

**EXCHANGE RATE VOLATILITY AND FINANCIAL
PERFORMANCE OF LISTED COMMERCIAL BANKS IN
KENYA**

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DECLARATION

I hereby declare that this proposal is my own work and effort and that it has not been submitted anywhere for any award.

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Supervisor

This research proposal has been submitted for examination with my approval as the candidate's university Supervisor.

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Sign..... Date.....

DEDICATION

To all who have lost hope, may this be living proof that in deed your dreams are still achievable.

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LIST OF ABBREVIATIONS AND ACRONYMS

D/E:	Debt-to-Equity Ratio
DEA:	Data Envelopment Analysis (DEA)
DFA:	Distribution Free Approach
DMU:	Decision Making Units
FDH:	Free Disposal Hull
GDP:	Gross Domestic Product
ICA:	International Co-Operative Alliance
IFE:	International Fisher Effect
LOP:	Law of One Price
M&A:	Merger and Acquisition
P/E:	Price Earnings Ratio
PPP:	Purchase Power Parity
ROA:	Return on Assets
ROE:	Return on Equity
SACCO:	Savings and Credit Co-Operative.
SFA:	Stochastic Frontier Analysis
SPA:	Stochastic Production Approach
TFA:	Thick Frontier Approach

ABSTRACT

The study of financial performance is key in ascertaining the health of organizations. Notably, the study of Kenyan banking industry's performance is important because unlike in the recent past when banks were restricted to borrowing and lending money, banks have evolved to offer diversified services from mobile banking to stock broking and portfolio management. They have gradually shifted from being primarily focused on money transactions to businesses focused on information on financial transactions. Exchange rates play a fundamental role in a country's economy because it affects price levels, firms' productivity, distribution of resources and investment decisions. Exchange Rate Volatility can have lethal effects on production levels interest rates, prices, employment opportunities and wage rates. From a banking perspective, exchange rate volatility is a business risk and could lead to massive exchange rate losses. The study objective was to find out the behavior of exchange rate over the study period and how this relates to the performance of listed commercial banks in Kenya. This study adopted a descriptive survey design as it aimed at giving an accurate presentation on the how a volatile exchange rate impacts on listed commercial banks overtime. The target population comprised the 11 listed commercial banks at the Nairobi Stock Exchange as at December 2015. The study used secondary data derived from the statutory financial statements generated by the listed commercial banks as well as the Central Bank of Kenya database. The study focused on the Kenya shilling Versus United States Dollar exchange rate because the dollar is the principal payment currency for majority of Kenya's international transactions and is considered a stable currency in the foreign markets. The study findings discovered a weak positive relationship using return on equity as a performance indicator. The study found out that the Kenyan Shilling USD was very volatile in the period under study and made recommendations to the Central Bank of Kenya to establish monetary thresholds or trigger values which can act as warning signs of volatility and as such can be monitored to increase the speed and responsiveness to the rapidly changing financial market in Kenya.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The significant role played by exchange rates cannot be underrated in a country's economy because it affects price level, productivity of firms, distribution of resources and investment decision (Taiwo et al, 2013). Charles (2006) concluded that exchange rate is a fundamental economic adjustment instrument and a complex and contentious econometric tool. Obadan (2006) argued that exchange rate connects the pricing system across countries thereby facilitating traders to compare price directly. For developing countries like Kenya, where financial markets are still underdeveloped, exchange rate volatility creates a risky business environment relating to profit uncertainties (World Bank & MTTI, 2006).

Commercial banks are the leading actors in the foreign exchange scene with many clients engaging in import and export which must be paid for in foreign currencies. Jurion (1990) argued that exchange rate volatility could lead to both strategic and managerial issues pertaining to losses and gains. The significance of banks is particularly more important in the developing economies since these financial markets are evidently struggling and as such banks are the main source of finance (ECB, 2016). The International Fisher Effect theory developed by Irving Fisher (1930), states that considering the possibility of arbitrage opportunities across financial markets of any two countries, the real interest rates of these countries are equal. The Purchase Power Parity Theory, developed by Gustav Cassel (1918), further examines the exchange rates across different countries and how they relate. The performance of

commercial banks attracts significant attention because their role in a country's economy and because of the adverse implications that bank failure can have on public confidence in the banking system (Limo, 2014). He further portends that in spite of the standardized tools used to manage exchange rate exposures like hedging, options, swaps and contracts, there still exists a challenge for emerging markets like Kenya since either these are unavailable or limited.

Exchange rate has been unstable in Kenya with a rising trend with the most recent being in 2015 when the KES depreciated against USD with the highest rate of 106.035 on 07 September 2015, the highest rate ever witnessed in Kenya since independence (CBK, 2015). Exchange Rate Volatility resulted in dire effects on employment opportunities, pricing, Gross Domestic Product, wages rates and interest rates. Overtime, this has resulted in debates among key stakeholders such as investors, with no empirical verification being available to authenticate their arguments (Danga & Kiptui, 2016)

1.1.1 Exchange Rate Volatility

Ilhan (2006) defines exchange rate volatility as unforeseen variations in exchange rate and the risk thereof. He further postulates that econometrics considered sources of exchange rate volatility namely balance of payments, inflation, and interest rate have increasingly exhibited fluctuation tendencies. Such volatility affects both the cash flow of a firm's operations and the value of a firm (Farah, 2013). Theoretically, changes in exchange rate significantly results in economic uncertainty that can cause a direct change in stock prices (Ngerebo, 2012).

Exchange rates in Kenya have been fluctuating over the last few years with a rising trend. It has resulted in dire effects on employment opportunities, pricing, Gross Domestic Product, wages rates and interest rates (Danga & Kiptui, 2016). Most recently in 2015, the KES was depreciated against USD with the highest rate of 106.035 on 07 September 2015, the highest rate ever witnessed in Kenya since independence (CBK, 2015). In 2011, Kenya experienced exchange rate overshooting from KES 83 to over KES 100 within a span of 6 months and it rose steadily to over KES 106 in September 2015. This shows a weakening shilling from 2007-2015.

1.1.2 Financial Performance

Makkar (2013), postulates that financial performance is measured by adequately establishing a clear association of ratios in the financial statements.

Return on Equity is commonly used to measure financial performance. According to Gitman, (1998) the widely accepted financial management goal became “maximizing the wealth of the firm’s owners” and gradually ROE became a primary focus for investors, a mental shift from ROA. Foong (2008) indicated that ROE measures efficiency which illustrates to what extent they use ploughed back income to make more profits. It is measured by Net Profit divided by the Shareholders’ Equity.

