

**UNIVERSITY OF RWANDA**  
College of Business and Economics  
School of Business

**CAUSES AND IMPACT OF NONPERFORMING LOANS ON BENEFICIARIES’  
ECONOMIC CONDITIONS IN UMWALIMU SACCO: ACASE STUDY OF  
MUHANGA BRANCH IN MUHANGA DISTRICT (2009-2013)**

A Thesis

Submitted in partial fulfillment of the requirements for the award of  
Master’s Degree in Business Administration

By

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**Kigali, February 2016**

## **DECLARATION**

I, RYUMUGABE Innocent, hereby acknowledge that this thesis entitled Causes and Impact of Nonperforming Loans on Beneficiaries' Economic Conditions in Umwalimu Sacco: A Case Study of Umwalimu Sacco/Muhanga Branch in Muhanga District, Rwanda (2009-2013) is my personal original work that to the best of my knowledge has not been submitted, in part or in a whole, for any Degree in any University in Rwanda and beyond.

RYUMUGABE Innocent

Author of the Thesis

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Date Signed

## **DEDICATION**

This research work is dedicated to my beloved spouse KAMBIBI Emilienne and our children IRANKUNDA MUGABE Herve, IKUZWE MUGABE Gabin, and IRAKOZE MUGABE Jospin.

## **ACKNOWLEDGEMENT**

On my own, independent of God's help, this work would not have come to its completion. I thank our great Creator the Almighty God for his blessing of having me educated up to University level and His mighty hand He always extended to me during all my schools and University days up to date. I have experienced the unparalleled power of His mighty hands throughout my life's education journey. I thank my beloved wife, children and friends for their encouragement, emotional and financial support they extended to me while in need of it during this research project.

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## **ACRONYMS AND ABBREVIATIONS**

BNR	Central Bank of Rwanda
BRD	Rwanda Development Bank
EDPRS	Economic Development for the Poverty Reduction Strategy
GDP	Growth Domestic Product
NPL	Nonperforming Loan
NPLs	Nonperforming Loans
Rwf	Rwandan Francs
ROA	Returns on Asset
ROE	Return on Equity
SACCO	Savingand Credit Cooperative
SPSS	Statistical Package for Social Scientists
US	United States of America
USACCO	Umwalimu Saving and Credit Cooperative

## ABSTRACT

The study examined the *Causes and Impact of Nonperforming Loans on Beneficiaries' Economic Conditions in Umwalimu SACCO with a Case Study of Umwalimu Sacco in Muhanga Branch.*, particularly in Muhanga District, has reportedly recorded a significant number of nonperforming loans among its beneficiaries. Consequently, it was observed that loan borrowers' economic conditions have suffered much as a result of loan borrowers failing to pay off their loans. This problem continues affecting both parties; the USACCO and the beneficiaries. Maximally 286 respondents from USACCO including teachers participated in the study.

The specific objectives of the study were (a) to find out the causes of nonperforming loans in USACCO in Muhanga District, (b) to examine the impact of nonperforming loans on beneficiaries' economic development in UMWALIMU SACCO, and (c) to suggest strategies to alleviate the problem of nonperforming loans in USACCO in Muhanga District.

The study findings were used to answer key research questions, namely; (a) what are the causes of nonperforming loans in USACCO/Muhanga Branch? (b) what is the impact of nonperforming loans on beneficiaries' economic conditions in USACCO/Muhanga Branch?

The study hypothesized that there would be a significant correlation between the impacts of nonperforming loans and economic conditions of the loan borrowers.

The study results indicated that 33.3% of respondents reported that inexperience and lack of entrepreneurial knowledge and skills of loan borrowers affected greatly the use of the granted loan and was the cause of nonperforming loans. Still, 15.1 % of respondents reported challenge of changing USACCO's credit policies, while 12.9 % of respondents reported weak loan portfolio management by USACCO staff, and 7.5% of respondents reported natural calamities as one of the key causes of nonperforming loans.

Conversely, the findings indicated that 89.2% of respondents reported that failure of paying off borrowed loans is a barrier to the improvement of the beneficiaries' welfare and economic development in various activities like farming activities. Only 6.5 % of respondents reported that the loans received cannot change anything in their economic conditions. Still, 20.4% of respondents reported that nonperforming loans could lead to USACCO members to suffer the loss quality service delivery. The study also revealed a relatively weak positive relationship ( $r = 0.124$ ,  $p = 0.037 < 0.05$ ) between nonperforming loans and economic conditions of beneficiaries, the coefficient of determination was low, being **0.0153**, which simply implies it was only nearly **2%** level of nonperforming loans affecting beneficiaries' economic conditions.

Practical recommendations were made by the researcher to government bodies in charge of making financial policies, loan-lending-financial institutions, Umwalimu SACCO in Muhanga district, and loan borrowers at large.

## **CHAPTER ONE INTRODUCTION**

### **1.1 Background to the Study**

Worldwide, a great number of financial institutions are struggling with gross losses of loans that are not paid back in monetary terms. From recently, the banks have become very cautious in extending loans due to non-performing assets (Sontakke and Tiwari, 2013). Because of the ongoing economic crisis, the issue of loan default and nonperforming loans (NPLs) has gained unprecedented attentions in the 21st century. Over the years, there has been increased number of significant bank problems in both, matured as well as emerging economies (Brownbridge and Harvey, 1998; Basel 1999, 2004). The immediate consequence of large amount of NPLs in the banking system is bank failure. A study carried out by Messai and Jouini (2014) in Italy, Greece and Spain found that the problem of loans vary negatively with the growth rate of GDP, the profitability of banks' assets and positively with the unemployment rate, the loan loss reserves to total loans and the real interest rate.

Many researches on the cause of bank failures find that asset quality is a statistically significant predictor of insolvency (Dermirgue-Kunt 1989, Barr and Siems 1994), and that failing banking institutions always have high level of nonperforming loans prior to failure. As data shows an increasing form, and only show a low decreasing amount, bad loans will likely contribute resulting into NPLs. It is crucial for every bank and any microfinance to manage bad loans. Effective management of loans will increase their profitability and sustainability in the future. If banks or microfinance failed to do so, it was a major threat to their performance and profitability. A recent study done by Klein (2013) in Central, Eastern and South Eastern Europe (CESEE) that the level of NPLs can be attributed to both macroeconomic conditions and banks' specific factors, though the latter set of factors was found to have a relatively low explanatory power.

Studies in many countries show that most of the bank failures have been caused by non-performing loans (Brownbridge, 1998), National economic downturn, insider lending, customer failure to disclose vital information during the loan application process, lack of proper skills amongst loan officials were among major factors identified in other countries to cause nonperforming loans (Santomero, 1997; Hervey, 1998;

Brwonbridge and Basel 1999; Waweru and Kalani, 2009). In the majority of the studies that investigate the determinants of NPLs, the aggregate level of NPLs is considered and either macroeconomic or bank specific determinants (but not both) are used as explanatory variables. Exceptions include Salas and Saurina (2002) who combine microeconomic variables to explain aggregate NPLs of Spanish commercial and savings banks for the period 1985-1997. The focus on the NPLs determinants for commercial and savings banks and find that bank specific determinants can serve as early warning indicators for future changes in NPLs as developed by other similar studies include Clair (1992) and Gonzalez – Hermosillo et al. (1997).

