

# The Effect of Non-Performing Loans Management on the Financial Performance of Commercial Banks in Rwanda: A Case Study of ECOBANK Rwanda

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## Abstract

The study assessed the impact of Non-Performing Loans management on the financial performance of commercial Banks in Rwanda: a case study of ECOBANK Rwanda throughout the period from 2013 -2015. Qualitative and quantitative data were collected from the total population of 295 of employees of ECOBANK Rwanda where a sample of 170 of respondents was selected. The findings were summarized below in accordance of research objectives. Methods such as questionnaires, structured interview were used under this study. From the findings, the results confirmed there are many factors account for the incidence of non-performing loans in ECOBANK. The profit ratios performance of ECOBANK RWANDA from 2013 to 2015 indicated an increase from 2013 to 2014 where it came from on 9.24% to 14.92% of profit, while in 2014 to 2015 are characterized by increasing in profit from 14.92% to 15.18% of profit. There is an evidence of association between NPLs management and financial performance of ECOBANK Rwanda which was 0.741. ECOBANK Rwanda should look if it is necessary the participation of all stakeholders in the implementation of credits delivery principles. It should continue to do an improvement since NPLs management contributes 54.9% on financial performance at ECOBANK, they could reach even on 100.0% when improvement is done well at this commercial bank.

**Keywords:** NPLs management, financial performance, and commercial banks

## 1. Introduction

Commercial banks are the most relevant financial institution in many countries in worldwide which encourage and mobilize savings and also channel such as savings into productive investment. They serve as intermediaries between borrower and savers. In the process of lending, new money is created by banks through the deposit lending multiplier effect, and many commercial banks exposed to credit risk (Adhikari, 2007). Credit risk is as the possibility of losing the outstanding loan partially or totally, due to credit events (default risk) and this is an internal determinant of bank performance, and the higher the exposure of a bank to credit risk, the higher the tendency of the bank to experience financial crisis and vice-versa sector (Obuobi, & Polio, 2010).

Non-performing loans in developed countries like Spanish, Italian and Greek banks are found to be a big problem where increase when the unemployment rate and the real interest rate rise and decrease when the GDP growth rate and profitability of bank's assets fall. Hence, some of the loans given out by the lending institutions unfortunately become non-performing and eventually result in bad debts with adverse consequences for the overall financial performance of the institutions (Messai&Jouini, 2013). The issue of loan default (NPLs) is becoming an increasing problem that threatens the sustainability of commercial banks, and they are always a source of misery for lenders because if commercial bank has too much of it on its balance sheet, it can adversely affect its operations in terms of liquidity, profitability, debt-servicing capacity, lending capacity and ability to raise additional capital (Messai&Jouini, 2013).

USA is experiencing a banking crisis for example Citibank group alone has written of more than 39 billion dollars in losses. NPLs are a multi-class concept since they can be categorized into different categories based on the duration NPL has been overdue. NPLs results from the weaknesses in the administration and supervision of the financial system of which commercial banks (Choudhury et al., 2002). Most banks from Thailand, Indonesia, Malaysia, Japan and Mexico experienced also high Non-Performing Loans (NPLs) and significant increase in credit risk during financial and banking crises which resulted in the closing down of several banks in Indonesia and Thailand. The negative effect of credit risk and non-performing loans on banks performance and the economy in general has made the issue of NPLs a global one and of great importance in the last decades (Ahmad &Ariff, 2013).

In the contemporary banking business, increasing of Non-performing loans (NPLs) is a very critical but frequent issue in bank fund management (Adhikary, 2006). The situation of NPLs is not only a challenge worldwide but also in developing countries where the incidence of non-performing loans in the Ghanaian banking and non-banking industries including commercial bank has been on the rise in recent years as their loan portfolio increases despite efforts by these financial institutions to deal with it (Barth et al., 2004). The total NPLs in Ghana's Commercial bank stood at 6% in 2004 and by 2006, it has shot up to 9%. With loans and advances making over 50% of the total operating assets of Commercial bank, if the trend of the incidence of NPLs continues, it will have a huge negative impact on the operations of the Commercial bank in Ghana (Ghamfin, 2008).

In Kenya, the situation of rising NPLs damaged the confidence of investors and act as a contagious for financial malaise as it may drive away deserving loan borrowers out of the financial system. The problem of rising Non-performing loans in Kenya are attributed to inadequate or weak monitoring and controls and supervision on the part of banks, weaknesses of legal infrastructure, lack of effective lenders' recourse and poor debt recovery strategies (Adhikary, 2006).

In Rwanda, the immediate consequences of non-performing loans for commercial banks are the reduction in their profitability through disposal costs like provisions for credit losses and direct write-offs for bad debts and shrinking of loanable funds. Large amounts of non-performing loans in the banking and non-banking financial system have at many times threatened the failure and actually collapsed some banks and microfinance institutions in Rwanda. Banks and microfinance institutions in Rwanda are not insulated from the problem of delinquent loans (Non-performing loans) because they are not a particular issue happened to Rwanda but also in worldwide.

A loan is nonperforming when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons such as a debtor filing for bankruptcy to doubt that payments are made in full. Non-performing loans seriously affect profitability of the Bank (Barth et al., 2004). Some borrowers do not follow discipline of payment of their loans due to the numerous reasons beyond their control. It was found that the competent manager is in his lending practices, bad debt will arise or the repayment of a loan and advance became doubtful from time to time will eventually affect profitability (Littlefield & Rosenberg, 2004).

