

**EFFECTS OF LENDING RATES ON SHARE PRICES OF
COMMERCIAL BANKS QUOTED IN THE NAIROBI SECURITIES
EXCHANGE**

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DECLARATION

This research project is my original work and has never been presented for Degree in any other University.

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This research project has been submitted for examination with our approval as University Supervisors.

Signature Date

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DEDICATION

To

My beloved and dear husband

Jonah Macharia,

(Without your support ,it would have never been)

and

My lovely babies

Alyssa Wairimu,Lavina Wangari

And

Jorell Kimani

(That you may excel beyond this).

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LIST OF ABBREVIATIONS

ANOVA	:	Analysis of Variance
CBK	:	Central Bank of Kenya
CBR	:	Central Bank Rate
CMA	:	Capital Markets Authority
DASS	:	Delivery and Settlement System
DTB	:	Diamond Trust Bank
EMH	:	Efficient Market Hypothesis
HFC	:	Housing Finance Corporation
IFC	:	International Finance Corporation
ISE	:	Istanbul Stock Exchange
KCB	:	Kenya Commercial Bank
LIR	:	Lending Interest Rate
MPC	:	Monetary Policy Committee
NBK	:	National Bank of Kenya
NSE	:	Nairobi Securities Exchange
QAT	:	Qualitative Asset Transformation
ROI	:	Return on Investment
SPSS	:	Statistical Package for Social Sciences

ABSTRACT

Over the last few years, the Banking sector in Kenya has continued to growth in assets, deposits, profitability and products offering. This growth has seen the bank entry into the privatisations making th Bank executives and industry analysts argue that interest-rate exposure is important to depository institutions. Interest rate are important as without them, people would not be willing to lend or even save their cash. Commercial banks base their lending rate on the Central Bank's rate, which they have no control of but is rather controlled by the money markets. Therefore, banks have little or no control of their lending rate and the changes arising thereof affects the banks directly. The share price on the other hand is a measure of the bank's demand in the securities exchange due to its attractiveness in the market. This study set out to look at the effects of lending rates on the share prices of commercial banks listed in the NSE. The study employed a census survey design in carrying out its endeavour on all the NSE listed commercial banks in kenya. It relied on secondary data from the study period 2008-2013 which was analysed through SPSS software. The study found that the lending interest rate has been widely varying for last 5 years, changes that have been mimicked by the commercial banks' share prices. This observation was further enhanced by the proof of existence of a strong relationship between the lending interest rate and the commercial banks' share prices. The study also found that the lending interest rate inversely affects commercial banks' share prices where an increase in lending rates causes a decline in the share prices. The study recommends that the lending rate variations to be considered in solving the stock crisis arising in the NSE emanating from the commercial banks involvement in the bourse. It recommends further studies to be carried out on the qualitative relationship between the lending rate and the share prices to enhance the findings of this study on the inverse relationship observed in this study. This will ensure immense understanding of the relationship that would allow its use in policy making.

CHAPTER ONE

INTRODUCTION

1.1 Background

The stock market is a highly volatile area of business that requires investors to have relevant information in order to make informed decisions. However available information may be of minimal or adverse help if not well interpreted. According to Kurihara (2006) and Ologunde, et al. (2006) there are various factors at the macroeconomic level that affect the stock market such as gross domestic product, exchange rates, interest rates, current account and money supply. Investors have high interest in knowing the share price of a company. The stock price is an indicator of the firm's stock market performance and its variability indicates the macroeconomic stability. Macroeconomic stability has been one of the main challenges for developing countries (Iqbal, 2001). The share prices and the interest are factors that are very important in an economy. The interest rates are regulated by the banks. It is argued that when banks are offering high interest rates for their deposits, the investors may choose to invest in the banks and thus a reduction in the share prices due to reduced demand for the same. On the contrary, lower interest rates would cause the opposite effect of higher demand for stocks causing an increase in the share prices. The relationship between stock market prices and interest rate have preoccupied the minds of economists since they both play important roles in influencing a country's economic development (Aydemir and Demirhan, 2009).

An increase in interest rates would avoid investors making high risk stock market investments comparing to low risk interest bearing security investments such as fixed deposits, savings certificates, treasury bills etc (French, et al., 1987). In other words,

demand for high risk stock market investments would fall if the interest rates are high. As a result, fall in demand for shares would eventually reduce its prices. In contrast, lower interest rate would cause opposite effects such as higher demand for stock investment and increase of share prices. On the other hand, Central Banks usually use interest rates as a tool to dominate inflation in a country. If Central Bank changes interest rates, it would indirectly affect the stock market performance and hence the stock prices. It eventually would have an impact on overall economic development of the country. Determination of ideal interest rate is a very important policy decision that a country has to consider regularly (Pallegedara, 2012). This is predicated on the understanding that liberalization enhances competition and efficiency in the financial sector. A wide deposit-lending interest rate spread could be indicative of banking sector inefficiency or a reflection of the level of financial development .Embedded in the spread is information on the efficiency of financial intermediation, profitability, monetary policy impact, among others.

1.1.1 Lending Interest Rate

Lending interest rate is the rate charged by banks on loans to customers. The bank's rate usually meets the short and medium-term financing needs of the private sector. This rate is normally differentiated according to creditworthiness of borrowers and objectives of financing. The terms and conditions attached to these rates differ by country, limiting their comparability. Bank executives and industry analysts would readily agree that interest-rate exposure is important to depository institutions. Research shows that interest rate movements affect bank earnings and value, and banks explicitly acknowledge this impact in their asset and liability management practices (Santoni, 1984). Interest rate

changes can affect not only the value of individual assets and liabilities, but also the value of firm strategies, such as banks' investment programs.

Interest rate is the cost of borrowing money or, on the other flip side, the compensation for the service and risk of lending money. Without it, people would not be willing to lend or even save their cash, both of which require deferring the opportunity to spend in the present. But prevailing interest rates are always changing, and different types of loans offer various interest rates. If you are a lender, a borrower or both, it's important you understand the reasons for these changes and differences (Kurihara, 2006). The money lender takes a risk that the borrower may not pay back the loan. Thus, interest provides a certain compensation for bearing risk. Coupled with the risk of default is the risk of inflation. When banks lend money now, the prices of goods and services may go up by the time the money is paid back, so the money's original purchasing power would decrease, thus, protects against future rises in inflation. A lender such as a bank uses the interest to process account costs as well.

1.1.2 Share Prices

The stock exchange has been perceived by many as the backbone for most contemporary economies, serving a critical need of raising capital funds for companies at a reasonably low cost as compared to other sources of finance such as borrowing (Walter, 1956). It is in the subsequent trading of these shares on the stock market that investors buying and selling the stock would benefit from the movements in the stock price. The benefits accrue through either the appreciation of the stock price or the dividends that are paid out.

Tafirenyika and Abel, (2009) gave the following factors as the ones likely to affect the share prices of firms: Corporate earnings/performance; Strength of the management team; Market liquidity and stability; Legal battles; Macroeconomic fundamentals; Availability of substitutes, Government policy; Mergers and Acquisitions; and Technical Influences. In one way or another, changes in lending interest rates for a firm affects most of the internal factors, more so the corporate earnings, firm's market liquidity and stability, and also technical influences such as price forecasting among others (Shauna, 2003).

Shares prices are highly affected by the business fundamentals which are either economic or political. These factors affect the share prices but are outside the share market itself. The many traders and investors in the market are at all times seeking to know the trend of the share prices, and this trend is mainly based on the fundamental conditions . Investors are mainly interested in the returns they get from their investment. Therefore, they will always select their investment well so as to fulfil their expectations. Investments are about sacrifice of current gains for future gains and this involves time waiting and risk. Whereas the current gains are certain the future gains are uncertain and also the investors have different preferences thereby presenting various kinds of risks (Nairobi Stock Exchange Hand Book, 2005).

1.1.3 Effects of Lending Rates on Share Prices

In prospects of overall economy, Ologunde, Elumilade, and Asaolu, (2006) mentioned that share market makes it possible for the economy to ensure long-term commitments in real capital. For that reason, level of efficiency measurement of the stock market is very important to investors, policy makers and other major players, who ensure long-term real capital in an economy. A mature view of the stock market efficiency level is perceived

across the globe as a barometer of the economic health and prospect of a country as well as a register of the confidence of domestic and global investors. Interest rate is one of the important macroeconomic variables, which is directly related to economic growth.

Generally, interest rate is considered as the cost of capital, that is, the price paid for the use of money for a period. From the point of view of a borrower, interest rate is the cost of borrowing money (borrowing rate). From a lender's point of view, interest rate is the fee charged for lending money (lending rate). In one way or another, changes in lending rate for a firm affects most of the internal factors, more so the corporate earnings, firm's market liquidity and stability, and also technical influences such as price forecasting among others, hence have tremendous effects on the firm's profitability as well as directly affect its equity ratio (Shauna, 2003).

When bank increase the rates of interest to depositors increases, people switch their capital from share market to banks. This will lead to a general decrease in the demand of shares of most firms and to thus a reduction in the price of shares. In the commercial banks, high interest offered to depositors will have a negative effect in the profit margins of the banks. The share prices of the commercial banks will then decrease as the demand for the same as gone down. Therefore there is an inverse relation between the interest paid on deposit and the banks share prices.

