currency forwards, Exposure netting, Currency options and Leading and Lagging.

1.2 Research Problem

Foreign exchange risk management is an important aspect of any financial entity dealing in foreign currency. (Li, 2003) assert that the economic environment in which a firm operates is highly volatile and unpredictable. Increased volatility, greater dependence and new risks have made the structure if risk exposure of forex bureaus and other financial institutions more complex. The volatility of foreign exchange rates and interest rates have been increasing significantly thus the necessity to have action plans in place to hedge against risk. Risk hedging strategies adopted need to be tailored with respect to the forex goals, operational infrastructure, risk exposure and risk appetite. It is however, of importance to notice that there is no 'one fit' solution to all market players.

Freund (1966) states that forex bureaus face threats of exchange rate fluctuations due to the fact that pressures on the demand and supply sides of foreign exchange markets determine the level of interest and exchange rate in these markets. He further noted that whenever the demand for foreign exchange is heavy, especially in countries that rely heavily on imports, in relation to supply, the interest will hike and vice versa. A rise interest rate devalues a countries currency by increasing the exchange rate that in turn could lead to increased cost of borrowing funds, bankruptcy, and distress costs. This has a direct effect on the financial performance of bureaus and therefore an effective foreign risk management to hedge against these occurrences is of importance.

In Kenya, commercials banks, forex bureaus and a few microfinance institutions engage in foreign currency exchange. However, it's notably evident that the large volumes of transactions

are carried out by forex bureaus and hence the focus of this study on how they manage risk exposures. According to KFBA, of the 126 licensed and registered forex bureaus 104 have their establishment in Nairobi accounting for 83% of the total hence the choice of the study area.

According to Omagwa (2005) in a study on how foreign owned commercial banks managed their foreignexchange risk exposure he looks at practices such as delayed payment, use of swaps and forward covers. Njuge (2012) came in with a similar study on a survey of foreign exchange risk management practices adopted by microfinance institutions in Kenya concluding that netting, price negotiations and delaying of payments as the main management strategies. Ubindi (2006) surveys the practices engaged by forex bureaus in managing foreign exchange risk exposure.

From these previous studies, it's quite evident that the focus was on practices adopted by the subject entities in managing foreign currency risk exposure without relating these management practices to the financial performance of the financial entities. With increased trade with foreign countries and the demand for foreign denominated currency comes the challenge to managing currency risks exposures which in turn affect the financial performance of forex bureaus. The following research question therefore guided this study. What is the effect of foreign risk management on financial performance of forex bureaus in Nairobi County?

1.3 Objective of the Study

To establish the effect of foreign exchange risk management strategies on financial performance of Forex bureaus in Nairobi County

1.4 Value of the Study

Due to the turbulent nature of the Kenyan economy, the study will be of importance to forex bureaus to enable them know what best practices they can employ to hedge against currency risk that greatly affects their financial performance. CBK will also be able to appreciate the role played by forex bureaus in facilitating foreign currency transactions and put in place policies that would enhance the smooth operation of the bureaus and guard them from risk exposure. Finally, the study will help academicians appreciate the real world practice from the theoretical work. The findings will be able to establish the relationship between academic work and practical experience.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the importance of foreign exchange risk management, types of foreign exchange risk and the techniques used to manage foreign exchange risks by other scholars. The chapter also focuses on review of empirical studies, general literature review and theoretical framework and finally a summary of the literature review.

2.2 Theoretical Review

Various theories were developed to explain why there are changes in exchange rates. Some of these theories suggest there is no need to manage risks since due to market dynamics exchange rates are evened out in some form or the other.

2.2.1 Purchase Power Parity Theory

Purchase Power Parity (PPP) developed by a Swedish economist Cassel (1918) examines the relationship between the exchange rates of different countries. (PPP) holds that the nominal exchange rate between two currencies should be equal to the ratio of aggregate price levels between the two countries, so that a unit of currency of one country will have the same purchasing power in a foreign country.

Absolute form of PPP is also defined as the basis of the “*law of one price*” in which PPP concept is founded states that price of similar products or services to two countries should be equal when measured in a common currency in the absence of transaction costs. It proposes that an increase in the price level of a country will cause a depreciation of its exchange rate relative to other countries, thereby keeping the relative price of identical goods the same across countries so that they are similar when measured in a common currency. If this does not happen, then there is no PPP between the two countries.

PPP explains the relationship between relative price of goods and exchange rates. Shapiro and Rutenberg (1976) explains that the PPP theorem propounds that under a floating exchange regime, a relative change in purchasing power parity for any pair of currency calculated as a

price ratio for traded goods would tend to be approximated by a change in the equilibrium rate of exchange between these two currencies.

It tells us that if there is a price differential between two countries, market forces will equalize the prices between the two countries and change exchange rates, therefore it is not sustainable in the long run. Individuals or companies would benefit from the arbitrage profit and in the event, market forces come into play to bring about equilibrium in prices. The relative form of PPP theorem now commonly acknowledges existence of market imperfections such as inflation, tariff and quotas and transportation cost. It states that the exchange rate between the home currency and the foreign currency will adjust to reflect changes in the price levels of the two currencies.

