

DETERMINANTS OF AVERAGE LENDING RATES AMONG SELECTED COMMERCIAL BANKS IN KENYA

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ABSTRACT

Despite liberalization of Kenya's financial sector in 1991, Kenya has become less competitive in terms of affordability of financial services and access to loans compared to countries such as South Africa and Malaysia whose private sector credit to GDP ratio are above 100 percent compared to Kenya's private sector lending which stands at 40% of GDP. Financial sector liberalization has led to increased financial services access as evidenced by CBK data where 26.4% of the population in 2006 could access financial services compared to 66.9% in 2013(CBK) Newsletter No.1 December 2014. This remarkable growth is as a result of financial innovation including mobile banking, agency banking and credit information sharing which has translated to economic growth but has not led to matched increased access to credit. High cost of credit and operational inefficiency among commercial banks in Kenya limits the access of loans to the private sector and individuals which ultimately slows economic growth and development. The study is on the probable determinants of average lending rates among commercial banks in Kenya which include Bank Specific factors such as Non-performing loans, Operating costs, capital adequacy, and Bank size and liquidity risk. Also industry factors such as Kenya Banks

Reference Rate and Central Bank Rate are included in the study. The effect of Credit information Sharing and Government Domestic borrowing on lending rates among commercial banks and intervening variable inflation be studied. The study employed a descriptive research design and the population consisted of eleven listed commercial Banks in Kenya. The Target population was staff of the eleven listed banks working in Credit and Risk and Compliance departments. A sample size of 33 was derived from three staff from credit and risk and compliance departments of each of the listed commercial banks in Kenya. Purposive sampling technique was used to collect data. Secondary data was collected from published journals and financial statements. The financial statements for the year 2012, 2013, 2014, 2015 and 3rdquarter of 2016 were used. Correlation and multiple regression analysis was used to analyze the nature and degree of relationship between the independent and dependent variables. Statistical package for social sciences was utilized to aid in data analysis. Summary of findings on the objectives was done, conclusion and recommendations to various stakeholders made.

Key Words: *determinants, average lending rates, selected commercial banks, Kenya*

INTRODUCTION

One of the key components needed to start a project or business being either an individual or corporate is capital. Banks are one of the major sources of funds thus enabling individuals or corporate can meet their capital requirements. Therefore, banks are one of the most important long term sources of finance in many countries through loans facilities availed to their customers (Freixas and Rochut, 2008). According to Nwankwo (2000) credit is the largest single earning asset in the portfolio of most commercial banks thus the great focus given to

credit management. This explains why considerable amount of resources are spent by banks to estimate, monitor and manage credit quality. Banks have been criticized of pegging much on net interest margins to raise their profits thus persistent high lending rate which significantly reduces the demand for credit.

Financial liberalization and deepening of the financial sector was anticipated to narrow the difference or spread of the interest rate paid on deposits and lending rate charged to borrowers based on the understanding that liberalization enhances competition and efficiency in the financial sector, Were and Wambua (2014). Financial sector liberalization has led to increased financial services access as evidenced by CBK data where 26.4% of the population in 2006 could access financial services compared to 66.9% in 2013(CBK) Newsletter No.1 December 2014.This remarkable growth is as a result of financial innovation including mobile banking, agency banking and credit information sharing which has translated to economic growth. Despite the financial sector liberalization and financial innovation there has been no matched growth in credit access. According to CBK, lending to the Kenyan private sector has not grown significantly due to the high cost of credit thus derailing much needed economic growth and development.CBK (2014) Kenya lending stands at about 40% of GDP in comparison to our peers such as south Africa, Malaysia and Mauritius whose private sector lending to GDP is above100%(CBK) Newsletter No.1 December 2014.This study is motivated look at the possible factors which influence lending rates in Kenya.

Researchers in the United States who have looked at the determinants of interest rate such as Acharya and Merbuche (2009) suggest that overnight interest rates and GDP affect long term interest rates which affect the economic growth and development as the rate of investments slow down due to inaccessibility of funds as a result of high interest rates. Irwin (2009) on the other hand states that borrowing costs increase for home buyers, corporation leaders and government when interest rates increase; this has the effect of repressing economic growth.