Furthermore, during Klein's (2013) recent study, it was revealed that while NPLs were found to respond to macroeconomic conditions, such as GDP growth, unemployment, and inflation, the analysis also indicates that there are strong feedback effects from the banking system to the real economy, thus suggesting that the high NPLs that many CESEE countries currently face adversely affect the pace economic recovery.

A recent study done in Ethiopia by Gadise (2014) indicated a down ward sloping of nonperforming loans for commercial banks in Ethiopia. The same study revealed as LTD ratio had positive whereas INFR had negative, but insignificant effect on NPLs of commercial banks in Ethiopia. Most empirical studies examine the influence of the macroeconomic environment on NPLs. Rinddi and Sanchis- Arellano (2006) analyzed household NPLs for a panel of Europe countries and provide empirical evidence that disposable income, unemployment and monetary conditions have a strong impact on NPLs. Berge and Boye (2007) find that problem loans are highly sensitive to the real interest rates and unemployment for the Nordic banking system over the period 1993-2005. Boss et al. (2009) examine the coupling of credit risk of the main Austrian corporate sectors with the business cycle. Other studies focusing on the macroeconomic determinants of NPLs include Citter et al. (2009), Nkusu (2011) and Segoviano et al. (2006). The phenomenon of NPLs is apparent at national level as well, particularly in Rwanda.

At national scale, the Annual Report of bank supervision of 1995-2007 in Rwanda indicated that economic conditions, deficient practices in granting and managing loans,

and difficult terms of collateral are some of the reasons for the high level of non-performing loans in the banking sector (National Bank of Rwanda, March 2008).

Rwanda Non-performing loans as percent of all bank loans: For that indicator, The World Bank provides data for Rwanda from 2002 to 2011. The average value for Rwanda during that period was 23.76 percent with a minimum of 8 percent in 2011 and a maximum of 57 percent in 2002. The percent of non-performing loans in Rwanda reflects the health of the banking system. A higher percent of such loans shows that banks have difficulty collecting interest and principal on their credits. That may lead to less profit for the banks in Rwanda and, possibly, bank closures (Global economy.com; Research and learning tools for the global economy accessed on November 20<sup>th</sup>, 2013).

There are currently only 15 banks in Rwanda of which nine are commercial banks like: I&M Bank Rwanda Ltd former BCR starting in 1963, BK (Bank of Kigali) debuted in 1966, Guaranty Trust Bank Rwanda Ltd opened in 1983 with the name of BACAR after, changed the name and became FINA Bank Rwanda, Access Bank Rwanda Ltd lastly BANCOR opened in 1995, Ecobank Rwanda lastly BCDI started in 1995, Cogebanque Ltd opened in 1998, BPR from 1978, now with a status of commercial bank, Kenya Commercial Bank Rwanda known as KCB commencing its activities in 2008 and Equity Bank Rwanda starting from 2011. There are also a unique development bank in Rwanda (BRD) created from 1967 and 4 microfinance banks such as: Urwego Opportunity Bank (2007), Unguka Bank (2011), Agaseke Bank (2011) and AB Bank Rwanda (2013). The microfinance bank line includes in another side the Zigama CSS as a Cooperative-Bank. We have also the medium financial institution totalizing 491 among them: 12 are limited companies, 63 SACCOs (Where Umwalimu SACCO is extended) and 416 Imirenge SACCOs (BNR, 2013).

Currently in Rwanda, banks are facing a challenge of nonperforming loans which increased from 5.4 percent in 2012 to 7 percent by the end of 2013, according to highlights of the performance of the service industry presented to Parliament by the Prime Minister on March 27<sup>th</sup>, 2014. While it's good for banks to lend, this should come with more efforts in sensitizing the public on the financial discipline and responsibility to manage the loans. The growing rate of bad loans could be partly because people get loans

without first seeking good advice on how to manage or some financial institutions may not be doing the appropriate due diligence on borrowers.

Poor loan management contributes to NPLs to a large extent. It is critical issue for every bank to manage bad loans. Many countries are suffering from Nonperforming Loans (NPLs) in which banks are unable to get profit out of loans (Pettersson and Wadman, 2004). If the loan is well managed; it will increase the bank's profitability and sustainability in the future. However, if failed to do so, it will be the major threat to their survival (MacDonald, 2006). NPLs affect the bank's liquidity and profitability which are the main components for the overall efficiency of the bank. An increase in NPLs provision diminishes income. Again, mismatch of maturities between asset and liability create liquidity risk for the banks that deteriorate bank's overall credit rating including its image (Badar and Yasmin, 2013). Non-Performing Loans (NPLs) reduces the liquidity of banks, credit expansion, it slows down the growth of the real sector with direct consequences on the performance of banks, the firm which is in default and the economy as a whole.

Risk management is an asset of any banking business. The degree of success of a bank greatly depends on the ability of management to ensure that the practice of risk management mitigates the impact of risk in such a way, and to such an extent that recorded surplus is not only robust and covers the interests of various stakeholders, but also assures the health integrity of the bank. For this reason; the financial institutions fear to cooperate with customers with minor revenue and so, the teachers didn't have the chance to access to the loans due, some of them who contacted loans in commercial banks, there are classified as nonperforming loans. This is why the Government of Rwanda has initiated the strategies to reduce poverty through the development of banking industry, cooperatives and technology. In addition, Umwalimu SACCO has been created for the promotion of Teachers' social and economic conditions.

Bank problems, mostly failures and financial distress have afflicted numerous banks, many of which have been closed down by the regulatory authorities and the management of funds (Brownbridge, 1998). The similar situation occurred in Rwanda for former micro-finances (Igisubizo microfinance and Ongera microfinance) in 2005.

Lack of sufficient financial incentives calls for a combination of benefits and inducements as supplements to low wages. This will contribute to teacher retention, stability, effective curriculum instruction, and may cause positive multiple effects in the community development through small business interactions, joint ventures and other services and skills that may be offered by motivated teachers. This is why such research is fundamental in this way, it will contribute to highlight the origin or causes of nonperforming loans in Muhanga Branch and the impact on beneficiaries' economic conditions, for all direct and indirect beneficiaries and, thereafter propose the way forward to overcome all causes of nonperforming loans for a sustainable development and uplifting the teachers' welfare, status and their surrounding environment as it is the mission of Umwalimu SACCO.