PPP has assumptions to it. It assumes that goods and services are identical, all goods can be exchanged for a consideration, no information gaps, taxes, restrictions of trade and that exchange rates are influenced only by relative inflation rates. Due to these restrictive assumptions, monetary models of exchange rate determination were adopted. PPP is often used to forecast future exchange rates, for purposes ranging from deciding on the currency denomination of long-term debt issues to determining in which countries to build plants.

2.2.2 Interest Rate Parity Theory

As early as the period of the gold standard, monetary policymakers found that exchange rates were influenced by changes in monetary policy. The rise of the home interest rate is usually followed by the appreciation of the home currency, and a fall in the home interest rate is followed by a depreciation of the home currency. This indicates that the price of assets plays a role in exchange rate variations. The interest rate parity condition was developed by Keynes (1923), as what is called interest rate parity nowadays, to link the exchange rate, interest rate and inflation. (Renmimbi, 2014)

The theory states that premium or discount of one currency against the other should reflect the interest differential between the two currencies. The currency of the country with a lower interest should be at a forward premium in terms of the currency of the country with a higher rate. In an efficient market with no transaction costs, the interest differential should be (approximately) equal to the forward differential. When this condition is met, the forward rate is said to be at

interest rate parity and equilibrium prevails in the money markets. Thus, the forward discount or premium is closely related to interest differential between the two currencies.

From a different angle, IRP says that the spot price and the forward price of a currency incorporate any interest rate differentials between the two currencies assuming there are no transaction costs or taxes. The theory also has two forms: covered interest rate parity (CIRP) and uncovered interest rate parity (UCIRP). CIRP describes the relationship of the spot market and forward market exchange rates with interest rates on bonds in two economies. It ensures that the return on a hedged foreign investment will just equal the domestic interest rate investments of identical risk, which means the covered interest differential i.e the difference between the domestic interest rate and the hedged foreign rate- is zero.

UCIRP describes the relationship of the spot and expected exchange rate with nominal interest rates on bonds in two economies. Investors face uncertainty over future events. In a rational expectation framework, the forward exchange rate may be strongly influenced by the market expectations about the future exchange rate if new information is taken into consideration. In an uncertain environment, an un-hedged interest rate parity condition may hold. This is the precise form of uncovered interest rate parity. Like PPP, the UCIRP does not allow for investor's preferences. It assumes that investors are risk neutral. This means that agents are indifferent between an investment yielding a completely secure return, on the one hand, and one offering the prospect of an identical return on average, but with the possibility of a much higher or lower return, on the other hand. In other words, they are concerned only with average returns.

2.2.3 International Fischer Effect Theory

Fisher (1930) in his book, *The theory of interest rates* uses market interest rates to explain exchange rate fluctuations. IFE theory states that exchange rates across nations are balanced out by interest rate changes. The theory relates the nominal interest rate i to the rate of inflation π and the "real" interest rate r . The real interest rate r is the interest rate after adjustment for inflation. It is the interest rate that lenders have to have to be willing to loan out their funds. The relation Fisher postulated between these three rates is:

$$(1+i) = (1+r) (1+\pi) = 1 + r + \pi + r \pi$$

This is equivalent to:

$$i = r + \pi(1 + r).$$

If this holds, interest rates in appreciating currencies tend to be low enough and in depreciating currencies high enough to offset expected currency gain or losses. Otherwise, funds would flow from countries with low expected real rates of interest to countries with high expected real rates of interest (in the absence of segmented markets). Madura, (2010) adds that the theory supports the fact that foreign currencies with relatively high interest rates will tend to depreciate because the high nominal interest rate reflect expected rate of inflation. In the long run, a relationship between interest rate differentials and subsequent changes in spot exchange rate seems to exist but with considerable deviations in the short run (Hill, 2004).

2.3 Determinants of Financial Performance

A firm's performance is measured by how it relates to the individual factors that affect its industry. For Optimal financial performance, forex risk management need be specific to strategies and high efficiency of market information to select ideal tools for sales and profits. Forex managers can implement mitigation measures as competitive advantage to stabilize financial performance in dynamic currency markets.

2.3.1 Foreign Exchange Management Strategies

Foreign exchange risk is the chance that unexpected fluctuation in currency exchange rates will alter the value of the home currency if foreign receipt and payments are expected (David,1997). For sound financial performance and profitability, it is of importance for firms engaging in foreign exchange transactions to shield against risk associated with their activities. Strategies which firms can employ to hedge against foreign exchange risk include use of forward contracts, currency swaps, currency options, risk shifting and exposure netting.

2.3.2 Corporate Governance

Corporate governance focuses on maximizing shareholder value and provides a conceptual and operational framework for evaluating business performance. A study by Javed and Iqbal, (2007) explored the impact of corporate governance on firm's performance by creating indices for board characteristics, transparency and disclosure and shareholder ownership characteristics. Results of

the study indicate a significant relation between indices and performance except for transparency and disclosure.

2.3.3 Risk and Growth

Risk and growth are two important factors affecting a company's financial performance. Since market value is conditioned by the company's result, the level of risk exposure can cause changes in its market value (Fruhan, 1979). Economic growth is another component that enables a firm achieve a better position on the financial markets since market value also takes in consideration expected future profits (Varaiya et. Al, 1987). Large companies enjoy economies of scale, have access to cheaper funding, and have easier access to the most important factors of production. This ensures sustainable growth and hence a positive effect on financial performance because larger firms use this to get financial benefits in business relations.

