

INFLUENCE OF BANK REGULATION ON LOAN NON PERFORMANCE AMONG COMMERCIAL BANKS IN KENYA

¹Edah Kavwanyiri, ²Dr. Shedrack Mbithi Mutua, ³Mr. Malenya Abraham

^{1,2,3}Jomo Kenyatta University of Agriculture and Technology

Abstract: The study sought to investigate on influence of Bank regulation on loan nonperformance among commercial banks in Kenya and thereafter come up with recommendations. The objective of the study was to assess the determinants of loan nonperformance among commercial banks in Kenya. Census was adopted where data was obtained from 43 commercial banks in Kenya and analysed using SPSS by applying both correlation and regression to show relationship between the variables. The study recommends that bank supervisory boards should ensure the implementation of the Banking industry reforms that will help enhance capital adequacy among commercial bank in Kenya to ensure reduction in non-performing loans. The study also recommends that there should be closer consultation and cooperation between commercial banks and the regulatory authorities so that the effect of regulatory measure on commercial banks will be taken into account at the stage of policy formulation.

Keywords: Bank Regulation, Nonperforming Loans.

1. INTRODUCTION

A competent and developed banking industry is very fundamental to the growth of any economy. The determinants for loan default vary in different countries and have a multidimensional feature both at matured and emerging economies. The concept of non-performing loans has been defined in different literatures. According to the International Monetary Fund IMF (2010) a non-performing loan is any credit in which interest and principal operating expense are more than 90 days long-ago. Nonperforming loans are loans that are ninety or more days delinquent in payments of interest and/or principal (Bexley & Nenninger, 2012).

The idea of Italy, Greece and Spain, incurring nonperforming loans was due to an increase in real interest rates which lead to an increase in non-performing loans this was evidenced by (Selma & Jouini, 2013). Capital eradication was done in Malaysia and Singapore due to nonperforming loans thus hindering growth and innovation (Karim, 2010). In respect to the Middle East, Espinoza and Prasad (2010) stated that the worldwide catastrophe of nonperforming loans of the banks in the Gulf Cooperation Council (GCC) leads to bank failure. In respect to Louzis, Vouldis and Metaxas (2012) in exploring the drivers of NPLs of various largest Greek Banks found out that low cost effectiveness is positively associated with increases in future NPLs.

The banking sector in Ethiopia provides the most basic banking products including deposit facilities, loans and advances fund transfer. Most of the banks are introducing different services by using unique IT solutions. Banks are competing by opening new bank branches globally and locally, advertising, raising capital bases and infrastructure. However, these technological innovations are required to do much more to meet its customer expectations (NBE, 2010). Wondimagegnehu (2012) concluded that nonperforming loans in Ethiopia banks are caused by poor credit assessment, aggressive lending, compromised integrity, unfair competition among banks, failed loan monitoring, under developed credit culture, lenient credit terms and conditions, weak institutional capacity, and fund diversion for un expected purposes and overdue financing.

The Kenyan banking industry grip in profitability in 2015 was caused by increasing non-performing loans, followings the subside of three banks including Chase Bank Dubai, Imperial and (CBK Annual Report, 2015). Banking industry in Kenya is monitored by the Banking Act, the Central Bank of Kenya Act and the various guidelines issued by the Central Bank of Kenya (CBK). The Central Bank of Kenya do publishes information on Kenya’s commercial banks and non-banking financial institutions. The Central Bank of Kenya also acts as the main regulator of commercial banks in Kenya. as a result Kenya has 43 Commercial banks in total (CBK Annual Report, 2014).