State of Average Lending Rates in Kenya

Keynes (2008) Lending rate is the bank rate that usually meets the short and medium term financing needs of the private sector. The lending rate differs from one individual or firm to another based on the credit worthiness or risk of the borrower. According to De Bock and Demyanets (2014) lending rate is the price a borrower pays for the use of money they borrow from a lender/financial institution or fee paid on borrowed assets. Kenya's market interest rates were fairly stable before 1990s due to price controls and banking controls in the country parliamentary budgets. Kariuki (1995) shows that in the 1960s and 1970s, interest rate policy was fairly inactive. The government intervened in the market by administering a regime of fixing minimum lending interest rates for commercial banks, on-financial institutions and building societies. In the 1980s there was a gradual interest rate liberalization strategy adoption based on the advice of IMF and the World Bank. Starting in 1981, a gradual liberation strategy was pursued and nominal interest reviewed regularly (Odhiambo, 2009). Major reviews were done in October 1982, June 1984, January 1984, January 1988, April and November 1989 and April 1990 (Odhiambo, 2009). Kariuki (1995) in July 1991, the interest rates were fully liberalized. Since 1991, high interest rates have been witnessed. The

liberalization of interest rates process was not only advocated by the Central Bank of Kenya but also the Bretton woods institutions. High interest rates are meant to control price increases by raising the cost of Money hence reducing the spending capacity of households and businesses (Mudida, 2003).

As a result of the liberalization, the lending rate has been fluctuating at an increasing rate. The average lending rate has been above 20% which locks out many potential borrowers. The 2011 interest rate crisis could be attributed to high rates of inflation resulting from increased cost of food, transport and electricity (Kenya National Bureau of Statistics, 2011). Kenya banks reference rate (KBRR) was introduced in July 2014 in order to enhance transparency in lending, competition among commercial banks, and ultimately lower the cost of credit from commercial banks in Kenya. Kenya banks reference rate is computed as an average of central banks rate (CBR) and two months moving average of the 91 days Treasury bill rate. It is a uniform base lending rate for all banks and any lending rate above the KBRR. 'k' will depend on factors such as customers risk profile, cost of collateral and cost of due diligence process (CBK newsletter February 2015). KBRR was introduced by CBK in efforts to combat the escalating lending rates. In the recent times, there are efforts from the National Assembly of Kenya to control lending rates by putting a cap on what commercial banks should charge on their loans through a bill sponsored by Kiambu Member of Parliament which was accented to by President Uhuru Muigai Kenyatta. This will take the country back to the interest controls era in bid to lower lending rates and spur economic growth and development.

Commercial Banks in Kenya

Commercial banks in the republic of Kenya are governed by various acts of parliament and the central bank of Kenya, Were and Wambua (2014). There is the company's act, the banking act, central bank act which form the framework with which the commercial banks are established and regulated in the country (CBK annual report, 2014). The central bank of Kenya publishes annual and quarterly report on Kenyans commercial banks and non-bank financial institutions such as micro finances institutions, supervisions reports for these institutions which check whether banks and other financial institutions adhere to various regulations. The central bank is the main regulator and lender of last resort of commercial banks in Kenya (CBK annual report, 2014). The banking industry has three tiers, tier I, tier II and their III categories which are based on the core capital of banks, assets and quality of assets they own and number of branches. There are also 43 commercial banks in Kenya as per the central Banks List of commercial banks, two of which are under receivership. Kenya bankers association brings banks together which checks the interest and caters for the challenges facing the sector (CBK annual report, 2009).

STATEMENT OF THE PROBLEM

The lending rates set by commercial banks in Kenya especially before the law capping interest rates came into force in September 2016 were significantly high despite concerted efforts by the central bank to tame the high lending rates. Banking systems in Africa have exhibited significantly and persistent large interest rate spread on average than in other developing and developed countries (Nannyonjo, Beck and Hesse, 2006). Even after the Law

