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Effect of Risk Factors on Disparities in Interest Rates' Spread for Unsecured Loans among Commercial Banks in Kenya: A Case of Banks in Nakuru Town

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Abstract: ***Interest rate spreads (IRS) are a common measure of financial market. It is worth noting that there is a conspicuous disparity in IRS amongst the various commercial banks in Kenya and specifically on unsecured loans. Though there have been extensive research studies on IRS, the effect of risk factors on disparities in IRS, nevertheless, has not sufficiently been researched. The objective of the study was to establish the effect of risk factors on IRS disparity for unsecured loans. The population of the study comprised of the 46 commercial banks in Kenya. The target population constituted accounting, credit and management staff of commercial banks within Nakuru town. The study adopted descriptive research design. Structured questionnaires were used to collect primary data while the secondary data was collected through the analysis of the Central Bank of Kenya's Reports and targeted commercial banks' published financial statements. The SPSS was used to process and analyze the data collected. The data was analyzed quantitatively with a view of obtaining both descriptive and inferential statistical results. The findings were presented in form of frequency distribution tables, and descriptive and inferential statistics tables. According to the findings it was found that risk factors affect disparities in IRS. Risk factors were concluded to occasion a very significant effect on the spread. It was specifically inferred that there exist conspicuous disparities in interest rate spread across commercial banks; and that most banks have defined their credit risk limit. It was recommended that commercial banks should adhere with all the set CBK regulations. It was also recommended that banks need to devise other strategies that can enhance their profitability besides altering the spread, and banks ought to formulate strategies for minimizing the various types of risks that impact on interest rate spread. It was suggested that it would be important for scholars to embark on studies touching on the strategies that commercial banks can employ to minimize interest rate spread without negatively compromising their profitability.***

Keywords: Interest Rate Spread, Unsecured Loans, Liquidity, Risk Factors, CBK

1. Introduction

Interest rate spreads (IRS) are a common measure of financial market stress [15]. There are two types of IRS: pure spread and actual spread. It is asserted that the estimated pure spread is mainly determined by the risk aversion and the market structure of the banking sector [11]. The researcher further argued that risk aversion proxied by the banking sector aggregate capital adequacy ratio implies that spreads are not an important source for potential losses. On the other hand, actual spread incorporates the pure spread and is influenced by macroeconomic variables which include monetary and fiscal policy activities. It is further argued that risk-averse banks operate with a smaller spread than risk-neutral banks [13], [14] and [17]. It is also noted that risk aversion raises the bank's optimal interest rate and reduces the amount of credit supplied. According to a report by the Bank of the spread between bank rate and unsecured lending rates had widened sharply since the start of the credit crunch as financial institutions sought to reduce risk and boost their own profitability. It is observed that the size of the IRS is much higher in a non-competitive market, thus regulatory and legal framework should be strengthened in order to enhance the stability of the market [10]. A weak legal framework, where the courts are not oriented towards timely enforcement of contracts and property rights is ill-defined. Financial reforms emphasize the abolition of interest rates and credit ceilings and also promote a competitive environment with reduced government control and ownership [13]. Such increase credit riskiness and banks have no motivation to charge lower rates [3]. Hitherto, commercial banks justify the interest rate spread on the basis of economic variables affecting them. It is not only speculated but also perceived that the spread is so huge in Kenya. Interestingly, there is a conspicuous disparity in interest rate spread amongst the various commercial banks in Kenya. Risk factors are presumed to be probably some of the key factors that influence interest rate spread. It is widely agreeable that several studies bordering on the factors that influence IRS have so far been conducted. However, it is clear that scarcely have there been any research study dedicated to investigate the influence of risk factors on disparities in IRS amongst commercial banks especially in Kenya.