Increase in the lending rates offered by bank would translate to high income earned by the banks in form of interest income. This would then be reflected in the profits of the bank thus causing a demand for the banks stocks. This will result into increased share prices. However the effect would be different in the other firms as increased lending rates

will decrease amount available for the firm's growth leading to reduced profits and thus low share prices.

1.1.4 Listed Commercial Banks in Nairobi Securities Exchange

The banking industry in Kenya has grown over the years since the Central Bank of Kenya put up measures to regulate the banks in order to streamline the activities and more so to prevent the collapse of the banking industry as had been before. Over the last few years, the Banking sector in Kenya has continued to grow its assets, deposits, profitability and products offering. Equity Bank is a financial services provider headquartered in Nairobi, Kenya. As of October 2010, Equity Bank had the largest customer base in Kenya, with over 5.7 million accounts (57%+ of all bank accounts in Kenya in 2010). I&M Bank Limited, is a commercial bank in Kenya. I &M (Bank) Holdings formally listed at the Nairobi Stock Exchange in the banking segment on June 25, 2013. I&M Holdings is the 6th largest bank group in the country with assets of Kshs. 144.7 billion (\$1.74 billion), profits of Kshs 5.73 billion (\$69 million) as at December 2012.

NIC Bank on the other hand is a large financial services provider in East Africa. Headquartered in Nairobi, Kenya, the bank owns subsidiary companies in Kenya, Uganda and a controlling interest (51% shareholding), in NIC Bank Tanzania. Barclays Bank (Kenya) Limited, also known as Barclays Bank of Kenya, is a commercial bank in Kenya. The bank is a large financial institution in Kenya, with an estimated asset base in excess of US\$2.22 billion (KES: 180.9 billion), as of September 2011. National Bank of Kenya (NBK), also known as National Bank, is a commercial bank in Kenya. It is one of the commercial banks licensed by the Central Bank of Kenya, the country's banking

regulator. NBK is a large financial services provider in Kenya, serving individuals, small-to-medium companies and businesses (SMEs) and large corporations.

Stanbic Bank Kenya is a division of Standard Bank, a member of the Standard Bank Group, based in Johannesburg, South Africa. It is involved in a range of diverse activities in banking and financial services sector through two fully owned subsidiaries, CFC Stanbic Bank which is the sixth largest bank in Kenya by total assets and also operates in South Sudan, and CFC Stanbic Financial Services which provides stock broking services and equity capital markets products. Cooperative Bank of Kenya is also a major commercial bank in Kenya. The bank has the second highest customer base in Kenya with over 3.5 million accounts as of June 2013. Diamond Trust Bank Group (DTB Group) is a major banking group in East Africa, active in Burundi, Kenya, Tanzania, Uganda and Rwanda. Housing Finance is the leading mortgage finance institution in Kenya. It was incorporated on 8th November 1965 as per the Banking Act, under the name the Housing Finance Company of Kenya. Standard Chartered Kenya, also referred to as Stanchart Kenya, is a commercial bank in Kenya which is a subsidiary of the British multinational financial conglomerate headquartered in London, United Kingdom, known as Standard Chartered.

1.2 Research Problem

Banks core business is to lend. Funds available for lending are from deposits from banks customers and funds from the investors via share capital. Any investor is interested in knowing the performance of the bank as he will benefit from dividend payout or from selling the share if the prices go up. Lending rate would therefore influence the shareholders decision. Hypothetically, if interests are high the net profit would be high

thus high dividend payout, high demand for the shares and thus a increase in the share price. Research by Lee, (1998) shows that interest rate movements affect bank earnings and value, and banks explicitly acknowledge this impact in their asset and liability management practices. Interest rate changes can affect not only the value of individual assets and liabilities, but also the value of firm strategies, such as banks' investment programs, all which will affect the firm's performance in one way or another.

Hsing (2004), Arango (2002), Gazi and Mahmudul (2009), researched on different countries and found a negative relationship between interest rates and share prices of various firms. However, Gupta *et. al.*, (1997), found the relationship changing gradually from a significantly negative to no relationship, or even a positive although insignificant relationship. Chirchir (2012), also found that there is no significant relationship of the interest rates and share prices. Therefore, there is still no unanimity in the study of the relationship between interest rate and share prices.

However, Nyamute (1998), studied the relationship between stock prices and other financial variables like money supply, interest rates, inflation rates and exchange rates in Kenya. He found a positive relationship between stock prices and interest rates, though his research performed data analysis on non-stationary series, which may adversely affect the validity of the results.

Asiemwa (1992), on the other hand did an empirical study to identify the relationship between investments ratios and share performance of companies quoted on the NSE. She did multiple regression analysis of establish the relationship between investment ratios and share price and concluded that earnings per share, dividend per share, price earnings

and dividend yield have a significant effect on share prices. She concluded that a significant association between share prices and investment ratios exists. These investment ratios in a bank are directly affected by the prevailing lending interest rate and therefore a connection between the lending rate in a bank and share prices of the bank ought to exist, though it is not yet defined.

Locally, a few studies have been done that have dwelt on interest rates and firms performance. Mwaura (2003) did a study on the relationship between cost of credit and financial performance of manufacturing firms listed in the Nairobi Stock Exchange. Ogutu, (2007) carried an assessment of interest rates volatility in Kenya. Kibe, (2003) studied the relationship between interest rate spread and profitability of commercial banks in Kenya. But none of the researchers have looked at the effects of bank's lending interest rate on the share price of the commercial banks in the NSE.

In this context, the issue of whether stock prices and lending rate are related or not, is an important one especially with increased international trade and the integration of the global financial markets. If stock prices and lending rates are related and the causation runs from interest rates to stock prices then crises in the stock markets can be prevented by controlling the bank's lending rates Chirchir (2012). However, the effects of changes in lending interest rate to the share prices of financial institutions that are registered with Nairobi security/stock exchange is not clearly documented in Kenya. This study aims to meet its mandate by finding answers to the following questions: what are the effects of the lending interest rates on the performance in terms of share prices of commercial banks quoted in NSE.

1.3 Research objective

The objective of the study is to establish the relationship between the average lending rates offered by CBK and the share prices of commercial banks quoted in the NSE

1.4 Value of the Study

Investors of any organisation are interested in the return of investment. This study will help the investor know how his investment is affected by the lending rates changes. This will assist the investor to be involved in setting the lending rates rather than leave the role to the regulators of the bank. The CBK is the regulator of the lending rates for all commercial banks. Findings of this study would enable the CBK know how changes in the lending rates have an effect on the economy as they do affect the ROI and thus the ability to attract the investors.

The performance of the share price is crucial for the management. A decrease in the share price might be interpreted as poor management. Thus the, management of the bank would be interested in knowing how movement of the lending will affect the share prices. The findings will provide a benchmark upon which other related studies can be done on the performance of firms and interest rate .Some studies done have shown that there is negative relationship between the two variables. While others have shown there exists no relationship.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses essential issues that form the background of the study. It is organized systematically starting from the theoretical literature, empirical review, and contextual review of the study and a summary of the same.

2.2 Literature Review

2.2.1 Share Price Theories

The pricing of shares in a stock market is one of the most important subjects in finance. The investors and other stakeholders in the capital market are interested in understanding the factors that affect the movement of share prices. There are two broad theories that attempt to explain the movement in share prices in stock market. The first is the Efficient Market Hypothesis, which contends that all information affecting a share price is reflected immediately in its price. At the heart of this hypothesis is the assumption that investors are rational. The other theory is behavioural finance, which contends that investors are not always rational and that their behaviour affects the share prices.

According to Efficient Market hypothesis ,Fama (1965) argued that an efficient market is where there competition among the many intelligent participants leading to a situation where, at any point in time, actual prices of individual securities already reflect the effects of information based both on events that have already occurred and on events which, as of now, the market expects to take place in the future'. In other words, in an efficient market at any point in time the actual price of a security will be a good estimate

of its inherent value. Thus in an efficient market, the prices of the stocks reflect all available information. Thus, investors make their investment decision with all relevant information available.

Sewell (2005) defined behavioural finance as the study of the influence of psychology on the behaviour of financial practitioners and the study of subsequent effect of markets. Belsky and Gilovich (1999) referred to behavioural finance as behavioural economics in that behavioural economics combines the two disciplines of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save, and borrow. Much of economic and financial theories presume that individuals act rationally and consider all available information in the investment decision-making process. Though not relevant to the study it's important to note that at times the shares price of the stocks do reflect the behaviour which could be rational or irrational of the investor.

2.2.2 Theory of Financial Intermediation

Financial intermediation is the process which involves surplus units depositing funds with financial institutions who then lend to deficit units. Mahmudul and Gazi, (2009) identify that financial intermediaries can be distinguished by four criteria: their main category of liabilities (deposits) are specified for a fixed sum which is not related to the performance of a portfolio; the deposits are typically short-term and of a much shorter term than their assets; a high proportion of their liabilities are cheque-able (can be withdrawn on demand) and their liabilities and assets are largely not transferable.