Vogiazas & Nikolaidou (2011) indicated that construction and investment expenditure, unemployment and inflation rate and the external debt to GDP and to narrow money and intermediate money) influence the credit risk of the country's banking system are the determinants of non-performing loans. Hamisu, (2011) revealed that credit risk management has a significant impact on the profitability of banks and that management of banks needs to be cautious in setting up a credit policy that might not negatively affects profitability of banks. Hou & Dickinson (2007) argued that many researches on the causes of bank failures found that asset quality is a statistically significant predictor of insolvency, and that failing bank institutions always have high level of Non-performing loans prior to failure. Therefore, in managing the lending portfolio to attain the desired results, the bank should give adequate attention the loans delivered to borrowers.

ECOBANK generated reported diluted earnings per share (EPS) of 0.28 U.S. Dollar cents, a fall of 83% compared with the 1.69 U.S. Dollar cents reported in 2014. Return on total shareholders' equity (ROE) was 4.2% in 2015 versus 16.5% in the prior year. Profit attributable to shareholders of ETI amounted to \$66 million, compared to \$338 million in 2014. The major reason behind these less than satisfactory results was the high level of impairments on loans and financial assets made in 2015, totaling \$532 million, almost double 2014's level. For instance, whilst reported revenues decreased by 8% in 2015, underlying

revenues would have increased by 9%, assuming constant exchange rates. The cost base remained fairly stable, with a cost-to income ratio (CIR) of 64.9%. The balance sheet is healthy, with a Tier 1 ratio of 20.5% and a total capital adequacy ratio (CAR) of 23.9%. The revenue for the year ended 31 December 2015 was \$2.1 billion while that of the parent company was \$174 million. Profit before tax for the Group was \$205 million and \$61 million for the parent company. The profit after tax stood at \$107 million. The detailed results for 2015 are set out in the consolidated financial statements. The Board of Directors approved the financial statements of the parent company and the Group for the year ended 31 December 2015 at its meeting held on 1 April 2016 (ECOBANK, 2017)

Net interest income increased by 45% year-on-year to \$85 million due to efficient balance sheet management, together with the optimization of liquidity management synergies with our country subsidiaries. The Group provides loans to its customers, ranging from multinational and regional corporates to individuals, households and small businesses. Total gross loans decreased by \$839 million, or 7%, to \$11.9 billion in 2015, compared with 2014. In constant dollars, total loan growth was flat, as a result of a cautious lending strategy reflective of the heightened risk environment. Domestic Bank's total loans decreased by \$2.1 billion, or 36%, to \$3.6 billion, largely due to the migration of High Value Local Corporates (HVLC) businesses to Corporate Bank in 2015, whilst Corporate Bank's total loans increased by \$1.2 billion, or 17%, to \$8.2 billion, benefiting from selective lending. The allowance account for loan losses increased by \$272 million, or 71%, to \$657 million, as both Corporate and Domestic Bank built their reserves to reflect an increase in non-performing loans. Consequently, the Group-wide ratio of non-performing loans as a percentage of total loans increased from 4.4% in 2014 to 8.2% in 2015. Similarly, the non-performing loans ratios for Corporate Bank and Domestic Bank increased to 6.2% and 12.5% in 2015, versus 1.7% and 7.7%, respectively in 2014. The non-performing loans coverage ratio was 67.9% in 2015, compared with 68.7% in 2014 (ECOBANK, 2017). Therefore, according to the above background, the following questions are investigated during this study: what are the factors of nonperforming loans management to commercial banks in Rwanda like ECOBANK? To what extent does non-performing loans management affect the performance of commercial banks in Rwanda.

## 2. Objectives

The main objective of this study is to analyze the impact of non-performing loans management on the financial performance of commercial Banks in Rwanda specifically:

- ✓ To evaluate the determinants of non-performing loans management in ECOBANK Rwanda
- ✓ To assess the indicators of financial performance of ECOBANK Rwanda.
- ✓ To establish the relationship between nonperforming loans management and financial performance indicators of ECOBANK Rwanda.

### 3. Literature Review

This section presented the review of the related literature in line with the study variables.

In finance, a loan is the lending of money from one individual, organization or entity to another individual, organization or entity. A loan is a debt provided by an entity (organization or individual) to another entity at an interest rate, and evidenced by a promissory note which specifies, among other things, the principal amount of money borrowed, the interest rate the lender is charging, and date of repayment. A loan entails the reallocation of the subject asset(s) for a period of time, between the lender and the borrower (Guttentag, 2007).

The word 'Performance is derived from the word 'parfourmen', which means 'to do', 'to carry out' or 'to render'. It refers the act of performing; execution, accomplishment, fulfillment, etc. In border sense, performance refers to the accomplishment of a given task measured against preset standards of accuracy, completeness, cost, and speed. In other words, it refers to the degree to which an achievement is being or has been accomplished (Judy, 1999).

A Commercial bank is a type of financial institution that provides services such as accepting deposits, making business loans, and offering basic investment products (Khambata, 1996).

Performance involves on the improvement of the concept of organizational change in which the manager sand governing body of an organization put into place and manage a program which measures the current level of performance of the organization like inventory management and then generates ideas for modifying organizational behavior and infrastructure which are put into place to achieve higher output (Ronald, 1999). Financial ratios are useful indicators of performance and financial situation. Most ratios can be calculated from information provided by the financial statements. Financial ratios can be used to analyze trends and to compare the firm's financials to those of other firms. In some cases, ratio analysis can predict future bankruptcy.

Different authors have conducted various studies regarding the subject matter. Lydnon, M., et al. (2015) investigated the relationship between non-performing loans and bank performance in Nigeria for the period 1994-2014. The study employed ADF Unit Root test, descriptive statistics, and multiple regression techniques to analyze data collected for the study from the CBN, NDIC and annual reports of listed banks. The results of the study show that BAL and DOL had statistically negative significant influence on ROCE, while SUL had statistically negative insignificant impact on ROCE. These results show that high level of non-performing loans would reduce the performance of banks in the long run in Nigeria. The study therefore recommended that credit reporting agencies and supervising authorities should be strengthen in order to reduce the high level of non-performing loans in the banking sector of Nigeria.