2. Statement of the Problem

It is argued that Interest Rate Spreads are common measures of financial market stress [15]. IRS has dogged economies of many countries [1] especially the developing ones for quite some time. There is considerable disparity in interest rate spreads (IRS) among commercial banks in developing countries including Kenya. The IRS is perceived to be occasioned by the extent of bank risk aversion among other economic variables. Disparity in IRS may influence the customer attachment to particular banks in that depending on their specific needs (loans or savings) they may be attracted to banks with favourable interest rates (narrow IRS). On the other hand, customers are likely to exit banks with huge IRS. Lack of understanding of what might be the factors

influencing disparities in IRS, therefore, is very likely to be detrimental to the commercial banks especially those with large IRS.

Unearthing the genesis of these disparities will provide an ample platform of formulating measures of reducing these IRS. The findings thereof will enable commercial banks to operate on a more competitive base whilst going a long way in locking in their customers. Similarly, the mitigation of this problem emanating from disparities in IRS will benefit commercial banks' customers since they are bound to leap more from probable lower interest rates charged on loans and higher interest rates accruing from their deposits. The study delved into how risk factors relative to commercial banks influence the disparities in IRS amongst the aforementioned banks. The researcher, subject to his findings, has then recommended appropriate and viable measures to deal with these factors with a view of benefitting both the commercial banks and their customers.

3. Objective

To establish the effect of risk factors on IRS disparity among commercial banks in Kenya

4. Research Question

What is the effect of risk factors on IRS disparity among commercial banks in Kenya?

5. Conceptual Framework

In order to achieve the study objective (to establish the effect of risk factors on disparities in interest rate spreads among commercial banks in Kenya), the researcher has conceptualized all the relevant variables with a keen interest in both the independent and dependent variables. This is illustrated in Figure 1.

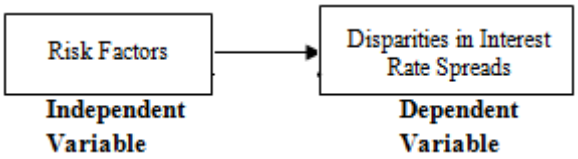

Figure 1: Conceptual Framework

According to the framework, risk factors are the independent variable while the dependent variable is represented by disparities in interest rate spread. This implies that risk factors are hypothesized to influence the disparity in interest rate spreads.

6. Literature Review

The chapter reviews both theoretical and empirical literature relevant to the objective of the proposed research study. This implies that the literature reviewed is on hitherto studies regarding interest rates, interest rate spreads and disparities in both interest rates and interest rate spreads and specifically risk factors vis-a-vis interest rate spread amongst commercial banks globally, regionally and locally (in Kenya).

6.1 Theoretical Literature

There is quite extensive literature touching on interest rate and interest rate spreads (IRS). From the arguments of the determinants of IRS, the theoretical literature touching on the disparities in IRS is reviewed hereafter in this section. It is argued that the instability of the macroeconomic environment is related to the interest rate spreads. An unstable macroeconomic environment has a positive impact on the IRS in a number of ways. For instance, poor economic performance is likely to reduce the ability of the bank debtors to honour their debt obligations. It is worth noting that a poor economy exposes commercial banks to credit risk since low economic growth enhances worsening of credit quality and increases the probability of loan defaults [9]. It is observe that enhanced economic activities impact positively on interest rate spreads due to the fact that economic growth is likely to increase the demand for loans and as such push the lending rates up [5]. While considering bank's risk management, risk-averse banks operate with a smaller spread than risk-neutral banks [13]. It is further noted that risk aversion raises the bank's optimal interest rate and reduces the amount of credit supplied.

