



**INFLUENCE OF FINANCIAL RISK MANAGEMENT PRACTICES ON THE
PERFORMANCE OF COMMERCIAL BANKS OPERATING IN MIGORI COUNTY,
KENYA**

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Abstract

This study aimed at establishing the influence of the financial risk management practices on performance of commercial banks, the study sought to establish the effect of interest rate risk management, credit risk management, foreign exchange risk management and liquidity risk management on the financial performance of the commercial banks. The study established that financial risk management practices influenced the financial performance of commercial banks in Kenya. From the findings, the researcher recommends that all the banks should embrace the concept of credit risk management practices. This will help these banks to be able to lower the risks associated with credit in the banks. The study also recommends that for efficient and effective credit risk management systems credit policy in the banks should be reviewed regularly for example quarterly.

Keywords: Commercial Banks, Financial Risk, Management Practices

1. Introduction

The 1980s witnessed the growth of a large number of NBFIs which increased from 20 in 1980 to 53 in 1990 (a rise of 165%) and the number of banks grew from 17 to 20 (a growth of 17%). The majority of these new financial institutions were owned by local entrepreneurs (Kariuki, 1993). These local banks fulfilled a very useful function as they catered for mainly small and medium sized enterprises, often from their own communities, that the foreign owned banks and the government owned banks did not serve (Nasibi, 1992).

At independence in 1963, the first three banks to be established in Kenya to dominate the banking sector controlling about 85% of the total branch network (Engberg, 1965). It is also important to note that at independence all banks were foreign owned and there were no bank that could be termed 'local'. Furthermore, all non-bank financial institutions were British owned except Diamond Jubilee Investment Trust, which is the only financial institution whose ownership can be termed 'local' at independence. All financial institutions primarily concerned themselves with trade finance with very little interest in lending.

The origins of commercial banking in Kenya lay in these commercial connections

between British East Africa and British India at the close of the 19th century. The first two British banks to be established were the National Bank of India in 1896 and the Standard Bank of South Africa in 1910. The former became National and Grindlays Bank and the later became Standard Bank. National Bank of South Africa was established in 1916 but was later merged with Colonial Bank and Anglo-Egyptian Bank to form Barclays Bank (Dominion, Colonial and Overseas) in 1926 which was also based in London. Interestingly, the restriction of credit by the three banks led to pressure on the government to relieve the heavily indebted white farmers. The colonial government established The Land Bank in 1931 as a source of alternative credit. It was not until the 1950s that other banks began to be established. These banks were mainly single branch banks, headquartered in Nairobi with a focus on trade finance (Upadhyaya, 2011).

The post independence bank developments started with the establishment of the Central Bank of Kenya (CBK) in 1966 after the dissolution of the EACB. Kenya's first national currency -the Kenya Shilling (KShs.) was introduced on 14th September 1966 at the rate of KShs. 20 to the pound (Central Bank of Kenya, 1976). At independence in 1963, the prevalent

understanding was that development entailed massive resource mobilization and banks were seen as key instruments in this resource mobilization. However, in Kenya, unlike most African countries there was no wholesale nationalization of all banks. This can be seen as part of the broader strategy by Kenyan leaders at independence to accommodate colonial interests and prevent a wholesale migration of foreign capital (Leys, 1975).

Following the structural adjustment programs of the 1980s, which were focused on debt and budget reform and only contained minor financial sector reforms, Kenya embarked on full-scale financial liberalization in the 1990s. After 1994, there has been a decline in the total number of institutions. This was partly due to the failure of fifteen financial institutions (see Table 17 in appendix V). Furthermore, in 1993 the Central Bank of Kenya adopted a universal banking policy and reduced the regulatory advantages that were available to NBFIs. This led to several NBFIs converting to banks or merging with their parent bank and led to a consolidation of the banking sector (Ngugi, 2000). Throughout the late 1990s and up to 2005, the CBK Act and the Banking Act were amended to improve regulation and supervision of the banks.

Banking industry in Kenya was liberalized back in 1995 and exchange controls revoked. Today, the banking system comprises of 46 commercial banks, 15 micro finance institutions and 109 forex bureaus as at the end of December 2014. The Kenyan Banking Sector registered improved performance with the size of assets standing at Ksh. 2.4 trillion, loans & advances amounting to Ksh. 1.4 trillion, while the deposit base stood at Ksh. 1.8 trillion and profit before tax of Ksh. 28.2 billion as at 31st March 2013. During the same period, the number of bank customer deposit and loan accounts stood at 17.3 million and 2.3 million respectively. Although Kenya's financial access surveys conducted in 2009 and 2014 have shown general improvements in financial access with access to formal finance improving from 19 to 23 percent; to semi-formal improving from 8 to 18 percent; informal declining from 35 to 27 percent and the excluded falling from 38 to 33 percent, access to finance for rural areas is still low, with 64 percent of the rural population not accessing formal financial services and 21 percent being excluded from any form of financial services.