Credit risk is a serious threat to the performance of banks; therefore various researchers have examined the impact of credit risk on banks in varying dimensions. Credit risk management greatly influences or prevents the failure of a bank. This is because the failure of a bank is influenced to a large extent by the quality of credit decisions and thus the quality of the risk assets. Credit risk management provides a leading indicator of the quality of banks credit

portfolio (McNaughton 1994).

Felix and Claudine (2008) investigated the relationship between bank performance and credit risk management. It could be inferred from their findings that return on equity (ROE) and return on assets (ROA) both measuring profitability were inversely related to the ratio of nonperforming loan to total loan of financial institutions thereby leading to a decline in profitability.

Kithinji (2010) assessed the effect of credit risk management on the profitability of Deposit Money Banks in Kenya. Data on the amount of credit, level of non-performing loans and profits were collected for the period 2004 to 2008. The findings revealed that the bulk of the profits of Deposit Money Banks are not influenced by the amount of credit and non-performing loans, therefore suggesting that other variables other than credit and non-performing loans impact on profits.

Kargi (2011) evaluated the impact of credit risk on the profitability of Nigerian banks. Financial ratios as measures of bank performance and credit risk were collected from the annual reports and accounts of sampled banks from 2004-2008 and analyzed using descriptive, correlation and regression techniques. The findings revealed that credit risk management has a significant impact on the profitability of Nigerian banks. It concluded that banks' profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress.

Epure & Lafuente (2012) examined bank performance in the presence of risk for Costa-Rican banking industry during 1998-2007. The results showed that performance improvements follow regulatory changes and that risk explains differences in banks and non-performing loans negatively affect efficiency and return on assets while the capital adequacy ratio has a positive impact on the net interest margin.

Ahmad & Ariff (2013) examined the key determinants of credit risk of Deposit Money Banks on emerging economy banking systems compared with the developed economies. The study found that regulation is important for banking systems that offer multi-products and services; management quality is critical in the cases of loan-dominant banks in emerging economies. An increase in loan loss provision is also considered to be a significant determinant of potential credit risk. The study further highlighted that credit risk in emerging economy banks is higher than that in developed economies.

Ahmed et al., (2013) in their study found that loan loss provision has a significant positive influence on non-performing loans. Therefore, an increase in loan loss provision indicates an increase in credit risk and deterioration in the quality of loans consequently affecting bank performance adversely. The risks in lending stem from the various factors that can lead to non-payment of the loan obligation when it falls due. Losses sometimes result from "acts of god" such as storm, drought, fires, earthquakes and floods.

Changes in consumer demand or in technology of an industry may alter drastically the fortunes of a business firm and place a once profitable borrower to a loss position. A prolonged strike, competitive price cutting, or loss of key management personnel, can



seriously impair a borrowers' ability to make loan repayments. The swings of the business cycle affect the profits of many who borrow from banks and influence the optimism and pessimism of business people as well as consumers.

Saba et al., (2012) in their study on determinants of non-performing loans in the US banking sector for the period 1985-2010 using OLS regression model for data analysis and found that real total loans have positive significant effect on non-performing loans, while interest rate and GDP per capital has a negative significant association with non-performing Loan (NPLs).

Ali & Iva (2013) conducted a study on the impact of bank specific factors on non-performing loans (NPLs) in the Albanian banking system. The study employed OLS regression model to analyze panel data for the period 2002-2012. Their findings reveal that real exchange rates and loan growth rate have a positive association with non-performing loans (NPLs), while GDP growth rate and interest rate had negative association with NPLs. The also show that inflation rate had insignificant effect on non-performing loans (NPLs).

Also in Albanian, Shingjergji (2013) studied the impact of bank specific factors on non-performing loans (NPLs) in the banking system using a simple regression model for data analysis. The study found that capital adequacy ratio had negative but insignificant association with non-performing loans, while return on equity and loans to asset ratio had negative but significant effect on NPLs, Their study also found that total loan and net interest margin had positive significant relationship with non-performing loans (NPLs).

Ranjan and Chandra (2003) analyze the determinants of non-performing loans (NPLs) of commercial banks in Indian, using panel regression model and they found that lending rate has positive influence on non-performing loans (NPLs). This meant that higher interest rate induced the changes in cost conditions to further fuel and increase in non-performing loan (NPLs).

Bofondi & Ropele, (2011) investigated the macroeconomic determinants of bad loans of Italian banks for the period 1990-2010 using quarterly data and found that non-performing loans are positively associated with the unemployment rates, lending rates and negatively associated with the GDP growth rate.

Similarly, Ekanayake & Azeez, (2015) investigated the determinants of non-performing loans in licensed commercial banks in Sri Lanka for the period 1999- 2012 and found that the level of non-performing loans can be attributed to both macro-economic conditions and banks specific factors. Their study results reveal that non-performing loans tends to increase with deteriorating banks efficiency and there was a positive correlation between loan to asset ratio and non-performing loans. They also observed that banks with high level of credit growth is associated with a reduced level of non-performing loans, while larger banks incur lesser loan defaults compared to smaller banks. However the study found with regards to the macro economic variables, that non-performing loans vary negatively with growth rate of GDP, while inflation was positively related to the prime lending rate.

Study by Talata (2011) examined the effect of non-performing loans on the financial performance. The finding showed that NPLs, loan recovered, cost-income ratio, and total revenue were statistically significant at one percent (1%) level of significance respectively. However liquidity risk was not statistically significant. The NPLs & cost to income ratio had a negative effect on financial performance while total revenue & loan recovered had a positive influence on financial performance.