It is important to distinguish between banks as financial intermediaries (who accept deposits and make loans directly to borrowers) and non-bank financial intermediaries who lend via the purchase of securities (Mahmudul and Gazi, 2009). The latter category includes insurance companies, pension funds and investment trusts that purchase securities, thus providing capital indirectly rather than making loans and therefore do not meet the four criteria listed above.

The most important contribution of intermediaries is a steady flow of funds from surplus to deficit units. Financial institutions fulfil the brokerage function whereby the banks bring together providers and users of capital without changing the nature of the claim. The financial institutions also has asset transformation function which includes asset diversification function and an asset evaluation function. In the first case, a critical role of intermediation is the transformation of large-denomination financial assets into smaller units. Banks have the ability to exploit the sub-optimal portfolio choice of depositors and can offer the risk-return combination of financial assets that households demand. Banks are able to provide loans which fit in with customer demands, by providing divisibility services. Furthermore, because banks are able to break down assets into small units, they can reduce transaction costs and also employ diversification for the benefit of both their customers and equity holders (Kibe, 2003).

Financial institutions intermediate many transactions between borrowers and lenders. In doing so, banks offering savings and loans do not act merely as credit brokers, negotiating credit transactions between borrowers and lenders. Rather, they borrow directly from some individuals and lend directly to others. These transactions make up the portfolio of the financial firm. In large part, the market value of the firm is determined

by the net present value of its portfolio of assets and liabilities. Changes in the interest rate affect the firm's market value because they influence the present value of the assets and liabilities in the firm's portfolio (Pallegedara, 2012).

2.2.3 Interest Rate Theories

Interest rate is the price paid for money borrowed which is in turn invested in viable economic activities with a view of generating returns. Interest rate in any country is determined by a number of macro-economic and micro-economic factors. There are two theories that explain interest rates: the loanable funds theory and monetary theory of interest. The loanable fund theory is also called the classical theories of interest. According to his theory, interest rate is determined by the demand and supply of loanable funds. The demand comes with those who wish to borrow to invest. If the rate is low the demand will be high. The supply comes with those who wish to save. If the rate is high, the supply will be high. The market rate will therefore be determined at the point where the demand and the supply of the loanable fund are equal. There are various assumptions to this theory: it assumes that the money borrowed is entirely for investing in capital assets; it also assumes that the decision to invest is entirely on interest; it also assumes that the decision to spend is entirely on interest. These may not be the only factors that determine the decision to invest.

According to Keynes (1936), the interest rate is determined by the supply of money and desire to hold money. He viewed money as a liquid asset and interest rate being the loss of the liquidity. The assumption made was that people hold money for three reasons: to transact, for precaution purposes and for speculative purposes. Thus if people were to

hold on money irrespective of the reason, the interest rate will be affected as the supply of the money will decrease.

2.2.4 Theories Linking Interest Rates and Share Prices

In theory, the interest rates and the stock price have a negative correlation (Hamrita and Abdelkader, 2011). This is because a rise in the interest rate reduces the present value of future dividend's income, which should depress stock prices. Conversely, low interest rates result in a lower opportunity cost of borrowing. Lower interest rates stimulate investments and economic activities, which would cause prices to rise. Fama (1981) argues that expected inflation is negatively correlated with anticipated real activity, which in turn is positively related to returns on the stock market. Therefore, stock market returns should be negatively correlated with expected inflation and thus increased share prices.

Zhou (1996) also studied the relationship between interest rates and stocks prices using regression analysis. He found that interest have an important impact on stock returns especially on long horizons. His result show that long term interest rate explain a major part of variation in price dividend ratios and suggest that the high volatility of the stocks market is related to the high volatility of long term yields and may be accounted for by changing forecast on discounted rates.

2.3 Empirical Review

Arongo (2002), found some evidence of the nonlinear and inverse relationship between the share prices on the Bogota stock market and the interest rate as measured by the interbank loan interest, which is to some extent affected by the monetary policy. The

objective of the work was to describe the dynamics of the returns and the way in which the interest rate affects the behaviour of the Bogotá stock index .The work was carried out by using daily data from January 1994 up to February 2000. The studies gave some evidence about the existence of a non-constant equity premium, depending upon if the nonlinearity is active or not. When it is not active, and the model is in essence linear, the prime is negative. However, when by virtue of the value of the transition variable the nonlinearity is active the premium will be positive. At the same time, they found evidence of the nonlinear and negative effect that, according to the theory, the interest rate exerts on the stock prices. However, that impact was rather small and too lagged somehow. This lag length could be explained if the agents wait some days before acting in order to distinguish temporary movements of interest rate from the permanent ones, because of supposed high transaction.

Chirchir (2012) studied the relationship between share prices and interest rates in Kenya. The research used Toda and Yamamoto (1995), method to determine the relationship between the stock prices and interest rates. The two variables used in the research were interest rates stated as the monthly weighted average lending rate by commercial banks in Kenya and the NSE share index. The sample data was based on the NSE stock index values for the periods between October 2002 and September 2012. The prevailing interest rates for the same time period of between October 2002 and September 2012 was selected for use in the research. He observed that there was no significant casual relationship between the interest rate and share prices and observed that regarding the sign of causality exists in both directions.

Fama (1981) studied the relationship between real macroeconomic variables and stock prices in Turkey under Proxy hypothesis. According to the hypothesis, Fama argues that real macroeconomic variables such as consumption expenditures, economic growth, employment, fixed investment affect stock prices via inflation. He tested the relationship between the variables by Bound testing approach. He concluded that inflation is negatively correlated with anticipated real activity, which in turn is positively related to returns on the stocks.

Gazi and Mahmudul (2009) sought to find evidence supporting the existence of share market efficiency based on the monthly data from January 1988 to March 2003 and show empirical relationship between stock index and interest rate . They studied a sample of 15 countries, seven were developed countries (Australia, Canada, Germany, Italy, Japan, South Africa, and Spain) while eight were developing countries (Bangladesh, Chile, Colombia, Jamaica, Malaysia, Mexico, Philippine, and Venezuela).

They observed that interest rate had significant negative relationship with share price for nine countries while for six countries the changes of interest rate had significant negative relationship with changes of share price. They observed that the randomness of stock return is the basic assumption of Efficient Market Hypothesis that is violated for all countries' Stock Exchange, meaning these markets are not efficient in weak form. In overall, the theoretical argument of negative relationship between stock price and prevailing interest rate is not rejected.

They also observed that individual country results were mixed for both developed and developing countries. Interestingly, for Malaysia it was found that Interest Rate had no relation with Share price but Changes of Interest Rate had negative relationship with Changes of Share Price. In the case of Japan, it was found that Interest Rate had positive relationship with share price but change of Interest Rate has negative relationship with change of Share Price. Four countries like Bangladesh, Colombia, Italy, and S. Africa showed negative relationship for both Interest Rates with Share price and Changes of Interest Rate with Changes of Share Price. Eight countries like, Australia, Canada, Chile, Germany, Jamaica, Mexico, Spain, and Venezuela has significant negative relationship between Interest Rates and Share price but no relationship between change of Interest Rate and change of Share Price. So, except Philippine all other countries show significant negative relationship either Interest Rates with Share price or Changes of Interest Rate with Changes of Share Price or both. Therefore, if the interest rate is considerably controlled in these countries, it will be the great benefit for their Stock Exchange through demand-pull way of more investors in share market, and supply push way of more extensional investment of companies.

Gupta et al. (2000), studied the relationship between exchange rate, interest rate and stock prices in Indonesia Jakarta stock exchange. The study was conducted for five year period from 1993 to 1997 which was divided into three sub periods. Depending on the sub-periods being considered, sporadic unidirectional causality from closing stock prices to interest rates and vice versa and weak unidirectional causality from exchange rate to stock price were found. The overall evidence, however, failed to establish any consistent causality relationships between any of the economic variables under study. Hence, it

seems that Jakarta market efficiently incorporated much of the interest rate and exchange rate information in its price changes at closing stock market index. These results can be used as a measure of stock market efficiency, however with caution, as there are many other dimensions that have to be studied before arriving at any definite conclusion about the efficiency.

Hamrita and Abdelkader (2011) examined the multi-scale relationship between the interest rate, exchange rate and stock price using a wavelet transform in US over the period from January 1990 to December 2008. They used the definitions of wavelet variance, wavelet correlation and cross-correlations to analyse the association as well as the lead/lag relationship between these series at the different time scales. Their study wanted to establish if there exists any relationship between the interest rate, exchange rate and stock prices. The results showed that the relationship between interest rate and exchange rate is not significantly different from zero at all scales. On the other hand, the relationship between interest rate returns and stock index returns is significantly different from zero only at the highest scales. The exchange rate returns and stock index returns therefore have a bidirectional relationship in this period at longer horizons.

In other studies, Kilongosi (2005), studied the net bank interest margin and the interest risk among commercial banks. His objective was to determine the extent to which interest rate influence the bank interest margin. He researched on banks operating in Kenya between 1997 to 2004. He used secondary data collected from NSE, Economics survey paper and CBK publication. He concluded that commercial banks need to focus on non interest related items for their profitability.

Hashemdah and Taylor (1988), found bi-directional relationship causality present in regression models between money supply and stock return. However, with respect to interest rates the result was inconclusive.