1.1.3 Exchange Rate Volatility and Financial Performance

Despite the increasing studies linking exchange rate volatility to financial performance, there is also an increase in diversity in findings. This can be justified by the research methodologies and performance measurement indicators used in arriving at the conclusions (Carter et al, 2003).

Chamberlain et al (1997) and Choi et al (1992) in their studies discovered that there exists a direct relationship between bank stocks and foreign exchange movements.

Elyasiani and Mansur (2005), however, found conflicting results and concluded that information on exchange rates, often impounded into financial ratios, did influence Japanese bank stock returns.

Locally, Diffu (2011) while conducting a research on the relationship between foreign exchange risk and financial performance of Airlines in Kenya, revealed that the relationship was a negative one. Onyancha (2011) found out that exchange rate risk can reduce project quality on Non-Governmental organizations. Majok (2015) while studying exchange rate fluctuations and financial performance of Kenyan Commercial Banks from 2002 to 2014, found out that exchange rate fluctuations negatively impacted on the financial performance of commercial banks though on a weak front.

1.1.4 Listed Commercial Banks in Kenya

The Banking Act, Central Bank of Kenya Act and the Companies Act are key governing laws over the banking industry in Kenya. Since its liberalization in 1995, the central Bank of Kenya is the regulatory body for all Kenyan banks. The Capital Markets Authority, however, has additional oversight authority over the 11 listed commercial namely National Bank of Kenya, I & M Bank, Co-operative Bank, Housing Finance, NIC Bank, Barclays Bank, Stanchart Bank , Kenya Commercial Bank, CFC Stanbic, Diamond Trust Bank and Equity Bank (Cytonn, 2015)

As at December 2015, the cumulative aggregate deposits of the listed banking sector was at 2.0 trillion which was a significant increase form 1.8 trillion in 2014. This growth has been attributed to banks responding to the diverse needs of clients by diversifying into new products such as internet banking, agency banking, and expanding into new markets such as South Sudan (NSE, 2015)

1.2 Research Problem

Presently, exchange rate stability is considered an indispensable foundation and econometric in analysing a country's overall economic position. Extant research works have documented the adverse costs of exchange rate fluctuations on various parts of the domestic economy. Still lacking is conclusive validation of how changes in exchange rate affect financial performance besides linking this evidence to specific firms (Harcourt and Poncet, 2012). A research by Chamberlain et al (1997) concluded that there exists a direct relationship between US based bank stock returns and foreign exchange fluctuations. However, Elyasiani and Mansur (2005) further studied the impact of exchange rate information on Japanese bank stocks and arrived at conflicting results.

In 2011 Kenya experienced exchange rate overshooting from KES 83 to over KES 100 within span of 6 months and it rose steadily to over KES 106 in September 2015, the highest rate ever witnessed in Kenya since independence. This caused a lot of debate among various stakeholders, including investors in the banking industry, with no empirical verification to authenticate their arguments. Commercial banks are the leading actors in the foreign exchange scene with many clients engaging in import and export which must be paid for in foreign currencies. Jurion (1990) argued that a volatile exchange rate raises strategic and managerial concerns relating to losses and gains. Fundamentally, banks are considered important in developing economies simply because their financial markets are still lagging leaving banks as the main source of finance for firms (Aron & Turner, 2008).

Sekmen (2011) while examining how exchange rate volatility affects United States' stock returns used squared residuals from autoregressive models and revealed United States' stock returns are negatively affected by changes in exchange rate. Owoeye (2013) studied exchange rate volatility and Nigerian banks. Locally, empirical studies have yielded conflicting findings despite the numerous studies done on foreign exchange fluctuations.

Onyancha (2011) while studying foreign exchange gains and losses and financial performance of international Non-Governmental organizations concluded that huge foreign exchange loss reduces asset quality. Musa (2014) conducted a research on foreign exchange rate variations and oil marketing companies in Kenya and concluded there was non-significant relationship between changes in foreign exchange rate and financial performance of oil marketing companies in Kenya. Wamukhonya (2014) studied the effect of foreign rate fluctuations on horticultural export earnings in Kenya and recommended a study on different economic sectors of the country to find out the prominent effect of the exchange rate fluctuations.

Majok (2015) studied the effects of exchange rate fluctuations on the financial performance of 43 Kenyan commercial banks operational from 2002 to 2014. She examined the ROA of the 43 commercial banks as a performance indicator and revealed that there exchange rate fluctuations negatively affect the financial performance of commercial banks in Kenya. These previous studies focused on behaviour and impact of changes in exchange rate on either stock prices, manufacturing industry, oil marketing firms or banks in the Nigerian context. The study in the Kenyan context captured the ROA across the 43 commercial banks and

therefore did not to relate how the changes in exchange rate affects listed commercial banks' performance. In light of the above study recommendations and limitations in literature thereof, what is the relationship between exchange rate volatility and ROE of the listed commercial banks in Kenya?

1.3 Research Objective

The specific objective of this study is to establish the relationship between exchange rate volatility and financial performance listed commercial banks in Kenya.

1.4 Value of the Study

The study contributes to the literature on Foreign exchange volatility, efficiency of foreign exchange market in Kenya in relation to the Kenyan banking industry, specifically the listed commercial banks. Finance and economics researchers will deem the study useful in guiding further research.

This study will be valuable to practitioners as it will help them better understand the dynamics of changes in exchange rate and the implications on financial performance. Practitioners will be able to identify research gaps and recommendations for further study of exchange rate volatility influence across other sectors of the economy relatable to the banking industry.

Policy makers in the banking sector will find this study invaluable notably the Central Bank of Kenya and the Treasury in developing policies to manage exchange rates and stimulate consistent and measurable growth and profitability in the banking industry. This study will enable the Central bank of Kenya Monetary Policy to establish sustainable and effective policies in curbing the exchange rate volatility that has been on a rising trend in Kenya.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the theories of exchange rate volatility and gives an empirical presentation of previous studies on relevant areas.

2.2 Theoretical Review

This section explores the theories relevant to this study, with considerations being made to the International Fisher Effect and Stock oriented model and the Purchase Power Parity

2.2.1 The International Fisher Effect

According to International Fisher Effect, one country's real interest rate is independent of monetary variables. The theory further suggest that foreign currencies with relatively high interest rates would depreciate because the high nominal interest rates reflect anticipated inflation. The nominal interest rate would also incorporate the default risk of an investment (Staikouras and Wood, 2004). The International Fisher Effect IFE states that the difference in returns between two countries is equivalent to the variance in inflation rates (Shapiro, 2007).

