

# Assessing Credit Risk Management Practices and Performance of Commercial Banks in Rwanda

(Case Study of Banque Populaire Rwanda 2011-2013)

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**Abstract:** A number of commercial banks have registered an unsatisfactory financial performance. This crisis has been related to inefficient credit risk management systems. This research assessed the relationship between credit risk management and banks' profitability. The guided objectives were the following; to examine how credit risk mitigation system is applied by BPR Ltd, to find out problems faced by credit risk managers of BPR Ltd in Managing credit risk, and to evaluate the relationship between credit risk management and financial performance of BPR Ltd. This study is expected to be significant to all Rwandan banking sectors, University of Rwanda, Future researchers, and the general public. The study used BPR Ltd Nyagatare branch as a sample to represent other commercial banks in Rwanda, out of 150 staff of Nyagatare branch the researcher took a sample of 50 respondents to represent others. The researcher used a descriptive and analytical research based on both qualitative and quantitative data. Primary data was obtained by extracting information from questionnaires designed to get answers from different respondent composed of BPR Ltd staff from different level. Secondary data were collected from books, journals, newspapers and internet materials. In research data is presented in form of tables, graphics while analysis and interpretation were based on frequencies and percentages. The research found that BPR Ltd has a credit management system though it needs to be reviewed and adopted more to current Rwandan environment. The research found that there is a direct relationship between credit risk management and profitability of commercial banks. The research recommended that BPR Ltd should review and improve its credit policy and adopt it to Rwandan market and context and BPR Ltd should provide continuous training and updates to its staffs.

**Keywords:** Credit Policy, Credit Risk, Credit risk Management.

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## 1. INTRODUCTION

All financial systems in the world operate in a changing environment. These changes present threats or opportunities thus exposing banking sector to a high risks which need to be Managed efficiently and effectively.

A number of commercial banks in the world has collapsed or experienced financial problems due to inefficient credit Management systems. The study seeks to examine the relationship between credit risk management and banks' profitability.

The past decade has seen dramatic losses in the banking industry. Firms that had been performing well suddenly announced large losses due to credit exposures that turned sour, The Reserve Bank of Zimbabwe (RBZ) pointed out what it terms "imprudent credit risk management practices" as being one of the major causes of the banking crisis of 2004. In response to this, commercial banks have almost universally embarked upon an upgrading of their risk management and

control systems. Commercial banks are in the risk business. In the process of providing financial services, they assume various kinds of risks such as operational Risk, counterparty Risk, liquidity Risk, legal Risk, and Credit Risk.

Rwandan banking sector is also exposed to Different types of Risks mentioned above, Through the National Bank of Rwanda (NBR) the government has set some tools and strategies to make sure that Credit Exposure Risks are mitigated.

BPR Ltd is one of the Commercial banks operating in Rwanda and it is exposed to credit risks, Most of Rwandan Commercial banks had a cut down in the process of loan Granting in the last quarter of the year 2012 up to first quarter 2013 and this Drastic dawn word trend is suspected to be associated with Inability to apply right credit risk Management techniques. The aim of this research study is to analyze the correlation between proper credit risk management by BPR Ltd and its revenue in the period of the year 2010- to 2013.

## 2. STATEMENT OF THE PROBLEM

In many countries Commercial banks have registered an unsatisfactory financial performance as reflected from increasing loss ratios such as: current ratios, quick ratio, net profit ratio, and return on capital employed ratio.

Simon (2010) said that the 2007-09 financial crisis was caused by failure to manage credit risk properly, he emphasized that there were failures of implementation in relation to both risk management and corporate governance. Notably some financial institutions did not implement credit risk management and corporate governance frameworks that were aligned with accepted good practice.

This poor performance has been attributed to combination of many factors including, low net interest margins, inflation, exchange rates, Good managerial ideas, credit risk management etc..

Herrero (2003), in his paper, the determinants of the Venezuela banking crisis argued that among the reasons for bank failure was inappropriate lending practices which exposed banks to different risks and losses.