Taborda (2013) studied the relationship between the interest Rate spread and profitability of commercial banks in Kenya. He used empirical studies and studied banks that were existed in Kenya as at Dec 2012. He obtained secondary data from CBK publications as well as from NSE. He concluded that the spread does not contribute significantly to the profitability of commercial banks. Banks need to focus on other factors that contribute to their profitability.

Tafirenyika and Abel (2009) studied the relationship between stock market capitalization rate and interest in Amman Stock Exchange (ASE) over the period 1999-2008. Based on the multiple linear regression model and simple regression model, the time series analysis revealed that there is significant and positive relationship between government prevailing interest rate and stock market capitalization rate. The study shows that Government development stock rate exerts negative influence on stock market capitalization rate. It also found a significant and negative study that suggests the importance of government intervention to encourage investment in stocks by reducing rate of personal taxation thus, granting incentive for creation of wealth, controlling interest rate so as to aid the growth of the stock market and improving the regulatory environment.

Ologunde et.al, (2006), mentioned that share market makes it possible for the economy to ensure long term commitments in real capital. For that reason, the level of efficiency

measurement of the stock market is very important to investors, policy makers and other major players who ensure long term real capital in an economy. From a lenders view, interest rate is the fee charged for lending money. Good investors look for investing in an efficient market. Thus ,when lending rates increases, the rates also paid to the depositors also increase and thus investors choose to keep their money in the bank. This has an effect on the share prices as investor opts to keep their monies in the bank rather than purchase shares and thus the reduced share prices.

Ozcan (2012), studied the relationship between macroeconomic variables and ISE industry index for the period between 2003 to 2010. The selected macroeconomic variables for the study included interest rates, consumer price index, money supply, exchange rate, gold prices, oil prices, current account deficit and export volume. The study focused on the Istanbul stock exchange and investigated the performance of ISE industry index using monthly data from 2003 to 2010. The ISE industry index was obtained from the official web site . The data was obtained from various source including Central Bank of the Republic of Turkey, and online database of International Financial Statistics (IFS). In conclusion, the study found a long run equilibrium relationship between the macroeconomic variables, gold price, exchange rate, oil price, interest rate, money supply, current account deficit, and export volume and the ISE industry index.

Zhou (1996) also studied the relationship between interest rates and stocks prices using regression analysis. He found that interest have an important impact on stock returns especially on long horizons. His result show that long term interest rate explain a major part of variation in price dividend ratios and suggest that the high volatility of the stocks

market is related to the high volatility of long term yields and may be accounted for by changing forecast on discounted rates.

2.5 Summary of Literature Review

From the literature and empirical evidence review there is mixed findings. There are studies done by Hsing (2004), Arango (2002), Gazi and Mahmudul (2009) in different countries that have found a negative relationship between interest rates and share prices. However, Lee (1997) found the relationship changing gradually from a significantly negative to no relationship, or even a positive although insignificant relationship. Gupta et. al. (2000), in their research failed to establish any consistent causality relationships between interest rates and share prices. Chirchir (2012) also found that there is no significant relationship of the interest rates and share prices. Therefore, there is still no unanimity in the study of the relationship between interest rate and share prices.

This proposed research therefore contributes to the growing literature by focusing on commercial banks in order to determine the effect of their core business which is lending on their share prices. This information will enable banks to price their loan products competitively as well as ensuring they remain attractive to the investors.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter present the research design, target population, sampling design, data collection procedure, and procedures for data analysis.

3.2 Research Design

The design of this research was a census survey. A census is a survey design that collects data from all the elements in a population. A census survey seeks to obtain information that describes existing phenomena from the sample population of all commercial banks listed in NSE. A census research design enables the study to access e comprehensive information on study population. This enabled the researcher to obtain cross sectional information that facilitated an establishment of the link between interest rates and performance of commercial bank quoted in the NSE in Kenya.

3.3 Population size and Sample

The sample population comprised of all eleven (11) commercial banks quoted in the NSE. The study conducted a census survey owing to the small number of the commercial banks listed on NSE (as provided in appendix i), therefore the sample size involved the whole population of the study.

3.4 Data collection

The study required secondary data in meeting its obligation. Therefore, secondary data collection techniques were employed. The average monthly lending rate data was acquired from Central Bank of Kenya for a period of 66 months (January 2008 to June 2013). The study also acquired data from the NSE on share prices of the listed commercial banks for the same period. The two variables used in the research were the interest rates stated as the monthly average lending rate as offered by central bank of Kenya and the weighted average share price of each of the commercial banks as quoted in the NSE within the study period.

This data was analysed to facilitate the analysis of the interest rate changes and its link to the periodical share pricing of the firms. The study period provided 66 entry points, which was considered adequate, and consisting of the most recent information. The average lending interest rate was generated by central bank and is a key consideration by investors within NSE. It directly affects the individual bank's lending rate. It is a general value for all banks and a perfect measure of general fluctuations in borrowing rates and was tested against each of the banks' per unit share price in each month of the study period.

3.5 Data Analysis and Presentation

The collected data was examined for completeness and comprehensibility. The data was then coded and analysed using the Statistical Package for Social Sciences (SPSS Version 17) software. The study also employed inferential statistics such as regression and

correlation to test the relationship between lending interest rate and banks share prices. The following regression model was applied.

$$SP_t = a_0 + a_i LR_t + e_t$$

Where SP_t = Share price

a_0 : Constant term

a_i : coefficients of the variable

LR_t : Average lending interest rate (Central bank of Kenya)

e_t : Standard Error

Correlation was used to test the relationship of the variables in the study. The study also used ANOVA (model goodness of fit) to test the statistical significance of the variables in satisfying the set objectives which were calculated using SPSS software. Data presentation was done by the use of pie charts, bar charts, graphs, and frequency tables.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study. Data analysis involved intensive analysis of secondary data sourced from the banking sector. Since the analysis of qualitative data is applicable to this study, specific procedures for data analysis were adopted. The findings were presented using tables, charts, graphs and simplified discourse. A brief explanation accompanies each figure so as to make the findings more user-friendly and easy to understand.

4.2 Response Rate

The study targeted all the financial firms in the Nairobi Securities Exchange. This is a Kenyan share trading corporation that is mandated with the management and control of the exchange of ownership of shares among the participating entities. The study looked at the banking sector's involvement in the NSE and found that of all commercial banks in Kenya, (42) only 26% are listed. This scenario is shown in the figure below.

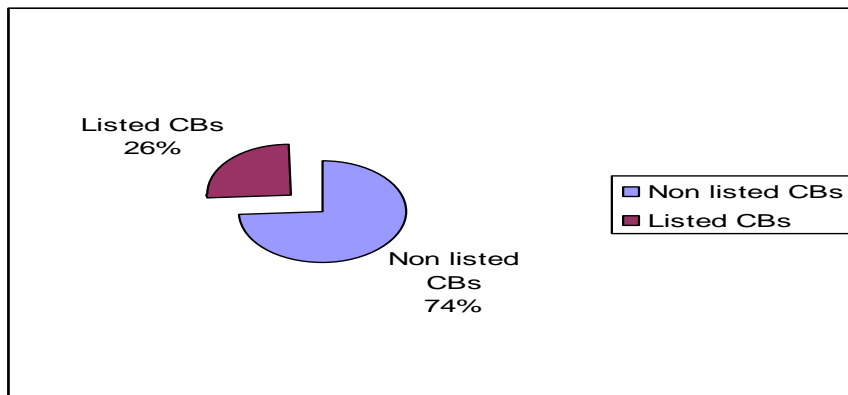


Figure 4.1: Banking Sector- Listed/ Unlisted

Source: Author, 2014

On the other hand, the NSE has a total number of 62 companies that have registered their shares to trade in the Kenyan market, 11 of whom are from the banking sector. The figure below shows the registered companies on per sector representation.

