EFFECTS OF OPERATIONAL COSTS ON LENDING INTEREST RATES OF COMMERCIAL BANKS IN KENYA

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Keywords	ABSTRACT
Operational cost, lending interest rates.	The high interest rates charged by many commercial banks have attracted the attention of policy makers throughout the world. The commercial banks lending interest rates is a key indicator of the marginal cost of short-term and long-term external funding in an economy and provides useful information about developments in the average cost of borrowing. Various theories have been put across to address this issue. This paper examines the relationship between operational cost and lending interest rates of commercial banks (CBs) in Kenya. The study employed a descriptive research design. A study on a sample size of 34 commercial banks was undertaken. Secondary data was collected for the year 2013 from financial statements of the commercial banks and the NSE handbook. Primary data was collected by use of semi-structured questionnaires. The findings of the study indicated that the operational costs had a significant positive influence on the lending interest rates of CBs in Kenya.
JEL Classification C1,G3,M1	

1. INTRODUCTION

Due to competition in the banking industry in the global market, financial institutions are necessitated to offer attractive lending rates to their customers in order to survive (Salloum & Hayek, 2012). Interest rates offered by Commercial Banks (CBs) globally and locally attract customers to purchase products and services of financial institutions.
Lending rate is the interest charged by banks when they advance loans to its customers.
This interest is usually set in a way that the cost incurred by the banks will be covered and a profit made by the banks when customers service their facilities. In economics, this interest is the payment for the services of the capital provided, Williamson (1996). In other words, interest is the price of hiring capital. Lending is considered one of the major functions of CBs. Banks play an important role in the mobilization and allocation of resources in an economy by accepting deposits and converting them into loans and investment. This role of financial intermediation of CBs supports businesses to grow and also increase their profitability through the loans advanced to customers. Operational costs and lending interest rates have been studied worldwide with different results. A study by Gambacorta

(2004) on factors explaining cross-sectional differences in bank interest rates of Italian banks found out that interest rates on short term lending of liquid and well capitalised banks react less to monetary policy shocks. With respect to operating cost and credit risk, an increase in the cost of financial intermediation leads to higher lending rates as banks attempt to recoup the costs. These include costs incurred in assessing the risk profile of borrowers, monitoring of the various projects for which loans have been advanced and reaching out to as many people and geographical areas as possible through expansion of branch network. A study by Margarida (2000) found out that the net interest margin reacts positively to operating cost and hence changing market condition would have an impact on the market interest rate which would have a direct impact on profit.

Assets in Sub-Saharan Africa revealed that bad assets are caused by adverse economic shocks coupled with high cost of capital and low interest margins (Fofack, 2005). A study by Goldstein & Turner (1996) found out that "the accumulation of non-performing assets is generally attributable to a number of factors, including economic downturns and macroeconomic volatility, terms of trade deterioration, high interest rate, cost of assets, insider lending and moral hazard''. A study by Mucugu (2012) on determinants of interest rates in the Microfinance Institutions in Kenya established that administrative cost, profitability, cost of funds and loan loss determined the interest rates charged by the microfinance institutions in Kenya.

The rest of the paper is organized as follows: In the next section we discuss the detailed literature on the relationship between operational cost and lending interest rates. In section three, we outline the methodology adopted for the study. Finally, we draw our conclusions from the study in section four.

2. LITERATURE REVIEW

2.1.Theoretical Framework

2.1.1.Transaction Cost Theory

Transaction cost theory has proven an essential framework for decisions on the vertical boundaries of a firm. Transaction costs are the costs associated to the division of work. Williamson (2000), indicated that transaction occurs when a good or service is transferred across a technologically separable interfaces. One stage of activity terminates and another one begins. Variables that describe a transaction are, among others, the specificity, the uncertainty, and the frequency of the transaction, whether an asset or a service is only or much more valuable in the context of a specific transaction. In the following, human capital specificity (the workout managers), the asset specificity (on loan and real estate level) and the site specificity (the location of the collateral) are taken into account, Reddy (2002). Goods and services are of a high specificity, if the supply is limited and unique and if there is no comparability. A threat to breach the contract can be seen as untrustworthy, since there is no alternative. A lock-in of one transaction party leads to a hold up. Low specificity exists, if there is a range of homogeneous services or goods and supply is secured. Since goods or services are comparable and competition exists, there is no pricing problem. Furthermore, high competition may imply motivation and quality (Yousaiken 2001).

2.1.2.Liquidity Preference Theory

The general idea of the liquidity preference theory was developed by J.M Keynes`s within a simplified model in which there is only two types of financial assets money, the liquid and the bonds with no maturity, the illiquid assets .According to him, an increased preference for liquidity in the model is equivalent to increased demand for money and therefore demand for money increases wherever more people think interest rates are likely to rise than believes they are likely to fall (Howel & Bain,2008). According to this theory, investors will always prefer short term securities to long term securities. To encourage them hold long term bonds, long term securities should yield higher interests than short term bonds. Therefore, the yield curve will always be upward sloping. A hypothesis about the term structure of interest rates (the relationship between interest rates and term to maturity) holding that investors demand a premium for bearing interest rate risk. The extent of the premium increases with term to maturity but at a decreasing rate. The two reasons behind the decreasing rate of increase are that duration, a measure of a bond's price sensitivity to interest rate changes, increases at a decreasing rate with term to maturity and that long term interest rates are typically less volatile than short term interest rates. (Tennant, 2006).