Risk management has emerged as a distinctive subject and as an arm of practical management of risk. It brings ideas and techniques drawn from many disciplines in order to provide a sound conceptual foundation and a set of tools for analysis and control of risks.

The way credit risk is managed greatly determines the performance of such a bank. Many banks that failed to manage their credit risk very well have performed poorly while those ones that managed them properly have had good profits. BPR Ltd has credit policy set to reduce credit risk and NPLs which means that credit risk management department has a critical role in financial performance. However, the extent to which credit risk management contributes to profitability of BPR Ltd is not clear. It is against this issue that the researcher wants to carry out this research and find the relationship between credit risk management and profitability of commercial banks.

## 3. OBJECTIVES OF THE STUDY

### 3.1 General objective:

To analyze the relationship between credit risk management and performance of commercial banks.

### 3.2 Specific objectives:

- i. To examine whether credit risk management is applied by BPR Ltd.
- ii. To find out problems faced by credit risk managers of BPR Ltd in Managing credit risk.
- iii. To find out the relationship between credit risk management and financial performance of BPR Ltd.

### 3.3 Research questions:

In pursuit of the specific objectives, this study seeks to answer the following questions:

- i. How does BPR Ltd apply credit risk management system?
- ii. What are some problems faced by credit risk managers of BPR Ltd
- iii. What is the relationship between credit risk management and financial performance of BPR Ltd?

#### 4. DESIGN OF THE STUDY

A research design is the arrangement of conditions of collections and analysis of data in a manner that aims to combine relevant data to the research purpose with economy in procedures. It is a conceptual structure within which research is conducted. The researcher used a case of BPR Ltd this company was selected to represent other commercial banks in Rwanda. This was selected because of its wide coverage in the country. The researcher used judgmental sampling in which BPR Ltd is the representative of the population of interest (i.e. commercial banks) and the information were generally based on perception that it would give better indications of the futures patterns of credit risk management.

Qualitative methodology was used to make a causative analysis of effectiveness of credit risk management towards financial performance of commercial banks.

Quantitative methodology were used to collect and assess the extent to which BPR Ltd uses appropriate techniques and tools to manage risks in their daily operations.

#### 5. TARGET POPULATION

The population of this study is composed of 150 staff for the whole 5 sub branches, the researcher chose BPR Ltd Nyagatare Branch to represent the population of interest (commercial banks) because of its wide coverage and it meets the specific needs of the research study.

From that population, a sample of fifty respondents was considered. Special considerations will be given to the knowledge and skills of the respondents in relation to the variables under study. Among the respondent the researcher will choose randomly some credit officers, sub Branch Managers, and credit committee members.

#### 6. SAMPLE SIZE

A sample of 50 respondents including senior, middle and operational workers involved in Credit risk Management of BPR Ltd from different sub branches were taken for convenience purposes. The researcher applied purposive sampling in order to work with departments with relevant skills.

##### 6.1: Sample size:

| POPULATION              | SIZE |
|-------------------------|------|
| 1. Commercial officers  | 14   |
| 2. Recovery Officers    | 14   |
| 3. Credit Analysts      | 10   |
| 4. Branch risk Heads    | 1    |
| 5. Accountants          | 5    |
| 6. Branch /Sub Managers | 6    |

Source: Researcher, 2013.

##### 6.2 Sampling procedure:

A sampling Procedure refers to the technique or procedure the researcher would adopt in selecting items for the sample.

In carrying out this study, the researcher used purposive sampling whereby credit and finance departments were considered to ensure relevant people with the required skills in the study, and the researcher used simple Random sampling among the selected departments to avoid bias.

#### 7. DATA COLLECTION

The source of data for this study comprised both primary and secondary sources of information. Primary were collected using the various data collecting tools instruments such as questionnaires, and interviews then for secondary data the researcher explored the available sources such as books, journals, and internet.

The data required is both qualitative and quantitative as explained in the design section.

##### 7.1. Primary data:

Donald (2005) states that communication involves questioning respondents to secure desired information, using a data collection instrument called a questionnaire. The researcher employed Interview and questionnaire in data collection.