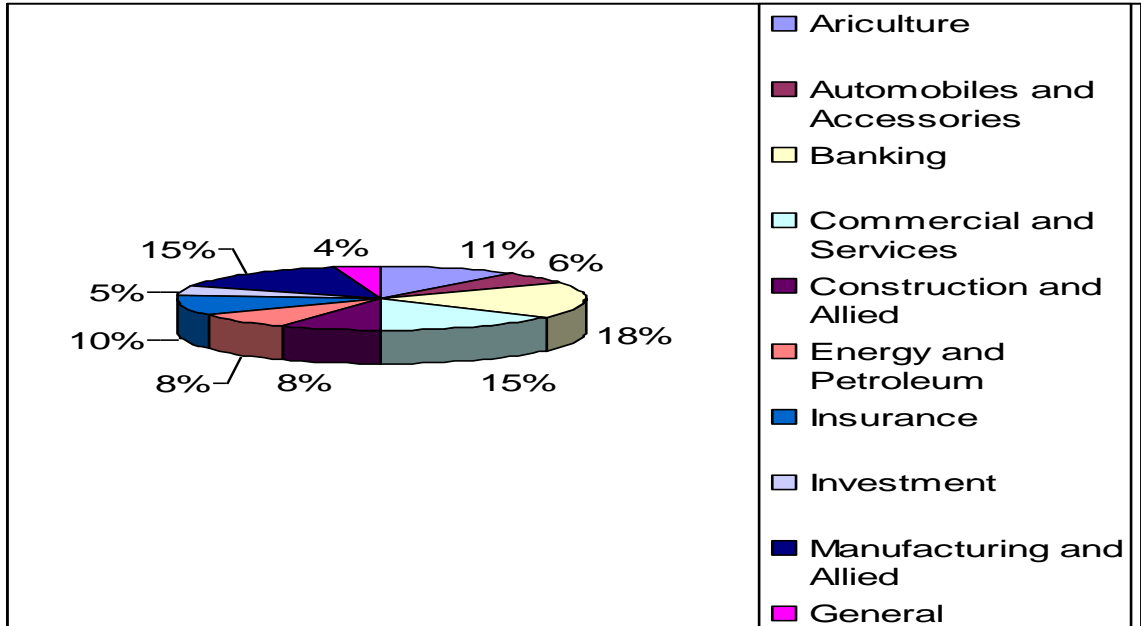


Figure 4.2: Sectored Representation of the study in the NSE

Source: Author, 2014

The study found that the banking sector has the majority representation in the NSE shares trading taking up 18% of the trading companies followed closely by commercial and services sector, tying with manufacturing and allied sector at 15%, agriculture at 11%, insurance at 10%, construction and allied, and energy and petroleum sectors tying at 8%, automobiles and accessories at 6%, investment sector at 5%, while telecommunication and technology sector has 3% representation and finally the growth enterprise market segment has only 2% representation. Therefore, the study involved 18% of the firms trading in the NSE.

The study found that within the banking sector, which has a total of 42 banks in Kenya, the 11 companies have been said to perform better in Kenya than those banks that are not listed in the NSE. These banks were observed to top most of the performance rankings of all the banks in the country. One such recent (2013) ranking based its findings on the customer base, savings, profits, number of branches and the awards the bank has earned in the recent years; came up with the following list.

Rank of Top Ten Commercial Banks in Kenya Based on Performance in the Sector

(Year 2012)

1. Equity Bank Kenya	(Listed)
2. Standard Chartered bank	(Listed)
3. Barclays bank	(Listed)
4. Kenya Commercial bank	(Listed)
5. Diamond trust bank	(Listed)
6. Housing Finance Bank of Kenya	(Listed)
7. CFC Stanbic Bank	(Listed)
8. NIC Bank	(Listed)
9. Cooperative Bank of Kenya	(Listed)
10. National Bank of Kenya	(Listed)

Source: My Business Tricks, 2013

The study found that as shown in the table above, the listed banking companies make up 100% of the top ten best performing companies in the country to represent the 11 companies listed in NSE, while none of the 31 non-listed companies made it to the top 10 list of best performing commercial banks. This shows a very significant variability in the performance of the listed and the non-listed firms in the banking sector. Various analysts

looked at the performance of the listed banks in the NSE and their inputs cannot be overlooked. One such analyst has offered the following analysis which helped him list the best performing bank in the NSE in the period, 2006-2011, as shown in the table below.

Table 4.1 Ranking of the Performance of Commercial Banks in the NSE (2006-2011)

BANK	Profitability (Ag. Points)	Asset Growth	Asset Quality	Value (Price/ Book ratio)	Dividend Yield	Overall Ranking
1 Equity Bank	3.45% ¹ (10)	57.86%(10)	2.86% (7)	2.19 (3)	4.94% (6)	33 Points
2 Standard Chartered Bank of Kenya	2.54% (7)	15.15%(2)	1.07% (10)	2.34 (2)	6.51% (8)	27 Points
3 Kenya Commercial Bank	1.86% (5)	29.01%(5)	6.15% (1)	1.59 (6)	7.79% (10)	27 points
4 Diamond Trust Bank	1.58% (4)	37.74%(7)	1.06% (10)	1.69 (5)	1.70% (1)	27 Points
5 CFC Stanbic	0.77% (1)	30.05%(5)	1.98% (9)	0.56 (10)	1.91% (1)	26 points
6 Housing Finance Company	0.89% (1)	28.4%(5)	6.26% (1)	0.74 (10)	5.69% (7)	24 points
7 Barclays Bank of Kenya	2.86% (8)	7.25%(1)	5.53% (2)	2.41 (2)	6.95% (8)	21 points
8 NIC Bank	1.96 (5)	24.83%(4)	4.81% (3)	1.24 (7)	1.59% (1)	20 points
9 Co-operative Bank of Kenya	2.00 (5)	23.88%(4)	4.76% (3)	2.29 (2)	2.86% (3)	17 points
10 National Bank of Kenya	1.96 (5)	13.71%(2)	4.26% (4)	2.70 (1)	2.01% (1)	13 Points

(NB. ¹Aggregate points in Brackets)

Source: Investing in Africa (Ryan Hoover, 2013)

Equity Bank was observed to be ranked as the best bank for investments with a total of 33 total aggregate points, followed by a tie between Standard Chartered Bank, KCB and Diamond trust bank of 27 points at position 2, 3, & 4 respectively, CFC stanbic Bank follows closely at 26 points at position 5, and then Housing Finance Corporation follows at 21 points at position 6. Barclays Bank of Kenya was initially among the best but it has

ranked lower to position 7 at 21 points, then NIC Bank missed the 7th spot by a point acquiring 20 aggregate points to be ranked 8th, Cooperative bank at 9th position then acquired 17 points and National Bank of Kenya acquired 13 points at position 10, I&M, the most recent entrant into the securities trading industry was not ranked in the study owing to the youthfulness of its entry. This ranking is highly efficient in that it not only concentrate on the profitability of the firm being invested on but also looks at other important and major determinants of performance in the security markets.

4.3 Descriptive Statistics

4.3.1 Lending Rate among the Listed Commercial banks in Kenya

The study looked at the variability in average lending rate in commercial banks in Kenya that are registered at the NSE and the following were the observations of the study. The study outcomes are presented in figure 4.3.

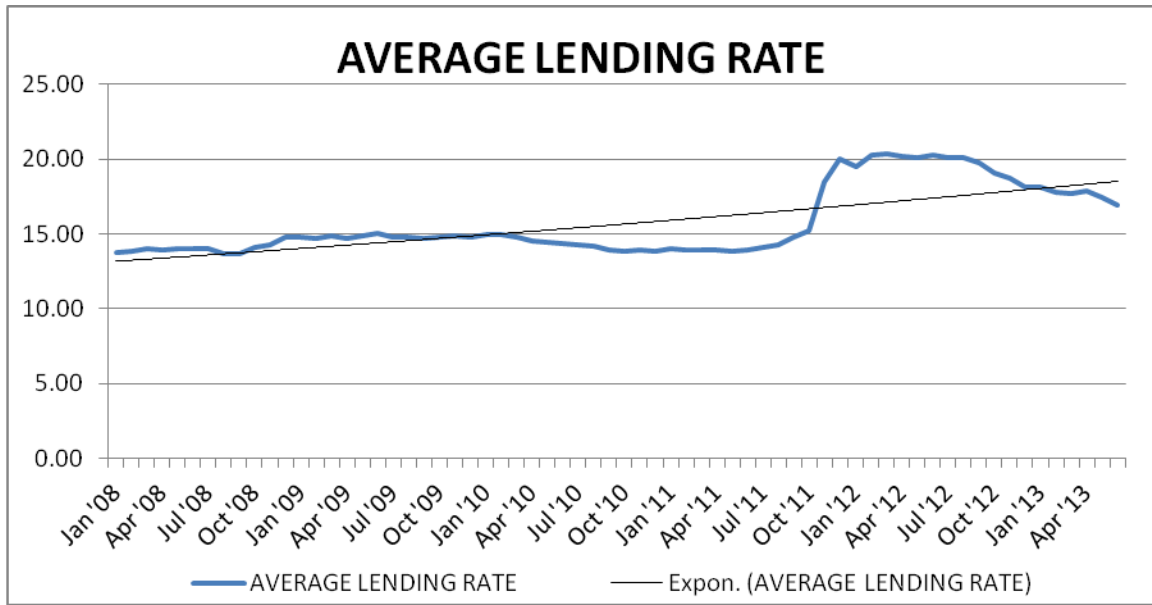


Figure 4.3: Average Lending Rate in Kenyan Commercial Banks from January 2008 to Jun 2013(Appendix ii)

Source: Author, 2014 (created from data accessed from Central bank of Kenya)

The study found the lending rate for Kenyan commercial banks to be highly fluctuating and trend line of the study shows a gradual increase. A sharp increase was experienced between January 2012 and October 2012, due to the uncertainties in the elections period expected later that year. After that period, a gradual decline was being experienced in 2012.

4.3.2 The Share Prices of Commercial Banks in Kenya

The study accessed share price data from all the commercial banks involved in the study and the study observed that the share prices were found to be varying with a nearly equal pattern, which shows that they are somehow related. Barclays bank shares were observed to tip along the path due to the splitting of its shares in 2011. The bank with the highest share price was observed to be Standard Chartered Bank followed by Diamond Trust

Bank, and then CFC Stanbic Bank follows, while the one with the least price is Cooperative bank (Ksh. 15 to 18), recent entrant to this level Barclays bank (Ksh. 17.5-20), and National Bank (Ksh. 19) respectively. The share prices for most of the banks, (80%) lie below Ksh. 100 per share. I&M bank was not featured in this analysis since it was just recently introduced in the NSE and was not trading at the time period covered by the study. This information is contained in the figure that follows.