One of the most significant contributions of Fisher to the field of economics was his ability to establish the connection between inflation and the real and nominal interest rates. This association is known as the Fisher Effect. The Fisher Effect states a rise in the growth rate of the money supply will result in rise in inflation and rise in the nominal interest rate, which will equal the rise in the inflation rate. This Fisher Effect helps explain why inflation may not be seen as affecting the real interest rate in the long-run. In order for real interest rates not to be affect by inflation, the nominal

interest rate must reflect the changes in the inflation rate. The Fisher effect is evident in the banking industry that is, the interest rate an investor has on a savings account is really the nominal interest rate.

This theory is relevant for this study as it explains that countries don't adjust interest rates by the equal magnitude and central bankers have shifted focus from interest rate target to inflation target equilibrium exchange rates such that the basket of goods and services purchased by one unit of a country's currency equals those purchased in the second country.

2.2.2 Purchase Power Parity

Gustav Cassel (1918) examined the relationship between exchange rates of different countries. He argued that currencies of different countries should have the similar purchasing power and this holds when measuring in a standard unit. When viewed in relation with exchange rates, PPP portends that the exchange rates between two currencies should equal the ratio of the countries' price levels. The 'law of one price', which states that prices of similar goods from different countries remain the same after adjusting the exchange rates of those countries, borrows from Purchase Power Parity theory.

2.3 Determinants of Exchange Rate Volatility

These include Money supply, Balance of Payments, Foreign Exchange reserves and Interest rate differentials.

2.3.1 Money Supply

Johnson (1972) stated that a country's balance of payment is dependent on monetary demand and supply in that country as well as the in other countries worldwide.

Monetary demands increase without a similar increase in the source element will result in exchange rate appreciation (Frenkel and Johnson, 2013).

Wilson (2009) supported the concept that increase in money supply will result in a decrease in ratio of currency when he studied effective exchange rate between the USD and weighted average trade patterns in Africa. He further argued that money supply was an aggregate determinant of behaviour of exchange rate in African financial markets.

2.3.2 Interest Rates

One important controversial variable is the interest rate. Higher interest rates attract foreign capital inflows and appreciates a country's currency and the reverse is true (Juthatip, 2009). Fernandez et al (2002) opined that an increase in the interest differential between Euro area and abroad significantly appreciated the Euro.

Danga & Kiptui (2016) in their study on determinants of exchange rate volatility in Kenya opined that commercial banks generate a lot of attention because of the lending rates attached to their loan approvals. Moreover, considering the recent focus shift by banks over the passing of the Banking Bill seeking to control lending interest rates by commercial banks, banks have converged to develop strategies on curbing the effect of this move.

2.4 Empirical Studies

The following subsection will present a highlight of previous studies on exchange rate volatility and it affects a firm's financial position. The subsection reviewed empirical studies done both locally and internationally.

2.4.1 International Evidence

The behaviour of volatility of foreign exchange rate was studied by Todani and Munyama (2005) who employed co-integration analysis on quarterly data and found out that there was a significant relationship between changes in foreign exchange rate and South African goods and services exported to the international market. Todani and Munyama (2005) further measured volatility using moving standard deviation and established there was no statistically significant relationship between changes in foreign exchange rate and South African exports and should such a relationship exist, it would be positive.

Obadan (2009), while carrying out a study in Nigeria while using the average standard deviation and GARCH (1, 1) to measure variability also established the exchange rate is a core determinant of price systems across various economies. Exchange rate fluctuations impact on the countries in question through relative price effects. Obadan (2009) positioned exchange rate as a conditioning variable for counter-inflationary policy. This borrows from the basic pricing model and perception that nominal wages adjust to price differentials.

Adebiyi (2009) in his study on Nigeria stock exchange while using the vector error correction modelling technique made an argument that to achieve a realistic exchange rate, we need to address the root cause of the upward sloping demand curve and the vertical supply curve of foreign exchange and further establish an effective basis to ensure that cash flows related to foreign exchange are purely purposed for productivity.

Sekmen (2011) while examining the exchange rate volatility and United States' stock returns used squared residuals from autoregressive models covering 1980 to 2008 and revealed changes in exchange rate negatively affected United States' stock returns despite the existence of hedging instruments intended to reduce the negative effect on trade volumes. In a related study, Olugbenga (2012) conducted a research on the effects of exchange rate on the stock market development in Nigeria both in the long run and short run using Johansen co-integration tests. The results revealed that in the short run, there was a significant positive stock market performance to exchange rate unlike in the long run where the reverse was true. Empirically, evidence used in the study confirmed diverse views on the relationship between the two variables.

A study by Agu (2012) in Nigeria using Egarch model revealed that indeed real exchange rate should be monitored by optimal exchange rate policies so as to maintain an equilibrium balance in the economy. He further argued that when the rate of depreciation increases by a greater margin than the domestic production, then exchange rate depreciation safeguards the domestic industry. Bah and Amusi (2013) while using the ARGH and GARCH models in their study of the effect of real exchange rate volatility in South Africa established that real exchange rate volatility impacts negatively on exports both in the short run and long run.

Owoeye (2013) examined exchange rate volatility and bank performance in Nigeria. The study examined capital deposit ratio and loan loss to total advances ratio as banks' performance indicators to determine the impact of changes in exchange rate on banks' performance in Nigeria. Both models demonstrated that the magnitude of influence of changes in exchange rate is dependent on the type of performance

indicator used. The study recommended that to improve the banks' capacity of channeling credit to the economy, a stable exchange rate is necessary.

2.4.2 Local Evidence

Empirical studies have been done locally. Diffu (2011) while studying the how foreign exchange relates with financial performance of Airlines in Kenya using Kenya Airways as a case study, found out that there foreign exchange risk relates negatively to financial performance of Airlines in Kenya. Her findings also revealed that revenues and expenses denominated in foreign currency were negatively impacted by currency fluctuations.

Muriithi (2011) conducted a study aimed at examining foreign exchange rate and market performance and manufacturing companies. The study used a descriptive research design. His study showed that exchange rates had a positive influence on market performance. In addition, Mongeri (2011) studied the impact of foreign exchange. Rates on the performance of NSE share index. The research employed a longitudinal research design and found that there exists a positive relationship between forex rates and performance of stock market at the NSE. Differences in forex rates had a direct impact on stock market performance.