Study by Wangai et al., (2012) investigated the effect of non-performing loans on financial performance of microfinance banks (MFBs) in Kenya. The research was carried out in MFBs in Nakuru town, Kenya. The results showed that, credit risk had significant effect on financial performance of Micro finance Banks in Nakuru town.

Awoyemi (2014) also analyzed the effect of Credit Risk Management on the performance of Commercial Banks in Nigeria. In the regression model, ROE and ROA were used as indicators of performance while NPLs and Capital Adequacy Ratio (CAR) were used as credit risk management proxies. The study collected data from annual reports of seven commercial banks for seven years beginning 2005 to 2011. From panel regression model, it was established that credit risk management practices have a statistically significant effect on the profits of commercial banks operating in Nigeria.

Research by Muasya (2009) carried a comparative study to find out extent to which commercial banking institutions in Kenya and Europe were affected by problem of NPLs during the global financial crisis period 2008/2009. The study results showed that Kenyan banks made less losses as compared to banks in US and Europe in same period due to the negative effect of Non-Performing Loans.

The researcher showed the theoretical available written by different authors about the variables under the study and the reviewed information in relation with nonperforming loans and performance of commercial banks. Hence, all illustrated authors and scholars in this document they lack to conduct a research geographically in Rwanda as gap left. Therefore, this research completed that gap by the relationship between nonperforming loans management and financial performance of ECOBANK Rwanda by using SPSS as tool of analysis.

#### **4. Methodology**

In this section tools and techniques and methods had been used to achieve the stated objectives: both primary and secondary data were collected then analyzed through MFI Factsheet\_ 3.4, SPSS 16 tools (Correlation), so that the correlation and strength between variables can be determined. The study uses correlational as it shows the relationship between non-performing loans management and financial performance of ECOBANK.

##### *4.1 Data Analysis*

The research is analytical and empirical in nature and makes use of secondary data. The population for the study is employees from different department of ECOBANK. The data has been sourced from ECOBANK financial statements and BNR reports. The sample period



undertaken for the objectives is from the year 2013 to 2015.

#### 4.1.1 The Sample

The data was collected from 170 sample size out of 295 total populations selected using stratified random sampling techniques. The sample was calculated using Taro Yamane formula elaborated in 1982.

#### 4.1.2 Research Instruments

Primary data and secondary data collection had been used in order to achieve the research objectives. The primary data had been collected using questionnaire. References have been made to textbooks, journals, newspapers and other published literature, electronic journal and the internet provide as valuable sources of data. Archival method was important for this research. It consisted to gather data from written resources concerning research topic in order to understand present situation. The literature review bought about comprehensive review involving the collection of both academic theories and research directly related to the study.

#### 4.2 Models and Techniques

To find out the relationship between nonperforming loans management and financial performance indicators of ECOBANK Rwanda a Multiple Linear Regression analysis is carried out in respect of employees of ECOBANK RWANDA for data of 3 years i.e. from 2013 to 2016.

### 5. Finding and Results

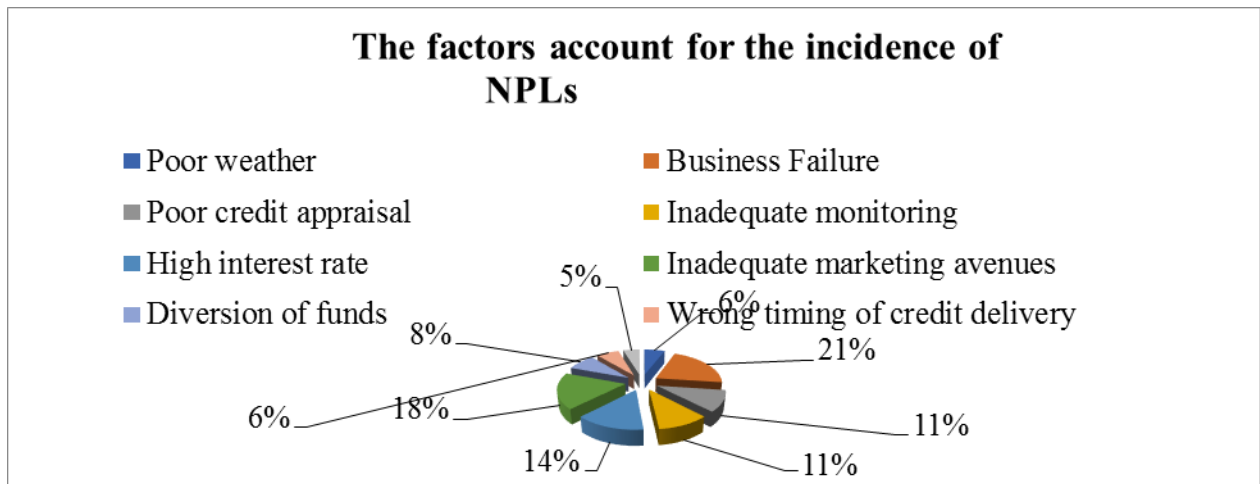
Among 170 customers who participated during this study, majority were male. This is justified by the rate of 56.5% respondents who were male. The 43.5% respondents were females. ECOBANK employs both sexes because we found the participation of both women and men. This is one among the factors that helps ECOBANK to perform well their activities, and helps the researcher to make trust on the data from respondents of this commercial Bank.

#### 5.1 Analysis of Non-Performing Loans Management in ECOBANK Rwanda

During the study, we found that Nonperforming loans are as loans which for a relatively long period of time do not generate income that is both the principal and interest on these loans remain unpaid for at least 90 days. There are different causes and factors of NPLs in banking institutions. But when bank follows laws and regulation, this default or close to being in default is not happen. The study at ECOBANK shows the information related to NPLs management where, the findings indicate that non-performing loans are caused by poor management. After the administration of the questionnaires, the responses given by the respondents are discussed. Many reasons were assigned to the causes of non-performing loans in the commercial bank like ECOBANK.