2.3.4 Ownership Structure

Ownership structure also has a considerable impact on performance. This has been tested empirically on various occasions and proven that internal ownership result into long term firm's financial performance (Reddy, 2010). In addition, concentrated ownerships and institutional ownerships, as asserted by (Bhagat and Bolton, 2008), lead to better control and monitoring of the board of directors. This way it is easy to compelling the directors to undertake profitable projects and ultimately to act in the best interest of the stakeholders. However, in the case of public ownership, it's common to realize that their interest do not favor long-term plans but short term profits and not the overall growth of the company. Ownership structure should therefore be carefully balanced for a firm to perform well. Well performing firms have better growth rate, increase assets size, and attract skilled managers and workers who in turn contribute to the performance of the company.

2.4 Empirical Review

Various studies related to this topic have been done both locally and internationally. These studies are based on actual and objective observation or experimentation. Some of the studies are discussed below.

2.4.1 International Evidence

Griffin and Stulz, (2001) found out that the effect of foreign exchange rate shocks is minimal in explaining relative US industry financial performance and is even smaller in other countries that are more open to trade. Instead, industry effects were more significant affecting trade than the cross currency exchange rates.

Bradley and Mole, (2002) notes that foreign exchange risk management is a financial function and thus affects the firm's financial position. Volatile exchange rates do reduce cash flows and profitability of any firm. Belk, (2002) states the aim of foreign exchange risk management as limiting volatile forex exposure on the firm's financial performance whereas Shapiro, (2006) describes performance in terms of higher profit margin, sales growth and overall liquidity of firm. This relates how currency risk assessment stimulates financial objectives.

Exchange rates have notable effect the financial decision making an profitability of the firm. For instances, in their efforts to minimize exchange rate risk exposures, the European union developed a uniform currency, the euro, to enable European firms to trade freely from the uncertainties of changes in relative prices resulting from exchange rate movements. It also resulted in an increase in bilateral trade (Frankel and Rose, 2002)

2.4.2 Local Evidence

Omagwa, (2005) studied how foreign owned commercial banks in Kenya managed their foreign exchange risk exposure. He found out that transactional risk exposure was prominent among other risks and found out that practices employed to manage these risks include leading and lagging, use of currency swaps and forward covers.

In his study, a survey of foreign exchange risk management practices forex bureaus in Kenya, Ubindi, (2006) found out that quite a number of forex bureaus employed the conventional foreign exchange risk management practices while other forex bureaus had their own specific practices based on their views of what constitutes foreign exchange risk. He further noted that the hedging practices employed were influenced by the forex bureaus views on currency market fundamentals. The practices include forecasting, speculating and taking individual positions in the currency markets with an aim of making financial gains and use of specific financial

instruments to hedge against foreign exchange. Njuge, (2012) also surveyed foreign exchange risk management practices adopted by microfinance institutions in Kenya concluding that netting, price negotiations and delaying of payments are the main management strategies.

Other prior research on forex bureaus in Kenya has focused mainly on currency risk management strategies and the principles of the best corporate governance practices. The aim of this research is to assess the effects of foreign exchange management practices to financial performance of Forex bureaus. Several components of corporate foreign exchange management strategies are studied with reference to the financial performance of the firms.

2.5 Summary of the Literature Review

A firm's performance should not only be perceived by annual increase in sales and profits but possible organization for greater foreign exchange risk control will make a difference. Competitive firms like forex bureaus must enforce measures to hedge against exchange risk in order to remain relevant in the market. In addition, foreign exchange risk management is increasingly being enforced by regulators after recent global currency-crisis.

It is quite evident from the literature review that the adverse effects of foreign exchange risks on cash inflows and outflows are overlooked. As such, few studies have been done locally which include; A survey of foreign exchange risk management practices by forex bureaus in Kenya (Ubindi, 2006), management of foreign exchange risk exposure by foreign owned commercial banks in Kenya (Omagwa, 2005) and a survey of foreign exchange risk management practices adopted by microfinance institutions in Kenya (Njuge, 2012). These studies focused only on the strategies adopted in managing foreign exchange exposure with no focus on the financial performance impact. In developed countries with more efficient financial systems where the studies have been carried out, researchers have used several methods to validate a relationship between the two variables. The purpose of this research is to examine the influence of selected foreign exchange risk management strategies, namely the use of money market hedge, forward contracts, leading and lagging, currency options, currency swaps and exposure netting, on the financial performance of forex bureaus.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the overall methodology used to carry out this research. It explains the research design adopted, study population, sampling design, data collection methods, research instruments used in the study, data processing, presentation and analysis. The study was carried out with the intent of establishing the various methods of foreign exchange risk management and the relationship between foreign exchange risk management and the financial performance of forex bureaus.

3.2 Research Design

A research design is a comprehensive arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It is the conceptual structure within which research is conducted (Leedy and Ormrod, 2005).

A descriptive research study was utilized in this research. This study design is one that is concerned with specific predictions, with narration of facts and describes the characteristics of a particular individual, group or situation. The study design was therefore used to examine and explore descriptive characteristics of several variables of interest. This is very important in examining the objective we sought to achieve, how selected forex bureaus managed foreign exchange risk, and second research question that involved examination of the degree of financial performance also needed a descriptive research design.