## **1.2 Statement of the Problem**

Umwalimu SACCO in Muhanga District aims at boosting its members' socially and economically. Teachers are the principal beneficiaries of USACCO loans. Nevertheless, teachers' economic conditions continue to deteriorate despite their access and use of loans granted from USACCO.

The problem observed by the researcher is that the phenomenon of nonperforming loans in USACCO seems pessimistic because teacher beneficiaries continue to default granted loans and constantly report that their failing to pay off loans pulls them down in critical economic conditions as time goes by. Additionally, the problem increases as the causes of these nonperforming loans still remain unidentified, and thus, not paving a way so as to alleviate this crisis. Therefore, the present study intends to identify the cause of these nonperforming loans and examine the extent to which beneficiaries' economic conditions are negatively affected in USACCO in Muhanga District.

## **1.3 Research Objectives**

The purpose of the study was to establish the relationship between nonperforming loans in USACCO and beneficiaries' economic conditions. The study was guided by the following specific objectives.

1. To identify the causes of nonperforming loans in USACCO in Muhanga District.

2. To examine the impact of nonperforming loans on beneficiaries' economic development in UMWALIMU SACCO in Muhanga District.
3. To suggest, by means of study findings, strategies to alleviate the problem of nonperforming loans in USACCO in Muhanga District.

#### **1.4 Research Questions**

The study findings were used to answer the following research questions:

1. What are the causes of nonperforming loans in Muhanga Branch?
2. What is the impact of nonperforming loans in Muhanga Branch on beneficiaries' economic conditions?

#### **1.5 Hypotheses of the Study**

- 1) Loan beneficiaries-related factors are the causes of nonperforming loans in USACCO/Muhanga Branch in Muhanga district.
- 2) Nonperforming loans in USACCO/ Muhanga Branch in Muhanga district affect significantly the economic conditions of loan beneficiaries.

#### **1.6 Significance of the Study**

The study was expected to benefit a number of stakeholders and other individuals in the financial sector.

This topic arose from the researcher's career of studying Business Administration and working in Umwalimu SACCO. Additionally, treating this subject would increase the researcher's knowledge and skills in the area of credit department and help the researcher to get research experience.

At the academic level, this work could be useful as a reference document for other student researchers who would want to conduct their research studies in the area of financial institutions like SACCO.

The study was expected to benefit greatly financial institutions, loan borrowers, and government bodies in charge of making policies on financial institutions in Rwanda. This study will help the people to know about the important role played with loans in their business. It will also help the managers of financial institutions in general and particular

UMWALIMUSACCO how the loan is a key role in increasing revenues for clients and the profitability for the institution.

The importance of that is of searching strategies to help those people to make more effort needed to improve using loans in general. The research findings will inspire the government and shade light on how to make relevant policies regulating businesses but also contributing to the satisfaction of the societal needs.

Financial loan lending institutions may learn from the suggested strategies in the research of how to alleviate the cases of nonperforming loans so as to reach both financial institutions and loan beneficiaries' goals.

## **1.7 Scope of Study**

Taking into account the time and financial means of which the researcher lay out, it seemed difficult to make this study in all the financial institutions in Rwanda, reason why we delimited our study in space, the time and the field of research:

### **1.7.1 Geographical scope**

The study was conducted in Umwalimu Saving and Credit Cooperative where the members to be contacted was especially for Muhanga Branch and other branches not far from Muhanga due to financial and time limitations while other related information was collected at the Head office(Kigali).

### **1.7.2 Time scope**

The study will cover a period of six months; that is from the time of gathering and analyzing data, presenting the study findings and writing the final research report to be submitted to the school of Graduate of University of Rwanda. Data related to the subject matter of this study was collected from 5 years ago, which is from 2009 to 2013.

### **1.7.3 Content scope**

The study intends to examine the causes and the impact of nonperforming loans as well as significant correlation on beneficiaries' economic condition between the independent variable (The nonperforming loans) and the dependent variable

(beneficiaries' economic conditions) in Umwalimu Saving and Credit Cooperative within USACCO in general and in Muhanga Branch particularly.

### **1.8 Limitations of the Study**

The researcher expected some limitations in the course of the study. In view of the following threats to validity, the researcher will claim an allowable 5% margin of error. Others factors was also taken into consideration in order to minimize if not to eradicate the threats to the validity of the findings of this study.

- 1) Extraneous variables which could occur beyond the researcher's control such as respondents' honesty, personal biases and uncontrolled setting of the study.
- 2) Respondents withholding information due to fear of being victimized as a result of confidentiality of the organization's data.
- 3) Financial limitations: the researcher could not afford research assistants.
- 4) The study was done in rural area, where the social- economic conditions are so different from the town. The findings may not apply equality in urban settings.

### **1.9 Organization of the Work**

This study comprises of five chapters. The first chapter is the general introduction that states the back ground, and the problem to the study, shows the objectives, the research question, and the assumption to test, the significance of the study and the scope, the limitation of the study, the organization of the work and finally the conceptual framework. The second chapter presents an overview of the existing theoretical literature on nonperforming loans. The third chapter presents the research methodology with respect to our line of nonperforming loans and presents the case study which is Umwalimu SACCO/Muhanga Branch. The fourth chapter deals with data presentation, discusses and analyses the results of the empirical investigation on nonperforming loans in Umwalimu SACCO/Muhanga Branch. Finally, chapter five provides summary of the study, concluding remarks, and recommendations.