2. Statement of the Problem

There is limited empirical evidence on the influence of financial risk management on performance of commercial banks in Kenya. It is against this background that this study embarks to fill the existing research gap by answering the following research question, what is the influence of financial risk management practices on performance of commercial banks in Kenya?

3. Objectives of the Study

General Objective

The general objective of the study was to investigate the influence of financial risk management practices on the performance of commercial banks operating in Migori County, Kenya.

Specific Objective

The specific objectives of the study were to:

- i. Determine the influence of credit risk management practice on the performance of commercial banks.
- ii. Assess the influence of liquidity risk management practice on the performance of commercial banks.
- iii. Establish the influence of interest rate risk management practice on the performance of commercial banks.
- iv. Ascertain the influence of foreign exchange risk management practice on the performance of commercial banks.

The theoretical literature related to the variables of the study was directed by the conceptual framework.

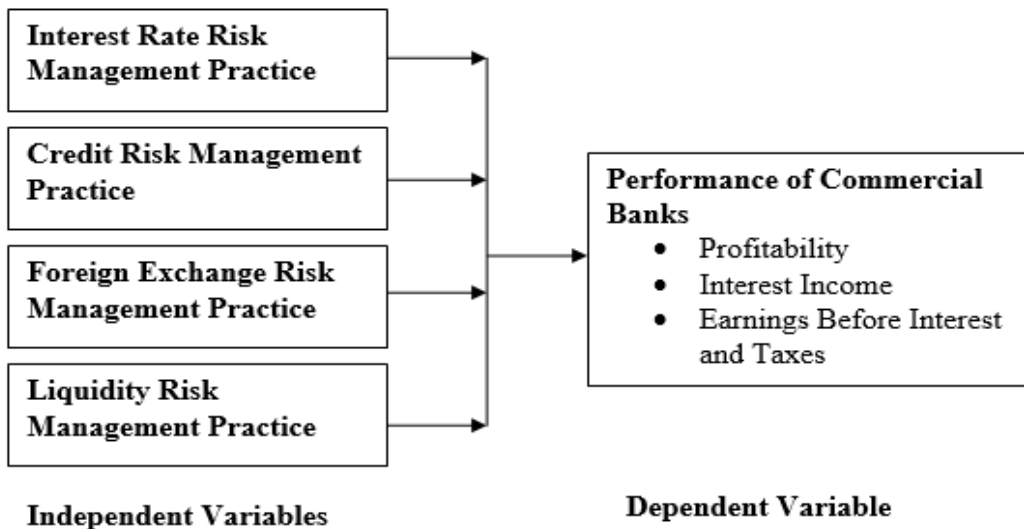


Figure 1: Conceptual Framework

4. Research Methodology

The research used a descriptive survey design. The population of interest consisted of the six banks under study which include the following: Equity bank Ltd, Cooperative Bank Ltd, National bank Ltd, Diamond trust bank Ltd, Kenya commercial bank Ltd and Barclays bank Ltd all operating in Migori County, Kenya. The results were discussed below

RESULTS AND DISCUSSION OF FINDINGS

5. Descriptive Analysis for Credit Risk Management

The study sought to establish the various approaches that are used by the banks in credit risk management. The respondents were required to indicate how the credit risk policies are developed and managed within their banks. The study also expected the respondents to indicate how their organizations identify various credit risks. The study also sought to investigate from the respondents whether their respective banks have a loan risk management policy in place. The findings from the study confirm that all the banks involved in this study have developed a loan risk management policy that guides the management of their loan portfolio.

5.1 Parties Involved in Credit Policy Formulation

The researcher wanted to establish the extent to which banks in Kenya involve various stakeholders in formulation of credit policy. The respondents were required to rate four types of stakeholders using the scale of 1 to 5 where 1 represented very great extent and 5 no extent at all. The results in table 1 confirm that shareholders and the regulator are involved in formulation of credit policy to a great extent. This is supported by mean responses of 2.24 and 2.84 for each of the stakeholders. Employees of the banks and the Director are involved in credit policy development only to a moderate extent as indicated by a mean of 3.08 and 3.56 respectively.