It is posited that the size of the IRS is much higher in a non-competitive market, thus regulatory and legal framework should be strengthened in order to enhance the stability of the market [10]. A weak legal framework, where the courts are not oriented towards timely enforcement of contracts and property rights is ill-defined. Financial reforms emphasize on the abolition of interest rates and credit ceilings and also promote a competitive environment with reduced government control and ownership [13]. This increase credit riskiness and banks have no motivation to charge lower rates [5]. The liberalization theory ignores endogenous constraints to efficient allocation of resources by the banking sector, where, in the absence of a well-functioning equities market, efficient allocation of capital is not realized even with financial liberalization. IRS fluctuates thus reflecting the substitution between debt and equity financing [6]. As the equity market expands, offering competitive returns, banks increase their deposit rates to compete for funds from the public. The expanded market, moreover, reduces the lending rates hence reducing the interest rate margin. Even in an oligopolistic banking system, there is need for competition from the direct financial market [8] and [13].

6.2 Empirical Literature Review

There are quite extensive empirical studies that have been conducted on interest rate spreads. The empirical literature reviewed in this section touch on interest rates, interest rate spreads and disparities in those spreads. This is in tandem with risk factors presumed to affect the spread. In essence, the empirical studies attempt to put into perspective the variables of the study with the object of responding to the research question.

6.2.1 Risk Factors

There are a number of risk factors that commercial banks are exposed to due to uncertainty, information asymmetry and the policy environment. They include but not limited to credit risk, foreign exchange risk, interest risk and legal risk. In mitigation, the banks are likely to increase their IRS. As

such, the degree of risk which plays in the macroeconomic environment will hugely determine the IRS. Other factors that influence interest rate spreads are said to be uncertainty in interest rate and also volatility of exchange rate [4]. They noted that the aforesaid uncertainty and exchange rate volatility have positive effect on IRS. When the interest rate spread has been affected positively, it implies that the spread increases. As such the interest charged on loans is likely to rise and will, therefore, dissuade customers of the commercial banks from borrowing.

Uncertainty in interest rate has an enormous effect on unsecured loans which subsequently attract very high interest rates. Needless to say, therefore, walk-in customers will very likely not attempt to borrow from the banks until that point in time the rates will stabilize. There are other macroeconomic factors that affect IRS positively. Such include the degree of government borrowing from the commercial banks [7]. Others are interest rate uncertainty [2]; deposit insurance; and high real interest rates [6].

Interest rate spread in Less Developed Countries (LDCs) can also be possibly influenced by several non-bank determinants such as inflation, economic growth, exchange rate volatility, degree of banking development, regulation by the Central Bank particularly the statutory reserve requirement, discount rate of the Central Bank and crowding out of the private sector by the public sector in commercial banking lending operations. The researchers point out that the aforementioned factors are included in the model estimated for the banking industry in Tanzania. Their study was industry specific in that it was based on quarterly time-series and used Co-integration and Error Correction Model (ECM). Their study spanned between1991 to 2009 and used a relatively large sample with several data points in the period of financial sector reforms (1999 – 2009)

The macroeconomic environment affects the performance of the banking sector by influencing the ability of the borrowers to repay the loans [13]. The demand for loans with the unpredictable returns from investment and the quality of collateral determine the amount of premium charged and therefore the cost of borrowed funds to the investors. With an unstable macroeconomic environment and poor economic growth, investors face uncertainty about investment return and these raise the lending rates as the level of non-performing loans goes up, squeezing the bank margin. Therefore, the macroeconomic environment not only affects the borrowers especially of unsecured loans but also the interest rate spread. It is pointed out that [13]. For example, poor output prices reduce firm profitability while reduced asset prices reduce the value of assets for collateral and therefore the credit-worthiness of the borrowers. As a result, return on investment declines, increasing the level of non-performing loans, and banks charge high-risk premiums to cover their default risk. This in turn leads to high interest rates being charged on the loans especially those without any collateral (unsecured).

Information asymmetry exposes commercial banks to credit risk. Moreover, it is observed, this information asymmetry puts commercial banks in darkness in matters understanding the loans that can perform and those which cannot. Even at the backdrop of appraisals of the prospective borrowers in order to evaluate their credit worthiness, credit losses are not fully eliminated. Essentially, to hedge this risk, commercial banks charge a premium whose size depends on the bank credit policy, interest on alternative assets, amount borrowed, and type of client and size of collateral. Consequently, the effective rates paid by the borrowers increase while simultaneously, the demand for loans reduce.