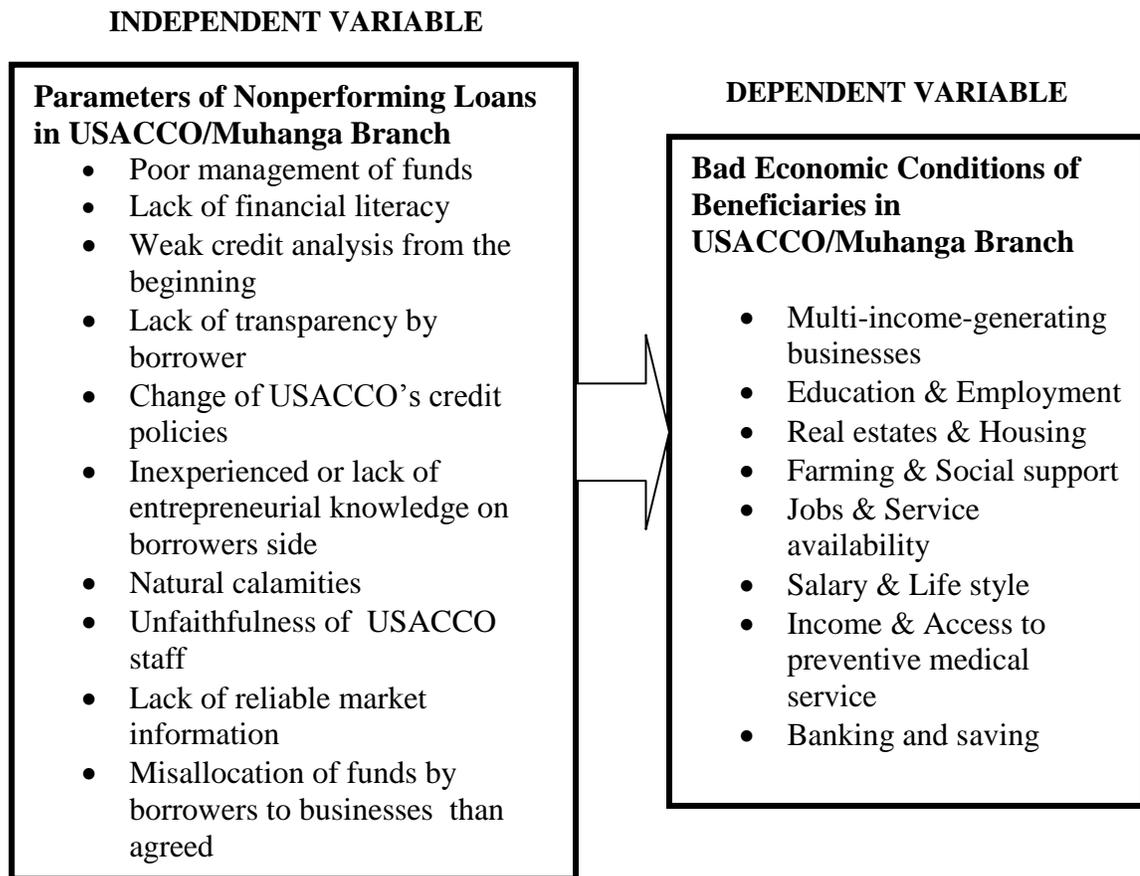
### **1.10 Conceptual Framework**

The framework below illustrates the inter-relatedness and inter-connectedness between the independent and dependent variables that were explored on the

nonperforming loan in USACCO and has an impact on beneficiaries' economic condition. The study was based on the principles of structural functionalism theory which argues that a social entity, such as an organization or a society can be viewed as an organism. Like other organisms, a social entity is made up of parts, each of which contributes to the functioning of the whole. Figure 1.1 represents the conceptual framework of the study.

Neuman (2007) explains that society is a system of interdependent parts that is in equilibrium. The parts of society fulfill different needs or functions of the social system. A basis consensus on a value system holds society together. According to Durkheim (2004) structural functionalism is a consensus theory: a theory that sees society as built upon order, interrelation and balance among parts as a means of maintaining the smooth functioning of the whole. Below is the diagrammatic representation of the conceptual frame work.

Figure 1 —Diagrammatic Representation of the Conceptual Framework



### **1.11 Operational Definition of Terms**

The key concepts in the study were operationally defined as following:

*Nonperforming loan*—this variable refers to loans that are not paid back in monetary term by loan borrowers.

*Economic condition*—this variable refers to the experiences caused by nonperforming loan in the beneficiary's economic development. The measurement of this variable was done by means of Likert scale

*Multi-income-generating businesses*—this variable refers to the composite of high-scale, small-scale and low-scale business enterprises that generate income.

## **CHAPTER TWO LITERATURE REVIEW**

### **2.1.Introduction**

This chapter covers review of literature of related empirical and scientific research findings by various researchers and publishers on financial institutions such as banks and SACCO.

In this chapter, related literature is reviewed to elicit on key concepts in internal factors affecting sustainability of agricultural cooperatives. The key concepts include: SACCO, loan, nonperforming loans, causes, and strategies. The literatures were collected from various sources such as journals, books, articles, internet and others. This chapter provides background in mutual fund research previously done and findings that leads to the existence of this study. For this study, the literature review will focus to the independent variables used (nonperforming loans) and dependent variables (economic conditions).

### **2.2.Clarification of Key Concepts**

The key concepts are the constructs or variables that are of interest to the researcher. These variables include performance, loan, and nonperforming loan.

They are different view on what performance is. It can be regarded as simply the record of the achieved outcomes. On an individual basis it is a record of individual accomplishments. Words are words, explanations are explanations, premises are premises but only performance is a reality (Bettencourt, 2007).According to researcher, the performance alone is the best measure of your confidence, competence and courage and only performance gives you the freedom to grow as yourself. In this topic, performance is related toUMWALIMUSACCO/Muhanga branch achieves.

#### **2.2.1 Nonperforming Loan**

There is not a single definition of nonperforming loan but generally there is a convergence in the specification defining nonperforming loan which for a relatively long period of time do not generate incomes, that is the principal and / or interest on these loans has been left unpaid for at least 90 days (Keeton, 1987). The Nonperforming loan

means a Bad debt refers to loans that delinquent. In other words, these are loans that aren't getting paid back. The nonperforming loans are defined as loans whose principal or interest remains unpaid 90 days or more after due date (BFIA, 2006). In the other hand, the nonperforming loan can be defined as a sum of borrowed money upon which the debtor has not made his or her scheduled payments for at least 90 days. A nonperforming loan is either in default or close to being in default. Once a loan is nonperforming, the odds that it was repaid in full are considered to be substantially lower. If the debtor starts making payments again on a nonperforming loan, it becomes a re-performing loan, even if the debtor has not caught up on all the missed payment. According to the researcher; the nonperforming loan is related to money that the bank has set aside in anticipation of some loans going bad.

### **2.2.2 Economic Conditions**

The Annual Report of bank supervision of 1995-2007 in Rwanda indicated that economic conditions, deficient practices in granting and managing loans, and difficult terms of collateral are some of the reasons for the high level of non-performing loans in the banking sector (National Bank of Rwanda, March 2008). The expression economic condition does not have a single definition but it can be viewed through the term employment, prosperity, softness, wage, and so forth (<http://www.thefreedictionary.com>).

It can explain the expression, considering full employment: The economic condition is when everyone who wishes to work at the going wage rate for their type of labor is employed, Prosperity (an economic state of growth with rising profits and full employment), Softness (a state of declining economic condition); "orders have recently picked up after a period of extreme softness"; "It attributes the disappointing results to softness in the economy" and Wage setter (any economic condition or variable that serves to set wage rates).

There are numerous economic indicators that are used to define the state of the economy or economic conditions. Some of these are the unemployment rate, levels of current account and budget surpluses or deficits, GDP growth rates, inflation rates and more. Economic data is released on a regular basis, generally weekly or monthly, and sometimes quarterly. Some economic indicators like the unemployment rate and GDP

growth rate are watched closely by market participants, as they help to make an assessment of economic conditions and potential changes in them. It refers also on the state of the economy in a country or region. Economic conditions change over time in line with the economic and business cycle, as an economy goes through expansion and contraction. Economic conditions are considered to be sound or positive when an economy is expanding, and are considered to be adverse or negative when an economy is contracting. A country's economic conditions are influenced by numerous macroeconomic and microeconomic factors, including monetary and fiscal policy, the state of the global economy, unemployment levels, productivity, exchange rates, and inflation and so on.