This study infers that the banks under study involve stakeholders in policy formulation to a moderate or less extent. This position is also held by Altman (1977) who indicates that involvement of stakeholders in the formulation of the credit policy is an important step in credit risk management.

Simonson and Hempel (1999), Hsiu-Kwang (1969) and IMF (1997) observe that sound credit policy would help improve prudential oversight of asset quality, establish a set of minimum standards, and apply a common language and methodology (assessment of risk, pricing, documentation, securities, authorization, and ethics), for measurement and reporting of nonperforming assets, loan

classification and provisioning. The credit policy should set out the bank's lending philosophy and specific procedures and

means of monitoring the lending activity evaluated.

Table 1: Parties Involved in Credit Policy Formulation

	N	Min	Max	Mean	Std. Deviation
Involvement of shareholders	32	1	5	2.24	1.128
Employees and staff	32	1	5	3.08	1.730
The Director	32	1	5	3.56	1.685
The regulator	32	1	5	2.84	1.463
Valid N	32				

5.2 Usage of CAMEL Rating System

On the use of CAMEL rating system by the banks, the respondents were required to indicate the extent to which they used the rating system to assess its soundness. The respondents were required to rate four types of stakeholders using the scale of 1 to 5 where 1 represented very great extent and 5 no extent at all. The findings as illustrated in Table 2 below reveal that three components of CAMEL that is: capital adequacy; Earnings and Liquidity have a mean of 1.8, 1.8 and 1.96 respectively. This is an indication that capital adequacy, Earnings and Liquidity are used to a great extent in assessing the soundness of the banks. It was also clear that Asset quality and

Management quality have a mean of 2.12 and 2.28 respectively. This implies that Asset quality and Management quality are used to a great extent in assessing the soundness of the banks.

From the findings the study concludes that three components of CAMEL that is: capital adequacy; Earnings and Liquidity are used to a very great extent in assessing the soundness of the Banks in Kenya. These findings agree with Gasbarro et al. (2002) who indicate that the procedures to identify financial institutions approaching financial distress vary from country to country; they are designed to generate financial soundness ratings and are commonly referred to as the CAMEL rating system.

Table 2: CAMEL Rating System

	N	Min	Max	Mean	Std. Deviation
Capital adequacy	32	1	5	1.80	1.472
Asset quality	32	1	5	2.12	1.364
Management quality	32	1	5	2.28	1.400
Earnings	32	1	5	1.80	1.472
Liquidity	32	1	5	1.96	1.428
Valid N	32				

5.3 Factors considered in Loan portfolio Policies Development

The study also sought to investigate the factors that are considered by banks in Kenya to develop their loan portfolio policies. On a scale of 1 to 5 where 1 represented very great extent and 5 no extent at all, the findings reveal that only one of the factors is considered to a very great extent when developing a credit policy. This factor is the existing credit policy with a mean of 1.64. It was further established that two other factors are considered to a great extent when developing a credit policy. These two factors are: trends of creditors and overhead cost with a mean of 2.16 and 2.28 respectively. The general state of the economy received the least support as a factor since it has a mean of 3.12, an

indication that most of the banks in Kenya consider the general state of the economy to a moderate extent when developing their credit policies.

The study finding implies that the existing credit policy was very important in developing a credit policy for a Bank and that trend of creditors and overhead cost are also considered when drafting a credit policy. This is in line with the findings of Richardson (2002) who indicates that analysis of past credit problems, such as those associated with oil and gas lending, agricultural lending, and commercial real estate lending in the 1980s, has made it clear that portfolio managers should do more. Traditional practices rely too much on trailing indicators of credit quality such as

delinquency, nonaccrual, and risk rating trends.