According to the findings from 100.0% respondents, the major factors identified by the respondents were business failure, poor credit appraisal techniques, inadequate monitoring,

diversion of funds, poor weather conditions, inadequate marketing avenues, wrong timing of credit delivery, high interest rate, willful default among others as the figure below shows:

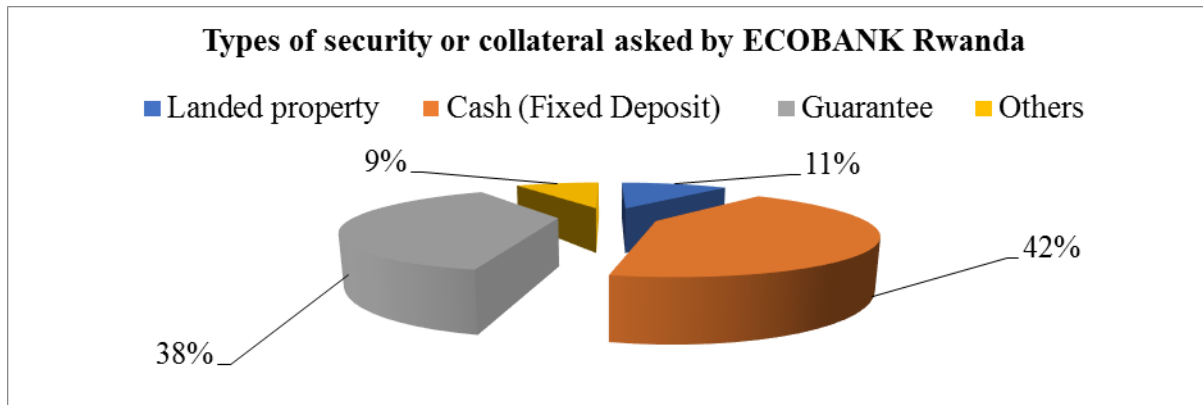


**Figure 1.** The Factors Account for the Incidence of NPLs

Some research findings and publications indicate that nonperforming loans are caused by poor management. Berger & De Young (1997) argued that managers in most banks with the problem of nonperforming loans do not practice adequate loan underwriting, monitoring and control. Credit culture is another factor which has been identified by some research findings as a cause of NPLs. Sometimes borrowers decide to apply for loan without thinking enough about the future and what else they need to buy with their income. When this occurs, a credit culture can develop where borrowers take out large loans not because it is financially wise to do so but because they see others do it. This can result in defaulted loans.

During this study at ECOBANK Rwanda, there was various factors account for the incidence of non-performing loans in ECOBANK as illustrated above to the perceptions of respondents in relation with the factors account for the incidence of non-performing loans in ECOBANK.

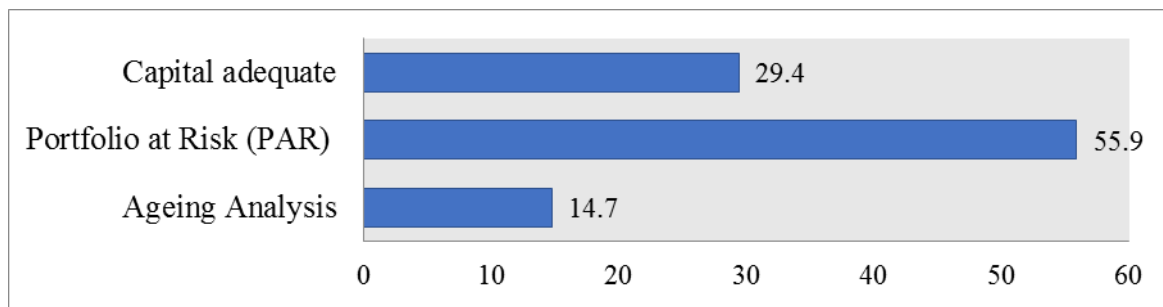
Out of 100.0% respondents, Poor weather was occupied the rate of 5.9% among other factors account for the incidence of non-performing loans in ECOBANK. Business Failure was on high level because occupied 21.2%. Poor credit appraisal and inadequate monitoring was on rate of 10.6%. High interest rate was on 14.1%. Inadequate marketing avenues has rate of 18.2%. Diversion of funds occupied the rate of 8.2%. Wrong timing of credit delivery was on rate of 6.5%. All of the above was occupied by 4.7%. Business failure was the main factor account for the incidence of non-performing loans in ECOBANK which occupied the rate of 21.2%. Generally, Ineffective Monitoring, Inadequate Marketing Avenues, Business failure, Poor credit Appraisal techniques, Diversion of Funds, Wrong timing of credit delivery, Poor weather conditions, High Interest rate, willful Default and Others are confirmed to be the factors account for the incidence of non-performing loans in ECOBANK.



**Figure 2.** Types of Security or Collateral Asked by ECOBANK Rwanda

Literally, the major factors considered by the lending institutions before granting loans are the ability and the willingness of the borrower to repay the loan on the due date. When the probability of collecting a loan becomes very low, the normal practice is to charge the loan off by deducting its value from the loan portfolio balance by reducing loan loss reserve or, if there is no reserve, by charging an equivalent expense to the income statement. Thus, as results of uncertainties in future cash flows and willful defaulting and to be able to minimize the risk of default, banking institutions normally require security in the form of guarantee and/or deposit, (usually up to 25% of the loan amount). However, the borrowers who miss payments are pressured at the due date and if the arrears continue, legal action is initiated against the borrower and guarantor(s) to recover any amounts owed, but usually after the designated collateral has been seized and liquidated to reduce the borrowing(outstanding loan balance). Provisioning for delinquent microfinance and small business loans is made on a “basket” basis, rather than on an individual loan basis. Basket-based provisioning involves making a blanket provision for the aggregate outstanding balances of loans grouped in each age basket, without regard to any security available for individual loans.