3.3 Population

Population is a group of individuals, events or objects having common characteristics about which the researcher wishes to make generalizations since the target population is similar.

In this study, the target population constituted of 104 forex bureaus in Nairobi County.

3.4 Sample Size

A sample is a subset of the targeted population. It is a finite part of a statistical population whose properties are studied to gain information about the whole population. The sample size should be optimum to fulfill the requirements of efficiency, representativeness, reliability, and flexibility.

A sample (n=80) forex bureaus was drawn from the population (N=104) as determined by Krejcie & Morgan (1970) table in Appendix II. The table is created using the formula below;

$$S = \frac{X^2 NP (1 - P)}{d^2(N - 1) + X^2 P (1 - P)}$$

Where:

S = required sample size.

X² = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

Study units were selected using proportionate stratified sampling based on licensed subgroups. CBK 2014 reports 84 bureaus in Nairobi County have been licensed while KFBA shows there are 104 registered forex bureaus in Nairobi County.

Proportionate Stratified Sampling

Intended Strata	Participants (P)	P*(n/N)
Licensed	84	65
Total	84	65

Note: P*(n/N) is the proportionate subgroup of sample (n=65)

3.5 Data Collection

Both primary data and secondary data were used in this study. The primary data was obtained by use of self-administered questionnaires to forex bureaus management and or principal dealing officers to establish the risk management strategies employed. Secondary data on the other hand was obtained from the financial statements of the forex bureaus for analyzing foreign exchange risk management strategies and the effect these strategies on the overall financial performance of the forex bureaus. The data collected will be for five years (2009 to 2013).

3.5.1 Data Validity and Reliability

A reliable data is that which is free from error and therefore yield consistent results and applies to a measure when similar results obtained over time and across situations. When the outcome of a measuring process is reproducible, the measuring instrument is reliable. At least two members rated the content for relevance.

3.6 Data Analysis

Statistical treatment of captured data involved prior sorting, editing and coding to have the required quality and accuracy. The cleaned data was then entered into Statistical Package for Social Sciences program for generation of frequency tables, charts, correlations, and regressions. Multiple linear regression analysis was also used to examine the extent of influence of the independent variable on the respective dependent variables. The regression model is a multivariate model stating the Forex Bureaus Earnings after Tax as the function of selected foreign exchange risk management practices.

3.6.1 Analytical Model

The regression function is written as;

$$Y = \beta + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Table 3.1 Operationalization of the variables

Variable	Description	Measurement
Y	Earnings after Tax	Amount realized after deducting expenses and tax
X ₁	Money Market Hedge	Amount hedged though money market
X ₂	Currency Forward Contracts	Amount hedged though Currency Forward Contracts
X ₃	Currency Swaps	Amount hedged though Currency Swaps
X ₄	Currency Options	Amount hedged though Currency Options
X ₅	Exposure Netting	Amount hedged though Exposure Netting
X ₆	Leading and Lagging	Amount hedged though Leading and Lagging

β_0	unknown parameters	Measures the change of the dependent variable
ε	Independent random variables.	with zero mean and constant variance

Source; Researcher

3.6.2 Test of Significance

Analysis of Variance (ANOVA) technique is used when multiple sample cases are involved. It is essentially a procedure for testing the difference among different groups of data for homogeneity. It solves the difficulty that arises with either z-test or t-test when examining the significance of the difference amongst more than two samples at the same time. ANOVA using Statistical Package for Social Sciences program was therefore employed in this study to determine whether there is a significant difference among the means of the population.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND CONCLUSIONS

4.1 Introduction

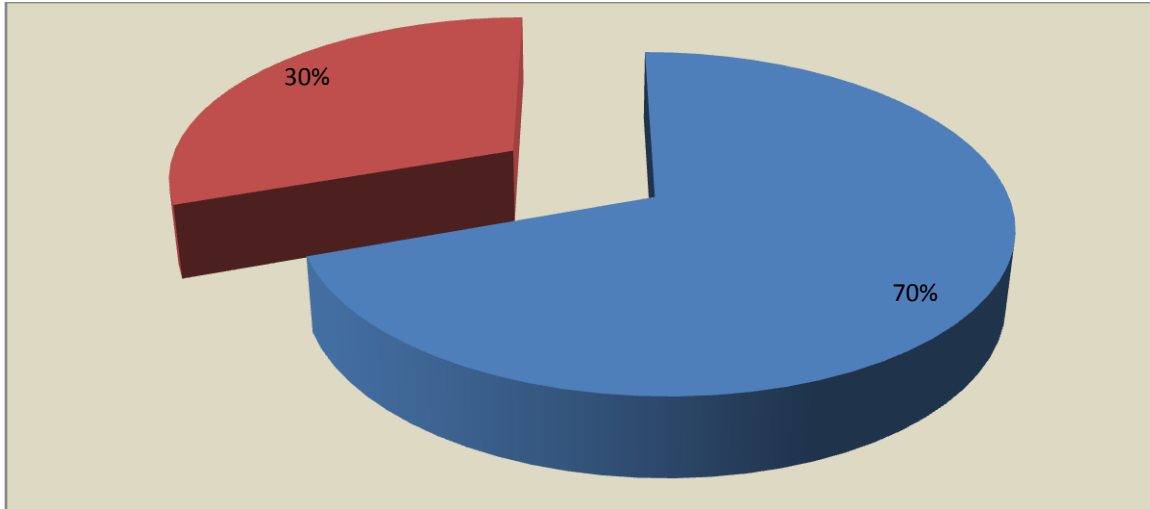
This chapter presents and explains analysis of the survey data. Two types of data analysis were used namely descriptive and inferential statistics for measurable relationships according to the study objective. The descriptive analysis helps the study to describe the relevant aspects of the phenomena under consideration and provide detailed information about each relevant variable. For the inferential analysis, the panel data regression analysis was used.