1.1 Statement of the Problem

Non-Performing loans are one of the key causes of banks breakdown in Kenya commercial banks (Ekanayake 2015). If the Non-Performing loans are kept existing then the assets are protected up in unprofitable segment, thus hindering the bank expansion. There is need for policy makers to come up with strategies aimed at reducing the inflation rate in the country as it increase non-performing among commercial banks in Kenya (Emmanuel, 2014). Kenya has shown high rate of Nonperforming loans in due to High Interest rates and growth in loans as some of the causes of non-performing loans in commercial banks in Kenya, which show that Non-Performing loan is influenced by pressure on the banks to retain high lending rates to minimize losses causing borrowers default thus the need to conduct other studies on other determining variables of nonperforming loans on commercial banks (Monica, 2013). Weak credit scrutiny, insufficient risk supervision, dishonesty of the borrowers causes an upward trend in non-performing loans on Zimbabwe Commercial Banks attributing to the growth in the loan book by increasing the cost of loans charged on the borrowers leading to NPLs. Thus the need to conduct other studies on management of nonperforming loans on banks (Joseph *et al.*, 2012).

Several studies have been done in relation to commercial banks in Kenya with different ideas regarding determinants of nonperforming loans on commercial banks. Kwambai and Wandera (2013) did a case study only on Kenya commercial bank on effects of sharing information on credit on nonperforming loans. Further, Billy (2011) argued that Poor credit analysis contained a significant level of non- performing loans in Kenya. Simon (2012) concludes that credit approval strategy and monitoring of borrowers affect nonperforming loans to a great extent and that clear established process for approving new credits to be very important while managing Credit Risks in banks thus further has to be done on causes and management techniques on impaired loans on banking financial institutions in Kenya. From the above literature, nonperforming loans can be seen as a critical issue discussed in different concepts hence the need of this study to bridge the gap and explore deeply on influence of bank regulation on loan Non Performance among commercial banks in Kenya.

1.2 Research Objective

1. To determine the influence of Bank Regulation on loan non performance among commercial banks in Kenya.

1.3 Research Question

1. How does Bank regulation influence loan non performance among commercial banks in Kenya?

2. LITERATURE REVIEW

2.1 Conceptual Framework

Mugenda and Mugenda (2003) term a conceptual framework as a model identifying the concepts under study and their relationships. The dependent variable is Nonperforming Loan and the independent Bank Regulation. The relationship between the variables of concern is shown through Figure 2.1.



Figure 2. 1: Conceptual Framework

2.2 Review of Variable

2.2.1 Bank Regulation

The research of Boudriga, Taktak and Jellouli (2009) illustrates that Capital to risk weighted asset ratio reduce the level of problem loans which means higher Capital leads to less credit risk. However, Rime (2001) findings indicated a positive

relationship in his research between bank risk and capital ratio of Swiss banks. Goddard *et al.* (2004) study the significant factors of productivity of banks in Europe. They found a positive relationship between the bank capital and treasury to loans (The World Bank, 2014). Samy and Magda (2009) explore the effects of capital regulations on the performance of banks in Egypt. The research provides a comprehensive framework to measure the impact of capital on two indicators of bank performance: cost of intermediation and profitability. The result of the research indicates that higher capital to risk weighted ratio “increase the interest of shareholders in managing bank’s portfolio” which generates “higher cost of intermediation and profitability” (Samy& Magda, 2009).

Total capital is a measure of bank’s financial strength since it shows the ability to withstand tolerate with operational and abnormal losses. It also represents the ability to undertake additional business (Habtamu, 2012). As noted by Makri *et al.* (2014) Capital Adequacy ratio determines risk behavior of banks. It is a measure of banks solvency and ability to absorb risk. Thus, this ratio is used to protect depositors and promote stability and efficiency of financial systems.

A major step to reduce nonperforming loans was the adoption of the international regulatory reform package known as the Basel III developed by the Basel Committee on Banking Supervision (BCBS). Basel III came up with comprehensive set of reform measures which complemented the Basel II and Basel I frameworks. The Basel III rules were based on the conclusion that the monetary crisis was rooted in low solvency levels on bank balance sheets and therefore recommended tighter capital requirements with the minimum capital ratio being doubled. Banks were directed to hold excess capital as conservation (mandatory) and counter cyclical buffer (discretionary) above the minimum.