Onyancha (2011) examined the impact of foreign exchange gains and losses in the financial performance of international Non-governmental organizations. The study used a survey research design. His findings showed that exchange rate risk can reduce project quality. Also, fluctuations in exchange rate have an impact on financial performance of NGOs and huge foreign exchange loss reduces the asset portfolio.

A study by Musa (2014) sought to establish the effect of changes in foreign exchange rate on the financial performance of oil marketing companies in Kenya. The findings showed there exists no significant relationship between changes in foreign exchange rate and performance of oil marketing companies in Kenya.

Rutto and Ondiek (2014) examined the impact of exchange rate volatility on Kenya's tea exports. The research objective was to determine the impact of changes in exchange rate on tea exports, the contribution tea exports' earnings make to Kenya's economy and draw policy recommendations emanating from empirical findings for enhancing tea exports. Johansen and Julius Multivariate co-integration technique was applied to annual time series data for the period of 1970-2008 so as to recognize the short run as well as long run behavior of the variables in the study. Co-integration and error correction technique (ECM) developed by Engle and Granger was used. The study used Dickey fuller (DF) coupled with Augmented Dickey Fuller (ADF) as a measure of unit root test for stationarity. Phillips Perron (pp) on first difference was adopted to test stationarity in their first difference and testing co-integration feasibility. The data was derived from Central bank of Kenya database, Kenya National Bureau of Statistics database, Tea Board of Kenya database and the International Monetary Fund database on financial statistics. The results indicate Kenyan tea exports are negatively affected by changes in exchange rate. This paper recommends periodic monitoring of the exchange rate so as to reduce its impact and drawing of fiscal and monetary policy that would make exchange rate manageable

Majok (2015) studied the effects of exchange rate fluctuations on the financial performance of 43 commercial banks operating in Kenya from 2002 to 2014. She

examined the ROA of the 43 commercial banks as a performance indicator and used a descriptive research design and ANOVA to investigate the significance of the effects of changes exchange rate on financial performance of commercial banks. The study used secondary data collected from the banks' consolidated financial statements and the Central Bank of Kenya. The results revealed a weak negative relationship between exchange rate fluctuations and the financial performance of commercial banks in Kenya.

2.5 Summary of Literature

This chapter has reviewed literature relevant for the study notably the theories guiding the study including: the purchasing power parity, the International Fischer Effect ,Stock oriented model and the Purchase Power Parity all of which explain how foreign exchange rates impact on firms engaged in international trade. The study further reviewed empirical studies done both from international and local perspectives. The empirical studies (Todani and Munyama, 2005; Obadan, 2009; Adebisi, 2009; Sekmen, 2011; Olugbenga, 2012; and Owoeye and Ogunmakin, 2013; were done in international setting. Local studies done by Diffu, 2011; Muriithi, 2011; Mongeri, 2011; Onyanacha, 2011; Musa ,2014; Rutto and Ondiek, 2014 and Majok, 2015) covered other aspects of foreign exchange rate fluctuations.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter the research design and the research methodology employed in the study is discussed. It also describes the research design, research objectives and description and selection of population. The research instruments, data collection techniques and procedure for data analysis are also pointed out.

3.2 Research Design

This study employed a two-prong research design. Cross sectional design is intended to enable the researcher to efficiently define the observed changes and to identify the various factors associated with those changes (Danga & Kiptui, 2016). Cross sectional design is appropriate because it allows the study to select a subset of the entire population and examine the behavior at only a given period of time. In this case, the study focused on the 11 listed commercial banks out of the 43 commercial banks in Kenya.

Menard (1991) defines longitudinal research design as research in which the subjects under analysis are similar or capable of comparison from across several periods. Smith and Torrey (1996) portend that longitudinal research design is important for studying individual transitions. Both designs were appropriate because cross sectional design gives room for description and interpretation of existing relationships between variables under study while longitudinal research design measured the changes and made stronger causal interpretations.

3.3 Target Population

Kothari (2004), defines a population as a definite group of people, elements, services and events or a group of households that are being investigated. The study target population comprised of the 11 listed commercial banks operating in Kenya as at December 2015 in reference to the Central Bank of Kenya Statistical reports on the CBK website.

The target population was arrived at in line with the Return on Equity (ROE) that will be used as a performance indicator. The study covered a 6 year period between 2008 and 2013 because the changes in exchange rate had been intense. The target population was restricted to listed commercial banks as information on public companies is easily accessible compared to private companies.

3.4 Data Collection

This study used secondary data. The data source was limited to the US Dollar/ Kenyan Shilling exchange rate because the dollar is the principal payment currency for majority of Kenya's international transactions and is considered a stable currency in the foreign markets. Secondary data was collected from the consolidated financial statements and quarterly and annual reports remitted to the Central Bank of Kenya available on the CBK website and Central Bank of Kenya Resource Centre.

Secondary data that was assessed included the Return on Equity of all the 11 listed banks from 2008 to 2013. To achieve the objectives of the study, a period of 6 years between 2008 and 2013 was relevant because the exchange rate turbulence during this period had risen steadily. The data from the financial statements was easily accessible for the public listed commercial banks.

3.5 Data Analysis

Regression analysis was used to analyse the data that was collected. Data was analysed through the Statistical Package for Social Sciences (SPSS) package version 19. The analysis was on the exchange rate volatility versus financial performance of listed commercial banks by use of frequency tables, charts, correlations and regressions.

Exchange rate volatility was looked at by establishing the daily ratio of the day's exchange rate to the previous day from which the monthly volatility figure was calculated and thereafter the standard deviation was used in the analysis. Descriptive statistics on the two independent variables was analysed to project the objectives of the research study.

3.5.1 Analytical Model

According to Owuoye & Ogunmakin (2013), the following model is used to explain the relationship between exchange rate volatility and performance of Commercial Banks.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

Where: Y = Financial Performance of Commercial banks (Return on Equity)

β_0 = Constant (y-intercept)

X1 = Interest Rate (Central Bank Rate)

X2 = Money Supply (Inflation index)

ϵ = Error term

The independent variables X1, X2, X3, and X4 represent the determinants of exchange rate volatility.

CHAPTER FOUR: DATA ANALYSIS PRESENTATION AND FINDINGS

4.1 Introduction

The objective of the study was to establish the relationship between exchange rate volatility and financial performance of listed commercial banks. The study focused on the behavior of exchange rate in relation to the Return on Equity of the listed commercial banks. The chapter presents the analysis, presentations and discussions of the study findings.

4.2 Descriptive Statistics

Table 1, provides the average of the returns on equity per bank for the period of the study. Though, some banks report higher mean based on the equity ratios their variation from the mean is higher.