4.2 Findings

4.2.1 Risk Management

Having a risk management department is a positive step towards effective financial risk management. The study therefore sought to establish whether the bureaus had either separate risk management department or had a well-defined and implemented foreign exchange risk management policy. 32 (69.56%) bureaus had a risk management department while 14 bureaus didn't. Figure 4.1 illustrates the findings.

Figure 4.1 whether respondents had a separate risk management department



Source; Research Findings

The other fraction of forex bureaus without risk departments had well defined and implemented foreign exchange risk management policy clearly showing that risk management is essential for the sound performance of forex bureaus. The lack of an established risk department was mainly attributed to low transaction volumes.

4.2.2 Factors affecting Choice to Hedge Foreign Exchange Risk

Respondents were asked to list possible factors affecting the firms’ decision to hedge against risk. The following factors were pointed out.

Asset base: Frequented by large transactions, forex bureaus with large asset base of more than Ksh 20 million considered hedging against risk a necessity and had established departments. Forex bureaus with total assets below Ksh 20 million did not actively utilize foreign exchange risk management strategies.

Leverage: According to the risk management literature, firms with high leverage have greater incentive to engage in hedging because doing so reduces the probability, and thus the expected cost of financial distress. Highly levered firms avoid foreign debt as a means to hedge and use derivatives.

Liquidity and profitability: Firms with highly liquid assets or high profitability have less incentive to engage in hedging because they are exposed to a lower probability of financial

distress. Liquidity is measured by the quick ratio, i.e. quick assets divided by current liabilities). Profitability is measured as EBIT divided by book assets.

Sales growth: Sales growth is a factor determining decision to hedge as opportunities are more likely to be affected by the underinvestment problem. For these firms, hedging will reduce the probability of having to rely on external financing, which is costly for information asymmetry reasons, and thus enable them to enjoy uninterrupted high growth.

4.2.3 Foreign Exchange Risk Assessments

Using a five-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree), the study sought to determine the levels of agreement among respondents with statements posed by the researcher regarding foreign exchange risk measurement. The means and standard deviations generated from the responses are provided in table 4.1 below.

Table 4.1 Descriptive Statistics on Foreign Exchange Risk Measurement

Statement	N	Mean	SD
The firm's management forecasts currency gains or losses due to exchange rate changes in different currencies	46	1.96	.522
Management forecasts revenues/costs to determine the effect of forex risk.	46	2.78	.560
The firm sets extensive budgeting systems to handle currency risk projections	46	3.37	.480
Management uses external financial services/bankers to forecast foreign Exchange rates	46	3.34	.517
We have an updated information system to predict forex risk and exposure.	46	1.21	.561

Source; Research Findings

Overall, respondents registered high agreement levels on the questions posed. High score from the findings were recorded to statement that 'the firm's management forecasts currency gains or losses due to exchange rate changes in different currencies,' scoring a mean of 1.96 and a

standard deviation of 0.522. The second most agreed to statement was that ‘We have an updated information system to predict foreign exchange risk and exposure having a mean of 1.21 and standard deviation of 0.561.

Table 4.2 Descriptive Statistics on Foreign Exchange Risk Management

Statement	N	Mean	SD
We minimize exposure through advance payments of purchases and expenses.	46	2.56	.531
Our firm limits foreign exchange risk by delayed payments of purchases and expenses.	46	2.82	.612
Our firm offsets costs with revenues of same currencies to reduce forex risk.	46	2.52	.572
We request our bankers to reconsider their positions in case of adverse foreign exchange risk exposures	46	1.51	.502
Our firm has diversified in as many different currencies to increase sales and profits.	46	1.86	.416

Source; Research Findings

Results in the table above provide the various strategies to address the foreign exchange risk problem. High scores in agreement were recorded for the statement ‘our firm has diversified in as many different currencies to increase sales and profits with a mean of 1.86 and standard deviation of 0.416 and the request to bankers to reconsider their positions in case of adverse foreign exchange risk exposures scoring a mean of 1.51 and standard deviation of 0.502.

4.2.4 Regression Analysis

A multiple regression analysis was conducted to establish the relationship between foreign exchange risk management strategies and financial performance of Forex Bureaus in Nairobi County. The regression model was as follows: Earnings After Tax = β + β_1 (Money Market Hedge) + β_2 (Currency Forward Contracts) + β_3 (cross-currency swaps) + β_4 (options) + β_5 (netting) + β_6 (Leading and Lagging) + ϵ .

Regression analysis also produced correlation, coefficient of determination and analysis of variance (ANOVA). Correlation sought to show the nature of relationship between dependent and independent variables and coefficient of determination showed the strength of the relationship. Analysis of variance was done to show whether there is a significant mean difference between dependent and independent variables. The ANOVA was conducted at 95% confidence level.