In this study; economic condition is defined as a combination of variables influencing the welfare of the human being such as the income, the shelter, and sanitation, availability of employment, education and family structure.

### **2.2.3 Umwalimu Saving and Credit Cooperative (USACCO)**

UMWALIMU Saving and Credit Cooperative, referred to as UMWALIMUSACCO, is a saving and Credit Cooperative for Rwandan teachers, mandated to empower the members towards uplifting of their social economic welfare and to contribute to socio economic development of the community in which they live. The establishment of the SACCO was the initiative of His Excellence the president of the Republic of Rwanda Paul Kagame. Mobilizing a pool of savings and later be offered loans at competitive interest rate are the core activities of the cooperative. The UmwalimuSACCO was created in 2006 and accepted by the Central Bank of Rwanda (BNR) to operate as Financial Institution on 22<sup>nd</sup> February 2008 (USACCO, 2010).

### **2.2.4 Mission of UMWALIMUSACCO**

UMWALIMUSACCO has mission of mobilizing saving from members through check-off system, and grant loans for both productive and prudent purpose to its members at competitive interest rates, by professionally qualified and empowered personnel, using modern technology that is acceptable for enhancing the effectiveness of the management of the SACCO's resources, while at the same time, offering high quality financial services to its members (UMWALIMUSACCO's handbill).

Ethical and professional values entail the institution's efficiency, effectiveness, transparency, responsiveness, zero tolerance to any form of mismanagement and corruption, equity in service delivery (UMWALIMUSACCO's handbill).

### **2.2.5 Vision of UMWALIMUSACCO**

To be a MODEL SACCO in the country, offering high quality, yet affordable financial services to its members.

#### **2.2.5.1 Objectives of UMWALIMUSACCO**

The Umwalimu SACCO has six objectives which are: (1) to promote thrift among its members by affording an opportunity to pool their savings together.,(2) to avail members an opportunity to obtain loans from their accumulated savings, (3) To administer the member's savings and loans in the best possible ways, as per the By Laws of SACCO, (4) To disseminate information concerning prudent use of loans and best savings methods and practice, (5) To establish strong system of control that would ensure security of the member's savings and (6) To provide members with front office banking services as many be demanded.

#### **2.2.5.2 Values of UMWALIMUSACCO**

The SACCO shall be governed by the following ethical pattern of behavior to which all members and employees shall subscribe: Integrity, respect, quality, service, commitment to work, zero tolerance to gross misconduct, equality in service delivery, effectiveness and efficiency, stewardship.

#### **2.2.5.3 Membership**

According to the By Laws governing UMWALIMUSACCO, membership is open to all people working in the teaching profession, those in the Ministry of Education and its Agencies. A member surrenders 5% deduction from his/her monthly salary as the member's permanent savings. At a macro level, UMWALIMUSACCO is made up of a single market segment (Rwandan teachers). However, at a micro-level, UMWALIMUSACCO's members are mainly divided into those in public and private schools; and those in primary and secondary. This segmentation is necessary as the teachers in those two sectors have varying incomes, hence being the reason as to why the

interest rate applied on public school teachers for the income generating project loans and mortgage is 11% per annum and 14% per annum for private school teachers and others. UMWALIMUSACCO is wholly (100%) governed by its members (teachers) who subscribe to the SACCO's principles, values and have fully paid their membership fees.

#### **2.2.5.4 UmwalimuSACCO Funding**

Due to lack of enough funds to finance the teacher's loan projects in a stable manner, in 2012 UMWALIMUSACCO acquired a loan of Rwf 1.5 billion from the Rwanda Development Bank (BRD) payable in 15 years at 10% interest rate per annum. At the end of the same year 2012, the Government of Rwanda pledged a Special Financial Facility to the Rwanda Teachers through UMWALIMUSACCO worth Rwf 30 billion disburseable in different installments for a period of 10 years in the frame work of upgrading the Rwandan Teacher's socio-economic welfare. With the new financial scheme, UMWALIMUSACCO was asked to continue granting loans to teachers but at a reduced interest rate of 11% per annum; this new financial scheme is only being used to finance the public school teacher's income generating projects and mortgage.

Considering the fact that the Cooperative's NPL was at 3.3% by the end of 2013, it implies that in fifteen years, UMWALIMUSACCO would incur a loss of Rwf 400 million if we lend the money to public school teachers without considering administrative costs and the profit margin. In order to avert this loss, through its supreme organ (the General Delegates Assembly) UMWALIMUSACCO took a decision of giving the Rwf 1.5 billion loan acquired from the Rwanda Development Bank (BRD) to other non-public school teachers with substantial salaries at a rate of 14% per annum. These members have large physical collateral securities and in such condition, the NPL would be at 0% because they have the financial capacity to pay for the loans acquired, job security and the pledged collaterals. In so doing, in fifteen years, the Cooperative will have gained around Rwf 700 million.

In addition to that, such members with big salaries significantly increase the Cooperative's liquidity base and the ability to continuously grant loans to members through the 5% monthly deduction as permanent savings. In order to be able to promptly pay back the Rwanda Development Bank loan even before the allocated repayment period, efforts were made to mobilize non-public school teachers (to come and acquire

loans) but few of them managed to turn up due to the loan engagements they have with other commercial banks. Besides, the Cooperative's principal of first having to accept to save 5% of as permanent savings from their monthly net salary in order to be eligible for a loan also significantly limits these members. The Cooperative still has around Rwf 300 million in its coffers as balance of the loan acquired from Rwanda Development Bank (USACCO Report 2013).

**Table 1—Summary of Financial Position Since 2009**

<b>Description</b>	<b>Dec. 2009</b>	<b>Dec. 2010</b>	<b>Dec. 2011</b>	<b>Dec. 2012</b>	<b>Dec. 2013</b>
Member	42,017	50,924	59,598	62,117	70,777
Permanent savings (Rwf)	1,770,741,675		4,081,577,363	5,413,396,478	7,287,478,911
Free savings (Rwf)	326,178,809	1,272,797,946	2,355,357,925	1,297,912,439	4,887,143,468
Number and amount of loans					
Number of loans/Agriculture	328	925	1,045	Cases: 1520	Cases: 2169
Amount (Rwf)	118,177,220	375,750,064	486,865,107 (2.5%)	650,449,163	1,323,408,699
Number of loans/livestock	620	1,787	2,085	cases: 2481	2841 cases
Amount (Rwf)	245,951,314	783,214,006	942,424,417(5%)	1,144,657,841	1,542,983,941
Number of loans/construction	2,396	7,718	10,872	Cases: 18,994	24,819 cases
Amount (Rwf)	874,549,724	3,700,792,281	6,574,478,250 (35.01%)	12,237,603,920	21,437,266,428
Number of loans/School fees	513	3,974	5,977	Cases: 49,889	53,140 cases
Amount (Rwf)	163,453,141	958,770,083	1,646,963,094 (8.7%)	5,632,226,657	7,378,506,888
Other loans (small business)	1,170	16,607	43,581	Cases: 187,242	302,002 Cases
Amount (Rwf)	701,110,444	4,412,626,920	9,127,401,985 (48.6%)	18,478,423,706	26,234,342,958