Table 3: Factors considered in Loan portfolio policies Development

	N	Min	Max	Mean	Std. Deviation
Existing Credit policy	32	1	5	1.64	1.114
General state of economy	32	1	5	3.12	1.092
Trends of creditors	32	1	5	2.16	0.898
Overhead cost	32	1	5	2.28	1.400
Valid N	32				

5.4 Capital Adequacy Ratios

Capital Adequacy can be percentage ratio of a financial institution's primary capital to its assets (loans and investments), used as a measure of its financial strength and stability. The researcher investigated whether the banks meet various capital adequacy ratios. The findings reveal that the banks meet two capital adequacy ratios to a great extent. These ratios are the core capital/total assets ratio and the core capital/total deposits ratio with a mean of 2.12 and 2.28 respectively. However the findings reveal that the banks meet the institutional capital/total assets ratio to a moderate extent as can be confirmed from a mean of 3.08. This findings conform with Nwokoji (2013) who found that the average Capital Adequacy Ratio (CAR) of the banks

in Kenya was consistently above the stipulated minimum of 10.0 per cent in the first half of 2014. The industry average CAR stood at 17.7 per cent, compared with 17.9 and 5.0 per cent at end-December 2013 and the corresponding period of 2012, respectively. With the exception of one bank, all the banks met the regulatory minimum CAR of 10.0 per cent with the highest and lowest at 34.1 and a negative 7.8 per cent, respectively.

Studies like (Kosmidou, 2008; Gul, Irshad and Zaman (2011) assert that there capital adequacy of banks determines profitability. Without profits, no firm can survive and attract outside capital to meet its investment target in a competitive environment. Thus, profitability plays a key role in persuading depositors to supply funds in terms of bank

deposits on advantageous terms. Earlier studies on capital adequacy as a determinant of profitability of banks revealed that a high capital adequacy ratio should signify a bank that is operating over-cautiously and ignoring potentially profitable trading opportunities (Goddard et al., 2004), which implies a negative relationship between equity to asset ratio and bank performance. At the same time, banks with higher equity to asset ratio will normally have lower needs of external funding and therefore higher profitability (Pasiouras and Kosmidou, 2007).

Generally, banks are expected to absorb the losses from the normal earnings. But there

may be some unanticipated losses which cannot be absorbed by normal earnings. Capital comes in handy on such abnormal loss situations to cushion off the losses. In this way, capital plays an insurance function. Adequate capital in banking is a confidence booster. It provides the customer, the public and the regulatory authority with confidence in the continued financial viability of the bank. Confidence to the depositor that his money is safe; to the public that the bank will be, or is, in a position to give genuine consideration to their credit and other banking needs in good as in bad times and to the regulatory authority that the bank is, or will remain, in continuous existence.

Table 4: Capital Adequacy Ratios

	N	Min	Max	Mean	Std. Deviation
Core capital /total assets min 10%	32	1	5	2.12	1.481
Core capital /total assets min 8%	32	1	5	2.28	1.514
Institutional capital /total assets min 8%	32	1	5	3.08	1.525
Valid N (listwise)	32				

6 Descriptive Analysis for Liquidity Risk Management

The study also sought to establish whether liquidity risk management practices had an impact on profitability of the institutions. From the study, most of the respondents as

indicated by 87.5% reported that liquidity risk management had an impact on profitability of the institutions, while 12.5% of the respondents felt that liquidity risk management practices had no effect on profitability of the banks.

According to Ioan and Dragos (2006) the management of liquidity risk presents two main perspectives both of which have an effect on a bank's profitability. They indicated that an inadequate level of liquidity may lead to the need to attract additional sources of funding associated with higher costs that will result in the reduction of the profitability of the bank and ultimately lead to insolvency. On the other hand an excessive liquidity may lead to a fall in net interest margins and in

consequence poor financial performance.

Keeping appropriate levels of liquidity is manifested in a bank's ability to obtain with immediacy the needed funds at a reasonable cost as and when necessary. Maintaining an adequate degree of liquidity in the whole banking system is extremely important, because the registration of a liquidity crisis at a single bank can have negative repercussions over the whole banking system courtesy the risk of contagion through interbank settlements.

Table 5. Liquidity Risk Management Practices and profitability of the Institution

Response	Frequency	Percent
Yes	28	87.5
No	4	12.5
Total	32	100.0

The study further sought to establish the extent to which liquidity risk affected the profitability of commercial banks. According to the findings, most respondents as shown in table 4.10 show that 68.8% indicate that liquidity risk affect the profitability of the banks to a moderate extent, 25% of the respondents said to a great extent, while a small portion of respondents as shown by 6.3% said to a less extent.

This finding disagrees with Diamond and Rajan (2001) findings that showed that liquidity risk affect banks profitability to a very great extent. According to Poorman and Blake (2005) liquidity risk may cause a fire sale of the assets of the bank which may spill over into an impairment of bank's capital base. If any of the financial institutions faces a situation in which it has to sell a large number of its illiquid assets to meet the funding requirements probably to

reduce the leverage in conformity with the requirement of capital adequacy, the fire sale risk may arise.