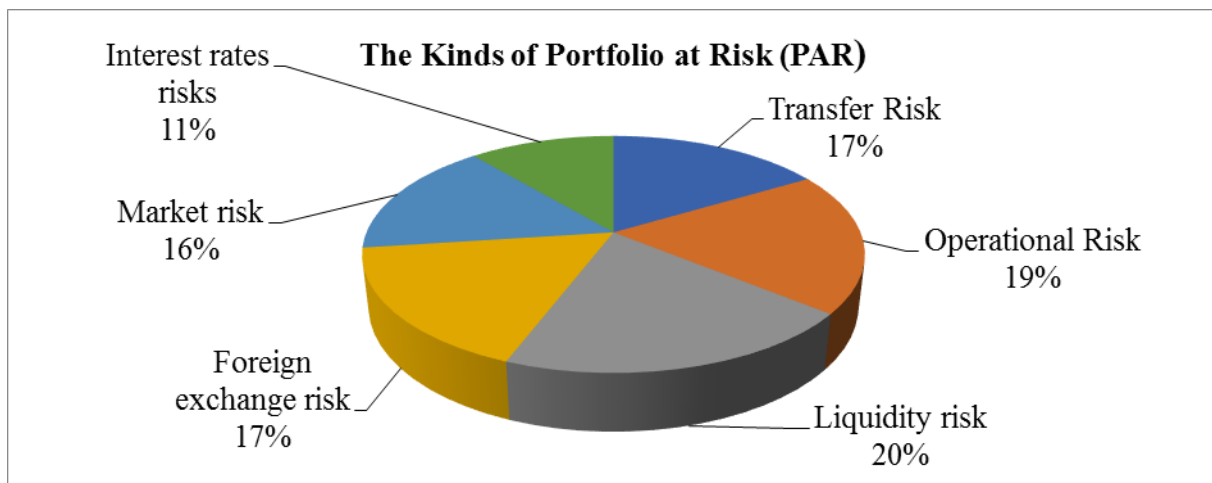
During this study at ECOBANK Rwanda, it was found that this Bank used different types of security/collateral to borrowers to secure loans or overdraft. Out of 100.0% respondents, the 11.2% confirmed that Landed property is type of security/collateral which is often offered by borrowers to secure loans or overdraft from ECOBANK Rwanda. The 42.4% said that they used Cash (Fixed Deposit) as security/collateral is often offered by borrowers to secure loans or overdraft. 37.6% said that Guarantee is type of security/collateral is often offered by borrowers to secure loans or overdraft. But 8.8% confirmed that there are Others types of security/collateral is often offered by borrowers to secure loans or overdraft like houses, vehicle, house equipment and etc. Generally, to reduce NPLs in ECOBANK required asking the security/collateral that is often offered by borrowers to secure loans or overdraft.



**Figure 3.** Different Types of Security/Collateral to Borrowers to Secure Loans or Overdraft

During this study, we found that the interest income generated from loans contributes significantly to the profitability performance of the financial institutions like ECOBANK Rwanda. However, when loans become delinquent, it has a serious negative effect on the health and operations of the financial institution. One of the reasons is that, in line with the Bank of Rwanda regulations, the lending institution has to make provision and charges for credit losses (bad debt/impairment) which ultimately reduce the profit level.

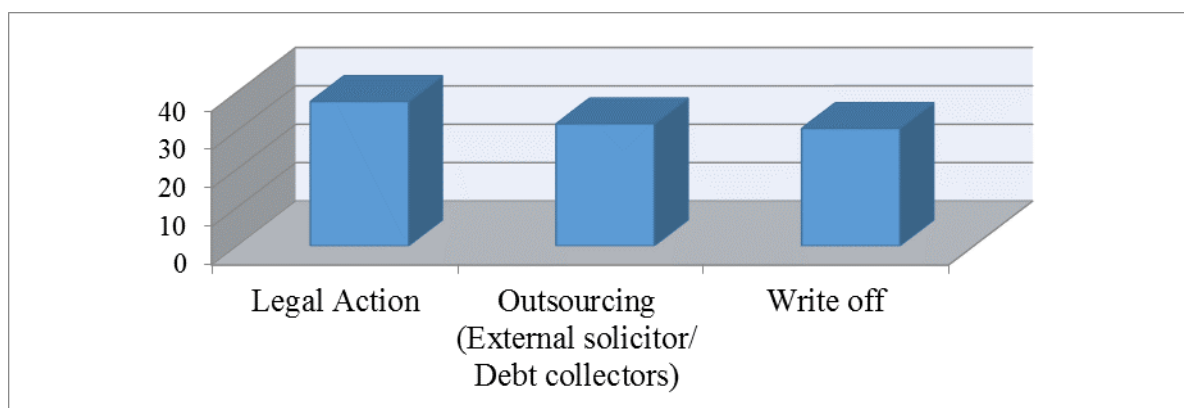
The findings show the perceptions on the techniques used to monitor the health of loan portfolio where Ageing Analysis was confirmed on rate of 14.7% to be one among the techniques used by ECOBANK Rwanda to monitor the health of loan portfolio. Portfolio at Risk (PAR) was confirmed by 55.9%. Capital adequate was confirmed on rate of 29.4% as being the technique used in ECOBANK Rwanda to monitor the health of loan portfolio.