*Source: USACCO presentation on April 15th, 2014 by M.D/USACCO*

The table above shows the achievements of Umwalimu SACCO from its date of operating; the period covered by our research. It reveals the evolution year by year from 2009 to 2013 in all its parts of operating system: members increased from 42,017 in 2009 to 70,777 in 2013 while permanent savings increased from Frw 1,770,741,675 in 2009 to Frw 7,287,478,911 in 2013. Regarding the granted loans, the statistics shown the satisfied evolution even there is a work to do in terms of uplifting the welfare of their members as assigned; the loans on agriculture, livestock, construction, school fees and others

numerically are increasing appreciably. The research will inform on their social and financial impact on beneficiaries. Now we analyze the cause and the impact of nonperforming loans on beneficiaries which was elucidated in the following chapters.

## **2.3 Review of Past Studies**

### **2.3.1. Nonperforming loans and credit grant irregularities in Muhanga Branch**

#### **2.3.1.1. Nonperforming loans**

Over the last few years the literature that examines nonperforming loans has expanded in line with the interest afforded to understanding the factors responsible for financial vulnerability. This situation may be attributed to the fact that impaired assets plays a critical role in financial vulnerability as evidenced by the strong association between NPLs and the customers' economic condition. In this section we review the existing literature so as to formulate a theoretical framework to investigate the determinants of nonperforming loans in UmwalimuSACCO in general and in Muhanga branch in particular. Keeton and Morris (1987) present one of the earliest studies to examine the causes of loan losses. In the latter paper the authors examined the losses by 2,470 insured commercial banks in the United States (US) over the 1979-85. Using NPLs net of charge-offs as the primary measure of loan losses Keeton and Morris (1987) shows that local economic conditions along with the poor performance of certain sectors explain the variation in loan losses recorded by the banks. The study also reports that commercial banks with greater risk appetite tend to record higher losses.

Several studies which followed the publication of Keeton and Morris (1987) have since proposed similar and other explanations for problem loans in the US. Sinkey and Greenwalt (1991), for instance, investigate the loan loss-experience of large commercial banks in the US; they argue that both internal and external factors explain the loan loss rate (defined as net loan charge offs plus NPLs divided by total loans plus net charge-offs) of these banks. These authors find a significant positive relationship between the loan loss rate and internal factors such as high interest rates, excessive lending, and volatile funds. Similar to the previous study, Sinkey and Greenwalt (1991) report that depressed regional economic conditions also explain the loss-rate of the commercial

banks. The study employs a simple log-linear regression model and data of large commercial banks in the United States from 1984 to 1987.

Furthermore, Keeton (1999) uses data from 1982 to 1996 and a vector auto regression model to analyze the impact of credit growth and loan delinquencies in the US. It reports evidence of a strong relationship between credit growth and impaired assets. Specifically, Keeton (1999) shows that rapid credit growth, which was associated with lower credit standards, contributed to higher loan losses in certain states in the US. In this study loan delinquency was defined as loans which are overdue for more than 90 days or does not accrue interest. Studies that examined other financial systems also provide similar results to those in the US. For instance, Bercoff et al (2002) examine the fragility of the Argentinean Banking system over the 1993-1996 period; they argue that NPLs are affected by both bank specific factors and macroeconomic factors. To separate the impact of bank specific and macroeconomic factors, the authors employ survival analysis.

Using a dynamic model and a panel dataset covering the period 1985-1997 to investigate the determinants of problem loans of Spanish commercial and saving banks, Salas and Saurina (2002) reveal that real growth in GDP, rapid credit expansion, bank size, capital ratio and market power explain variation in NPLs. Furthermore, Jimenez and Saurina (2005) examine the Spanish banking sector from 1984 to 2003; they provide evidence that NPLs are determined by GDP growth, high real interest rates and lenient credit terms. This study attributes the latter to disaster myopia, herd behavior and agency problems that may entice bank managers to lend excessively during boom periods.

Meanwhile, Rajan and Dhal (2003) utilize panel regression analysis to report that favorable macroeconomic conditions (measured by GDP growth) and financial factors such as maturity, cost and terms of credit, banks size, and credit orientation impact significantly on the NPLs of commercial banks in India. Using a pseudo panel-based model for several Sub-Saharan African countries, Fofack (2005) finds evidence that economic growth, real exchange rate appreciation, the real interest rate, net interest margins, and inter-bank loans are significant determinants of NPLs in these countries. The author attributes the strong association between the macroeconomic factors and nonperforming loan to the undiversified nature of some African economies.

More recently Hu et al. (2006) analyze the relationship between NPLs and ownership structure of commercial banks in Taiwan with a panel dataset covering the period 1996-1999. The study shows that banks with higher government ownership recorded lower nonperforming loans. Hu et al (2006) also show that bank size is negatively related to NPLs while diversification may not be a determinant. Khemaraj and Pasha (2005) study the relationship between the NPLs ratio and two categories of elements: macroeconomic and bank specific variables. The results show a positive relationship between the loans to asset ratio with NPLs, a positive relationship between real interest rate and NPLs ratio while the credit growth is negatively related to NPLs ratio and is highly significant.

Still, Espinoza and Prasad (2010) analyze the macroeconomic and bank variable that determine the nonperforming loans. The authors find a strong negative relationship between the real GDP (except at sector of oil) and the NPLs ratio. The condition of the global financial markets has also effects on the NPLs ratio. The similar situation conduct the microfinance to failure and the studies show that the failures of microfinance as developed by Aneel KARNANI, (2007): Despite the hoopla surrounding microcredit, few have studied its impact. One of the most comprehensive studies reaches a surprising conclusion: microloans are more beneficial to borrowers living above the poverty line than the borrowers living below the poverty line. This is because clients with more income are willing to take the risks such as investing in new technologies that will most likely increase income flow. Poor borrowers on the other hand, tend to take out conservative loans that protect their subsistence, and rarely invest in new technology, fixed capital, or hiring of labor.

As highlighted in the back ground of the present research; the percent non-performing loans in Rwanda reflect the health of the banking system. A higher percent of such loans shows that banks have difficulty collecting interest and principal on their credits. That may lead to less profit for the banks in Rwanda and, possibly, bank closures. For UmwalimuSACCO/Muhanga Branch; the nonperforming loans are key point in the management of this financial institution and attention must be taken to reduce the increase of the nonperforming loans and stabilize the revenue for the institution and so, attain the assigned objectives.

## **2.4. Perceived Causes of Nonperforming Loans**

Nonperforming loans may be due to a number of factors related either to the financial institution itself or to the loan borrower.

