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# EFFECTS OF CREDIT RISK MANAGEMENT ON LOAN PERFORMANCE OF COMMERCIAL BANKS IN KENYA: A CASE OF LISTED COMMERCIAL BANKS IN KENYA

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Abstract: The General objective of this research is to assess the effects of credit risk management on loan performance of commercial banks in Kenya. The specific objectives of this project is to establish the effect of capital adequacy Ratio, Loan Loss Provision Coverage ratio and Loan to Deposit Ratio on loan performance of commercial banks in Kenya. The study adopted secondary data analysis research design. The observations used dated from January the year 2012 to December 2017 and includes 48 observations. The population was composed of all the 8 tier one banks in Kenya. The data was obtained from Kenya National Bureau of statistics, the central bank and audited financial statements of individual banks. Correlation and multiple regression was employed as the analytical tools. The study has been driven by the absence of laborious studies that address the dynamics of the loan performance in commercial banks in Kenya. The research is also motivated by the mixed results that various previous researchers got for the same types of the variables. The study will also help other researchers as a source of reference and as a stepping stone for those who want to make further study on the area afterwards. It will also contribute to the understanding and stabilization of the financial sector of the economy and the society as a whole. It will also give all stakeholders in the sector an opportunity to gain deep. The study concluded that capital adequacy has a significant and a positive effect on the loan performance of commercial banks in Kenya that higher capital adequacy ratios translated to higher loan performance. Since both effects were significant, it can be concluded that loan performance of commercial banks in Kenya is influenced by capital adequacy. The study concluded that loan loss provision is found significantly associated with the loan performance of commercial banks in Kenya. The results suggest that higher loan loss provision led to better loan performance of commercial banks. The effects were significant hence lead to the conclusion that loan performance of commercial banks is influenced by loan loss provision. The study concluded that Loan deposit ratio is found significantly associated with the loan performance of commercial banks in Kenya. The results suggest that higher loan deposit ratio led to better loan performance of commercial banks. The effects were significant hence lead to the conclusion that loan performance of commercial banks is influenced by Loan deposit ratio. Based on the finding of the study, the researcher concluded that capital adequacy has a positive and a significant relationship with loan performance of commercial banks in Kenya. The study recommends that investors and shareholders of commercial banks should be aware of possible use of provisions for losses on non-performing loans by managers for smoothening of loan performance & develop financial reporting models that can help prevent occurrence of the menace. The study recommends that management of commercial banks should hedge against Moral hazard and adverse selection risks when advancing loans to minimize occurrences of nonperforming loans.

Keywords: Capital adequacy, loan loss provision coverage ratio and loan deposit ratio.

# 1. INTRODUCTION

Commercial banks play a vital role in the economic resource allocation of countries. They channel funds from depositors to investors continuously. They can do so, if they generate necessary income to cover their operational cost they incur in the due course. In other words, for sustainable intermediation function, banks need to be profitable. Beyond the intermediation function, the financial performance of banks has critical implications for economic growth of countries.

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Good financial performance rewards the shareholders for their investment. This, in turn, encourages additional investment and brings about economic growth. On the other hand, poor banking performance can lead to banking failure and crisis which have negative repercussions on the economic growth.

Generally, researchers note that the sustainability of a commercial bank is largely determined by its level of loan performance. This is due to the fact that these commercial banks must generate the necessary income in order to be able to cover their costs of operations which are incurred as they go about their work (Ongore & Kusa, 2013). It is also noted that it is out of these good loan performance that the shareholders of the banks get their dividends from their investment and this leads to a situation where they are encouraged to invest more in the bank thus ensuring a steady flow of investment funds for the bank and thus securing the future in terms of sustainability of operations (Ongore & Kusa, 2013).