Table 4.3 Model Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.797 ^a	0.794	0.775	0.276930

a. Predictors: (Constant), CurrencySwaps, ForwardContracts, MoneyMarketHedge, Currency Options, Leading and Lagging, Exposure Netting.

Source; Research Findings

Regression analysis was used to establish the relationship between Earnings After Tax and the factors that affects variables. The results showed a correlation value (R) of 0.797, which depicts that there is a good linear dependence of Earnings After Tax on money market hedge, forward contracts, currency swaps, currency options, leading and lagging and exposure netting.

Table 4.4 Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.311	3	4.104	5.351	.100 ^a
	Residual	.077	1	.077		
	Total	12.388	4			

a. Predictors: (Constant), CurrencySwaps, ForwardContracts, MoneyMarketHedge, Currency Options, Leading and Lagging, Exposure Netting

b. Dependent Variable: EarningsAfterTax.

Source; Research Findings 2014

ANOVA statistics was conducted to help determine the differences in the means of the dependent and independent variables thus show whether a relationship exists between the two. The p-value of 0.100 implies that Forex Bureaus Earnings After Tax has a significant joint relationship with money market hedge, forward contracts, currency swaps, options, leading and lagging and Exposure netting which is significant at 5 percent level of significance. This also depicted the significance of the regression analysis done at 95% confidence level

Table 4.5 Regression Coefficients Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.334	.576		5.789	.109
MoneyMarketHedge	1.173	.638	.312	1.512	.039
ForwardContracts	2.359	.615	.566	3.837	.022
CurrencySwaps	0.911	.571	.366	1.596	.036
Currency options	1.323	.893	.088	.581	.041
Leading and Lagging	0.701	.038	.687	1.378	.032
Exposure Netting	0.473	.720	.091	1.068	.089

a. Dependent Variable: EarningsAfterTax

Source; Research Findings

The data above shows a strong positive relationship between EAT and foreign exchange management strategies;forward contracts, money market hedge and currency option. A positive relationship is further observedbetween EAT and all the other independent variables. The established regression equation was:

$$Y = 3.334+1.173X_1+2.359X_2+0.911X_3+ 1.323X_4+ 0.701X_5+ 0.473X_6$$

In the model, it is quite evident that taking the independent variables' value at zero, the EAT would be 3.334.

4.3 Interpretation of the Findings

Regression analysis was conducted to empirically determine whether independent variables were a significant determinant of financial performance. Regression results indicate that the goodness of fit for the regression between independent variables and financial performance is satisfactory. An R squared of 0.797 indicates that 79.7% of the variances in earnings after tax are explained by the variances in the independent variables. This also implies that 20.3% of the variances in financial performance cannot be explained by the independent variables and is actually attributed to variables not included in the model.

From the ANOVA statistics, it can be concluded that the overall model was significant. The reported probability was less than the conventional probability of 0.05 (5%) significance level. The independent variables are therefore good joint predictors of financial performance according to ANOVA results. The ANOVA results also indicate that predicting financial performance through independent variable yields better results than predicting financial performance through the mean.

Use of money markets as a strategy in the management of foreign exchange risk exposure on the bureaus financial performance is positive and significant ($\beta_1 = 1.173$, $p \text{ value} = 0.039$). This implies the use of money market hedge led to an increase in earnings after tax by 1.173 units. The relationship is significant because the p value of 0.039 is less than the critical p value of 0.05.

The use of forward contracts in the management of foreign exchange risk on the bureaus was more prominent among the study population implying a strong positive relationship to financial performance ($\beta_2 = 2.359$, $p \text{ value} = 0.022$). This implies the use of forward contracts leads to an increase in earnings after tax by 2.359 units. The relationship is significant because the p value of 0.022 is less than the critical p value of 0.05.

The effect of the use of currency swaps in the management of foreign exchange risk on the financial performance of forex bureaus is positive and significant ($\beta_3 = 0.911$, $p \text{ value} = 0.036$).

This implies the use of cross-currency swaps leads to an increase in earnings after tax by 0.911 units. The relationship is significant because the p value of 0.036 is less than the critical p value of 0.05.

The effect of the use of currency options in the management of foreign exchange risk on the forex bureaus' financial performance is positive and significant ($\beta_4=1.323$, p value=0.041). This implies the use of options leads to an increase in earnings after tax by 1.323 units. The relationship is significant because the p value of 0.041 is less than the critical p value of 0.05.

The effect of the use of leading and lagging in the management of foreign exchange risk on the financial performances of forex bureau is positive and significant ($\beta_5=0.701$, p value=0.032). This implies the use of leading and lagging leads to an increase in earnings after tax by 0.701 units. The relationship is significant because the p value of 0.032 is less than the critical p value of 0.05.

Exposure netting's effect as a strategy in the management of foreign exchange risk on the bureaus' financial performance is positive but not significant ($\beta_6=0.473$, p value=0.089). This implies the use of exposure netting leads to an increase in earnings after tax by 0.473 units. The relationship is not significant because the p value of 0.089 is greater than the critical p value of 0.05. This could be attributable to the fact that it causes the least effect on the financial performance as compared to the other techniques.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter, conclusions are drawn from the discussed results and findings from previous chapter. The implications of the study are then examined for both research and business practice of forex bureaus. Future areas of research thereby suggested. The generated findings do relate with prevailing literature and conceptual framework. This study focused on registered forex bureaus in Kenya as the study subjects. Structured questionnaires were administered to principal dealers and/or officers in charge. Respondents were assured of the confidentiality of the information given. From the analysis and data collected, the following discussions, conclusion and recommendations were made. The responses were based on the objective of the study. The researcher intended to establish the effect of foreign exchange risk management strategies on financial performance of Forex bureaus in Nairobi County.