These reforms aimed at strengthening the regulation, supervision and risk management of the banking sector (BIS, 2012; BIS, 2010; BCBS 2010) On the other hand, capital adequacy regulation is often viewed as a buffer against insolvency crises, limiting the costs of financial distress by reducing the probability of insolvency of banks (Miles *et al.*, 2011; Caggiano & Calice. 2011). Regulatory and supervisory bodies emphasize the positive role of capital stringency as a buffer against losses and hence failures (Dewatripont and Tirole, 1994). Conversely, some authors have argued that stringent capital requirement comes at a cost. By imposing high capital requirements, banks will be constrained to some extent by competitive pressures, which would occur due to competition on loans, deposits and even the sources of equity and debt investments (Agoraki *et al.*, 2011). Agoraki *et al.* (2011) used panel data estimation techniques to analyze the interplay between regulation, competition and bank risk taking behavior in transition countries for the period 1998-2005. The study defined regulation as capital requirements, restrictions on banks activities and official supervisory power. The study findings revealed that banks with lower market power tend to take on lower credit risk and have lower probability of default. The findings also revealed that capital requirements reduce credit risk, but this effect weakens for banks with sufficient market power.

The CBK new guidelines that came into force in January 2013 contain some features of Basel II and Basel III on capital adequacy requirements (Oloo 2013). The Kenyan banking system has continued to record compliance with the minimum capital prudential requirements. CBK has focused more on microprudential regulation which relates to factors that affect the stability of individual banks and less so on macroprudential regulation which relates to factors which affect the stability of the financial system as a whole. Murinde (2012) however argues that review of macroprudential regulations should encompass the broader aspects of financial services regulation, such as depositor protection or deposit insurance and the safety of the payments system which have received attention from CBK.

The supervisory toolkit in Kenya has also relied substantially on other variables such as structure of banking assets and liabilities such as restrictions on banks’ large loan concentrations and foreign exchange exposure limits (Kasekende *et al.*, 2011). In addition, Kenya has returning citizens with international professional experience to add to an already diverse talent pool. Capacity for implementing different regulations and supervision, such as lack of information and insufficient staff do not seem to be a major constraint. Gottschalk (2013) finds Kenya to have the second largest number of supervisors and largest number of supervisors with more than ten years of experience.

Evidence by Calomiris and Wheelock (2011) found that the changes in requirements of reserve were not an important factor in creating the downturn, as they did not increase banks' demand for reserves. Irwin (2012) states that higher reserve requirements had effect on money supply thus lowering equity prices and raising interest rates. However, in developing countries policies are in paper but in practice are not imposed. Thus, leading to default on loans (Collin & Wanjau, 2011). Furthermore, Glen and Mondragón-Vélez (2011) established that the augmentations of loan loss provisions are driven by real GDP growth and a lack of capitalization within the banking system.

2.2.2 Nonperforming Loans

Nonperforming Loans result from the inability of debtors to repay their loans and their interests within the specified time resulting in adverse effects on the financial condition of the creditor (Agu & Okoli, 2013). By the time they are referred to as “bad loans”, there is the fear that the amounts involved and their interest cannot be fully paid by the debtor (Chelagat, 2012; Awunyo-Vitor, 2013). Bad loans need to be avoided in view of the fact that their effects are multidimensional; thus they do not only hinder profitability among commercial banks, but they also limit lending to the defaulting SMEs, individuals and other corporations. This assertion is based on evidences in Ghana (Appiah, 2011; Awunyo-Vitor, 2012)

At large, the main effect of bad loans on banks is the fact that increasing bad loans limit the financial growth of banks (Karim, Chan & Hassan, 2010; Kuo *et al.*, 2010). This consequence is as a result of the fact that bad loans deprive banks of the needed liquidity and limit their capability to fund other potentially viable businesses and make credit facilities available to individuals.