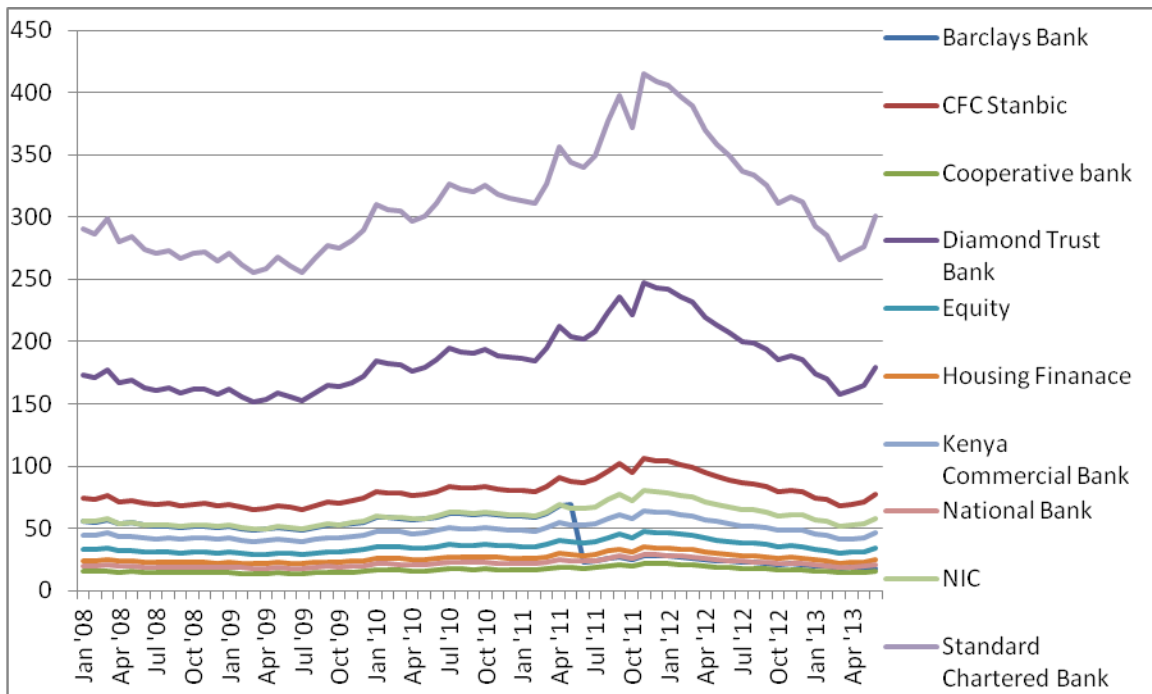


Figure 4.4: Share Prices of Commercial Banks in NSE from January 2008 to June 2013(Appendix iii).

Source: Author, 2014 (Data Source: Central bank of Kenya)

The study also looked at the mean and standard deviation of the share prices and the following was observed in the study.

Table 4.2 Descriptive statistics on share prices.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Cooperative bank	66	13.4325	20.0012	17.6371	2.2677
National Bank	66	17.5206	26.0886	23.0048	2.9578
Housing Finance	66	21.0665	31.3684	27.6606	3.5564
Equity	66	28.5753	42.5492	37.5198	4.8241
Barclays Bank	66	14.4754	69.5000	42.2721	20.5908
Kenya Commercial Bank	66	38.7957	57.7676	50.9391	6.5495
NIC	66	48.5989	72.3648	63.8110	8.2046
CFC Stanbic	66	66.0595	98.3638	87.0146	11.1893
Diamond Trust Bank	66	149.3427	222.3741	196.0889	25.2123
Standard Chartered Bank	66	251.1293	373.9363	329.7361	42.3961
Average	66	64.8996	101.4314	87.5684	12.5872

Source: Author, (2014)

The study found that Barclays Bank share price showed abnormal dispersion where the difference between the minimum and the maximum value is too high than expected, and also recorded a standard deviation higher than its minimum value, occurrences that can be associated with the split in share prices along the period of the study. Standard Chartered bank and Diamond trust Bank recorded the highest share prices (329.74 and 196.09 respectively) and were observed to have the highest variability with a standard deviation of Ksh. 42.40, and Ksh. 25.20 respectively. The rest of the banks have mean share values of less than 100 shillings.

Table 4.3 Overall Descriptive Statistics for the studied firms

Statistics		Average Lending Rate	Share Prices Performance
N	Valid	66	66
	Missing	0	0
Mean		15.7809	89.1681
Median		14.7700	94.5204
Std. Deviation		2.2964	12.5872
Minimum		13.6600	66.2988
Maximum		20.3400	102.2220

Source: Author (2014)

The study found that from the study data, the grand mean of the study sample for share prices was at 89.1681 with a median of 94.5204, a standard deviation of 12.5872, a minimum value of 66.2988 and a maximum value of 102.2220. On the other hand, the average lending rate prevailing in the 66 months studied in the financial sector was observed to have a mean of 15.7809, a median of 14.77, a standard deviation of 2.2964 a minimum value of 13.66 and a maximum value of 20.34. This indicates a stable performance but high variability within the years.

4.4 Correlation Analysis

The study set out to find the relationship between the lending rates in commercial banks in Kenya and the share prices of the said banks. The study carried out a correlation analysis to determine the relationship between the two study factors. The study outcomes are as presented in table 4.4.

Table 4.4 Correlation Outcomes

Variables		Average Lending Rate	Financial Sector Share Prices
Average Lending Rate	Pearson Correlation	1	-.953**
	Sig. (2-tailed)		.014
	N	66	66
Average Performance	Pearson Correlation	-.953**	1
	Sig. (2-tailed)	.014	
	N	66	66

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

Source: Author (2014)

The study found that there is a significant correlation between average lending rate and financial sector share prices at a 0.01 confidence level with a correlation coefficient of -0.953 and a p-value of 0.14. The p-value is less than 0.05 (0.014), indicating that the correlation analysis is statistically significant.

4.5 Regression Analysis

The study came up with the regression model for the relationship between share prices and lending rates in the study and the following were the findings of the study. Table 4.5 presents the study regression model summary.

Table 4.5 Regression model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.953 ^a	.986	.986	1.5111667
a. Predictors: (Constant), Average Lending Rate				

Source: Author (2014)

The study found that the independent variable (average lending rate) has a very high correlation coefficient with share prices of 0.953. A coefficient of determination (R^2) for the study model was found to be 0.986 indicating that average lending rate is able to predict or explain 98.6% of the share prices of financial firms in the NSE. An ANOVA analysis was also carried out for the regression model and the following are the outcomes as presented in table 4.6.

Table 4.6 ANOVA of the study model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10152.369	1	10152.369	4445.72	.009 ^a
	Residual	146.152	64	2.284	5	
	Total	10298.521	65			
a. Predictors: (Constant), Average Lending Rate						
b. Dependent Variable: Financial Sector Share Prices						

Source: Author (2014)

The ANOVA analysis showed that the difference between regression analysis outcome values and the residual values are statistically significant with a p-value of 0.009, acquired from an F-value of 4445.725. The sum of squares of the regression model (10,152.369) was different and higher than the residuals sum of squares (146.152). The same case was observed for the mean squares indicating that the study model is significant in determining the relationship of the two variables.

The study also came up with a regression model showing the coefficients of the relationship and table presents these findings.

Table 4.7 Coefficients of the regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	175.052	1.301		134.507	.016
	Average Lending Rate	-5.442	.082	-.993	-66.676	.028
a. Dependent Variable: Financial Sector Share Prices						

Source: Author (2014)

The study found the existence of a strong negative relationship between the independent variable (lending rate) and the dependent variable (share prices of financial firms) with a regression coefficient of -5.442 and a correlation coefficient which was found to be statistically significant with a p-value of 0.028 (less than 0.05). The study also found a model constant that was positive (175.052) with an indication that the constant is

statistically significant with a p-value of 0.016, less than the maximum p-value of 0.05.

The regression coefficient gives the following study model:

$$SP = 175.052 + (-) 5.442 LR + e$$

Where SP is the financial firms' share price and LR is the prevailing lending rate

The difference between the share prices, and the average lending rate as well as the constant term were found to be statistically significant due to the fact that they recorded a very low p-value of 0.028 and 0.016 from t values of -66.676 and 134.507 respectively. The variables were cleared of multicollinearity as they recorded a tolerance of 1 and a VIF of the same value. This confirms that the prevailing lending rate affects the price of the financial sector's shares at the Nairobi Securities Exchange. It indicates that an increase in the lending rate at the market would lead to a decline in share prices of financial institutions.