#### Statement of the problem

Loans constitute a large proportion of credit risk as they normally account for 10-15 times the equity of a bank (Kitua, 2011). The ratio for total loans to total assets for the year ended 31st December 2017 was 59.48% a slight increase from 58.2% reported in December 2016 (CBK Credit Survey Report, 2017). Thus, banking business is likely to face difficulties when there is a slight deterioration in the quality of loans. Non-performing loans continues to be a problem with all commercial banks in Kenya (CBK, Monthly Economic review, January, 2009). Obiero (2013) found out that, out of the 39 banks which failed during the period of 1984 and 2013, 37.8 % collapsed mainly due to poor quality lending. In Kenya, the level of non-performing loans in 2016 was estimated at Shs.100 billion or 30% of advances, up from 27% in 2015 as compared to 120 billion or 33.4% of total loans in November 2017

The increasing level of non-performing loans may lead to very serious implications. For instance, it discourages the financial institutions to refinance the defaulting client, which put the defaulters once again into vicious circle of low productivity. Even if default is random and influenced by unpredictable behaviors or it is influenced by certain factors in a specific situation needs an empirical investigation so that the findings can be used by any financial institutions to manipulate their credit program for the better.

Most of the studies on bank loan performance on the context of credit risk management have covered developed economies, whereas much less studies covered developing economies such as Kenya's economy. Some of these studies include Aburime (2008) in Nigeria, Al-Tamini (2010) in UAE, Clair (2004) in Singapore, Heffernan & Fu (2010) and Wong, Fong, Wong, & Choi (2007) in China. It is however important to note that countries differ in terms of the macroeconomic conditions, the financial systems as well as the operating environment of these banks (Ongore and Kusa, 2013). This shows that factors that influence loan performance in one country may not be the same as those in another country (Lipunga, 2014). In fact, research findings of the causes of Non-Performing Loan in the developed countries have often been used to explain the situation in sub Saharan African countries and Kenya in particular (Waweru and Kalani, 2009).

Studies that are close to effect of effects of credit risk management on loan performance of commercial banks in Kenya include Njihia (2005), Mwania (2009), Okutoyi (1988), and Ndungu (2003). These studies were however designed to focus on each factor of credit risk management in relation loan performance to the exclusion of the other factors while some only focused on listed commercial banks as in the case of Ndungu (2003). There is no study that has been done on Loan Performance of Commercial Banks hence a gap that needs to be filled in by carrying out the present study. This study builds on the study by Njihia (2005) as the former study was limited by the scope as it only focused on one aspect of commercial banks financial performance. Given the passage of time and limitations of case studies as far as generalization of results to the population is concerned, there is need for the present study to be conducted. The study poses the following research question: What is the effect of credit risk management on loan performance of commercial banks in Kenya?

#### **Objectives**

- i. To evaluate the effect of capital adequacy on the loan performance of commercial banks in Kenya
- ii. To determine the effect of loan loss provision coverage ratio on the on the loan performance of commercial banks in Kenya
- iii. To evaluate the effect of loan deposit ratio on the loan performance of commercial banks in Kenya

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#### **Theoretical Review**

#### Resource Based View theory

This theory was developed by Pfeffer and Salancik (1978). The Resource-Based View (RBV) is an economic tool used to determine the strategic resources available to a firm. The fundamental principle of the RBV was that the basis for a good financial performance of a firm lies primarily in the application of the bundle of valuable resources at the firm's disposal. To transform a short-run financial performance of a firm into a sustained financial performance, it required that these resources be heterogeneous in nature and not perfectly mobile. Effectively, this translated into valuable resources that are neither perfectly imitable nor substitutable without great effort (Hoopes, et al 2003). If these conditions hold, the firm's bundle of resources could assist the firm sustaining above average returns.

#### Credit Risk Theory

Even though people have been confronting credit risk ever since early ages, there has been very scanty literature on the same. This theory was introduced by Melton (1974), it is the most important of all others in financial management (Crosbie et al., 2003). It asserts that the management should monitor all the information including screening of the borrower's ongoing creditworthiness and ensure that the borrower adheres to the terms of the contract. It also explains how financial institutions like commercial banks can deal with uncertainties when they arise during credit servicing period. According to (Ibrahim, 2004) money loaning continuously encompasses some features of risks arising from situations which result from the failure to honor loan obligation when they fall due.