5.2 Summary

A number of forex bureaus had the Chief executive officer define the foreign exchange risk management policy. Second came in the finance manager recording a higher mean. In most forex bureaus, the finance manager was the officer in charge of the implementation of the foreign exchange risk management policy, as indicated by the highest mean. It was further established that most forex bureaus preferred measuring their foreign exchange risk exposure on a monthly basis with a second group on a quarterly basis

The most common foreign exchange risk reduction strategies among the institutions from the findings are Forward contracts and Money market hedge. Most bureaus hedged between 60 - 80% of their exchange rate. A close second, hedged between 40 – 60% and 0– 20%. On foreign exchange risk measurement, high scores from the findings were recorded to statements that ‘the firm’s management forecasts currency gains or losses due to exchange rate changes in different

currencies' and that 'we have an updated information system to predict foreign exchange risk and exposure'.

On foreign exchange management various strategies were provided ranging from involving banks to firm specific actions. High scores were recorded for the statement 'our firm has diversified in as many different currencies to increase sales and profits and the request to bankers to reconsider their positions in case of adverse foreign exchange risk exposures.

Inferential statistics by regression analysis show that forward contracts, money market hedge and currency options are seen to be strongly positively correlated with Earnings after tax. A positive relationship is further observed between earnings after tax and all the other independent variables. The regression results show that, when money market hedge, forward contracts, currency swaps, currency options, leading and lagging and exposure netting values are zero, Earnings after tax value would be positive.

5.3 Conclusion

The study investigated the effect of foreign exchange risk management on financial performance of Forex bureaus in Nairobi County and it can be concluded that a strong positive relationship exists between earnings after tax and forward contracts, earnings after tax and money market hedge and between earnings after tax and currency options. This therefore means that bureaus who managed their foreign exchange by use of forward contracts, money market hedge and currency options had better financial performance in terms of earnings after tax.

It can also be concluded from the descriptive statistics that Chief Executive Officers define the foreign exchange risk management policies in most forex bureaus. The mandate of overseeing the implementation of the policy is however left in the hands of the finance manager as recorded by most forex bureaus. All the strategies questioned are applied among the forex bureaus with most institutions hedging above 60% of their transactions. The hedging ratios are of significance to investors in future contracts, as it will help to identify and minimize risks.

5.4 Recommendations for Policy

From the findings of this research, the study recommends that forex bureaus should explore avenues to enhance capacities within them for managing foreign exchange risk. Forex bureaus should enforce forex business plans, operational manuals and framework, which evidently shows the 'what' and 'how' of currency risk assessment procedures and implementation of currency risk management strategies. They should consider providing training opportunities in form of updating firm specific skills and more in house training continued education for those in workplaces through short-term training that should be very practical oriented.

Management should opt for cost effective strategies for more significant positive relationship between foreign exchange risk management and financial performance. It would be profitable to adopt these strategies and probably consider other strategies only when their costs are low because investment gains may be small relatively to business size. For instance, currency risk retention should be used if losses and gains are high during currency fluctuations. Futures contracts and derivatives are also increasingly becoming popular in global market and therefore can be used for hedging. The study also recommends that a borrower or lender should assess the bureaus tolerance for variability in earnings before choosing a method for mitigating currency risk and adopt a strategy for managing currency risk consistent with the bureaus overall risk policy.

5.5 Limitations of the Study

The study experienced several obstacles since management of some forex bureaus were reluctant to divulge some information they considered sensitive. Respondents being engaged in other duties made access to them nearly impossible and it took a lot of time and patience by the researcher to get their audience. Some owners of the bureaus were very apprehensive and could not provide information whatsoever even after privacy assurance.

5.6 Suggestions for Further Research

This study suggests that it would be ideal to research on how foreign exchange risk management compares to other risk management, specifically credit risk management and financial risk management to the financial performance of forex bureaus in Kenya. In addition, investigations

in non forex risk profiles like operational risk or management risk management should be related to financial performance of forex bureaus.

The global exchange market is dynamic; therefore, experimental studies need to be undertaken within the context of the development of capital markets in foreign exchange risk hedging by firms. This could be through the introduction of innovative derivative instruments such as futures contracts, interest rate swaps, exchange rate swaps, and their significance in foreign exchange risk management.

An important extension to this study would be to replicate this research to similar developing nations, and more importantly conduct comparative country-to-country studies. This will either validate or not validate the findings and hence give it a universal face. In the process, other important findings may be unraveled given the changes that are taking place globally.

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APPENDICES

Appendix I: Questionnaire

A. INSTITUTION INFORMATION

Please indicate:

Name of your Bureau

Location of the main office (Street).....