capping lending rates a large number of borrowers are still not benefitting from the capped rates as Commercial Banks are shying to lend to Some Borrowers at the existing capped lending rates. Despite Kenya improving its financial services accessibility, credit access has not increased corresponding to growth in access to other financial services thus negatively affecting economic growth and development. CBK (2014) regards high cost of credit as the major barrier to growth of credit to both individuals and enterprises. Several research studies have been done in relation to determinants of interest spreads among commercial banks in Kenya. Ngugi (2001) looked at liquidity and non-performing loans ratio as independent variables and concluded that increase in non-performing loans lead to increase in spreads while there was inverse relationship between liquidity and interest spreads. Emily Gatune (2015) studied factors influencing interest rate spread among commercial bank in Kenya where she focused on credit risk regulation, access to information and distribution of market power and market structure. All the variables of her study were found to be positively related to spreads. Fridah Gatwiri (2011) included market structure, cost of funds, economic conditions, legal and regulatory framework, taxation and risk factors as the independent variables which were found to be positively related to the dependent variable interest rate spread.(Mbotu 2010) studied the impact of CBR on commercial banks benchmark lending interest rates. Were and Wambua (2013) did a study on assessing the determinants of interest spread of commercial banks in Kenya which incorporated factors such as credit risk, market concentration, bank size, liquidity risk and inflation as probable determinants of interest spreads. New banking developments such as mobile loans will be incorporated since they have not been explained in the previous studies. In addition, the impact of Credit information sharing and government domestic borrowing have on lending rates among commercial banks in Kenya has not been explained. This study incorporates these variables as it seeks to elaborate the determinants of lending rates among commercial banks in Kenya.

GENERAL OBJECTIVE

The general objective of the study is to establish the determinants of average lending rates among commercial banks in Kenya.

SPECIFIC OBJECTIVES

1. To establish the effect of bank specific factors on lending rates among commercial banks in Kenya.
2. To determine the effect of regulation on lending rates among commercial banks in Kenya.
3. To investigate the effect of credit information sharing on lending rates among commercial banks in Kenya.
4. To determine the effect of government domestic borrowing on lending rates among commercial banks in Kenya.
5. To determine the effect of inflation on lending rates among commercial banks in Kenya.

THEORETICAL REVIEW

Credit Market Theory

The model credit market theory postulates that the terms of credits clear the market. In a market where collateral and other restrictions remain unchanged, then lending rate becomes the only price mechanism (Ewert et al, 2000). Given an increasing demand for credit and a given credit supply, the lending rates rises and if the demand lowers thus higher supply of credit, lending rates decline. Any incremental risk in a project being undertaken is reflected through a risk premium. Therefore, there exist a positive correlation between the probability of default and the lending rate charged on a loan. Thus a conclusion is made that the higher the risks failure of the borrower, the higher the interest premium (Ewert et al, 2000).

The theory creates an impression that a borrower who has a high risk will require to provide more collateral so as to be charged the same lending rate as a borrower who has a low risk profile as he will enjoy a low risk premium. This brings the “moral hazard” and adverse selection phenomena brought about by information asymmetry existing between the lender and the borrowers (Mason and Roger, 1998). The borrower has a more accurate assessment of the risk profile of his investment that’s not known by the lender and hence may perform secret actions to increase the risk of the investment without the realization of the lender. The adverse selection problem comes forth when lenders raise lending rates to shield themselves from default and on the other hand attract high risk borrowers and eliminate low risk borrowers (Mason and Roger, 1998). This study aims at establishing the effect of credit information sharing on the adverse selection problem thus average lending rate.

Loanable Funds Theory

The theory stipulates that the rate of interest is determined by the demand and supply of loanable funds in the capital market. According to this theory, savings and investments are responsible for the determination of the rates of interest in the long run while short term interest rates are determined by the financial conditions prevailing in an economy (Bibow, 2000).. The determination of interest rates according to loanable funds theory depends on the availability of loanable amounts. The availability of such loan amounts is based on factors like the net increase in currency deposits, the amount of savings done, willingness to enhance cash balances and opportunities for the formation of fresh capitals (Bibow, 2000). Claeys and Vander(2008) argues that the theory explains factors that influence lending rates in that if individuals do not save in banks due to low interest rates offered on deposits due to poor financial intermediation as a result of inefficiencies in banking, there will be low deposits from which banks will lend from and thus high lending rates.

In loanable funds theory, the demand of loanable funds originates from domestic business, consumer, government and foreign borrowers. Banks have to establish the credit worthiness of borrowers to minimize the default risk. Banks will charge a higher premium for business or individuals who are rated to have a high risk supply of funds is generated from savings and money creation in the banking systems and foreign lending. The sectors in which banks concentrate determine the availability of loanable funds (IBM, 2010).