3. RESEARCH METHODOLOGY

This study employed descriptive research designs that include quantitative approach. A descriptive study is concerned with finding out the what, where and how of a phenomenon (Ngechu, 2004). Descriptive research design was employed because it enables the researcher to gather the findings to a larger population with high level of exactness. For the purpose of the study, the population of the study was all Commercial Banks in Kenya. These Banks are forty three (43) in number as per the Central Bank of Kenya’s Banking Supervision Report of 2015. The target population for this study based on all the 43 banks in Kenya. A census approach was applied to all the 43 commercial banks in Kenya. Nzambi (2010) used census based on a descriptive Study on factors contributing to nonperforming loans in commercial banks in Kenya. This method was used to describe the area of interest by bringing out the facts as they are without alterations. Data was taken from reliable sources to ensure reliability of the study this included data from Central bank of Kenya annual reports, statements of cashflows, comprehensive income and financial position of the commercial banks. According to Dawson (2009) secondary data involves collecting data using information from studies that others have done in an area or subject.

Data to be used was collected from CBK Annual Reports and Annual Reports of the commercial banks in Kenya that have published account for a five year period from 2010-2014. Emmanuel (2014) studied on Non-performing Loans in Kenya Commercial Banks where secondary data was obtained from Central Bank of Kenya. Data collected was coded, keyed in the computer and analyzed with the aid of the Statistical Package for Social Science (SPSS) computer software for Windows. On the other hand Kaume (2010) studied on factors contributing to nonperforming and used Statistical Package for Social Sciences (SPSS) software and the Excel worksheet for data analysis. The study employed descriptive and inferential statistics. Inferential analysis was in structure of Pearson’s correlation coefficient. The correlation analysis enabled the researcher to determine the power and meaning of relationship between independent variable and the dependent variable. Regression analysis is a technique that can be used to develop an equation showing how variables are related.

Metin and Ali (2013) used regression to investigate whether there are significant long-term effects on non-performing aggregate loan ratio in Turkish banking systems. The study adopts Pearson regression to show relationship between variables. The study adopted Bi-Variate correlation to analyze data. Adela and Iulia (2010) used correlation to study relationship between average interest rate and nonperforming loans in the Romanian banking system. The study adopts a model similar to Gakure, Ngugi, Ndwiga and Waithaka (2012) which studied the effect of risk supervision techniques of unsecured bank loan employed by commercial banks in Kenya

Model:

$$Y_{NPLs} = \beta_0 + \beta_1 X_1 + e$$

Where:

Y_{NPLs}	=Nonperforming Loans.
β_1 ,	=Regression coefficient
X_4	=Bank regulation
e	=error term
β_0	=Constant term

4. RESEARCH FINDINGS AND DISCUSSION

Data obtained was analyzed using Statistical Package for Social Science to show conformity or importance of planned question. The study was conducted for a period of 5 years from 2010 to 2014 where data was obtained from Central Bank of Kenya annual reports and banks specific annual reports.

4.1 Descriptive Analysis

Table 4.1 Descriptive Analysis

	Minimum	Maximum	Mean	Std. Deviation
Bank Regulation	.12	.68	.2647	.12459
NonPerformingLoan	.02	.46	.0742	.07814

The above table depicts that the variable bank regulation measured by total capital to risk weighed asset ratio has standard deviation 0.12459 with mean 0.2647 and minimum value 0.12, maximum value 0.68. The table describe that NPL was measured using Nonperforming loans to total loan ratio. The standard deviation is 0.07814 with mean 0.0742 and minimum value 0.02, maximum value 0.46.