### 7.1.1. Questionnaire:

Questionnaires with structured questions were designed in English. The questionnaire was consisted with open questions which were used to obtain the detailed information on the study and closed open ended and closed ended or unstructured questions to get short and precise responses from the respondents on the same issue.

### 7.1.2. Interview:

An interview was used to help the researcher capture all the required information by providing any clarification during the Discussion, and it also helped the researcher to seek more explanations on some matter where the written answer may not be very clear. The interviewer took a single interviewee at a time, while recording the information on prepared paper for each question that was asked.

### 7.2. Secondary data:

The researcher used available data from textbooks, journals, reports and online materials in some instances.

## 8. PRESENTATION OF FINDINGS

The researcher presented the data in such a way that it answered the research questions and met the objectives under study. The logical arrangement of findings from General information to specific information to meet specific objectives was a major researcher's concern.

### 8.1 General Information:

Most of respondents contacted were found to be male 72% of the respondents were Male while the difference which is 28% were female.

**Table 1: Respondents group of age**

| Range ( years) | Frequency | Percentage |
|----------------|-----------|------------|
| ≤ 30           | 10        | 20         |
| Between 31- 40 | 29        | 58         |
| Between 41- 50 | 9         | 18         |
| Between 51- 60 | 2         | 4          |
| ≥ 60           | 0         | 0          |

Source: Primary Data ( 2013)

BPR Ltd staff is composed of people belonging to different age group but, 20% were aged below 30years, a very big number representing 58% of its staff is between 31-40 years old, 18% were between 41- 50 and 4 %were between 51- 60 years old.

**Table 2: Respondents Educational Level**

| Educational level | Frequency | Percentage |
|-------------------|-----------|------------|
| Accounting        | 10        | 20         |
| Management        | 32        | 64         |
| CPA or ACCA       | 1         | 2          |
| Economists        | 6         | 12         |
| Others            | 1         | 2          |
| Total             | 50        | 100        |

Source: Primary data

A big number of employees representing 64% of BPR Ltd have the background of management and related courses. 20 percent of its staffs have Accounting, 8% have Economics background and others have done courses related to banking sector.

**Table 3: Respondents experience**

| Experience         | Frequency | Percentage |
|--------------------|-----------|------------|
| 0-3 years          | 12        | 24         |
| 4-10 years         | 30        | 60         |
| 11-20 years        | 8         | 16         |
| More than 20 years | 0         | 0          |

Source: Primary data

The respondents proved that BPR Ltd has experienced staff, whereby 60 % have the experience of 4 years and above and 16 % of staff have more than 11 years and only 24 % have the experience between 0- 3 years.

**Table 4: Existence of credit management system at BPR**

| Alternatives      | Frequencies | percentage |
|-------------------|-------------|------------|
| Strongly disagree | 0           | 0          |
| Disagree          | 0           | 0          |
| Not sure          | 0           | 0          |
| Agree             | 0           | 0          |
| Strongly agree    | 50          | 100        |

Source: Primary data, 2013

All respondents confirmed that BPR Ltd has put in place a very strong credit risk management to ensure that loans are granted and managed effectively and efficiently.

**Table 5: Appropriateness of credit management system at BPR**

| Alternatives      | Frequencies | percentage |
|-------------------|-------------|------------|
| Strongly disagree | 8           | 16         |
| Disagree          | 12          | 24         |
| Not sure          | 4           | 8          |
| Agree             | 26          | 52         |
| Strongly agree    | 0           | 0          |

Source: Primary data, 2013

The above table is a summary of how people responded about the appropriateness of the credit management system of BPR Ltd. 52 % of the respondents accepted that they do agree that the credit management system in place is appropriate and safe to minimize the default risk where as 40 % replied that they believe in such a system.

**Table 6: Increase of NPLs Due to poor Credit Management**

| Alternatives      | Frequencies | percentage |
|-------------------|-------------|------------|
| Strongly disagree | 5           | 10         |
| Disagree          | 24          | 48         |
| Not sure          |             | 0          |
| Agree             | 21          | 42         |
| Strongly agree    | 0           | 0          |

Source: Primary Data, 2013

As confirmed by 58% of the respondents, the increment of nonperforming loan rate is not directly caused by poor credit management system of BPR Ltd but 42 % accepted that credit risk management is the major cause.