This study therefore infers that a bank with

liquidity problems loses a number of business opportunities placing it at a competitive disadvantage, in contrast to those of the competitors.

Table 6: Liquidity Risk Management and profitability of the Banks

	Frequency	Percent
To a less extent	2	6.3
Moderate extent	22	68.8
Great extent	8	25.0
Total	32	100.0

The respondents were also requested to rate the extent that liquidity risk management impacted on various liquidity aspects in Table 4.11. From the study, most of the respondents said that the liquidity factors that were impacted by credit risk management to a great extent were cash flow as indicated by a mean score of 3.06, increased funds available for lending as shown by a mean score of 2.94 and also lower bad debts as shown by a mean score of 2.72.

These findings agree with Arif and Anees (2012) that liquidity risk management affected the cash flow and the funds available for funding to a great extent. This implies that maintaining an adequate degree of liquidity in the whole banking system is extremely important, because the registration of a liquidity crisis at a single bank can have negative repercussions over the whole banking system courtesy the risk of contagion through interbank settlements.

Table 7: Impact of Liquidity Risk Management and Liquidity Factors

	N	Min	Max	Mean	Std. Deviation
Shorter collection periods	32	1	5	2.06	1.481
Lower bad debts	32	1	5	2.72	1.514
Increased funds available for lending	32	1	5	2.94	1.525
Cash flow	32	1	5	3.06	1.324
Valid N	32				

7. Descriptive Analysis for Interest rate risk management

The researcher wanted to establish the extent to which the respondents agreed on statements about IRR management. The respondents were required to rate four types of stakeholders using the scale of 1 to 5 where 1 represented strongly agree and 5 strongly disagree.

The results that are tabulated in Table 4.12 show that the respondents were neutral that CBK used interest rate to control the financial market as shown by a mean of 3.06. Also the respondents agreed that Interest rate risk was the most important since 2008 financial crisis as shown by a mean of 2.06. Further, the respondents agreed that low IRR negatively impact the

Table 8: Interest rate risk management

	N	Min	Max	Mean	Std. Dev
Interest rate risk is the most important since 2008.	32	1	5	2.06	1.481
Low IRR negatively impact the profitability of this bank	32	1	5	2.72	1.514
IRR management policies are adequate and efficient in dealing with IRR in Kenyan financial market	32	1	5	2.94	1.525
CBK uses interest rate to control the financial market	32	1	5	3.06	1.324
Valid N	32				

8.

profitability of their banks as shown by a mean of 2.72 and lastly, the respondents were neutral that IRR management policies are adequate and efficient in dealing with IRR in Kenyan financial market as shown by a mean of 2.94.

According to Santomero (1997), market risk by its nature can be hedged but cannot be diversified away completely. Two market risks that are of concern to the banking sector are interest rates and relative value of currencies. The banking operation is solely dependent on these as it impacts on performance. This study concludes that banks should track interest rate risk closely and measure and manage the bank's vulnerability to interest rate variation as well.

Descriptive Analysis for Foreign Exchange Risk management

The researcher wanted to establish the extent to which the respondents agreed on statements about foreign exchange risk management. The respondents were required to rate four types of stakeholders using the scale of 1 to 5 where 1 represented strongly disagrees and 5 strongly agree. The results tabulated in Table 8 shows that the respondents strongly agreed that the banks made great use of hedging techniques to manage foreign exchange risk and that hedging allows the commercial banks to manage foreign exchange risk as shown by high means of 4.5 and 4.0 respectively.

Pramborg (2004) sent out a survey to banks in Sweden and Korea and compared their use of hedging techniques to manage foreign exchange risk. As found by Marshall (1999) in his study, there are similarities between banks in the countries, but with notable exception; the aim of hedging activity differed. Swedish banks favored minimizing fluctuations of earnings or protecting the appearance of the balance sheet, while the

Table 9: Foreign Exchange Risk management

	N	Min	Max	Mean	Std. Dev
Foreign exchange risk is one of the major sources of risks in African Region	32	1	5	3.9	0.182

Korean banks are focused more on minimizing the fluctuations of cash-flows. Also, the proportion of banks that used derivatives was significantly lower in the Korean than in the Swedish sample, suggesting that the Korean derivative markets are not so easily accessible because of strict government regulations and is also less sophisticated than the Swedish market. This is contrary to what Marshall (1999) found in his research, where Asian banks tend to use more derivatives than UK and US banks. This implies that Banks in Kenya have a relatively high derivative usage.