4.6 Discussion

The NSE is mandated to oversee the share trading among the listed corporations in Kenyan securities exchange market. The banking sector is made up of 42 companies with 26% being listed in the NSE. The NSE has a total of 62 listed companies from 11 sectors in Kenya, with the highest percentage of those listed being from the Banking sector with 18% representation by firms in the NSE. Therefore, the banking sector is important to the NSE and more so because the banking sector firms are known to be among the best performing in the NSE as well as in the sector. Various rankings such as by MyBusinessTricks, 2013 was found to consist of only listed commercial banks in Kenya and none of the unlisted commercial banks were found to be on the list. A list of best

performing commercial banks was found to be closely similar to the earlier mentioned ranking with Equity Bank, Standard Chartered Bank, and Kenya Commercial bank being the best three while National bank, Cooperative Bank, and NIC Bank being last in the top 10 list by Ryan Hoover, (2013).

The changes in lending rate are usually caused by the changes in the Central Bank of Kenya commercial banks' borrowing rate, which controls the money supply, and demand in the market. Changes in lending rate affect the customers' ability to borrow from the banks and in so doing affect the rate of borrowing from the bank. This may lead to reduced interest gain from lending if unfavourable, or increased interest gains from lending in case it is favourable. The study found the average lending rate in Kenyan financial sector to be highly fluctuating and a trend line in the study shows a gradual increase with a sharp increase between October 2011 and January 2012 which flatten out between February 2012 and January 2013 and declined thereafter. This rise was associated to the elections that occurred at this time.

The bank with the highest share price was observed to be Standard Chartered Bank (329.74) followed by Diamond Trust Bank (196.09), and then CFC Stanbic Bank (87.01) follows, while the one with the least price is Cooperative bank (Ksh.17.63), recent entrant to this level Barclays bank (Ksh.17.5), and National Bank (Ksh.23.00) respectively. The share prices for most of the banks, (80%) lie below Ksh.100 per share. Some of the banks have had to split their shares such as Equity bank who split theirs 10 fold and a recent Barclays bank share split of 4 fold. I&M bank was not featured in this analysis since it was just recently (2012) introduced in the NSE and was not trading at the time period covered by the study.

The study found that the prevailing lending rate is able to greatly affect the share prices of commercial banks in Kenya with an increase in lending rate causing a decrease in share prices and vice versa. This is in line with previous findings by Kurihara (2006), that share prices have a negative correlation to the lending rates. The study found a statistically significant negative impact of financial firms' share prices and the prevailing lending rate. This confirms that the study has found a significant relationship between lending rate and share price of firms in the NSE.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the summary of findings, conclusion, recommendations, and limitations of the study and offers suggestions for further research. The chapter offers a quick view of the study outcomes and gives the research findings in a more simplified way.

5.2 Summary of Findings

The NSE has a total number of 62 listed companies operating locally, 11 of whom (18%) are from the banking sector. Some of these banking companies have cross-listed in other securities exchange such as KCB and NIC Bank who are listed in Uganda Securities Exchange and Rwanda Securities Exchange. The study found the fraction of commercial banks listed in the NSE to be very low at 26% of the total number of commercial banks in Kenya. The eleven commercial Banks listed in NSE were found to be performing very well in the sector with various ranking the top ten best performing commercial banks that are made up of the listed commercial banks in the NSE.

These are major banks in Kenya and are known to command the market with very high market share and are very competitive in nature. The ranking of their performance in NSE is nearly the same as their performance in the financial market with firms such as Equity Bank commandeering a huge chunk of the market and having regional presence in East Africa Region. Therefore, the performance of the banks in the NSE is highly

dependent on their performance in the market. Changes in lending rate affects the banks' customers' ability to borrow from the banks and in so doing affects the rate of borrowing from the bank which may lead to reduced interest gain from lending if unfavourable or increased interest gain from lending in case it is favourable.

The study found that the share prices for financial institutions in Kenya are affected by prevailing lending rate which was shown by a strong negative correlation with a correlation coefficient of 0.953, and a coefficient of determination of 0.986 which means that 98.6% of the financial firms' share prices can be explained (are affected) by the prevailing sectors' lending rate. The study realized a negative regression coefficient which helped the study in the formulation of the regression model for the impact of lending rate on share price model of financial institutions trading in the NSE which was indicated as $SP = 175.052 + (-) 5.442 LR + e$, which brought forth further understanding of the inverse relationship. The outcomes of the analysis were also found to be extremely statistically significant.

5.3 Conclusion

In conclusion, the study has observed that the banking sector in Kenya is very dynamic and highly profitable as an investment avenue in the NSE. The sector has been found to be performing well in the recent past despite dwindling performance in the global financial sector. The outcomes of the review of a few competitive performance rankings have shown that the best performing commercial banks are mainly those listed in the NSE and therefore investing in them is equated to investing in the best companies in the country. These commercial banks are also competitors in the NSE bourse and are able to

be competitive in their might of wooing investors willing to cash in on the sector's lucrative edge. The study found no evidence that the share prices affect the lending rates in the Kenyan commercial banks.

The study further found that the lending interest rate has been widely varying for last 5 years, changes that have been mimicked by the commercial banks' share prices. The lending rate is highly dependent on the variability of the commercial bank borrowing rate that is set by the Central Bank of Kenya (financial sector regulators) which has also been changed widely over time. The share prices have also been observed to vary widely over the period.

The study found the relationship between the average lending rate and the individual banks' share prices in the NSE strongly correlated with high correlation coefficient and high coefficients of determination that indicated that the lending rate was able to explain a huge chunk of the Commercial Banks' share prices. This relationship was found to be inverse since both the correlation and regression coefficients were negative. Therefore, it can be concluded that the prevailing lending rate in the Kenyan financial sector is able to greatly affect the share prices of commercial banks in Kenya with an increase in lending rate causing a decrease in share prices and vice versa.

5.4 Recommendations

The study has confirmed that the changes in lending rate in Kenyan commercial banks inversely affect the commercial bank's share price as it trades in the NSE bourse. The study therefore recommends creation of policies that would see the varying of the lending rate in the banks being used to solve crisis arising in the stock markets. The countries

may in this case be able to exploit this link to attract foreign portfolio investment in the country and also to make the commercial sector involvement in the NSE more competitive and attractive to investors.

The investors who are interested in the returns on their investment may be able to predict the variability in share prices if the models suggested in this study was proved applicable in the practical field. In this case they would be able to easily predict the changes in lending which would be useful in determining the shares values of the banks, allowing the investors better perception of the investment. Thus an investor will know if his portfolio is losing or gaining value.

The CBK should consider the effects of changing the lending rate on the share prices before implementing these changes to cushion the banks against adverse effects that may arise from the change within the NSE bourse. The performance of the share price is crucial for the management. A decrease in the share price might be interpreted to mean poor management. Thus the, management of the bank should apply the outcomes of this study in knowing the effects of the lending rates they are about to adapt to their bank's share prices.

5.5 Limitations of the Study

The study targeted the financial sector in Kenya, and the findings in this sector may differ from sectors in a different country since the securities markets and firms differ depending on the region. Therefore, the study findings cannot be generalized unless the prevailing market factors are considered as this is will be a situation where the factors in the region are overlooked, making the generalized views erratic.

The study relied on secondary data, which is dependent on the efficiency of a person who is third party to the study. Therefore, the author had very little if any control of the efficiency in data collected and cannot guarantee the credibility. However, issues related to the credibility of the secondary data collected were put to rest by crosschecking from a secondary data source and only accessing the required data from authentic source.

This study collected data for the period between 2008 and 2013, a period of 66 months. Within this period, many changes occurred in the stock market that the study did not account for such as share splits for some of the companies considered in the study. These unaccounted for issues may have in one way or another affected the outcomes of the study. However, this effect was not expected for the study since the occurrence of such cases is rare and only two were recorded within the study period for the firms involved in the study, though one share split was observed in the market for a firm not involved in the study. Therefore, the study was limited to the study factors only.

5.6 Suggestions for Further Research

The study recommends that further studies be carried out on the qualitative relationship between the lending rates and the share prices to further explain the inverse relationship observed in this study. More needs to be done to explain this phenomenon further and create more understanding that would allow the findings of these studies to be put into practice in the bourse and the banking halls in Kenya.

Further studies should also be carried out to explain the one way relationship where the lending rate was found to affect the share prices and the share prices not affecting the lending rate. More quantitative research studies ought to be carried out in other regions of

Africa and the world, which would bring in more insights into the story. This would bring in the comparative nature into this discussion which would go a long way in bringing about immense understanding of the relationship and lead to its adoption into practice.

Other studies should be carried out to establish the impact of lending rates on the share prices of all firms quoted in the securities exchange to establish if there exist any relationship as some sectors may be sensitive to the lending rates than others. Other studies should be carried out over a longer period of time to establish if there exist a relationship between the share prices and the lending rates.