As confirmed by respondents, BPR Ltd credit risk policy has some anomalies which most of the time causes problems while managing credit risks. A good example will be that the policy define the process of loan granting from loan application to its approval but it ignores the after the loan is disbursed client need a close supervision.

**Table 7: Profitability of BPR Ltd**

| Alternatives      | Frequencies | percentage |
|-------------------|-------------|------------|
| Strongly disagree | 5           | 10         |
| Disagree          | 10          | 20         |
| Not sure          |             | 0          |
| Agree             | 25          | 50         |
| Strongly agree    | 10          | 20         |

*Source: Primary, 2013*

The table above shows that 70 % respondents confirmed that the bank has been making profits for the last three years but the remaining 30 % said that even if the bank has been making some profits it was not proportional to total asset it has, so they confirm that the bank has not been making satisfactory profit for the last three years.

The correlation analysis will fit this question. The profitability of the bank is: 216,748,131 RWF, 380,452,780 RWF, and 325,836,907 RWF respectively for the years 2010, 2011, 2012. Their rates of nonperforming loan are 8, 6.8, and 7 so the correlation can be computed using Microsoft excel as follows:

| YEAR | NPL | PROFIT    | correlation |
|------|-----|-----------|-------------|
| 2010 | 8   | 216748131 | -.98427     |
| 2011 | 6.8 | 380452780 |             |
| 2012 | 7   | 325836907 |             |

*Secondary data, 2013*

The rate of correlation is  $-0.98427$  which means that there is a negative correlation between the NPLs and profitability of commercial banks.

The rate means that when the NPLs of BPR Ltd decreased from 8 to 6.8 in the years 2010 to 2011 the bank's profit increased from 216,748,131RWF to 380,452,780RWF but when the NPL Increased in 2012 from 6.8 to 7 the bank's profitability decreased from 380,452,780RWF to 325,836,907rwf thus a negative correlation between the profitability and credit risk management.

This correlation was emphasized by the respondents who answered for the above question that there is a direct relationship between profitability of BPR Ltd and the credit risk management. The provision normally reduces the net profit in the financial statement.

**Table 8: Positive Relationship between profitability and risk management at BPR**

| Alternatives      | Frequencies | percentage |
|-------------------|-------------|------------|
| Strongly disagree | 0           | 0          |
| Disagree          | 0           | 0          |
| Not sure          |             | 0          |
| Agree             | 35          | 70         |
| Strongly agree    | 15          | 30         |

*Source: Primary data 2013*

As confirmed by 100 % of the respondents, if the credit management is poor the NPL s will increase and provision will also increase leading to reduction in profits.

**Table 9: Implementation of credit policy at BPR affects Profitability**

| Alternatives      | Frequencies | percentage |
|-------------------|-------------|------------|
| Strongly disagree | 0           | 0          |
| Disagree          | 0           | 0          |
| Not sure          | 5           | 10         |
| Agree             | 30          | 60         |
| Strongly agree    | 15          | 30         |

As confirmed by 90% of respondents the effective implementation of credit risk management affects profitability of commercial banks.

**8.2. Problem faced by credit Managers:**

Respondents raised different issues that they face in their work of credit management. Some of problems are the following:

- Insufficient skills of some of credit risk managers in managing risks.
- Continuous changes in Rwandan market which destabilize market factors and thus bring default risk
- Clients are not professional enough to carry on their business effectively in order to pay back credit given by commercial banks

**Cause of increasing rate of nonperforming loans:**

Respondents listed down different causes of increase of NPL which are the following:

**Poor credit risk management:**

As confirmed by respondents, BPR Ltd credit risk policy has some anomalies which most of the time causes problems while managing credit risks. A good example will be that the policy define the process of loan granting from loan application to its approval but it ignores the after the loan is disbursed client need a close supervision.