The respondents also agreed that operational hedging strategies are more frequently combined with short term derivatives than with long term derivatives as shown by a mean of 4.0. Bodnar and Gebhardt (1999) suggested that banks use operational hedges to hedge long term foreign exchange risk, while the short term risk is hedged with derivatives. This is supported by Hommel (2002), Carter et al. (2003) and Hansen (2009), who in their research found these to be complementary strategies.

The bank makes great use of hedging techniques to manage foreign exchange risk.	32	1	5	4.5	0.313
Banks use Derivatives to manage foreign currency risk to a great extent	32	1	5	4	0.165
Operational hedging strategies are more frequently combined with short term derivatives than with long term derivatives	32	1	5	4.1	0.183
Valid N	32				

9. Descriptive Analysis for Financial Performance

9.1 Financial Risk Management on Financial Performance

Financial crisis has not only rocked big economies of the world but developing economies have been badly affected. Many financial institutions have either collapsed and or are facing near collapse because of badly functioned subprime mortgage lending to firms and people with bad and unreliable credit. Banking crises in Kenya have shown that not only do banks often take excessive risks but the risks differ across banks.

The respondents were also asked whether financial risk management had an effect on financial Performance of the institutions. From the study, most of the respondents as shown by 90.6% felt that financial risk management had an effect on the financial performance of the institution. This study finding is in line with Oluwafemi et al., (2013) who found that there is a significant relationship between banks performance and risk management. Hence, the need for banks to practice prudent risks management in order to protect the interests of investors.

Table 10: Effect of financial Risk Management Practices on Financial Performance of the Institution

	Frequency	Percent
Yes	29	90.6
No	3	9.4
Total	32	100.0

9.2 Financial Risk Management Practices and the Financial Performance of the Bank

According to the findings, most of the respondents reported that financial risk management practices had affected the financial Performance of the banks to a great extent as shown by 59.4%, 34.4% of the respondents said to a moderate extent, while a small proportion of the respondents as shown by 6.3% reported that financial risk management practices had affected the financial Performance of the bank to a less extent.

Increasing shareholders' return epitomizing bank performance is one major objective of bank management. The objective often comes at the cost of increasing risk. Bank faces various risks such as interest risk,

market risk, credit risk, off balance risk, technology and operational risk, foreign exchange risk, country risk, liquidity risk, and insolvency risk (Tandelilin, Kaaro, Mahadwartha, and Supriyatna, 2007). The bank's motivation for risk management comes from those risks which can lead to bank underperformance. Issues of risk management in banking sector have greater impact not only on the bank but also on the economic growth (Tandelilin et al, 2007). Tai (2004) concludes that some empirical evidence indicates that the past return shocks emanating from banking sector have significant impact not only on the volatilities of foreign exchange and aggregate stock markets, but also on their prices, suggesting that bank can be a major source of contagion during the crisis.

Table 11: Credit Risk Management Practices and Profitability of the Bank

	Frequency	Percent
To a less extent	2	6.3
Moderate extent	11	34.4
Great extent	19	59.4
Total	32	100.0

10. Regression Analysis Results

The general objective sought to determine the influence of financial management

practices on the financial performance of banks listed in the Nairobi securities exchange that are operating in Migori County. The Pearson Correlation analysis

which determines the strength and direction of the relationships was used. The Pearson correlation coefficient ranges from 0 (if no relationship exists) to 1 (for a perfect relationship). Correlation coefficients (in absolute value) which are ≤ 0.35 are

generally considered to represent low or weak correlations, 0.36 to 0.67 moderate correlations, and 0.68 to 1.0 strong or high correlations with r coefficients > 0.90 very high correlations (Field, 2005).

Table 12: Pearson's Correlation Analysis

	CRM	IRM	LRM	FRM	Performance
CRM	1				
IRM	.599(**)	1			
LRM	.579(**)	.799(**)	1		
FRM	.111(*)	.211(**)	.211(**)	1	
Performance	.711(**)	.531(**)	.611(**)	.535(**)	1

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

The general objective was analysed using multiple regression analysis. Multiple regression analysis was carried out to establish the extent to which the combined effect of credit risk management, interest rate risk management, liquidity risk management and foreign exchange risk management effect on the performance of commercial banks. Before the regression analysis was carried out, Pearson's correlation analysis was carried out to

ensure that there was no multicollinearity. Multicollinearity exists when there is a strong correlation between two or more independent variables and this poses a problem when running multiple regressions. According to Field (2009) multicollinearity exists when correlations between two independent variables are at or in excess of 0.80. In this study, the highest correlation was between interest rate risk management

and liquidity risk management ($r = 0.799$, $p < 0.000$) which rules out multicollinearity.