#### **Modern Portfolio Theory (MPT)**

The Modern Portfolio Theory explains how a loan portfolio can be used to maximize returns and minimize loan default risk by carefully combining different loan types. The idea behind this theory is that, the loans in a given portfolio should be selected with consideration on the effect they have on each other's returns. This theory was developed by Markowitz (1991) where he argues that investors are risk averse. The theory explains how an individual or institution can achieve the highest returns by practicing diversification of loans in a given loan portfolio.

#### 2. CONCEPTUAL FRAMEWORK

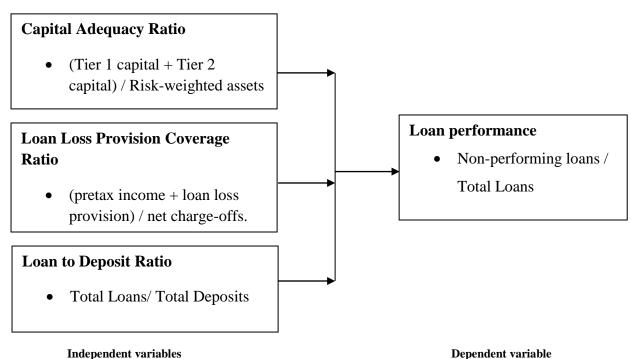


Fig 2.1 Conceptual framework

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#### **Research Gap of the Literature Review**

Melese (2015), noted that since loan performance is very crucial to the existence of banks, credit risk management factors that affect it should be identified. The author note that further research on the area of credit risk management factors that affect loan performance of commercial banks by incorporating any more relevant variables would enhance the understanding of the sector. The literature available on financial performance in relation to credit risk management on Kenyan context is limited. The few papers that have been written on loan performance in Kenya have been supported mainly by reviews of papers from other countries.

Furthermore, numerous researchers have done many research studies and they mainly concentrated on the macroeconomic determinants of Non-Performing Loan. Mileris (2012) studied on the title "macroeconomic determinants of loan portfolio credit risk in banks" The study used multiple and polynomial regression models with cluster analysis, logistic regression and factor analysis for the prediction. The finding indicates that Non Performing Loans are highly dependent on macroeconomic factors. The above study is inadequate and inconsistent because it only dwelled on macroeconomic factors neglecting other factors such as credit risk management. Therefore, the essence of this study is to fill the knowledge gap by assessing the relationship between credit risk management and their effects on the loan performance in the context of level of non-performing loans (NPLs).

#### 3. RESEARCH METHODOLOGY

This study adopted a secondary data analysis research design since the data to be used has previously been collected and tabulated by other sources. The target population for this study was all Tier I Commercial Banks in Kenya. This study used census sampling since the population also constitute the sample that is the 8 Tier I Commercial Banks in Kenya. The data that was used dated from year 2012 January to 2017 December. The study used the annual financial reports of all Tier I Commercial Banks. The researcher used secondary data in empirical analysis. The data analytical techniques used are quantitative techniques in nature. These are correlation analysis and multiple regression analysis. The data was analysed using the help of STATA econometric software.

#### Model

 $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$ 

Where:

Y = Loan performance

 $\beta_0$ =Intercept term

 $\beta_i$ =coefficients of the independent variables

 $X_1$  = Capital Adequacy Ratio

 $X_2$ = Loan loss provision ratio

 $X_3$ = Loan- Deposit Ratio

 $\varepsilon$ = error term

# 4. RESULTS

#### **Correlation Analysis**

As indicated in the table 4.2 above, there was a moderate positive correlation between capital adequacy ratio and loan performance of commercial banks in Kenya, loan loss provision coverage ratio and loan performance of commercial banks in Kenya and finally loan-deposit ratio and loan performance of commercial banks in Kenya. This indicates that an increase in the study variables increase in loan performance of commercial banks in Kenya. The above results show little evidence on multi co-linearity among the independent variable since the correlations among them are not very strong henceforth all can be used into consequent regression analysis. The findings of this study are consistent with those found by Kithinji (2010) who contended that the concept of credit risk management can be treated as the heart of any financial organization and plays the vital role in the performance of a financial institution as it analyzes credit worth ability of borrowers. He further argued that if there is any gap in credit risk assessment, then recovery of the provided loans is challenged greatly. As a whole, profitability falls in a great uncertainty.