Table 1: Interest Rates

Banks	Mean	N	SD
BARCLAYS	0.157064262	6	0.02168071
CFC	0.167980852	6	0.02169146
COOP	0.143837802	6	0.01528723
DTB	0.112071831	6	0.00929094
EQUITY	0.200409105	6	0.03021231
HF	0.170224438	6	0.05546058
I&M	0.147956037	5	0.01524896
KCB	0.138946578	6	0.01867066
NBK	0.150198473	6	0.01246577
NIC	0.139366024	6	0.0059471
STANDARD BANK	0.149284749	3	0.02032694
STANCHART	0.123664624	3	0.0163542

Table 2: Inflation Rates

Year	Mean	N	SD
2008	0.1579386	10	0.0538394
2009	0.1513799	11	0.0404081
2010	0.1541646	11	0.0244683
2011	0.1404149	11	0.0208042
2012	0.1505499	11	0.0205733
2013	0.1543851	11	0.0212532

Variation of returns on equity per year is imperative to monitor as it explain important dynamics in the market. Banks' performance is influenced by many factor, however, returns on equity has been found to be a critical factor. The standard deviation of the variables, as a measure of dispersion from the mean is an indicator of volatility of the ratio of equity.

4.2.1 Return on Equity and Interest Rates

Table 3: Pearson Bivariate Correlation

Correlations			
		ROE	INTEREST RATE
ROE	Pearson Correlation	1	-0.033
	Sig. (2-tailed)		0.797
	N	65	65
INTEREST RATE	Pearson Correlation	-0.033	1
	Sig. (2-tailed)	0.797	
	N	65	65

Pearson's bivariate Correlation showed negative correlation of 0.033 and a probability value of 0.797 (Table 3). This demonstrates that there is no statistically significance between the factors which has effect on the financial performance of commercial banks in Kenya. The findings are contrary to the previous study which showed positive relationship with exchange rate, this could be attributed to the period of study and other confounding factors which were not include in our study. However, the

results were in agreement with Brewer, Minton and Moser (2000), who were able to establish negative correlation between interest rate and performance in savings and loan institutions. The negative correlation coefficient between exchange rate and return on equity was weak in our study as well, however, the performance of commercial banks in Kenya was not statistically significantly affected.

4.2.2 Return on Equity and Inflation Rates

Table 4: Pearson Bivariate Correlation

		ROE	Inflation
Pearson Correlation	ROE	1	0.023
	inflation	0.023	1
Sig. (1-tailed)	ROE	.	0.429
	inflation	0.429	.

The study used inflation rate as well to determine and understand its effect on the financial performance of commercial banks listed in Kenya. Correlation analysis used to measure the strength between the variables in the study, showed a weak positive association. Bergen (2010) noted that countries with higher inflation typically experience depreciation in their currency in relation to the currencies of their trading partners and cause low profitability. Our study revealed a weak positive correlation between the variables, (table 2).

4.2.3 Regression Analysis

Multivariate analysis of inflation rate and interest rate with return on equity as a measure of listed banks' performance showed interesting results. Positive results were confirmed with inflation rate ($\beta = 6.44E-05$) at 95% confidence interval (table 3). Though, the results demonstrated that there is no significant relationship between interest rates, inflation rate and the financial performance of the listed banks, it is important to keenly monitor these since previous studies found CBK interventions

had proved to be very effective in reducing exchange rate volatility (Kembe, 2013). However, contrary findings by Aguilar and Nydahl (2000) found effects of interventions on volatility were not significant just as our study.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.025 ^a	0.001	-0.032	0.0319741548

a. Predictors: (Constant), Inflation rate, Interest rate

The R square value illustrate that only 0.1% of the volatility is explained by interest and inflation rate

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.000	2	0.000	0.020	0.980
	Residual	0.063	62	0.001		
	Total	0.063	64			

a. Predictors: (Constant), Inflation rate, EXCHANGE RATE

b. b. Dependent Variable: ROE

Table 7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.143	0.055		2.612	0.011
	Interest rate	0.001	0.004	0.018	0.140	0.889
	Inflation rate	8.157E-5	0.001	0.019	0.147	0.883

a. Dependent Variable: ROE

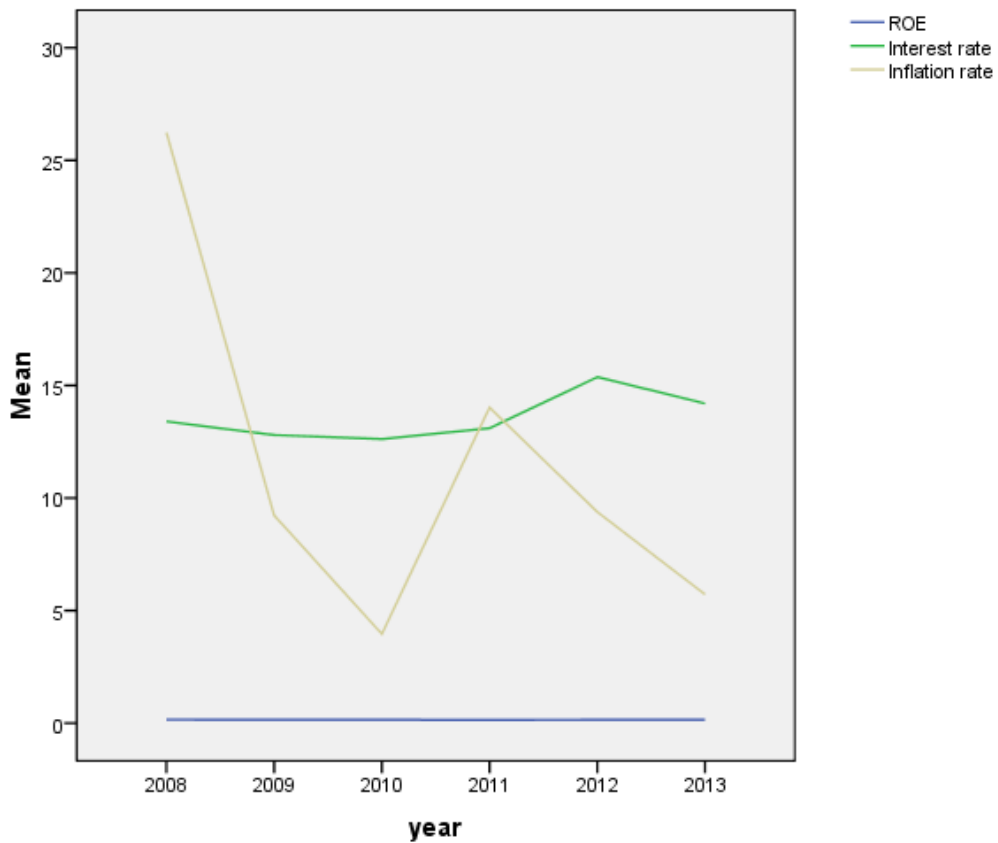
Model

$$Y=0.143+0.001X_1+0.00008X_2$$

The model in table above shows that a one unit change in the exchange rate leads to an increase of 0.001 in the return on equity of listed commercial banks and a unit

change in the inflation rate causes an increase of 0.00008 in the return on equity of commercial banks. From the model, one can derive a weak positive relationship between the independent variables and the dependent variable. It is also notable that the standardized and the unstandardized coefficients are both not statistically significant as presented. The unstandardized coefficients take into account other variables that are not under study, whereas the standardized coefficients do not. However, the difference in these coefficients is minimal.