Lending institutions determine the interest rate in the credit market by marking up the central bank's base rate, and then supply credit at this rate to those borrowers whom they consider to be creditworthy. CBs are therefore price makers and quantity takers, within the limits given by creditworthiness. Again, the willingness of firms and households to pay the rate of interest set by banks in the credit market is a necessary, but not a sufficient condition to obtain credit, and there will always be some sort of 'credit rationing' for those who are unable to provide required collateral (Wolfson 1996). The commercial banks' mark-up on the base rate is determined by their risk and liquidity considerations, and also by the degree of competition in the commercial banking sector. In this approach, liquidity preference determines the structure of interest rates, and not the level of interest rates. The commercial banks' liquidity preference is a determinant of the mark-up and hence the spread between the base rate and the market rate of interest. If liquidity preference and risk considerations of private banks and, hence, their markups remain constant, the central bank's interest rate setting in the base money market also determines the market rate of interest in the credit market (Smithin 2003). Under these conditions, changes in the base rate and in the credit market rate of interest are due to changes in the monetary policy stance. Changes in the central bank's base rate will therefore also shift the credit supply curve and affect credit demand and hence real economic activity financed by credit.

2.1.3.Firm Characteristics Theories

These theories predict that the number of borrowing relationships will be decreasing for small, high-quality, informationally opaque and constraint firms, all other things been equal. (Godlewski & Ziane, 2008)

2.2.Empirical Evidence

Lending interest rates play the vital role as it has ability to affect total demand of money and subsequently, the investmentopportunities.Goldstein&Turner(1996)statedthat"the

accumulation of non-performing assets is generally attributable to a number of factors, including economic downturns and macroeconomic volatility, terms of trade deterioration, high interest rate, cost of assets, insider lending and moral hazard''. Margarida (2000) found out that the net interest margin reacts positively to operating cost and hence changing market condition would have an impact on the market interest rate which would have a direct impact on profit. Gambacorta (2004) argues that operating cost and credit risk, an increase in the cost of financial intermediation leads to higher lending rates as banks attempt to recoup the costs. Lending interest rate by CBs determine the profitability of CBs among other factors (Gardner, M., Mills, D. &Cooper Man, E. (2005). Assets in Sub-Saharan Africa revealed that bad assets are caused by adverse economic shocks coupled with high cost of capital and low interest margins (Fofack, 2005). Aboagye,Q., Akoena, T., Antwi, A & Gockel A.F. (2008) found that increases staff costs among other factors significantly increase net interest margins. According to Mucugu (2012) administrative cost, profitability cost of funds and loan loss determined the interest rates charged by the microfinance institutions in Kenya.

3. DATA AND METHODOLOGY

The study employed descriptive survey. The study was based on commercial banks in Kenya. A sample of 34 commercial banks in Kenya was used in the study. Secondary data was obtained from NSE handbooks and published audited 2013 financial statements of the selected CBs. ANOVA, Pearson Correlation analysis and a linear regression model were used since they all tend to show relationship between variables.

4. RESULTS

4.1.Cost Factors that Influence the Lending Interest Rates of CBs in Kenya

The Appendix I show the respondent's response on the extent to which they agreed with the given cost factors that influence lending rates of CBs in Kenya. From the findings, majority of the respondents strongly agreed that taxation for the CBs withholding taxes, stamp duties, and transaction taxes, profit taxes and license fees are determinants of lending rates of CBs in Kenya as indicated by a mean of 4.6552. Majority of the respondents strongly agreed that transaction costs determine the lending rates of CBs as indicated by a mean of 4.6207. The study found that respondents agreed that the staff cost, capital cost and Central Bank of Kenya supervisory fee determines the lending interest rates of commercial bank in Kenya as indicated by means of 4.2759, 4.2414 and 3.821 respectively. This was in line with Borio & Fritz (1995) who stated that the pricing of loan amount theoretically depends on the cost of funds, transaction cost, investment income, and mark-up.

4.2.Effect of Lending Interest Rates Variations

The study sought to know the extent to which changes in lending rates affects financial performance of CBs. From the findings, majority of the respondents indicated that lending rates variations affects the profitability, induced competition from other financial institutions to a very great extent, affects feasible investment opportunities and general growth of the bank as indicted by a mean of 4.79,4.69,4.69, and 4.66 respectively. The

study also found that changes in the lending interest rates affect loan supply to borrowers as indicated by a mean of 4.38. This implies that the impositions of interest rate used by several CBs leave operational costs higher and make them raise the lending rates. This is shown in Appendix 2.