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**Table 4.1 Correlations Analysis** 

		CAR	LLP	LDR	LP
CAR	Pearson Correlation	1	.030	039	.405**
	Sig. (2-tailed)		.838	.792	.004
	N	48	48	48	48
LLP	Pearson Correlation	.030	1	.112	.023
	Sig. (2-tailed)	.838		.450	.879
	N	48	48	48	48
LDR	Pearson Correlation	.039	.112	1	.079
	Sig. (2-tailed)	.792	.450		.596
	N	48	48	48	48
LP	Pearson Correlation	.405**	.023	.079	1
	Sig. (2-tailed)	.004	.879	.596	
	N	48	48	48	48

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

#### **Regression Results**

**Table 4.2: Significance of Independent Variables** 

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.598	.252		2.377	.001
	Capital adequacy ratio	.717	.223	.704	3.208	.002
	Loan loss provision coverage ratio	687	.238	154	657	.000
	Loan-deposit ratio	641	.262	.033	155	.001

a. Dependent Variable:

The results in Table 4.6s indicate that Capital adequacy ratio has a significant and a positive effect on organization performance. The results suggest that higher capital adequacy ratio led to better loan performance of commercial banks. The effects were significant hence lead to the conclusion that loan performance of commercial banks is influenced by loan loss provision. According to Chen. and Pan, (2012), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR). Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis. Capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations. It has also a direct effect on the loan performance of banks by determining its expansion to risky but profitable ventures.

Further, Loan loss provision coverage ratio is found significantly associated with the loan performance of commercial banks in Kenya. The results suggest that higher loan loss provision coverage ratio led to better loan performance of commercial banks. The effects were significant hence lead to the conclusion that loan performance of commercial banks is influenced by loan loss provision. These findings are in line with those of Gestel and Baesens, (2013), who found that Loan loss provision creates security for the commercial banks in Kenya. The current findings contradict Iqbal & Mirakhor, (2011) who found a negative relationship between Loan loss provision and loan performance.

Finally, the results indicate that loan-deposit ratio has a significant and a positive effect on loan performance of commercial banks in Kenya. The results suggest that higher loan-deposit ratio led to better loan performance of commercial banks. The effects were significant hence lead to the conclusion that loan performance of commercial banks is influenced by Loan deposit ratio. The study supports the findings of Makori (2015) who held the same opinion that loan deposit ratio had a positive and significant effect on the loan performance of commercial banks. Therefore, management of commercial bank should adopt effective credit appraisal practices, credit monitoring, debt collection practices and credit risk governance practices to enhance effective and efficient loan performance.

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#### 5. CONCLUSION

The study concluded that capital adequacy ratio has a significant and a positive effect on the loan performance of commercial banks in Kenya that higher capital adequacy ratios translated to higher loan performance. The study further concluded that loan loss provision coverage ratio is found significantly associated with the loan performance of commercial banks in Kenya. The results suggest that higher loan loss provision coverage ratio led to better loan performance of commercial banks. The effects were significant hence lead to the conclusion that loan performance of commercial banks is influenced by loan loss provision coverage ratio. The study finally concluded that loan-deposit ratio is found significantly associated with the loan performance of commercial banks in Kenya. The results suggest that higher loan-deposit ratio led to better loan performance of commercial banks. The effects were significant hence lead to the conclusion that loan performance of commercial banks is influenced by loan-deposit ratio.

#### **Suggestions for Further Research**

This study investigated the effects of credit risk management on loan performance of commercial banks in Kenya in the context of listed commercial banks in Kenya. It may be valuable to progress this further utilizing loan performance measures and compare the relationship. It may also be valuable if the study was carried out in the other organization in the economy such as the microfinance so as to come up with a conclusive position on whether credit risk management variables do affect the loan performance. There is also need to carry out the same study in the banking industry in Kenya but by employing a different model and approach in order to test the effects of credit risk management on loan performance of commercial banks in Kenya. The study also suggests that another study be done in the banking industry covering a longer period of time in order to establish trends and determine what credit risk management factors affect loan performance of commercial banks in Kenya.

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