B. MANAGEMENT OF FOREIGN EXCHANGE RISK

1. Do you have risk management department? Yes { } No { }

If No, does the firm have a well-defined and implemented foreign exchange risk management policy? Yes { } No { }

2. Who defines the foreign exchange risk management policy?

- Chief Executive Officer (CEO) []
- Finance manager []
- Senior Accountant []
- None of the above []

3. Who implements the policy?

- Chief Executive Officer (CEO) []
- Finance manager []
- Senior Accountant []
- None of the above []

4. How often does the company measure foreign exchange rate exposure?

- Daily
- Weekly
- Monthly
- Quarterly
- Semiannually
- Annually
- Rarely

5. What kind of hedging strategy/s is the firm using to manage foreign exchange risk?

- Money market hedge
- Forward contracts
- Cross-currency swaps
- Options
- Leading and Lagging
- Netting

6. Kindly indicate the amount hedged per strategy in the years below.

Strategy	2009	2010	2011	2012	2013
Money Market Hedge
Forward Contracts
Currency Swaps
Currency Option
Leading and Lagging
Exposure Netting

7. What percentage of exchange rate exposure is the institution hedging

0 –20% []

40 -60% []

80 –100% []

20 –40% []

60 –80% []

C. FOREIGN EXCHANGE RISK ASSESSMENT

Instructions: Based on actual and current situation, please tick [√] your response in the appropriate box after each statement.

Response Scale:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

8. Please tick [√] as regards the level of agreement or disagreement about the following.

Foreign Exchange Risk Measurement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The firm's management forecasts currency gains or losses due to exchange rate changes in different currencies					
Management forecasts revenues/costs to determine the effect of forex risk					
The firm sets extensive budgeting systems to handle currency risk projections					

Management uses external financial services/bankers to forecast foreign Exchange rates					
We have an updated information system to predict forex risk and exposure.					

Foreign Exchange Risk Management	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
We minimize exposure through advance payments of purchases and expenses.					
Our firm limits foreign exchange risk by delayed payments of purchases and expenses.					
Our firm offsets costs with revenues of same currencies to reduce forex risk.					
We request our bankers to reconsider their positions in case of adverse foreign exchangeriskexposures					
Our firm has diversified in as many different currencies to increase sales and profits.					

Any

comments:

.....

APPENDIX I: Forex Bureaus in Nairobi County

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Alpha Forex Bureau Ltd 2. Amal Express Forex Bureau Ltd 3. Amana Forex Bureau Ltd 4. Arcade Forex Bureau Ltd 5. Aristocrats Forex Bureau Ltd 6. Bakaal Express Forex Bureau Ltd 7. Bay Forex Bureau Ltd 8. Boston Forex Bureau Limited 9. Cashline Forex Bureau Ltd 10. CBD Forex Bureau Limited 11. Central Forex Bureau Ltd 12. Central Forex Bureau Ltd 13. City Centre Forex Bureau Ltd 14. Classic Forex Bureau Limited 15. Commercial Forex Bureau Limited 16. Conference Forex Bureau Limited 17. Continental Forex Bureau Ltd 18. Cosmos Forex Bureau Ltd 19. Crossroads Forex Bureau Limited 20. Crown Bureau De Change Ltd 21. Dalmar Exchange Bureau Ltd 22. Forex Bureau Afro Ltd 23. Gala Forex Bureau Ltd 24. Gateway Forex Bureau Ltd 25. Giant Forex Bureau de Change Ltd 26. Global Forex Bureau Ltd 27. Glory Forex Bureau Ltd 28. GNK Forex Bureau Ltd 29. Grand Royal Forex Bureau 30. Green Exchange Forex Bureau Ltd | <ol style="list-style-type: none"> 31. Hurlingham Forex Bureau Ltd 32. Industrial Area Forex Bureau Ltd 33. Junction Forex Bureau Limited 34. Kenza Exchange Bureau Ltd 35. Link Forex Bureau Ltd 36. Lion Bureau De Change Ltd 37. Magnum Forex Bureau De Change Ltd 38. Metropolitan Bureau De Change Ltd 39. Middletown Forex Bureau Ltd 40. Mona Bureau De Change Ltd 41. Money point Forex Bureau Ltd 42. Morgan Forex Bureau De Change Ltd 43. Nairobi Bureau De Change Ltd 44. Nairobi Forex Bureau Ltd 45. Nawal Forex Bureau Ltd 46. Net Forex Bureau Ltd 47. Nevada Forex Bureau Limited 48. Offshore Forex Bureau Limited 49. Pacific Forex Bureau Limited 50. Peaktop Exchange Bureau Ltd 51. Pearl Forex Bureau Ltd 52. Rand Forex Bureau Limited 53. Real Value Forex Bureau 54. Regional Forex Bureau Limited 55. Sky Forex Bureau Limited 56. Sterling Forex Bureau Ltd 57. Sunny Forex Bureau Limited 58. Tower Forex Bureau Limited |
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59. Trade Bureau De Change Ltd

60. Travellers Forex Bureau Ltd

61. Travel Point Forex Bureau Limited

62. Union Forex Bureau Ltd

63. Ventures Forex Exchange Bureau
Ltd

64. Westlands Forex Bureau Ltd

65. Yaya Centre Exchange Bureau Ltd

Source: Kenya Forex Bureaus Association (2011)

APPENDIX II: Table for Determining Sample Size from a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Source: Krejcie, R. V., & Morgan, D.W. (1970).

Note: “N” is population size and “S” is sample size