Demand and supply of loanable funds determines the nominal rate of interest. Holding supply of loanable funds constant, an increase in the demand for loanable funds would lead to a rise in the interest rate and a decrease in demand would lead to a fall in interest rates. If the supply of loanable funds increases the result would be a fall in the rate of interest. If both the demand and supply of loanable funds change, the resultant interest rate would be determined much by the magnitude and direction of movement of the demand and supply of loanable funds. The demand of final goods and services creates a demand for loanable funds. The demand of final goods and services is generated from the use of capital that is financed by the loanable funds. The demand for loanable funds is also generated from the government (Bernanke, 2000). The government domestic borrowing leads to demand for credit and thus resulting to higher interest rate for the private sector.

Keynes Liquidity Preference Theory of Interest

Keynes (2008) defines the rate of interest of the reward of parting with liquidity for a specified period of time. He States that interest rate is determined by the demand for all money supplied. Keynes further advances his argument that there exist three motives for desire of the public to hold liquid cash which are transaction motive, precautionary motive and speculative motive. Transaction motive relate to the demand for money or need for cash to meet current expenditure or transactions of individuals or business exchanges. Individuals hold cash to bridge the gap between receipt of income and expenditure (income motive). Desire to hold money to meet unforeseen expenditure such as illness, students or unemployment is precautionary motive.

Keynes (2008) asserts that transaction and precautionary motive are relative interest inelastic but highly income elastic. Speculative motive relates to an individual's desire to hold on ones resources in money form in order to make gains of future change of bond prices and interest rates. Saunders and Cornett (2008) argue that investors will hold on long term securities if they are compensated for future uncertainty in a security's value which tend to increase it's with maturity. Bond prices and the rate of interest are inversely related to each other. If the bond prices are expected to rise, the rate of interest is expected to fall and people will buy bonds and sell them when the prices rises and vice versa. The liquidity preference curve and the money supply interact to determine the interest rate which gives the equilibrium at which money demand equals money supply. These motives to hold money affect the availability of loanable funds and thus the average lending rate.

EMPIRICAL REVIEW

There is a good bank of knowledge and review in terms of lending activities of commercial banks. Some have focused on the determinants of lending rates and interest spread of commercial banks in Kenya. Generally, empirical studies that examine lending rates have paid attention to variables that fall in three categories (i) individual bank-specific factors such as operating or administrative costs, non-performing loans, and return on assets. Structure of the balance sheet, not interest income, bank size and bank liquidity. Secondly, factors that are specific to the industry such as degree of competition and regulatory requirements. Thirdly,

macro-economic indicators, which such as real gross domestic product, inflation and government borrowing (Were & Wambua, 2014).

Gambacorta (2004) studies factors influencing cross-sectional differences in bank interest rates of Italian banks by leading at both micro and macro-economic factors. He considered variables such as loan and deposit demand, operating cost, credit risk and interest rate volatility, impact of monetary policy through changes in policy rates and reserve requirements and the structure of the industry. Results of the study showed that rates on short term lending of well capitalized and liquid banks are not gravely affected by monetary policy shocks. The length of lending period was seen to influence interest rates as banks that lent for long period adjusted their interest rates upwards as compared to these lending short term basis. Bank size according to Gambacorta, was found to be irrelevant in influencing interest rate margins. Gambacorta (2004) asserts that changes in monetary policy can affect deposit and lending rate through lending rate, bank lending and bank capital channels. If monetary policy tightening raises the prime rate banks pass on the costs to borrowers through higher lending rates.

Beck and Hesse (2006) uses bank level data set on Ugandan banking system to examine the factors behind the consistent high interest rate spread and margins. The study concluded that privatization, foreign bank entry, market structure and banking efficiency had no significant relationship with interest rate spread. Beck and Hesse (2006) found out that cross-bank and cross time variation in bank spreads and margins is determined by bank-level characteristics such as bank size, operating costs and composition of loan portfolio. The study also found out that banks targeting the low end of the market had higher interest margins due to the higher costs they incurred.