**Figure 4.** The Kinds of Portfolio at Risk(PAR)

There is an element of risk in any loan granted because the expected repayment may not occur. Lending involves a lender providing a loan in return for a promise of interest and principal repayment in future (Kay Associate Ltd, 2005). Because of this risk of default in loan repayment, lenders needs to project into the future and make sound judgment that will

ensure that repayment is effected at the agreed date. Available literature places so much importance on the lender’s role in ensuring good decisions relating to the granting of loans in order to minimize Portfolio at Risk (PAR). During this study at ECOBANK Rwanda, participant respondents confirmed various risks faced by ECOBANK Rwanda such as Transfer Risk which confirmed on rate of 16.5%; Operational Risk on rate of 19.4%; Liquidity risk on 20.0%; Foreign exchange risk on rate of 17.1%; Market risk on rate of 15.9% and Interest rates risks was on rate of 11.2% as indicated by confirmation from respondents in ECOBANK Rwanda.



**Figure 5.** Measures Used by ECOBANK to Reduce Problem of Non-Performing Loan

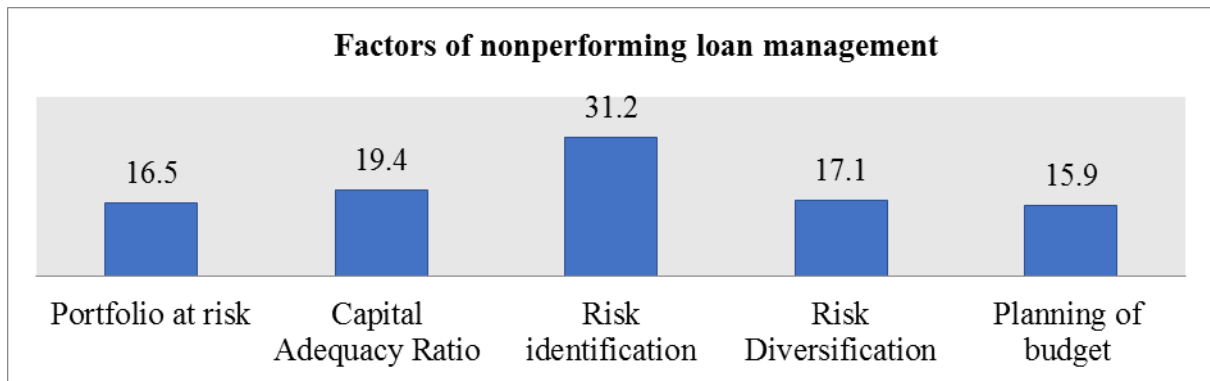
The incidence of NPLs can be reduced considerably while ensuring the utilization of the loan for the intended purpose; identifying early warning signals of any problem relating to the operations of the business that are likely to affect the performance of the loan; ensuring compliance with the covenants of the loan facility, and affording the lender the opportunity to discuss the problems and prospects of the borrower’s business. ECOBANK Rwanda used various measures to reduce problem of loans as confirmed by 37.6% respondents who said that ECOBANK Rwanda takes Legal Action to reduce problem of loans. 31.8% confirmed that ECOBANK Rwanda used Outsourcing (External solicitor/ Debt collectors). The 30.6% confirmed that they used to write off the loans.

Available literature places so much importance on the lender’s role in ensuring good decisions relating to the granting of loans in order to minimize credit risk. The lender must always aim at assessing the extent of the risk associated with the lending and try to reduce factors that can undermine repayment. The lender should therefore assemble all the relevant information that will assist him/her in arriving at a sound credit decision. In view of the possibility of non-payment which leads to NPLs, Banks have adopted a standard loan request procedures and requirements usually contained in credit policy manual to guide loan officers and customers.

During the study at ECOBANK Rwanda, to verify the character of the prospective borrower was confirmed on rate of 17.6% as factor considered before granting loans to reduce NPLs at

ECOBANK Rwanda. Check the amount being requested by the customer was also confirmed on rate of 22.4%. Margin(Interest margin, commissions and relevant fees) was on rate of 15.3%. ECOBANK Rwanda looks the purpose of the loan as confirmed by 8.8%. Ability of the borrower to manage business successfully was confirmed by 14.7% respondents. To verify the repayment (source of repayment must be credible) was on rate of 10.0%. To have an insurance (security provided by the customer) was occupied 5.3% while, technical and financial viability of the business was on rate of 5.9%. Generally, ECOBANK Rwanda also uses and considers different factors before granting loans to reduce NPLs.

According to Rouse (1989) identified internal records, visits and interviews, audited and management accounts as some of the things that help in the monitoring and control process, where monitoring can help minimize the incidence of NPLs. The findings on the perceptions of Respondents on monitoring the incidence of NPLs at ECOBANK Rwanda revealed from 100.0% respondents, 23.5% confirmed that ECOBANK Rwanda was ensuring the utilization of the loan for the intended purpose. 31.2% confirmed that ECOBANK was identifying early warning signals of any problem relating to the operations of the business that are likely to affect the performance of the loan. 30.0% said that ECOBANK was ensuring compliance with the covenants of the loan facility. ECOBANK Rwanda was affording the lender the opportunity to discuss the problems and prospects of the borrower’s business as confirmed by 15.3%.