Line Chart



During the study period, Return on Equity was highest at 0.1579386 in 2008 and a lowest at 0.1404149 in 2011. This was because in 2008 there were only 10 listed commercial banks unlike in 2011 when there were 11 listed commercial banks.

4.3 Discussion of Findings

The objective of this study was to establish the relationship between exchange rate volatility and financial performance of listed commercial banks in Kenya. The study findings revealed that there existed a weak positive relationship between exchange rate volatility and financial performance of listed commercial banks. The findings were slightly in agreement with Osoro (2013) who observed an existence of a positive relationship between debt ratio and financial performance of listed commercial banks using Return on Assets as a performance indicator. He concluded that a unit increase in debt ratio would result in 0.064 units increase in Return on Asset.

The research findings were also in agreement with other studies conducted across other sectors of the economy. Muriithi (2011) conducted a study aimed at examining foreign exchange rate and market performance and manufacturing companies. The study used a descriptive research design. His study showed that exchange rates had a positive influence on market performance. In addition, Mongeri (2011) studied the impact of foreign exchange rates on the performance of NSE share index. The research employed a longitudinal research design and found that there exists a positive relationship between forex rates and performance of stock market at the NSE. Differences in forex rates had a direct impact on stock market performance.

The findings were also similar to Musa (2014) in his study on effect of changes in foreign exchange rate on the financial performance of oil marketing companies in Kenya concluded there was no significant relationship between changes in foreign exchange rate and financial performance of oil marketing companies in Kenya. Ambunya (2012) while seeking to determine the how exchange rate movement relates

with stock market returns at the Nairobi Stock exchange, found that exchange rate movement affects stock market performance positively.

However, the findings contradicted certain previous studies namely Onyancha (2011) who examined the impact of foreign exchange gains and losses in the financial performance of international Non-governmental organizations. The study used a survey research design. His findings showed that exchange rate risk can reduce project quality. Also, fluctuations in exchange rate have an impact on financial performance of NGOs and huge foreign exchange loss reduces the asset portfolio. Rutto and Ondiek (2014) examined the impact of exchange rate volatility on Kenya's tea exports. The results indicate Kenyan tea exports are negatively affected by changes in exchange rate

The exchange rate volatility was observed to have been on a rising trend in the period of the study. Specifically, the KSH USD exchange rate was increasing over the 6 year period indicating that the Kenyan shilling was weakening against the dollar. This means that Kenya being an exporter had suffered export losses that may have had significant economic implications. Owuoye (2013) observed that bank performance was sensitive depending on the performance indicator used in measuring bank performance.

CHAPTER FIVE: SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Daily, firms seek to enhance their financial. Listed commercial banks in Kenya are no exception. In so doing firms end up employing different strategies up to and including financial restructuring as a financial strategy aimed at enhancing the profitability of the firm and therefore the firm's financial performance. Failure to monitor their financial performance, a firm or a bank in this case suffer financial distress and worse still, suffer closure which is very detrimental to any given country as was recently observed in the case of Imperial Bank and Chase Bank.

The research therefore aimed at determining the relationship between exchange rate volatility and financial performance of listed commercial banks in Kenya using Return on equity as a performance indicator. Considering Return on Equity is unique to listed companies, the study aimed at offering insight to banks and the listed companies generally on how important their financial performance is to existing and potential investors. A sample of 11 listed commercial banks representing the 11 listed commercial banks at the Nairobi Stock Exchange. Secondary data collected was over a six year period. Linear regression was used to establish the relationship between exchange rate volatility and financial performance of listed commercial banks using Return on equity as a performance indicator.

The findings revealed a weak positive relationship between exchange rate volatility and financial performance of listed commercial banks in Kenya. The research also observed that during the study period the average industry deposit growth was faster than loan growth indicating a slow uptake and issue of loans. This may have been

attributed to the exchange rate being on the increase and a weakening shilling prompting the banks to adopt flight-to-safety strategy by registering a growth in deposits. The findings were in agreement with previous studies namely Osoro (2013) who observed an existence of a positive relationship between debt ratio and financial performance of listed commercial banks using Return on Assets as a performance indicator. He concluded that a unit increase in debt ratio would result in 0.064 units increase in Return on Asset.

The research findings were also in agreement with other studies conducted across other sectors of the economy. Muriithi (2011) conducted a study aimed at examining foreign exchange rate and market performance and manufacturing companies. The study used a descriptive research design. His study showed that exchange rates had a positive influence on market performance. In addition, Mongeri (2011) studied the impact of foreign exchange. Rates on the performance of NSE share index. The research employed a longitudinal research design and found that there exists a positive relationship between forex rates and performance of stock market at the NSE. Differences in forex rates had a direct impact on stock market performance.

5.2 Conclusions

The research objective in this study was to establish the relationship between exchange rate volatility and financial performance of listed commercial banks in Kenya. The study explored the effects of inflation rates and interest rates as determinants of exchange rate volatility over a six year period from 2008 to 2013. The focus was on the 11 listed commercial banks in Kenya because the information on these public companies was easily accessible over the period under study.

The study revealed that there existed a weak positive relationship between exchange rate volatility and financial performance of listed commercial banks' performance using Return on Equity as a performance indicator. In addition, the exchange rate volatility was observed to have been on a rising trend in the period of the study. Specifically, the KSH USD exchange rate was increasing over the 6 year period indicating that the Kenyan shilling was weakening against the dollar. This means that Kenya being an exporter had suffered export losses that may have had significant economic implications.