Siddiqui (2012) estimated interest rate spread in Pakistan using individual bank specific factors based on a panel data of 22 banks. Market share, liquidity risk, administrative expenses as a percentage of total assets, non-performing loans as a percentage of total income and return on assets after tax payment as a percentage of average assets were the variable of the study. Siddiqui found that lending rate is significantly affected by administrative costs, non-performing loans and return on assets in all the regressions.

Mannasoo (2012) investigates the role of the recent global financial crisis on interest spreads in Estonia. He found out that interest margins are influenced by regulatory variables, efficiency of banks and bank portfolio effects. Credit risk is said to have been found to play an insignificant role while higher bank liquidity has a positive correlation with lower interest margin. Steffen (2008) examine how lending relationship affect loan rate smoothing in UK for the period 1966-2005. Using panel data regression techniques on the data, the study concluded that there is a negative but insignificant effect of loan size on interest spread hence loans size does not significantly affect bank interest rates.

Were and Wambua (2013) studied determinants of interest rate spread by looking at both macroeconomic variable and bank specific variable using panel data for the commercial banks. The study uses data covering period from 2002 to 2011 during which there is

significant changes both in policy and macroeconomic environment. The study is of the view that bank specific factors play a significant role in determination of interest rates which include bank assets, credit risk as measured by non-performing loans to total loans ratios, liquidity risk, return on average assets and operating costs. It found out that real economic growth and inflation are insignificant while the impact of policy rate as an indicator of monetary policy is found to be positive but weak. Ngugi (2000) incorporates excess liquidity and non-performing loans ratios as explanatory variable and finds that rise in non-performing loans ratio leads to a rise in spreads while excess liquidity is negatively related with spreads. Mary Wanjiru (2015) investigated determinants of interest rate spread among commercial banks in Kenya. The study found out that inflation and operation cost has no effect on interest rate spreads among commercial banks in Kenya but found that market structure has a significant influence on interest rate spread. Business risk such as credit risk, foreign exchange risk and political risk were found to significantly influence the interest rate spread.

Opuodho George Omondi, (2014) on effects of inflation on commercial banks' lending a case study on Kenya commercial bank was on the view inflation significantly affected the lending rate charged by banks. Karanu and Ireri (2015) in their study of effects of operational costs on lending rates of commercial banks in Kenya found out that increase in operational costs such as transaction costs, level of projected profits lead to increased lending rates. The study established that there existed a strong positive relationship between lending rate and operational cost by having a correlation coefficient of 0.784 ($r=0.784$). According to Matu (2006) Commercial banks are put under pressure to retain high lending rates in attempt to minimize loss associated with non-performing loans and in the process affecting the banks clients. Ngari, (2013) found that there is a positive correlation between interest rates and return on assets.

Adah Isaac (2015) on his study of determinants of lending rates in Ghana came to the conclusion that exchange rate, treasury bill rate, inflation policy rate, reserve requirement, on-performing loans, management efficiency, bank size, liquidity rate, market competition have a positive relationship with lending rate and a negative relationship between GDP and lending rates. According to CBK report (2012) growth in the banking sector is evident but the interest rate margins have remained high which shows the banks attempt to pass their inefficiencies to customers as they are unable to keep their operational costs low.

According to Owino Michael Otieno (2013) in his study of the effect of the lending policies on the level of non-performing loans (NPLS) of commercial banks in Kenya, concludes that lending policies and level of non-performing loans are related. Lending policies help the bank lend prudently and lower the risk level of the banks. Owino found out that strict adherence to the lending polices lower the level of non-performing loans. He also observed that as economic sectors grows, the level of lending to these sectors grow so close does the level of non-performing loans in these sectors. He adds that bad loans among commercial banks arise due to lending to borrowers with questionable character, serial defaulters and diversion of funds by borrowers.

Chelanga Hillary Kiplimo (2015) finds that credit risk had significant influence on interest rate on his study on determinants of interest rate spread among commercial banks in Kenya. Jackline Kimani (2013) in her study of the effects of monetary policy on lending behavior of commercial banks in Kenya found out that central bank rate (CBR) affects the lending rates of commercial banks to a great extent. The study found out that when CBR is low the demand for loans from commercial banks rises as the lending rate is favorable. The CBR directly restricts the capacity of banks to make new loans when it is raised thus less credit is available to borrowers.