The study conducted a multiple regression analysis and from the regression model, holding (Credit Risk Management, Interest rate risk management, Liquidity Risk Management and foreign exchange risk management) constant at zero, the financial performance of the banks will be 1.147. A one percent (1%) change in credit risk management will lead to zero point four eight eight percent (0.488%) variation in financial performance of the banks; also a one percent (1%) change in interest rate risk management will lead to zero point two six

nine percent (0.269%) variation in financial performance of the banks.

Further, a one percent (1%) change in liquidity risk management will lead to zero point three eight four percent (0.384%) variation in financial performance of the banks and lastly a one percent (1%) change in foreign exchange risk management will lead to zero point two two one percent (0.221%) variations in financial performance of the banks. This shows that there is a positive relationship between (credit risk management, interest rate risk management, liquidity risk management and foreign exchange risk management) and financial performance of the banks.

Table 13: Regression Analysis Results

	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	1.147	3.93		2.915	.000
Credit Risk Management	.488	.221	.663	1.908	.001
Liquidity Risk Management	.384	.106	.397	3.608	.004
Foreign exchange risk management	.221	.115	.192	1.917	.002
Interest rate risk management	.269	.135	.387	1.991	.003

The Unstandardized beta coefficients column in Table 4.17 above were used to obtain the overall equation as suggested in the conceptual framework. When these beta coefficients are substituted in the equation, the model becomes:

$$Y = 1.147 + 0.488X_1 + 0.384 X_2 + 0.221 X_3 + 0.269X_4 + \varepsilon \text{ where}$$

Y = Financial performance, X1 = Credit Risk Management, X2 = Liquidity Risk Management, X3 = Foreign exchange risk management, and X4 = Interest rate risk management

The results also show the unique contribution to the explaining of the independent variable. The standardized coefficients assess the contribution of each independent variable towards the prediction of the dependent variable, since they have been converted in the same scale to show

comparison. Table 4.18 indicate that Credit Risk Management was the most significant with p-values of 0.001 followed by Foreign exchange risk management with p-values of 0.002 respectively. The t-test statistic shows that all the B coefficients of are significant (since $p < 0.05$).

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Sig
1	.851(a)	.724	.676	.000

a Predictors: (Constant), Credit Risk Management, Interest rate risk management, Liquidity Risk Management and foreign exchange risk management

R-squared is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determinations for multiple regressions. 0% indicates that the model explains none of the variability of the response data around its mean. The adjusted R-squared is a modified version of R-squared that has been adjusted for the number of predictors in the model. The adjusted R-squared increases only if the new term improves the model more than

would be expected by chance. It decreases when a predictor improves the model by less than expected by chance.

The model summary of the regression analysis in Table 4.18 shows that Financial risk management practices accounted for 72.4 % of the variance in the performance of commercial banks operating in Migori County (R square = 0.724). This shows that 27.6% of the variance in performance was explained by factors not in the study.

Table 14: ANOVA^b

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	35.775	4	8.944	15.066	.044(a)
Residual	13.654	27	.594		
Total	49.429	31			

The significance value is .044 which is less than 0.05 thus the model is statistically significant in predicting independent variables (credit risk management, interest rate risk management, liquidity risk management and foreign exchange risk management) this shows that the overall model was significant.

11. SUMMARY OF FINDINGS

Influence of Interest Rate Risk Management on Financial Performance

The study showed that CBK used interest rate to control the financial market as shown by a mean of 3.06. Also the respondents agreed that Interest rate risk was the most important since 2008 financial crisis as shown by a mean of 2.06. Further, the respondents agreed that low IRR negatively impact the profitability of their banks as shown by a mean of 2.72 and lastly, the respondents were neutral that IRR management policies are adequate and efficient in dealing with IRR in Kenyan

financial market as shown by a mean of 2.94.

Influence of foreign Exchange Risk Management on Financial Performance

The study found that there are independent committees who function to oversee the treasury's strategy in managing the foreign exchange risk as shown by a mean of 4.5. Foreign exchange risk can be managed if the diversification of portfolio is done across the assets in different currencies as shown by a mean of 4.1. Further, flexible exchange rate regime in 1983 along with financial system globalization has exposed Banks to new risks along with new opportunities and that their banks use Derivatives to manage foreign currency risk as shown by means of 4.0 respectively.