### **2.4.1. Credits grant irregularities in Muhanga branch**

Credit grant irregularities include fraud, corruption or deliberate errors in preparation, evaluation or review of any credit file of a certain financial institution; forgery or alteration of a financial institution documents, pursuit of financial benefit or advantage in violation of financial institution's policy; or deficiencies in or noncompliance with the financial institution's financial controls. For UmwalimuSACCO of Muhanga Branch; we can classify these irregularities as internally and externally. The internal irregularities include:

#### **2.4.1.1. Poor management of funds**

In the management of the cash flow of a financial institution; the fund's manager ensures that the maturity schedules of the deposits coincide with the demand for loans. To do this, the manager looks at both the liabilities and the assets which influence the banks' ability to issue credit.

A fund manager must also pay close attention to cost and risk in order to really capitalize on the cash flow opportunities. A financial institution runs on the ability to offer credit to customers. Ensuring the proper liquidity of the funds is a crucial aspect of the fund managers' position. Funds management can also refer to the management of fund assets. The lack of these items leads to the poor management of fund. In UmwalimuSACCO/ Muhanga Branch; members due lack of experience in management of fund encountered difficulties: first to save and secondly to expense and this has a negative impact on their investment. The same situation occurred for loan officers to measure the amount to be given in a given period and ensure that the money granted was repaid in considerable time limit considering the member's revenue and his/her living style.

#### **2.4.1.2. Weak credit analysis from the beginning**

Credit analysis is the method by which one calculates the creditworthiness of a business or organization. In other words, it is the evaluation of the ability of a company to

honor its financial obligations. The audited financial statements of a large company might be analyzed when it issues or has issued bonds. Or, a bank may analyze the financial statements of a small business before making or renewing a commercial loan. The term refers to either case, whether the business is large or small.

The objective of credit analysis is to look at both the borrower and the lending facility being proposed and to assign a risk rating. The risk rating is derived by estimating the probability of default by the borrower at a given confidence level over the life of the facility, and by estimating the amount of loss that the lender would suffer in the event of default. In UmwalimuSACCO/Muhanga Branch; these elements sometimes didn't being respected and so, causing the nonperforming loans that we observe nowadays.

#### **2.4.1.3. Change of USACCO's credit policies**

Normally; microfinance is guided by a flexible credit policy for its growth. For UmwalimuSACCO; This Credit Policy provides a framework under which the SACCO will conduct its credit management and lending operations. The purpose of this Credit Policy is to document the procedures that shall govern achievement of a quality credit portfolio by fostering the cooperative broad mission of offering financial services to members who are the chosen market sent with special emphasis to the Teachers of the Republic of Rwanda. The problem occurs when members presented their requests on credits referring to the regulations in place but after a certain period without being served; the new instructions arrived with added requirements. This constitute a big challenge for members while some of them abandon the project or if accepted to process on the new requirement, sometimes the project is subject to fail due to missing the time and price changes at the market.

#### **2.4.1.4. Unfaithfulness of USACCO staff**

The unfaithfulness in general occurs for staff in the angle of corruption or misusing their competences and the regulation established by the institution. In UmwalimuSACCO/Muhanga Branch; the real facts are missing but for these nonperforming loans; as revealed by some of members; the unfaithfulness of staff is one of the elements composing the causal of them since UmwalimuSACCO/Muhanga Branch opened the door up to now; where we found some nonperforming loans without physical

dossiers filed, no full identification in the system and this cause a big challenge for the recovery of these loans.

On the other hand, external irregularities include other elements as follows:

#### **2.4.1.5. Lack of transparency by borrowers**

The transparence referred to the habit or culture of reality, not lying or presenting the wrong information. What is observed in majority of Branches in UmwalimuSACCO specially in Muhanga Branch; it is shown the opposite of what must be appeared really: some of our members here hidden the real project; an example given here is some who got loans for rehabilitating houses but after founded that the loan has been used for paying transport means, paying TV sets or social needs: medical services or social events. The other side of lack of transparence is located in valuation of collaterals or owned collaterals. Surely, lack of transparency in the business, especially in financial domain, leads inevitably to the nonperforming loans.

#### **2.4.1.6. Inexperienced or lack of entrepreneurial knowledge on borrowers side**

A wide range of competences are seen as entrepreneurial and useful to entrepreneurs, these include knowledge and skills. In attempting to lay out the skills needed to be an entrepreneur, Bonnstetter and his team join a long line of commentators who have proposed various qualities as "key" or "essential" for entrepreneurial success. Contenders include an ability to evolve, willingness to proceed despite a lack of resources, good old-fashioned discipline, and even intellectual humility.

Members from UmwalimuSACCO are teachers with a so tight obligations at their daily work; due to the Rwandan history in financial illiteracy in general and for teachers in particular; these members didn't have and up to now don't have the culture of business while UmwalimuSACCO has a mission to uplift their wellbeing through financing their projects and financial literacy.

#### **2.4.1.7. Natural calamities**

Natural calamity is the effect of natural hazard which causes environmental, financial or human losses. Rwanda as a country of thousand hills; the phenomenon of collapsed ground causes the destruction of houses and crops, death of persons and domestic

animals. Those calamities constituted the loss of capacity to repay the loan contracted and so conducted to the eventual nonperforming loan.

#### **2.4.1.8. Lack of reliable market information**

Market information involves in collecting price information and arranging for this to be disseminated via newspapers and radio stations. Market information is seen as an important way of achieving the promotion of regional trade.

Members of UmwalimuSACCO really didn't have time to monitor the evolution of prices at the market. The factors price, place and promotion are far from the knowledge of the teachers who want to manage financial business. If this information failed to the business person; the situation tends to the failure as the situation is occurred to our branches now.

#### **2.4.1.9. Allocation of funds by borrowers to businesses other than agreed**

A business, also known as an enterprise or a firm, is an organization involved in the trade of goods, services, or both to consumers . Businesses are prevalent in capitalisteconomies, where most of them are privately owned and provide goods and services to customers in exchange of other goods, services, or money. Businesses may also be not for profit or state owned. A business owned by multiple individuals may be referred to as a company.

The main cause of nonperforming loan in UmwalimuSACCO is the allocation of funds by borrowers to businesses other than agreed. Most of granted credit now appeared as nonperforming loans are due deviation of the project while loans granted for small business or purchasing of plot are deviated to the payment of school fees or satisfaction of physiological needs. This is a big problem founded causing nonperforming loans in UmwalimuSACCO in most of Branches.

#### **2.4.2. Relationship between credits grant irregularities and nonperforming loans in USACCO of Muhanga Branch**

Basically in Africa, the concept of credit was largely appreciated in 50's when most banks started opening the credit sections and departments to give loans to white settlers. In Rwanda precisely; bank system started in 60's and credit was initially given to the rich people and big companies and was not popular neither to the people with

medium revenue nor to the poor. In 1990, loans given to customers did not perform which called for an intervention. Most suggestions were for the evaluation of customers' ability to repay the loan, but this didn't work as loan defaults continued (Modurch, 1999). In UmwalimuSACCO; the institution generates its revenue from credit extended to low income individuals in form of interest charged on the funds granted, the loan repayment may be uncertain.