Maureen Were and Joseph Wambua (2013) in their study assessing the determinants of interest rate spread of commercial banks in Kenya. An empirical investigation concluded that an increase in CBR, monetary tightening policy, resulted to an increase in interest rate spreads and thus lending rates offered by commercial banks in Kenya. The coefficient of the results of the study was found to be statistically significant only at 10% significance level in the fixed effects model and insignificant in the random effects model. On efficiency in monetary transmission, the central bank of Kenya has come up with KBRR which is supposed to enhance competition among commercial banks and efficient monetary policy transmission. According to Buigut (2010) in an investigation to find out the dominant transmission channel used an impulse response function to evaluate the impact of monetary policy to loan quantity. The study established that the bank lending channel was more dormant than interest rate channel. Buigut (2010) explains that financial and monetary markets in Kenya are in the infancy stage making interest rate channel an ineffective way of monetary policy transmission.

Misati et al (2011) used a model called error correction to measure the size and strength of investment of bank rate to monetary changes. The study concluded that the speed of adjustment to monetary policy was weak as lending rates were rigid both in the short and long term. Steve Anyona et.al (2013) Nature and Dynamics of Adjustment of commercial banks retail rates to monetary policy changes in Kenya reached a conclusion that transmission of monetary policy via commercial banks is sluggish and incomplete. Gatune and Gikera (2015) in their study on factors influencing interest spread among commercial banks in Kenya opined that market structure influenced to a great extent the interest rates among commercial banks in Kenya. The market structure is influenced by factors such as inflation rate, liquidity ratios and 91 days T bill operating inefficiency, public sector share of credit and statutory reserve requirements have also been found to influence interest rates among commercial banks in Kenya. Gatune and Gikera (2015) also concluded in their study that regulation such as credit banks guidelines, international prudential guidelines and Kenya banking association polices influence interest rates. Jackline kimani (2013) carried out a study on an assessment of the effects of monetary policies on lending behavior of commercial banks in Kenya and found out that monetary policies such as central bank rates, cash reserve requirements, open market operations(T-bills and Bonds) and uncertainty caused by expected changes in monetary policies influence banks' lending rates behavior.

RESEARCH METHODOLOGY

Research Design

The study employed descriptive research design. According to Mugenda and Mugenda (2003), descriptive research design entails collection of data in order to answer questions concerning status of the subject in the study. Descriptive research design was therefore preferred as it is concerned with establishing what, where and how of a phenomenon. It also aids in the tabulation of frequencies and interaction of variables among the study variables. Cooper and Schindler (2003) assert that a descriptive study describes or defines a subject, usually by creating a profile of a group of problems, people or events, which involves the collection of data and tabulation of the frequencies on research variables or their interactive. Kombo and Trump (2006) state that the choice of descriptive survey research design is made in a study where the research is interested on the state of affairs already existing in the field without manipulation of variables thus descriptive research design was vouched to be best suited for the study.

Target Population

Ngechu (2004) a population is a well-defined as set of people, services and events, group of things or households that are being investigated. The population of interest to aid in collection of primary data was staff working in the credit and risk and compliance departments of listed commercial banks in Kenya. The target population was believed to have relevant information to assist in the Study as this are the departments which are involved on matters of lending.

Sample Size and Sampling Technique

The study used purposive sampling method to select a sample of 33 respondents from the listed commercial banks in Kenya. Three staff from each of listed commercial bank in Kenya drawn from credit and risk and compliance departments were sampled. Purposive sampling was preferred as it allowed selection of staffs that had the relevant information.

Data Collection Instruments

Primary and secondary sources of data were used. Primary data was collected using questionnaires while secondary data was collected from published materials like financial journals, magazines, newspapers, published books and company handbooks. Primary data was collected using questionnaires and distributed to commercial bank staff that work in the credit departments physically and via email. This was after obtaining a research permit from National Commission of science and technology. Questions regarding each research question were included in the questionnaire. A questionnaire was preferred as the target population was literate and was easy to distribute and analyze data collected. Secondary data was from relevant journals, company handbook, CBK reports and business newspapers.