It is explained that the exposure to the risk is occasioned mainly by the commercial banks raising funds through short-term deposits with a view of financing long-term loans or banks purchasing security with longer maturity [13]. It is speculated, therefore, that there is a great likelihood of disparity in interest rate accruing from deposits between commercial banks that source funds via short-term deposits and longer-maturing security, and those banks that source funds normally.

7. Research Methodology

Research methodology captures the process or procedure required to carry out a study with the aim of answering the research question(s) which is essentially in line with the study objective(s). As such, it looks into the research design, study population, sampling frame, sample and sampling technique, data collection instrument, data collection procedure, pilot testing and methods used to process and analyze the collected data.

The function of a research design is to ensure that the evidence obtained will enable the researcher to answer the initial research questions as unambiguously as possible. A good research design ought to elucidate the fact that the researcher besides understanding the actual problem should also know the right course of action towards a valid solution [12]. The researcher adopted a descriptive research design. The researcher surveyed the commercial banks within Nakuru town with an object of investigating how the risk factors influence disparities in IRS on unsecured loans amongst them. Survey is a research technique which provides, to a great degree, accurate data and/or information when the researcher has the objective of fact-finding. It is further asserted that survey research is vital when one wants to gather data at a particular point in time and consequently employ it to describe the prevailing condition [16].

The population of the research study comprised of the senior accounting officers, senior credit officers or branch managers of the commercial banks in Kenya. There are forty-six (46) such banks in Kenya. A total of 46 respondents constituted the population given that each bank was represented by senior accounting officer, senior credit officer or branch manager. The target population constituted 30 respondents (senior accounting officer, senior credit officer or branch manager) drawn from the 30 commercial banks in Nakuru town, Kenya.

The sampling frame is made up of the 30 commercial banks that constituted the sample and also the three categories of the respondents: accounting, credit and management staff. The sampling technique employed was a census. In this case the sample was equal to the target population. The target population comprised of 30 respondents (1 respondent in each of the 30 commercial banks in Nakuru town), therefore,

the sample constituted 30 respondents. The major advantage of employing census technique is that it eliminates the sampling bias (error) since all members of the target population were included in the study. The large sample size was chosen with the intent of enhancing the accuracy of the research findings. The sampled banks were anticipated to be accessible by the researcher and the data collected thereof was deemed to be a representative of all other commercial banks in Kenya.

The researcher used structured questionnaires to collect primary data. Secondary data was obtained from published sources that included Central Bank of Kenya reports, and published financial statements of the targeted commercial banks. CBK's Statistical Bulletin for June, 2013 was one of the published documents that the study extracted secondary data from. The questionnaires were issued by the researcher himself to any of the three categories of respondents (accounting, credit and management staff). The researcher later picked the filled questionnaires from the respondents after the mutually agreed duration.

The pilot test was executed on four commercial banks within Nakuru town which essentially were excluded from the main research. The rationale of pilot testing was to detect any probable weaknesses in the research instruments, that is, it ensured that the structured questionnaires were not only reliable but also valid to effectively cover the objectives of the study. The researcher adopted the Cronbach alpha to test the reliability of the instrument. The researcher also presented his research instruments to his supervisors for expert advice on whether or not their content was valid.

7.1 Data Processing and Analysis

Data was processed and analyzed both manually and electronically; the latter by use of Statistical Package for Social Sciences. Data analysis was carried out both descriptively and inferentially. The findings were presented in form of tables that captured both descriptive and inferential statistics. In addition, the following regression model was employed in the analysis:

$Y = a + \beta_1 X_1 + + e$

Where: Y = Interest rate spread; a = Constant;
β_1 = Regression coefficient;
X_1 = Risk factors ; e = Error rate

7.2 Research Findings

30 questionnaires were issued and 23 were filled and returned. This was in line with the fact that out of the 30 sampled commercial banks, 3 do not offer unsecured loans and were as such unsuitable for the study. Therefore, the response rate (85.19%) was calculated against the 27 commarcial banks that were targeted to participate in the study.