**Poor credit analysis:**

How loan are analyzed, has been another source of cause of increase of NPLs in BPR Ltd. Some credit officers are not competent enough to analyze a credit application and come up with the right decision, so if the granting decision was wrong definitely the recovery will have problems.

**Economic development of the country:**

If the prevailing economic condition in a country is not good, this will have adverse effects to the banking sector especially on deposits and of course those people who have loans will not be able to pay back.

**Unsuccessful financed project:**

If clients brought unproductive projects to be financed, and those projects incur losses he/she will not get money to pay back the bank. So it is very crucial for bankers to finance those profitable projects if they expect to be paid back.

**Incomplete projects:**

An incomplete project cannot be able to repay itself, banks need to finance the projects which they can make sure that the project is completed and starts earning some revenue to pay the bank.

**8.3 Summary of Data Analysis:**

Data analyzed was extracted from primary data gathered using questionnaires and secondary data got from different reports. Its presentation was guided by the research question and objectives.



BPR Ltd is dominated by male staff with the average of 72 % of the respondents; the reason for male dominance was explained that credit management job consists of more field work and men are good at field work than women.

The employees of BPR Ltd are dominated with people ranging from 31- 40 years old which is an advantage as this is good time for everyone to work with more strength . It was revealed that BPR Ltd has qualified personnel with management, accounting, ACCA/CPA and economics background and all these staff the study found that most of them are experienced in the domain.

The issue of whether BPR Ltd has a credit management system in place, it was found that this system is present. This system consists of credit policy, credit regulation and different memos are always developed.

Credit policy being a super power document as far as credit management is concern it widely described what types of loan are granted by BPR Ltd, the process from loan application to loan management and terms and conditions governing the debtor and creditor relationship.

Credit regulation is a measure that BPR Ltd has put in place which will also regulate the relationship between BPR Ltd and Its clients. It clearly highlights terms and conditions of loan granted by BPR Ltd and explain to clients their rights. Then there is memos which are developed by executive management team of BPR Ltd and these are like amendments to the existing credit policy and credit regulation according to the changes of surrounding and prevailing factors such as external environment like new rules and regulations from government.

The issue of appropriateness of the prevailing credit policy 52 % pointed that the credit policy is appropriate and safe enough to mitigate credit policy where as 40 % of the respondents said that they don't believe in such a system.

Some of reasons given are that this policy was not designed for Rwandan environment because there are some clauses which are very lenient and allow clients not to pay as they fall due.

Concerning the cause of current increase of NPL, 58 % of respondents said that NPLs has been increasing because of many factors including poor credit management and others like Poor project by clients, changes in environment conditions, and some economic factors and these factors have the same weight. Whereas 42 % said that the major cause of such increase and other causes are very minor

On the issue of whether the bank has been making profits, 70 % confirmed that the bank has been making profits for the last three years but the remaining 30 % said that even if the bank has been making some profits it was not proportional to total asset it has, so they confirm that the bank has not been making satisfactory profit for the last three years.

The implementation of effective credit management policy affects BPR Ltd profitability. This was confirmed by 45 respondents among 50 sample size. They said that a company may be having a better credit risk management but when it comes to its implementation people fail to implement it correctly due to one reason or another and if the policy is not implemented as it was planned then the

#### **8.4 Summary of the Findings:**

This part presents the summary of the research findings in line with the objectives of the research. The findings are in relationship to credit risk management and profitability of commercial banks in Rwanda specifically BPR Ltd.

Major findings of the study are summarized in the following subsections which are organized according to the objectives of the study.

##### **8.4.1 Objective one: To examine how credit risk mitigation system is applied by BPR Ltd:**

This objective was set to assess whether BPR Ltd has a policy to manage credit risk and how that policy is applied. Different questions were put in the questionnaire to seek an answer and the following were its summaries.

As confirmed by 100 % of the respondents BPR Ltd has a credit policy which was set to manage and mitigate credit risk while increasing the profitability of the bank, so it is certain that the bank has a credit risk management system.