Data Analysis and Presentation

Zikmund et al (2010) defines data analysis as the application of reasoning to understand how the data will be collected with the aim of determining consistent patterns and summarizing the important details revealed in the investigation. Data collected was coded and edited for accuracy and completeness. These involved checking the response in the questionnaires and that answers given were consistent. Data was analyzed using statistical package for social scientists (SPSS); Data presentation was in form of frequency tables, bar and pie charts for analysis and assist in comparison. The likert scale was used to measure the extent to which respondents agreed to some prepositions. Pearson's correlation analysis was carried out to establish the relationship between variables. Regression analysis was done to establish the relationship between the independent variable lending rate and the dependent variables bank specific factors i.e. Bank size, capital adequacy, liquidity risk, Non-performing loans, operational cost. The regression model equation was as follows:

$$Y \text{ (lending rate)} = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5$$

Where: Y = bank lending rate; B_0 = constant term; X_3 = Liquidity risk; B_1 = Beta coefficient; X_4 = Non-performing Loans; X_5 = Operational Cost; X_1 = Bank size; e = error term; X_2 = capital adequacy

RESEARCH RESULTS

The purpose of the study was to examine determinants of average lending rates among selected commercial banks in Kenya. The data was collected from participants drawn from all the operational commercial banks in Kenya. The analysis of the data provided an understanding of the determinants of average lending rates. Descriptive statistics was used for analysis. To determine different relationships among variables such as between the dependent and independent variables, regression and correlation analysis were conducted at 95% confidence level. According to the study various factors have been found to determine the average lending rate of commercial banks in Kenya for the period under study.

Bank specific factors such as non-performing loans, bank size, liquidity risk, capital adequacy and operational cost were found to have various levels of influence in determining average interest rates. Nonperforming loans increase the credit risk the banks are exposed to and thus according to the study, non-performing loans raised the average lending rates for commercial banks in Kenya as banks became reluctant to lower interest rates due to the high risk of borrowers. Non-performing loans were found to determine average lending rates of commercial banks in Kenya to a great extent.

It was established that liquidity risk also determines lending rates of commercial banks in Kenya. Thus availability of liquid funds is key in determining the average lending rates for commercial banks. Operational cost was another bank specific factor that the study concluded it determines the average lending rates of commercial banks in Kenya. Respondents pointed out costs such as staff costs and loan loss provision as some of the operational costs that significantly influence average lending rate. The study also indicated that capital adequacy

which is the strength of a bank in terms of capital does influence average lending rates though not to a large extent. It was observed that banks with more capital strength were in a position to lend at lower rates in comparison to ones with lower capital strength.

Bank size was also established to be a great determinant of average lending rate of commercial banks as larger banks lacked the ability to offer lower lending rates as the interest spread maintained was lower compared to that of the smaller banks. This shows that larger banks have the ability to attract less expensive deposits and also free interest deposits thus favorable lending rates while small banks are forced to offer higher interest rates to attract fixed deposits thus resulting to high lending rates on advances. The study also established that central bank rate determines the average lending rates of commercial banks significantly. It is the central bank rate that commercial banks use to base their lending rates and hence when the CBR is set high the average lending rate increases and vice versa. Kenya banks reference rate was another banks industry factor that was established to determine lending rate before the interest capping regime comes into force. This is because the KBBR was used as a baseline to compare the lending rates of all commercial banks hence competition between banks. A bank with low interest rates seemed favorable to consumers. According to the Study, it illustrated that credit information sharing determines average lending rate of commercial banks at significantly. The research found out that credit information sharing helps in ascertaining borrower's payment characteristics which is critical for commercial banks when issuing advances. Borrowers with high risk profile were charged high interest rate while those with favorable credit scores charged lower lending rate.

It was also established that government domestic borrowing leads to crowding out effect which reduces the amount of funds available for private individuals and companies to borrow. This is because commercial banks prefer to lend to government through treasury bills and bonds, which commercial banks actively participate in as they are in risk free investment segment. The increased government domestic borrowing results to high average lending rate. Inflation was established to moderately determine the lending rate of commercial banks in Kenya.