Further, research observed that during the study period the average industry deposit growth was faster than loan growth indicating a slow uptake and issue of loans. This may have been attributed to the exchange rate being on the increase and a weakening shilling prompting the listed banks to adopt flight-to-safety by registering a growth in deposits.

5.3 Recommendations

From the findings, the Central Bank of Kenya needs to prioritize policies that mitigate interest rates to reasonable levels to equally achieve low levels of inflation. The research study observed that inflation policies were inadequate and less effective in curbing the rate of inflation over the study period. The Central Bank of Kenya has the task of fiscal policies that are adequately effective

The findings reveal a weak positive relationship between changes in exchange rate and financial performance of listed commercial banks in Kenya. Practitioners should endeavor to build on the findings of this research study by seeking to answer

questions on the sustainability and relativity of changes in exchange rate and financial performance in the long run.

Exchange rate volatility has been on the increase and from the research findings, though it may have weak positive relationship with the financial performance of the 11 listed commercial banks, the Monetary Policy Committee of the Central Bank of Kenya should maintain a coherent monetary policy at all times with special focus on price fluctuations. This will ensure sustainability and effectiveness.

Considering the Capital Markets Authority has additional regulatory role over the listed commercial banks. The Central Bank of Kenya in collaboration with the Capital Markets Authority should establish early warning mechanism of exchange rate volatility. This can be done by establishing monetary thresholds or trigger values which can act as to increase the speed and responsiveness to rapidly changing financial market behavior.

Further, the Central Government should seek to strengthen the autonomy of the main organs of the Central Bank of Kenya namely the Banks' Supervision/financial markets and the Monetary Policy arm. This is necessary to achieve synthesis and effective execution of the roles assigned in the Central Bank Act.

5.4 Limitations of the Study

The focus of the study was on the Return on Equity as a performance indicator therefore limiting the population to only the 11 listed commercial banks at the Nairobi Stock Exchange. The target population could have been larger to include the 43 commercial banks operational during the period under study.

The research examined two independent variables in establishing their relationship with the Return on Equity of the listed commercial banks. However, considering there are other macroeconomic factors that influence exchange rates, the study notably failed to capture these in arriving at a conclusion of the research study. Therefore, the underlying factors may have been omitted in arriving at the study findings and conclusions.

Kenya's financial market is still defined as developing and as such did not provide a wide scope examination on the implications of exchange rate volatility on the overall performance of the Kenyan financial market. The study focused on the Kenyan financial market, in the Kenyan context, assuming that these banks are only listed at the Nairobi Stock Exchange which may not be the case.

The study employed secondary data that may have been collected for other research thereby diluting the objectivity and consequently, the conclusions arrived at from use of such data. Errors of omission and commission that are common in the financial statements could not be ruled out. Such omissions may have unintentionally influenced the data collection process and hence the analysis.

5.5 Suggestions for Further Research

There is need to capture more variables including non-macroeconomic determinants of exchange rate volatility in future studies. In addition, considerations should be made on examining the differences in the financial performance between small and large commercial banks in the Kenyan context.

Further studies should explore multivariate models and include more variables in establishing the relationship between changes in exchange rate and financial performance of listed commercial banks. This will enhance the quality of data collected for analysis and hence the conclusions arrived at from such studies.

Commercial banks in Kenya are divided into 30 locally owned and 13 foreign owned. Further classifications depicts 3 banks with significant Government shareholding, 27 privately owned commercial banks and 1 mortgage finance institution (CBK,2015). Considerations should be made to further research on either of the banks' classification to determine the relationship between exchange rate volatility and financial performance.

The Kenyan banking industry has grown overtime and as such its performance attracts significant attention among potential local and international stakeholders. This study used Return on Equity as a performance indicator. Research should be conducted using other performance indicators such as Return on Assets, Earnings ratio, stock ratios that are relevant and applicable to the banking industry.

REFERENCES

- Adebiyi, M.A., 2006. Financial sector reforms and impact of monetary policy shocks in Nigeria.
- Agu, C., (2002). Paper submitted for publication *Journal of African Finance and Economic Development*. *Asian Economic and Financial Review*, 2013, 3(2):178-185
- Athanasoglou, P. P., Sophocles, N. B. & Matthaios, D. D. (2005), Bank-Specific, Industry-Specific and Macroeconomic determinants of Bank Profitability. A working Paper, Bank of Greece, 3(1), 1-13
- CBK as Accessed on 13th September 2016
- Chamberlain, S., Howe, J.S. & Popper, H. (1997). "The Exchange Rate Exposure of U.S. and Japanese Banking Institutions," *Journal of Banking and Finance*, 21, (6) 871-892.
- Charles, D.J., (2006). The role of exchange rate in economic policy design and analysis. Series on macroeconomics modelling and public account management. *Centre for policy analysis. Miklin hotel*, East Legon, Accra, Ghana.
- Dang, U. (2011) *The CAMEL Rating System in Banking Supervision: a Case Study of Arcada University of Applied Sciences, International Business*
- Diffu Irene-(2011), "Relationship between foreign exchange risk and financial performance of airline companies in Kenya, a case study of Kenya Airways" Unpublished MBA project, University of Nairobi
- Fernandez, F. M., Schnatz, B., & Osbat, C. (2001). Determinants of the Euro real effective exchange rate: A BEER/PEER approach. European Central Bank Working Paper No. 85
- Foong, K.K. (2008). Return on equity Ratio Can Show How Efficient Banks. *Malaysian Institute of Economic Research*, Retrieved July 14, 2013, <http://biz.thestar.com>
- Ilhan (2006) *International Journal of Applied Econometrics and Quantitative Studies* Vol.3-1

- Jorion, P. (2010). The pricing of exchange rate risk in stock market, *Journal of Financial and Quantitative Analysis*, 26,(3),363–376.
- Kriljenko, J. I. C., & Habermeier, K. F. (2004). Structural Factors Affecting Exchange Rate Volatility: A Cross-Section Study (EPub): International Monetary Fund Working Paper, WP/04/147.
- Mongeri O. (2011). The Impact of Foreign Exchanges Rates and Foreign Exchange Reserves on the Performance of NSE Share Index. *Unpublished MBA project*, The University of Nairobi.
- Musa (2013) The effect of foreign exchange rate volatility on the financial performance of oil marketing companies in Kenya
- NSE (2015) *Cytonn Banking Sector Report Kenya Listed Commercial Banks – Abridged Version*
- Olugbenga, L. (2012). *The Role of Exchange and Interest Risk in Equity*
- Onyancha C.K. (2011). The Impact of Foreign Exchange Gains and Losses and the Financial Performance of International NGOs. *Unpublished MBA project*, The University of Nairobi.
- Owoeye, A. and Ogunmakin, H. (2013). Exchange rate volatility and bank performance in Nigeria. *Journal of Finance*, 5(3), 206-221
- Sangmi, M., Tabassum, N. (2010). Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model. *Pakistan Journal Commercial Social Sciences*.
- Sekmen, P. (2011). Managing Exchange Risks in a Floating World, *Financial Management*, Summer, 48-58.
- Shapiro, A. C. (2007), *Multinational Financial Management* (9th ed), Willey, New York.
- Staikouras, C., and Wood, G., (2004). The determinants of European bank profitability. *International Business and Economics Research Journal*, 3 (6), 57-68.
- Todani, R.K. & Munyama, T., 2005. Exchange rate volatility and exports in South Africa [Online].