7.2.1 Risk Factors

On a three-point scale representing 'low', 'moderate', and 'high', as indicated by Table 1, the researcher noted that on average, the credit risk profile for unsecure loans and the level of exposures were both moderate given that the responses returned mean inclined towards 2.00 (moderate).

Table 1: Credit Risk Profile and Exposure

	n	*Min*	*Max*	*Mean*	*Std. Deviation*
Credit Risk Profile for Unsecured Loans	23	1	3	2.32	0.839
Level of Exposures	23	1	3	1.95	0.899

It was further noted that according to 81.8% respondents, commercial banks have defined their credit risk limit (Table 2). However, more than half (59.1%) of the respondents believed that their banks do not have high levels of credit exposures to a particular group of customers.

Table 2: Credit Risk Limit and Credit Exposures

	Yes (%)	*No (%)*	*Total (%)*
Bank has Defined Firm's Credit Risk Limit	81.8	18.2	100
Bank has High Levels of Credit Exposures to Specific Customers	40.9	59.1	100

Moreover, it was realized that deposits are the most significant liquidity risk as argued by 73.9% of the respondents. Only one respondent believed that loss of market confidence presented the most significant liquidity risk to commercial banks (Table 3).

Table 3: Most Significant Liquidity Risk

	Frequency	*Percent*
Deposit	17	73.9
Loss of Market Confidence	1	4.3
Volatility	2	8.7
Credit Quality	3	13
Total	23	100

7.2.2 Effect of Risk Factors on Interest Spread

The probability of safety derived from Altman Z-score was considered to represent the risk factors. According to the findings shown in Table 4, this factor significantly influences the interest rate spreads in commercial banks. This meant that the more the risk factors or the greater their magnitude, the wider the interest rate spreads of commercial banks and the reverse is true.

Table 4: Effect of Risk Factors (Probability of Safety) on Interest Spread

Model		*Unstandardized Coefficients*		*t*	*Sig.*
		B	*Std. Error*		
1	(Constant)	10.939	.427	25.643	.000
	probability of safety	3.095	1.306	2.370	.018

Regression model: $Y = a + \beta_1 X_1 + e$
Spread = 10.939 + 3.095 Probability of Safety

According to the ANOVA findings as illustrated in Table 4.21, there exists a weak relationship between risk factors (represented by probability of safety) and interest rate spread ($R^2 = 0.15$).

Table 4.21: ANOVA Model Summary

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	.123[a]	.015	.012	2.47919
a. Predictors: (Constant), probability of safety				

8. Summary, Conclusions and Recommendations

The study has summarized the research findings, drawn relevant conclusions and then suggested recommendations. All these aspects are in line with the objective of the study.

8.1 Summary

It was established that on average, the credit risk profile for unsecure loans and the level of exposures were both moderate. Most respondents opined that commercial banks have defined their credit risk limit while slightly over half of the respondents believed that commercial banks do not have high levels of credit exposures to a particular group of customers. Moreover, it was realized that deposits presented the greatest risk. Probability of safety derived from Altman z-score which represented the risk factors was found to hugely affect the interest rate spread amongst commercial banks.

8.2 Conclusions

Most commercial banks are inferred to have defined their credit risk limit while, on the other hand, the credit risk profile for unsecured loans and the level of exposures were both concluded to be moderate. Moreover, Risk factors were concluded to hugely affect the interest rate spread amongst commercial banks. Risk factors were inferred to occasion a very significant effect on spread.

8.3 Recommendations

Given that risk factors had a huge effect on interest rate spread; it is recommended that commercial banks ought to formulate strategies for minimizing the various types of risks that impact on interest rate spread.

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