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APPENDICES

Appendix i: Commercial Banks Listed In NSE

1. Barclays Bank of Kenya
2. CFC Stanbic Bank
3. Co-operative Bank of Kenya
4. Diamond Trust Bank of Kenya
5. Equity Bank
6. Housing Finance Company of Kenya
7. I&M Bank
8. Kenya Commercial Bank
9. National Bank of Kenya
10. NIC Bank
11. Standard Bank

Appendix ii: the Financial Sector Lending Rates for the Financial Sector

Months	2008	2009	2010	2011	2012	2013
January	13.78	14.78	14.98	14.03	19.54	18.13
February	13.84	14.67	14.98	13.92	20.28	17.84
March	14.06	14.92	14.80	13.92	20.34	17.73
April	13.91	14.71	14.58	13.92	20.22	17.87
May	14.01	14.85	14.46	13.88	20.12	17.45
June	14.01	15.09	14.39	13.91	20.30	16.97
July	14.06	14.79	14.29	14.14	20.15	
August	13.66	14.76	14.18	14.32	20.13	
September	13.66	14.74	13.98	14.79	19.73	
October	14.12	14.78	13.85	15.21	19.04	
November	14.32	14.87	13.95	18.51	18.70	
December	14.80	14.76	13.87	20.04	18.15	

Appendix iii: Data on Share Prices

	Barclays Bank	CFC Stanbic	Cooperative bank	Diamond Trust Bank	Equity
Jan '08	55.35	74.26	15.53	172.62	33.03
Feb '08	54.70	73.38	15.34	170.58	32.64
Mar '08	56.98	76.43	15.98	177.68	34.00
Apr '08	53.37	71.60	14.97	166.45	31.85
May '08	54.24	72.76	15.21	169.15	32.37
Jun '08	52.26	70.10	14.66	162.96	31.18
Jul '08	51.64	69.27	14.48	161.03	30.81
Aug '08	52.05	69.83	14.60	162.33	31.06
Sep '08	50.81	68.16	14.25	158.45	30.32
Oct '08	51.74	69.41	14.51	161.35	30.87
Nov '08	51.95	69.69	14.57	162.00	31.00
Dec '08	50.56	67.82	14.18	157.66	30.17
Jan '09	51.72	69.38	14.51	161.29	30.86
Feb '09	49.86	66.89	13.99	155.49	29.75
Mar '09	48.62	65.22	13.64	151.63	29.01
Apr '09	49.34	66.18	13.84	153.86	29.44
May '09	50.99	68.41	14.30	159.02	30.43
Jun '09	49.75	66.74	13.95	155.15	29.69
Jul '09	48.77	65.43	13.68	152.10	29.10
Aug '09	50.94	68.33	14.29	158.86	30.40
Sep '09	52.79	70.81	14.81	164.62	31.50
Oct '09	52.39	70.29	14.70	163.39	31.26
Nov '09	53.60	71.90	15.03	167.15	31.98
Dec '09	55.26	74.13	15.50	172.32	32.97
Jan '10	59.10	79.28	16.58	184.30	35.26
Feb '10	58.37	78.30	16.37	182.03	34.83
Mar '10	58.14	77.99	16.31	181.30	34.69
Apr '10	56.58	75.90	15.87	176.45	33.76
May '10	57.44	77.06	16.11	179.14	34.28
Jun '10	59.37	79.65	16.65	185.15	35.43
Jul '10	62.33	83.62	17.48	194.39	37.19
Aug '10	61.56	82.59	17.27	191.99	36.73
Sep '10	61.16	82.05	17.16	190.75	36.50

Oct '10	62.10	83.30	17.42	193.65	37.05
Nov '10	60.61	81.31	17.00	189.02	36.17
Dec '10	60.07	80.59	16.85	187.33	35.84
Jan '11	59.65	80.03	16.73	186.03	35.60
Feb '11	59.24	79.47	16.62	184.74	35.35
Mar '11	62.36	83.65	17.49	194.46	37.21
Apr '11	68.00	91.22	19.07	212.06	40.58
May '11	69.50	87.97	18.39	204.50	39.13
Jun '11	23.06	86.92	18.17	202.05	38.66
Jul '11	23.70	89.33	18.68	207.66	39.73
Aug '11	25.57	96.37	20.15	224.04	42.87
Sep '11	26.97	101.66	21.26	236.33	45.22
Oct '11	25.25	95.16	19.90	221.22	42.33
Nov '11	28.18	106.21	22.21	246.89	47.24
Dec '11	27.74	104.54	21.86	243.03	46.50
Jan '12	27.57	103.92	21.73	241.58	46.22
Feb '12	26.91	101.41	21.20	235.76	45.11
Mar '12	26.40	99.51	20.81	231.34	44.26
Apr '12	25.06	94.47	19.75	219.61	42.02
May '12	24.35	91.77	19.19	213.34	40.82
Jun '12	23.66	89.18	18.65	207.33	39.67
Jul '12	22.87	86.19	18.02	200.37	38.34
Aug '12	22.67	85.45	17.87	198.64	38.01
Sep '12	22.06	83.16	17.39	193.33	36.99
Oct '12	21.13	79.66	16.66	185.18	35.43
Nov '12	21.47	80.91	16.92	188.10	35.99
Dec '12	21.21	79.94	16.71	185.83	35.56
Jan '13	19.85	74.80	15.64	173.88	33.27
Feb '13	19.40	73.12	15.29	169.97	32.52
Mar '13	18.03	67.97	14.21	158.00	30.23
Apr '13	18.39	69.33	14.50	161.17	30.84
May '13	18.76	70.72	14.79	164.41	31.46
Jun '13	17.35	77.00	16.10	179.00	34.25
	Housing Finance	Kenya Commercial Bank	National Bank	NIC	Standard Chartered Bank
Jan '08	24.35	44.84	20.25	56.17	290.28
Feb '08	24.06	44.31	20.01	55.51	286.83
Mar '08	25.06	46.16	20.85	57.82	298.79

Apr '08	23.48	43.24	19.53	54.17	279.89
May '08	23.86	43.94	19.84	55.05	284.44
Jun '08	22.99	42.33	19.12	53.03	274.03
Jul '08	22.72	41.83	18.89	52.40	270.78
Aug '08	22.90	42.17	19.04	52.82	272.97
Sep '08	22.35	41.16	18.59	51.56	266.44
Oct '08	22.76	41.92	18.93	52.51	271.32
Nov '08	22.85	42.08	19.01	52.72	272.41
Dec '08	22.24	40.96	18.50	51.31	265.12
Jan '09	22.75	41.90	18.92	52.49	271.22
Feb '09	21.93	40.39	18.24	50.60	261.47
Mar '09	21.39	39.39	17.79	49.34	254.97
Apr '09	21.70	39.97	18.05	50.07	258.72
May '09	22.43	41.31	18.66	51.75	267.41
Jun '09	21.89	40.30	18.20	50.49	260.89
Jul '09	21.46	39.51	17.84	49.50	255.77
Aug '09	22.41	41.27	18.64	51.69	267.13
Sep '09	23.22	42.76	19.31	53.57	276.81
Oct '09	23.05	42.45	19.17	53.17	274.75
Nov '09	23.58	43.42	19.61	54.39	281.08
Dec '09	24.31	44.77	20.22	56.08	289.77
Jan '10	26.00	47.88	21.62	59.98	309.92
Feb '10	25.68	47.29	21.36	59.23	306.09
Mar '10	25.57	47.10	21.27	59.00	304.87
Apr '10	24.89	45.84	20.70	57.42	296.71
May '10	25.27	46.54	21.02	58.29	301.23
Jun '10	26.12	48.10	21.72	60.25	311.35
Jul '10	27.42	50.50	22.81	63.26	326.87
Aug '10	27.08	49.87	22.52	62.48	322.84
Sep '10	26.91	49.55	22.38	62.07	320.75
Oct '10	27.32	50.31	22.72	63.02	325.64
Nov '10	26.66	49.10	22.18	61.51	317.85
Dec '10	26.43	48.67	21.98	60.96	315.02
Jan '11	26.24	48.33	21.83	60.54	312.83
Feb '11	26.06	47.99	21.67	60.12	310.65
Mar '11	27.43	50.52	22.81	63.28	327.00
Apr '11	29.91	55.09	24.88	69.01	356.60
May '11	28.85	53.12	23.99	66.55	343.88
Jun '11	28.50	52.49	23.70	65.75	339.76

Jul '11	29.29	53.95	24.36	67.58	349.19
Aug '11	31.60	58.20	26.28	72.91	376.73
Sep '11	33.34	61.39	27.73	76.90	397.40
Oct '11	31.21	57.47	25.95	71.99	371.99
Nov '11	34.83	64.14	28.97	80.34	415.17
Dec '11	34.28	63.13	28.51	79.09	408.67
Jan '12	34.08	62.76	28.34	78.61	406.23
Feb '12	33.26	61.24	27.66	76.72	396.44
Mar '12	32.63	60.10	27.14	75.28	389.01
Apr '12	30.98	57.05	25.76	71.47	369.29
May '12	30.09	55.42	25.03	69.42	358.74
Jun '12	29.25	53.86	24.32	67.47	348.63
Jul '12	28.26	52.05	23.51	65.21	336.94
Aug '12	28.02	51.60	23.30	64.64	334.03
Sep '12	27.27	50.22	22.68	62.91	325.09
Oct '12	26.12	48.11	21.73	60.26	311.39
Nov '12	26.53	48.86	22.07	61.21	316.30
Dec '12	26.21	48.27	21.80	60.47	312.48
Jan '13	24.53	45.17	20.40	56.58	292.40
Feb '13	23.98	44.16	19.94	55.31	285.82
Mar '13	22.29	41.04	18.54	51.42	265.68
Apr '13	22.74	41.87	18.91	52.45	271.02
May '13	23.19	42.71	19.29	53.50	276.47
Jun '13	25.25	46.50	21.00	58.25	301.00