However, even if all respondents answered that BPR Ltd has a credit policy to manage credit risk only 52% of the respondents confirmed that the present credit policy of BPR Ltd is appropriate and safe enough to minimize credit risk while 40% of respondents said that the policy is not convenient basing on the Rwandan environment, it seems to ignore



some facts of Rwandan economy and the remaining 8 % answered that they are not sure. This necessitates improving it and adopting the policy to Rwandan economy and context.

The issue of causes of continuous increase of NPLs in BPR Ltd, 58 % of the respondents answered that this increase is caused by many factors including credit risk where as 42 % answered that the major cause of this increase of NPLs is poor credit risk management. So it is very necessary to underline the importance of credit risk and others factors in increasing the non performing loans rate.

#### **8.4.2 Objective Two: To find out the relationship between credit risk management and financial performance of BPR Ltd:**

Being the core objective of the study, the researcher had to ask questions which seek to answer this question and the researcher used correlation analysis to analyze properly this objective.

According to findings BPR Ltd has been making profits for the last three years. This has been confirmed by 70 % of the respondents but the remaining 30% confirmed that even though the bank has been making profits but this profit was not proportionate of the bank's portfolio and assets. So this mismatch of the bank's assets and its profitability was caused by many factors including high rates of NPLs.

The study revealed that BPR Ltd's profitability is negatively correlated to proper credit risk management. This means that if credit risk is efficiently and effectively managed, NPLs will decrease and the decrease of NPLs will automatically reduce banks bad debtors' provisions which definitely will increase the net profit and the poor management of credit risk led to an increase of NPLs which lead to increase of bad debts provision and finally reduces profitability. This rate was confirmed by 90 % who answered that if the credit policy is not effectively implemented the banks' profitability will be adversely affected.

#### **8.4.3 Objective Three: To find out problems faced by credit risk managers of BPR Ltd in Managing credit risk:**

Contacted respondents confirmed that Risk department of BPR Ltd which is in charge of credit risk management faces many problems which causes a continuous increase of NPLs. Some of their problems are listed here under;

- Insufficient skills of some of credit risk managers in managing credit risks.
- Continuous changes in Rwandan market which destabilize market factors and thus bring default risk
- Clients are not professional enough to carry on their business effectively in order to pay back credit given by commercial banks.

Thus there is a need for continuous training on the side of credit officers and managers and on the side of clients.

#### **8.5. Conclusions**

On account of the interpretation of collected data during the course of the study, the researcher came up with the following conclusions.

BPR Ltd has put in place a credit policy to guide all staff involved in loan granting, but it needs to work on it once again and make sure that the policy is convenient and fit for Rwandan banking sector.

The researcher further concluded that there is a direct relationship between credit risk management and profitability of the bank, so as a profit oriented organization BPR Ltd must improve on the available mechanisms of minimizing risks in order to make more profits.

It was also concluded that although credit risk management is a major determinant of banks' profitability, there are very many other factors which have a direct influence on BPR Ltd's financial performance, so BPR Ltd must put measure to deal with them.

It was revealed that some of the causes of a continuous increase of NPLs are out of the control of credit managers, so those causes constitute problems faced by credit managers which need to be addressed to enable them perform their work as it is supposed.

### 8.6. Recommendations

Considering the summary of findings, answers to questions and conclusions,

Recommendations can be formulated as follows:

- ✓ BPR Ltd should review and improve its credit policy and adopt it to Rwandan market and context
- ✓ BPR Ltd staff involved in loan granting should be getting a continuous training on different methods of minimizing risk and updates in risk management.
- ✓ Risk department should be in positive mode in order to perform their duties effectively, so it is recommended that the management of BPR Ltd should address the issues raised as problems faced by credit risk managers.

### 8.7. Suggestion for Further Study

As this study focused on credit risk management and profitability of commercial in Rwanda, the researcher tackled only issues related to the subject matter however there are areas that would be interesting for further study and these include the following:

- Other risks influencing commercial banks profitability apart from credit risk management.
- Future researchers should investigate on determinants of financial performance of Rwandan commercial bank

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