Influence of liquidity risk management on financial performance

The study found that liquidity risk management had an impact on profitability

of the institutions. Credit risk management practices had affected the liquidity of commercial banks thus affecting the profitability of the banks to a great extent. Further, the study revealed that liquidity risk management increased liquidity of the banks.

From the study, liquidity factors that were found to have an impact on financial performance to a great extent were cash flow, increased funds available for lending, lower bad debts and lastly led to shorter collection periods to a moderate extent.

Influence of credit risk management on performance

On the techniques used in credit risk management, the study found that banks adopted the following techniques, they include, Credit Scoring Mechanism, Risk identification, Risk analysis and assessment, Risk monitoring, Banks Loan Policy Procedure, Credit enhancement, Diversification across banks Member and Portfolio Asset Quality/Portfolio Management On the rating of various conditions that the banks consider before awarding credit the study found that the banks consider character of the borrower and collateral or security to a very great extent. Capacity /completion and conditions were considered by banks to great extent.

On the respondent's level of agreement on Credit Risk Management Procedures in their bank, the study found that the respondents strongly agreed that Member lending facility is reported to the credit risk management committee, portfolio managers to watch over the loan portfolio's degree of concentration and exposure to both types of risk concentration and credits must be monitored and reviewed periodically for quality credit control. The respondents agreed that In order for credit decision to be made standardization of process and documentation is required. On the extent to which bank consider risk identification as a process in credit risk management, the study found that all the respondents rated it to a great extent.

On when the bank decide default on loan repayment, the study found from the finding in the above table, the mostly used were four late payments as shown by a mean of 4.87, two late payments and two late payments. One late payment was most used. On the extent to which credit risk management practices adopted by bank affects it performances, the study found that credit risk adopted by banks affect it performance to great extent .

The study also found that in most banks, the authority of approving credit or loan of up to Kshs 500, 000 in most commercial banks

was the credit manager (56.3%), Kshs 500, 000 to 1M was approved by credit managers (65.6%), 1M-1.5M was also approved by the credit managers (65.6%), 1.5M-2M was also approved by the credit managers (50%), while loan or credit of over 2M was approved by the managing directors (87.5%).

The people involved in credit risk managements in most commercial banks were directors as shown by a mean score of 3.56, employees as shown by a mean score of 3.08, regulators as shown by a mean score of 2.84 and shareholders as shown by a mean score of 2.34.

CONCLUSIONS

Most banks in Kenya have a loan risk management policy in place. This policy is very crucial in providing guidelines on how to manage the various risks these organizations encounter in their lending activities. Formulation of the credit policy is largely done by members of the organizations and the regulation with moderate involvement of employees and the director. The existing credit policy of the bank is the primary document upon which formulation of a new credit policy is based. The people in charge of credit policy formulation also take into account the trends of creditors and overhead costs in the

process of formulation. The CAMEL rating system plays a central role in the assessment of the soundness of the organizations.

The study concludes that Interest rate risk management affected financial performance of Banks in Migori County in Kenya. IRR management policies were adequate and efficient in dealing with IRR in Kenyan financial market. IRR negatively impact the profitability of this bank and that it is known that the CBK uses interest rate as a tool to control the financial market.

The study concludes that there are independent committees who function to oversee the treasury's strategy in managing the foreign exchange risk. Foreign exchange risk can be managed if the diversification of portfolio is done across the assets in different currencies.

The study concludes that liquidity risk management had an impact on profitability of the institutions. Credit risk management practices had affected the liquidity of commercial banks thus affecting the profitability of the banks to a great extent. Further, the study concludes that liquidity risk management increased liquidity of the banks.

Recommendations

The study has revealed that three components that is capital adequacy,

management quality, earnings and liquidity have a positive relationship with loan allocations. Banks in Kenya should ensure that the management of these three variables is enhanced in order to improve their loan portfolios.

It is also clear that the banks use the existing credit policy as the primary document for formulating a new credit policy. It will also be important if the banks can also consider using credit policy documents from other successful similar organizations as a benchmark for best practices.

Areas of Further Research

The suggested that further research needs to be done in other types of the institutions offering financial services for example the savings and credit cooperatives to establish the impacts of financial risks management practices on the performance of these institutions. The researcher also suggested that the population of study needs to be increased as a population sample of thirty seven (37) one respondent in each commercial bank is not enough to make accurate generalizations from.

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