REGRESSION ANALYSIS

Regression analysis was conducted by the researcher to test the nature of magnitude of the relationship between the independent variable, average lending rates and dependent variables. The researcher employed statistical package for social sciences (SPSS) to compute the measurements of the multiple regression. It shows the regression model summary results. The results show the values of R , R_2 , adjusted R_2 and the standard error of estimate. Coefficient of determination (R_2) explains the extent to which changes in the dependent variable average lending rate can be explained by the change in the independent variable. According to the above model, it indicates that 54.1% change in the dependent variable (average lending rate) can be explained by the model.

Table 1: ANOVA (Analysis of Variance)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.586	5	7.517	.698	.636 ^b
	Residual	118.531	11	10.776		
	Total	156.118	16			

a. Dependent Variable: Bank

b. Predictors: (Constant), Operational cost, Nonperforming loans, Bank size, Liquidity risk, Capital adequacy

From the above the results of the f statistic reflects the fore going relationship of statistically significant (F=0.698, P less than 0.05). this implies that the independent variable(capital adequacy, bank size, liquidity risk, non-performing loans, operational cost, central bank rate, Kenya banks reference rate, government domestic borrowing and credit information sharing are important determinants of average lending rates of commercial banks in Kenya hence the model overall is a good fit.

Table 2: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.469	3.756		2.521	.028
	Bank size	-.688	1.161	-.223	-.592	.566
	Capital adequacy	-.601	1.429	-.236	-.420	.682
	Liquidity risk	-.111	1.842	-.030	-.060	.953
	Nonperforming loans	.487	1.722	.103	.283	.782
	Operational cost	-.483	.979	-.154	-.494	.631

a. Dependent Variable: Bank

Multiple regression analysis was conducted to establish the relationship between average lending rate and the independent variable bank specific factors. The multiple regression equation is stated below

$$Y = 9.469 - 0.688B_1x_1 - 0.601B_2x_2 - 0.111B_3x_3 + 0.487B_4x_4 - 0.483B_5x_5$$

According to the regression model, Y the average lending rate will be at 9.469 when all other variables are held constant. All other variable held constant, a unit increase in bank size would result to 0.688 decrease in average lending rate. A unit increase in capital adequacy would result to a 0.601 decrease in average lending rate; a unit increase in liquidity risk would result to a 0.111 decrease in average lending rate. Non-performing loans had a positive relationship with average lending with a unit increase in non-performing loans resulting to a 0.487 increase in average lending rate. A unit increase in operational cost would lead to a 0.483 decrease in average lending rate.

CONCLUSIONS

The study brings to the fore the understanding of the determinants of average lending rates among selected commercial banks in Kenya. Based on results from the data analysis, it can be concluded that banks specific factors such as capital adequacy, liquidity risk, bank size, non-performing loans and operational cost determine average lending rates of commercial banks in Kenya. Capital adequacy ensures availability of funds and strength to lend hence ability to give more loans offer at competitive interest rate and thus the regulators should ensure banks are capital adequate. According to the study, High non-performing loans increased credit risk and thus resulting to commercial banks high average lending rates. Operational cost was described to result to high average lending rates as commercial banks tried to recoup the high operational costs through interest income which forms the basis for their profit. Credit information sharing as one of the recent banking developments this study found out it does determine average lending rates charged by commercial banks in Kenya as credit scores of borrowers on which lending rates to individuals are premised are based on credit information shared among financial institutions. Government domestic borrowing and inflation are some of the macro economic factors that were found to be a determinant of average lending into commercial banks in Kenya.

RECOMMENDATIONS

The output of this study can help the regulators during policy formulation and regulation to policy makers such as the Central Bank of Kenya, The National Treasury in advocating the need of consolidating commercial banks in Kenya should be initiated and executed so as to merge small banks with big banks. Bank consolidation would ensure that their liquidity is enhanced; capital adequacy is also improved thus leading to favorable average lending rates for commercial banks in Kenya. Also the study recommends that the government reduces internal borrowing to shield the private sector from the crowding out effect that results to high lending rate being charged on their advances thus hampering economic growth and development as the private sector is starved of funds. External borrowing would be highly recommended to plug any budget deficit. Further, the study recommends commercial banks to incorporate fully the credit information they gather on their lending policies so as to ensure consumers with good credit ratings get competitive lending rate and don't suffer the effect of branded risky borrowers thus lacking credit or being charged high lending rates.

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