- Were, M., A.W. Kamau and K.N. Kisinguh (2013) 'An Empirical Investigation of Exchange Rate Determination in Kenya: Does Current Account Imbalance Play a Role? *Advances in Management & Applied Economics*'3(2): 165-178.
- Waheed, M. (2009). Forward rate unbiased hypothesis, risk premium and exchange rate expectations: estimates on Pakistan Rupee-US Dollar. *Munich Personal RePEc Archive*, Paper No. 33167.
- Wamukhoma, W. O. (2014). The effect of foreign exchange rate fluctuations on horticultural export earnings in Kenya, Unpublished MBA Project, University of Nairobi
- Wanjohi, J. G. (2013). *The Effect Of Financial Risk Management On The Financial Performance Of Commercial Banks In Kenya*, Doctoral dissertation, University of Nairobi.

APPENDICES

Appendix I: Listed Commercial Banks at the Nairobi Stock Exchange

CFC STANBIC

INVESTMENTS & MORTGAGES BANK

STANDARD CHARTERED BANK

EQUITY BANK

KENYA COMMERCIAL BANK

DIAMOND TRUST BANK OF KENYA

CO-OPERATIVE BANK OF KENYA

NIC BANK

BARCLAYS BANK OF KENYA

NATIONAL BANK OF KENYA

HOUSING FINANCE

Appendix II: Data Table

Banks	Year	ROE	Interest rate	Inflation rate (Annual)
KCB	2008	0.1206958	13.4	26.24
CFC	2008	0.173204184	13.4	26.24
COOP	2008	0.163009367	13.4	26.24
DTB	2008	0.105181952	13.4	26.24
EQUITY	2008	0.248228299	13.4	26.24
HF	2008	0.25551434	13.4	26.24
BARCLAYS	2008	0.12143493	13.4	26.24
NBK	2008	0.145397429	13.4	26.24
NIC	2008	0.130592798	13.4	26.24
STANCHART	2008	0.116126609	13.4	26.24
KCB	2009	0.115876696	12.8	9.23
CFC	2009	0.159303396	12.8	9.23
COOP	2009	0.141455393	12.8	9.23
DTB	2009	0.104952903	12.8	9.23
EQUITY	2009	0.227234853	12.8	9.23
HF	2009	0.223328901	12.8	9.23
BARCLAYS	2009	0.146837623	12.8	9.23
NBK	2009	0.153832955	12.8	9.23
NIC	2009	0.142818205	12.8	9.23
STANCHART	2009	0.112438848	12.8	9.23
I&M	2009	0.13709915	12.8	9.23
KCB	2010	0.155674581	12.8	3.96
CFC	2010	0.176817385	12.6	3.96
COOP	2010	0.12945529	12.6	3.96
DTB	2010	0.106931628	12.6	3.96
EQUITY	2010	0.190213819	12.6	3.96

HF	2010	0.14541121	12.6	3.96
BARCLAYS	2010	0.182495723	12.6	3.96
NBK	2010	0.165419921	12.6	3.96
NIC	2010	0.141546752	12.6	3.96
STANCHART	2010	0.142428415	12.6	3.96
I&M	2010	0.159416353	12.6	3.96
KCB	2011	0.13414835	13.1	14.02
CFC	2011	0.1287141	13.1	14.02
COOP	2011	0.124477161	13.1	14.02
DTB	2011	0.10757941	13.1	14.02
EQUITY	2011	0.174661477	13.1	14.02
HF	2011	0.148014698	13.1	14.02
BARCLAYS	2011	0.174957642	13.1	14.02
NBK	2011	0.152283517	13.1	14.02
NIC	2011	0.133228911	13.1	14.02
STACHART	2011	0.126149844	13.1	14.02
I&M	2011	0.140349334	13.1	14.02
KCB	2012	0.145189348	13.1	9.38
CFC	2012	0.190213519	15.6	9.38
COOP	2012	0.146404571	15.6	9.38
DTB	2012	0.12196951	15.6	9.38
EQUITY	2012	0.176485586	15.6	9.38
HF	2012	0.125431478	15.6	9.38
BARCLAYS	2012	0.160075747	15.6	9.38
NBK	2012	0.15581115	15.6	9.38
NIC	2012	0.142887153	15.6	9.38
STACHART	2012	0.157421961	15.6	9.38
I&M	2012	0.134158434	15.6	9.38
KCB	2013	0.162094694	14.2	5.72

CFC	2013	0.179632531	14.2	5.72
COOP	2013	0.158225029	14.2	5.72
DTB	2013	0.125815583	14.2	5.72
EQUITY	2013	0.185630597	14.2	5.72
HF	2013	0.123646002	14.2	5.72
BARCLAYS	2013	0.156583905	14.2	5.72
NBK	2013	0.128445864	14.2	5.72
NIC	2013	0.145122324	14.2	5.72
STACHART	2013	0.164282441	14.2	5.72
I&M	2013	0.168756916	14.2	5.72

Appendix III: Turnitin Report

Sharon MBA Project

ORIGINALITY REPORT

% 13	% 8	% 4	% 10
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to University of Strathclyde Student Paper	% 1
2	Submitted to Midlands State University Student Paper	% 1
3	Submitted to Universiti Teknologi MARA Student Paper	% 1
4	Mlambo, Courage, Andrew Maredza, and Kin Sibanda. "Effects of Exchange Rate Volatility on the Stock Market: A Case Study of South Africa", Mediterranean Journal of Social Sciences, 2013. Publication	% 1
5	Submitted to Central Baptist College Student Paper	% 1
6	Submitted to City University Student Paper	% 1
7	www.pakinsight.com Internet Source	% 1
8	Submitted to Sikkim Manipal University, Ghana Student Paper	<% 1