4.2 Correlation Analysis

Table 4.2 Correlation Matrix

		Bank Regulation	Nonperforming Loans
Bank Regulation	Pearson Correlation	1	-.616**
	Sig. (2-tailed)		.000
	N	43	43
Nonperforming loans	Pearson Correlation	-.616**	1
	Sig. (2-tailed)	.000	
	N	43	43

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

Correlation analysis enable researcher to determine the strength and significance of relationship between each individual independent variable and the dependent variable. The bank regulation has a negative correlation of -0.616. The p value (0.000) < 0.01 showing the consistence of bank regulation. Thus banks that do not adhere to the bank regulations will incur higher NPLs. This result is in line with Rime (2001) who found out that Capital and risk weighted asset ratio has a negative relation with NPL evidence from commercial banks in Kenya.

4.3 Regression Analysis

Table 4.3 Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.616 ^a	.379	.364	1.07742	1.962

a. Predictors: (Constant), Bank Regulation

b. Dependent Variable: Nonperforming loans

The results indicate that the value of R² is 0.379 thus 37.9% of variance in the independent variables can be accounted in the dependent variable NPL. The Durbin Watson value of 1.962 indicates there is no autocorrelation since the value is between 1 and 3.

Table 4.4 Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.103	1	29.103	25.071	.000 ^b
	Residual	47.595	42	1.161		
	Total	76.698	43			

a. Dependent Variable: Nonperforming Loans

b. Predictors: (Constant), Bank Regulation

The result shows that p value (0.000) < 0.01 confidence level. The F value is significant at 1% level (F= 25.071, P <0.01) indicating application of the model. Thus the result shows that Independent variable bank regulation is significant in determining NPLs among commercial banks in Kenya.

Table 4.5 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	4.405	.408		10.796	.000		
	Bank Regulation	-.605	.121	-.616	-5.007	.000	1.000	1.000

a. Dependent Variable: Nonperforming Loan

The results depicts that there is no multicollinearity because the VIF values are less than 10 (Robert, 2015). The regression equation is $Y_{NPL} = 4.405 - 0.616X_1$. This results show that there is a negative and significant effect of bank regulation on nonperforming loan. This result is consistent with Agoraki *et al.* (2011) who used panel data estimation techniques to analyze the interplay between bank regulation and bank threat taking behavior in transition countries. The study defined regulation as capital requirements, restrictions on banks activities and official supervisory power. The study findings revealed that banks with lower market power tend to take on lower credit risk and have lower probability of default.

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The study investigated how bank regulation affects nonperforming loans. The findings indicate negative correlation between bank regulation and nonperforming loans. Depicting that a bank which adheres to its bank regulation will have low nonperforming loans. Thus the result show that bank regulation is statistically significant in determining Nonperforming Loans among commercial banks in Kenya.

5.1 Conclusions

This study investigated on how bank regulation determinants of NPLs among commercial banks in Kenya. From the study it may be concluded that banks incur high nonperforming loans due to failing to adhere to bank regulations. The findings indicate negative statistical significant of this variable to nonperforming loans. Thus banks to enhance performance by reducing Nonperforming loans should follow the banking regulations. This result is in line with Rime (2001) who found out that Capital and risk weighted asset ratio has a negative relation with Nonperforming loans evidence from commercial banks in Kenya. Baker, Malcolm, and Jeffrey Wurgler (2013) investigated that bank capital requirement as a bank regulator may reduce bank lending to the most bank dependent borrowers.

5.2 Recommendations

Following the findings of the study and the implications on the determinants of Nonperforming loans among commercial banks in Kenya, the study gives the following recommendations. The study recommends that the bank supervisory boards should ensure the implementation of the Banking industry reforms that will help in enhance capital adequacy among of commercial bank in Kenya to ensure reduction in non-performing loans. There should be consultation and collaboration between commercial banks and the regulatory authorities to reduce nonperforming loans at the stage of policy formulation. The study also recommends commercial banks should follow the micro prudential regulations from the Central bank this can include the adoption of the current bank rate regulation by the central bank of Kenya.