4.3.Pearsons Correlations

Correlation analysis was used to establish the strength of association between variables as shown on Appendix 3. A correlation analysis was conducted to establish the effect of operational cost on lending interest rates in CBs in Kenya.

Oso and Onen (2009) asserted that correlation is used when a researcher wants to describe the association between two or more variables in terms of magnitude and direction while regression analysis is used when a study is about prediction of variables from other predictor variables.

From the findings, It can be observed that there exist a strong positive relationship between lending interest rates and operational cost having scored a correlation coefficient factor of r= 0.784,P=0.000<0.05 and a 95% precision level. The correlation was statistically significant since it had a P-Value of 0.000 which is less than 0.05.   This shows that operational costs have strong positive impact on the lending interest rates of the banks.

4.4.Regression Analysis

The study sought to establish if operational costs determine lending interest rates of CBs in Kenya. A linear regression model of operational costs versus lending interest rates was applied. The relationship equation was represented in the linear equation below.

$Y= \alpha + \beta X + \c{e}$

Where: Y= Lending interest Rates, α = Constant Term, β= Beta coefficients, X= Operational cost, $\c{e}$ = Error Term

4.5.Model Summary

Appendix 4 shows the model summary. The model column of multiple models was reduced to a single regression by SPSS command and with a model indicating 1 implied that the there was one linear model used to determine the lending interest rates versus operational costs. R is the square root of R-Squared. R is the correlation between the observed and predicted values of dependent variable. This implies that there was association of 0.804 between CBs lending interest rates and operational costs which is characterized as very strong using the rule of thumb. R-Squared is the proportion of the variance in the dependent variable of lending interest rates that was explained by variations in the operational cost.

This implied that there was a variance of 64.7% between variables. Adjusted R^2 is called the coefficient of determination which indicates how CBs lending interest rates vary with variation in operational cost (an estimate of R^2 in the population). The study established that there existed a significance positive variation between CBs lending interest rates and operational costs as r= 0.604, P=0.000 < 0.05.

4.6.Anova

Appendix 5 shows the regression, residual and total variance. Regression is the sum of the squared deviation of the predicted variable about its mean. Residue is the sum of squared deviation of the known values of Y and the predicted values of Y based on the equation. The study established that there existed a significant goodness of fit between variables as $F=15.264$, $P=0.000 < 0.05$.

The strength of variation of the predictor value of operational costs had significant influences on the CBs lending interest rates at 95% confidence level.

4.7.Coefficients

The linear regression model can be derived from Appendix 6 as

$Y = 23.747 + 1.993X$

This shows the Coefficients the study obtained. From the above regression model, it was found that CBs lending interest rates would be at 23.747 holding operational costs constant at zero (0). The study established that there existed a significant positive relationship between operational cost and CBs lending interest rates as $r= 1.993$, $t=6.330$, $P=0.000 < 0.05$.

It was evident that CBs lending rates increased with increase in operational cost. The findings were in line with Gambacorta (2004) who argued that an increase in the cost of financial intermediation leads to higher lending rates as banks attempt to recoup the costs.

5. CONCLUSIONS

The study established that increase in operational costs (taxation for the CBs withholding taxes, stamp duties, and transaction taxes, profit taxes and license fees, transaction costs, level of projected profits, capital cost and Central Bank of Kenya supervisory fee) leads to increased lending interest rates of CBs in Kenya. The study established that there existed a strong positive relationship between lending interest rates and operational cost having scored a correlation coefficient factor of $r= 0.784$, $P=0.000 < 0.05$ and a 95% precision level. The correlation was statistically significant since it had a P-Value of 0.000 which is less than 0.05. This was in line with Borio and Fritz (1995) who stated that the pricing of loan amount theoretically depends on the cost of funds, transaction cost, investment income, and mark-up.

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Appendix 1. Cost factors that influence the lending interest rates

Statement	Mean	Std. Deviation
central bank supervision fees	3.8621	.95335
Taxation by the government	4.6552	.66953
Transactional costs	4.6207	.49380
Staff cost	4.2759	.64899
Capital cost	4.2414	.63556

Appendix 2. Effect of lending interest rates variations

Impact Assessment	Mean	Std. Deviation
Lending rates variations affects the profitability of CBs	4.7931	.41225
Changes in lending rates induces competition from other financial institutions	4.6897	.47082
Variations in lending rates affects feasible investment opportunities	4.6897	.47082
Changes lending interest rates has greatly affect loan supply to borrowers	4.3793	.49380
Lending interest rates have influences the general growth of the bank	4.6552	.48373

Appendix 3. Pearsons Correlations

		Bank's lending interest rate	Operational cost
Bank's lending interest rate	Pearson Correlation	1	
	Sig. (2-tailed)		
operational cost	Pearson Correlation	.784	1
	Sig. (2-tailed)	.000	

Appendix 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.804	.647	.604	2.87119

Appendix 5. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	377.491	3	125.830	15.264	.000
	Residual	206.093	25	8.244		
	Total	583.584	28			

Appendix 6. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.747	7.208		3.294	.003
	operational cost	1.993	.315	.820	6.330	.000