**Figure 6.** Factors of Nonperforming Loan Management

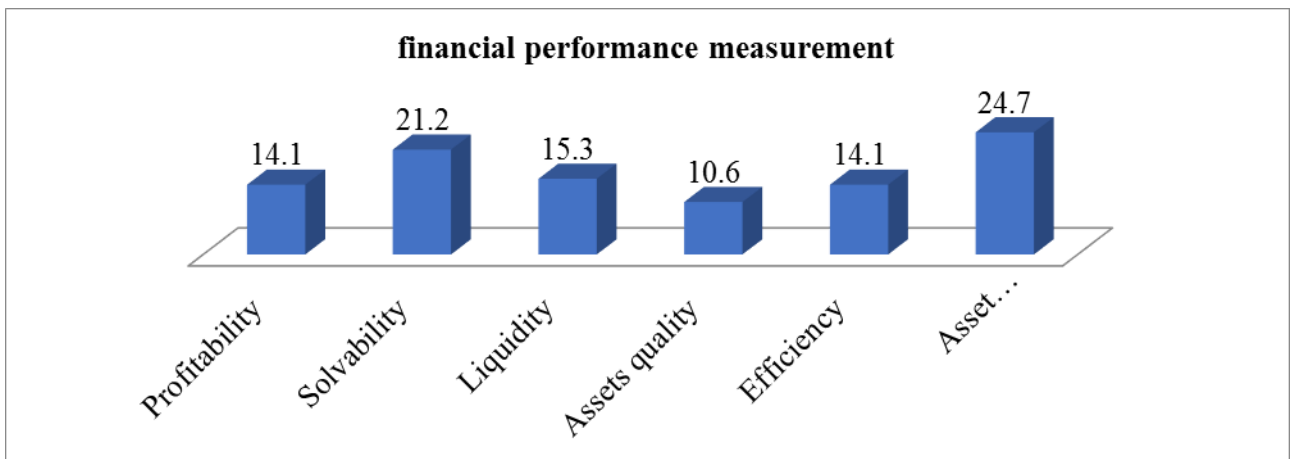
Literally, Non-performing Loan Management is looked as to maximize a bank’s risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Bank need to manage the credit risk inherent in the entire Risk as well as the risk in individual credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organizations. Portfolio at risk; Capital Adequacy Ratio; Risk diversification; Risk Diversification; and Planning of budget were found to be used and checked in Nonperforming loans Management.



About factors of nonperforming loan management at ECOBANK Rwanda, Portfolio at risk was occupied rate of 16.5%. Capital Adequacy Ratio was on 19.4%. Risk identification was on 31.2%. Risk Diversification was on 17.1%. While planning of budget was on rate of 15.9%. Generally, there are various factors of non-performing loans management at ECOBANK Rwanda.

*5.2 Analysis of Financial Performance of ECOBANK Rwanda*

As illustrated on the figure below, the Perceptions of respondents on financial performance measurement shows that 14.1% confirmed profitability as financial performance measurement used by ECOBANK Rwanda. Solvability was occupied the rate of 21.2%. Liquidity was on rate of 15.3%. Assets quality was on rate of 10.6%. Efficiency is financial performance measurement as confirmed by 14.1%. Asset management was on rate of 24.7% from other factors of financial performance measurement in ECOBANK Rwanda.



**Figure 7.** Financial Performance Measurement

The perceptions of Respondents on the indicators of financial performance of ECOBANK Rwanda, 9.4% confirmed that Revenue of ECOBANK was increased from 2013 up to 2015. The 11.2% respondents confirmed that during the period 2013 to 2016, ECOBANK has greatly diversified its products. 11.8% respondents confirmed that ECOBANK has improved its market share during the period 2013 to 2015. The 7.6% confirmed that ECOBANK has consistently increased its assets. 10.0% respondents confirmed that ECOBANK increases its branches during the period of years. 9.4% confirmed that ECOBANK Rwanda presents an Increase in customers. 13.5% confirmed that ECOBANK Rwanda presenting profitability evolution. 18.8% said that ECOBANK was reducing non-performing loans as factor of financial performance. 8.2% confirmed that ECOBANK Rwanda was Increasing number of loans delivered to borrowers.

**Profit Evolution:** The profit ratios performance of ECOBANK RWANDA from 2013 to 2015 indicated an increase from 2013 to 2014 where it came from on 9.24% to 14.92% of profit, while in 2014 to 2015 are characterized by increasing in profit from 14.92% to 15.18% of

profit.

**The Return on Assets:** At the end of 2015 illustrated that there were an increase of return on assets from 2013 to 2014 where it increased from 1.09% to 1.66% of return on assets, while in 2014 to 2015 are the years characterized by increasing in return on assets from 1.66% to 1.127% of return on assets.

**Return on Equity:** At the end of 2015 presented an increase from 2013 to 2014 where it increased from 10.16% to 16.30% of return on equity, while in 2014 to 2015 are characterized by increasing on return on equity from 16.30% to 10.80% of Return on Equity.

Every organization needs to ensure that it can pay its salaries, bills and expenses on time. Failure to pay loans on time may limit the future access to credit and therefore your ability to leverage operations and growth. A very high current ratio may mean there is excess cash that should possibly be invested elsewhere in the business or that there is too much inventory. Findings show in 2013 CR was varied on 2.98; in 2013 was on 2.82 while in 2015 CR was on 2.02.

### *5.3 Relationship between nonperforming loans management and financial performance of ECOBANK Rwanda*

Findings revealed NPLs management contributes to the financial performance achievement in ECOBANK where 74.7% respondents confirmed during the period from 2013 to 2015. The findings have also revealed a significant relationship between NPLs management and performance of ECOBANK Rwanda where 72.4% have confirmed this association during the period from 2013 to 2015. These are supported by correlation coefficient between NPLs management and financial performance of ECOBANK Rwanda that was measured to be 0.741. It is clear that 54.9 % of NPLs can impact on financial performance. This leads to confirm that there is significant association between NPLs management and financial performance of ECOBANK Rwanda.

## **6. Conclusion and Recommendations**

### *6.1 Conclusion*

Based on the findings of this study, the researcher concludes there is greater contribution of NPLs management on the financial performance of commercial banks especially ECOBANK Rwanda.

### *6.2 Recommendations*

ECOBANK Rwanda should look if it is necessary the participation of all stakeholders in the implementation of credits delivery principles. It should continue to do an improvement. Since the study was limited on ECOBANK; other researchers should address their studies to other commercial Banks like BK, KCB, GTBank, A&M Bank and etc. by carrying out effect of Credit risk management on profit evolution of commercial banks in Rwanda.

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