5.3 Areas for Further Research

The study recommends that a study should be done on other independent variables other than the one used in this study on nonperforming loans among commercial banks in Kenya such as Credit policy, Credit methodology and Bank ownership Structure. The study also recommends that a study should be done on the same field but using information from primary sources other than information from CBK annual reports and from Annual reports of Commercial banks in Kenya and not necessary using ratios. The study also recommends that a study should be done using other ratios like liquidity ratio and Tier 1 Capital to Risk Weighted Asset ratio.

REFERENCES

- [1] Adela, S., & Iulia. (2010). Study of correlation between average interest rate and nonperforming loans in the Romanian banking system. *Journal of the Faculty of Economic*, 10 (2), 777-782.
- [2] Agu, O. C., & Okoli, B. C. (2013). Credit Management and Bad Debt in Nigeria Commercial Banks: Implication for development. *Journal of Humanities and Social Science*, 12 (3), 47-56.
- [3] Agoraki, M. M., Delis, & Pasiouras, F. (2011). Regulation, Competition and Bank Risk Taking in Transition Countries. *Journal of Financial Stability*, 11 (7), 38-48.
- [4] Appiah, N. B. (2011). Factors influencing loan delinquency in small and medium enterprises' in Ghana commercial bank ltd. (Master's Dissertation, Kwame Nkrumah University of Science and Technology). Kumasi.
- [5] Awunyo, V. D. (2012). Determinants of loan repayment default among farmers in Ghana. *Journal of Development and Agricultural Economics*, 4(13), 339-345.
- [6] Baker, Malcolm, and Jeffrey Wurgler (2013). Do strict capital requirements raise the cost of capital Banking regulation and the low risk anomaly. (Working Paper No. 19018.)
- [7] Bank of International Settlements (2012). Progress report on Basel III Implementation. Basel Committee on Banking Supervision: Retrieved from <http://breakingintowallstreet.com>.
- [8] Bank of International Settlements. (2010). Group of Governors and Heads of Supervision Announces Higher Global Minimum Capital Standards: Retrived from <http://breakingintowallstreet.com>.
- [9] Bexley, J. B., & Nenninger. S. (2012). Financial Institutions and the Economy. *Journal of Accounting and Finance*, 12 (1), 221-254.
- [10] Boudriga, A., Taktak, N. B. & Jellouli, S. (2009). Banking supervision and nonperforming loans: cross-country analysis. *Journal of financial economic policy*, 14 (4), 146-161.
- [11] Caggiano, G., & Pietro, C. (2011). The Macroeconomic Impact of Higher Capital Ratios on African Economies. (Working Paper No. 139).
- [12] Calomiris, Charles, W., Joseph, M., & David, W. (2011). Did Doubling Reserve Requirements Cause the Recession: A Microeconomic Approach. (Working Paper 16688.)
- [13] Central Bank of Kenya. (2015). Annual Bank supervision Reports: Retrived from <https://www.centralbank.go.ke/index.php/banksupervision>
- [14] Chelagat, K. N. (2012). Determinants of Loan Defaults by Small and Medium Enterprises among Commercial Banks in Kenya. (Master's Dissertation, University of Nairobi).Kenya..
- [15] Dewatripont, M., & Tirole, J. (1994). *The Prudential Regulation of Banks*: Cambridge MIT Press.
- [16] Dimitrios, P., Louzis, Angelos, T., Vouldis, & Vasilios, L. M.
- [17] (2010). Macroeconomic and bank specific determinates of nonperforming loans in Greece's, comparative study of mortgage business and consumer loan portfolios Bank of Greece. (Working paper No 118).
- [18] Ekanayake, M. (2015). Determinants of non-performing loans in licensed commercial banks: Evidence from Sri Lanka. *Asian Economic and Financial Review*, 5 (6), 868-882
- [19] Emmanuel Munyao Musau (2014). Modeling Non-performing Loans in Kenya Commercial Banks. (Degree of Master of Science in Social Statistic. University of Nairobi).Kenya
- [20] Geletta ,W. (2012). This study intends to assess determinants of nonperforming loans. (Master's Dissertation University of South Africa). Ethiopia.
- [21] Gottschalk, R. (2013). Institutional Challenges for Banking Regulation and Supervision in African LICs. Paper Presented at the Project Workshop in Accra, Ghana.
- [22] Irwin, Douglas, A. (2012). Gold Sterilization and the Recession of 1937-38.

- [23] Financial History Review, 19 (3), 249-267.
- [24] Joseph, Mabvure, T., Edson, G., Manuere, F., Clifford, M., & Michael, K. (2012). Non Performing loans in Commercial Banks: A case of CBZ Bank Limited In Zimbabwe. *Interdisciplinary journal of contemporary research in business Institute of Interdisciplinary Business Research*, 4 (7), 232-234
- [25] Karim, M. Z. A., Chan, S. G., & Hassan, S. (2010). Bank Efficiency and Non-Performing Loans: Evidence from Malaysia and Singapore. (*Prague Economic Papers*, 2).
- [26] Kaume, R. (2010). The significance of factors contributing to nonperforming loans in Commercial banks in Kenya. (Degree of Master of Business Administration (MBA, Finance), Kenyatta University). Kenya.
- [27] Kasekende, L.A., Bagyenda, J., & Brownbridge, M. (2011). Basel III and the Global Reform of Financial Regulation: How Should Africa Respond? a Bank Regulator's Perspective: Retrieved from www.new-rules.org/storage/documents/g20-fsb-imf/kasakende.docx.
- [28] Louzis, D., Vouldis, & Metaxas, V. L. (2010). Macroeconomic and Bank specific determinants of nonperforming loans in Greece: a comparative study of mortgage, business and consumer loan portfolios. (Working paper no. 118). Bank of Greece,
- [29] Louzis, D., Vouldis, A., Metaxas, V. (2012). Macroeconomic and bank-specific determinants of nonperforming loans in Greece: A comparative study of mortgage, business and consumer loan portfolios. *Journal of Banking & Finance*, 12(36), 1012-1027.
- [30] Metin, V., & Ali, H. (2013). Determining Impacts on Non-Performing Loan Ratio in Turkey. *Journal of Finance and Investment Analysis*, 2(4), 119-129
- [31] Monicah wanjiru muriithi. (2013). Causes of non-performing loans in commercial Banks in Kenya. (Degree of master of business administration, University of Nairobi). Kenya.
- [32] Mugenda, O., & Mugenda, A. (2003). *Research methods: Quantitative and qualitative approaches* Nairobi: Acts Press.
- [33] Murinde, V. (2012). Bank Regulation in Africa: From Basel I to Basel II, and Now at Crossroads. In Victor Murinde (Ed), *Bank Regulatory Reforms in Africa*. Palgrave MacMilla.
- [34] NBE (2010). Asset classification and Provisioning Directive No.
- [35] SBB/43/2007. National Bank of Ethiopia, Addis Ababa Ethiopia.
- [36] Nzambi (2010). The significance of factors contributing to nonperforming loans in commercial banks in Kenya. (Master Dissertation Kenyatta University). Kenya.
- [37] Olokoyo. (2011). Determinants of Commercial Banks Lending Behaviour in Nigeria Economies. (IMF Working Paper No 11/161).
- [38] Selma, M., Ahlem, & Jouini Fathi. (2013). Micro and Macro determinants of Nonperforming in Tunisia. *International Journal of Economics and Financial Issues*, 3(4), 852-860.
- [39] Simon (2012). Effect of credit risk management techniques on the performance of Unsecured bank loans employed commercial banks in Kenya. *International Journal of Business and Social Research*, 2 (4), 567-582.
- [40] Warue, N.B. (2012). Factors Affecting Loan Delinquency in Microfinance Institutions in Kenya. *International Journal of Business and Social Research*, 1 (4), 109-143.