The success of lending out credit depends on the methodology applied to evaluate and to award the credit and therefore the credit decisions should be based on a thorough evaluation of the risk conditions of the lending and the characteristics of the borrower. The determination of risk and quality of clients must depend on the target group; the following evaluation concepts are useful for most occasions. These concepts are referred to as 5C's of credit appraisal such as: character, capacity, collateral, capital and condition (Edward, 1977).

What we observe in Muhanga Branch; irregularities occurred in non-availability of physical dossiers, non-complete identification of the borrower in the system, granted credits without collaterals, the installment exceeding the monthly capacity (salary) for the borrower (member). Some missing data like: Identification card, telephone number and the ancient working area. This is a big challenge due to none can't find the concerned borrower with the nonperforming loan without his/her identification. The changing system also even the institution performs from AD Banking system (2008 -2011) to AlphaBank system (2012); some elements are currently not available and this also constitute a gap for the irregularities. These created the barriers for the recovery committee to attain these members and consequently increase the nonperforming loans.

## **2.5. Nonperforming Loans and Bad Economic Conditions of Beneficiaries**

The success of Microfinance institutions largely depend on the effectiveness of their credit management systems because these institutions generate most of their income from interest earned on loans extended to small and medium entrepreneurs. Studies indicated high incidence of credit risk reflected in the rising levels of nonperforming loans by the microfinance institutions in the last decades, a situation that has adversely impacted on their profitability. This trend not only threatens the viability and

sustainability of microfinance but also hinders the achievement of goals for which they were intended which are provide credit to the rural unbanked members and bridge the financing gap in the mainstream financial sector.

As defined; the nonperforming loan is a sum of borrowed money upon which the debtor has not made his or her scheduled payments for at least 90 days. Due to grated money may be repaid for being granted to other and new borrowers; non repayment causes multiple effects directly for the financial institution because decreasing deposits, revenues and interests and for sure the negative consequences are inevitable for members or customers for any financial institution: no loans for members due to the financial institution do not have enough money (no repayment). The summary bellow is eloquent to illustrate what we mean here:

**Table 2 —Written-off loans in USACCO/Muhanga Branch**

Year	2009	2010	2011	2012	2013
Number of loans	-	8	10	31	7
Amount(Frw)	-	1,045,410	1,361,704	6,912,451	489,001

*Source: USACCO Report on system: December, 2013*

Table 2 shows that over the years there are cumulative written off loans from 2009 to 2013 and this decreased the deposits of USACCO and impacted on granting credit practices where some time the financial institution had to take decision to amend some regulations in order to manage well the minimum amount they had or simply to stop granting credits for a certain reorganizational period. It is in this period where members are suffering from the bad economic conditions due they can't get any loan to resolve an urgent problem or to invest if the occasion is pointing out.

### **1.5.1 Economic Conditions of Beneficiaries**

Non-performing loans can lead to efficiency problem for banking sector. It is found by a number of economists that failing banks tend to be located far from the most-efficient frontier (Berger and Humphrey (1992), Barr and Siems (1994), DeYoung and Whalen (1994), Wheelock and Wilson (1994)), because banks don't optimize their portfolio decisions by lending less than demanded. What's more, there are evidences that even among banks that do not fail; there is a negative relationship between the non-

performing loans and performance efficiency (Kwan and Eisenbeis (1994), Hughes and Moon (1995), Resti (1995)).

In other side the economic condition is analyzed in this angle: Before creating business plans or when evaluating existing ones it is important to 'scan' the external environment. This takes the form of a SLEPT analysis, i.e. an investigation of the Social, Legal, Economic, Political, and Technological influences on a business. In addition it is also important to be aware of the actions of your competitors. These forces are continually in a state of change. Social factors relate to pattern of behavior, tastes, and lifestyles. A major component of this is a change in consumer behavior resulting from changes in fashions and styles. The age structure of the population also alters over time (currently we have an ageing population). An understanding of social change gives business a better feel for the future market situation. UmwalimuSACCO has a mission to uplift the economic condition of Rwandan teachers through granting loans and financial literacy of its members.

The changing economic conditions was observed through their life style: having conducive shelter, accessing to higher level of education which will impact on employment and on monthly revenue, and starting the medium or long income generating projects so as indicators to the promotion of their welfare. The nonperforming loans lead to bad economic conditions of beneficiaries in UmwalimuSACCO/ Muhanga Branch.

### **1.5.2 Role of Saving and Credit Cooperatives in Economic Development**

The role of saving and credit cooperatives in economic development (Republic of Rwanda, 2000) is:

- To improve the economic, social cultural situation of persons having limited resources and limited possibilities as well as encourage their spirit of initiative;
- To increase the individual resources and national income by encourage savings, suppression and proper use of credit;
- To bring about democratic control of economic activities and equitable distribution of profit in the economy;
- To increase national income and revenues for exportation and increase the possibility of employment by full employment of resources for example by

application of agricultural reforms which will make new regions productive and development of modern industries;

- To improve social conditions and accomplish social services in certain domains for example accommodation, health education and communication;
- UMWALIMUSACCO/Muhanga branch plays an important role in living conditions of their clients (teachers) in keeping custody their money and offering credit.

### **1.5.3 Rationale of Credit and Savings Cooperatives in Economic Conditions**

The cooperative movement is one of the main factors in social political sphere of new sovereign states; there is a real opportunity to make use of cooperatives being the most mass scale organization of the peasantry (Maslennikou, 1983). As such, therefore, credit and saving cooperative is one channel through which mass scale organizations of the members can be organized to realize their benefits.

Credit and saving cooperative contribute significantly in national development in that they help mobilize local savings making it possible for very ordinary people be they worker or farmers to access development credit where it would have been impossible through the commercial lending system. UmwalimuSACCO contributes enormously for teachers in Rwanda in general and in Muhanga in particular where these members improve their economic condition through educational program; most of them have now undergraduate level of education or their children and relatives, others have bought houses or transport facilitations. The number is increasing now even if UmwalimuSACCO and the government have to do to uplift the teachers' economic conditions in front of their meager salary.

### **2.6 Nonperforming Loans and Economic Conditions of Beneficiaries in UmwalimuSACCO of Muhanga Branch**

The crisis of non-performing loans impacts negatively on economic conditions of borrowers at different levels. The non-performing loan as clarified above has an effect on economic condition of beneficiaries through non satisfaction of they need as assigned by UmwalimuSACCO. The following items stand out as the most affected parts of loan beneficiaries' economic conditions.

### **2.6.1 Multi-income-generating Businesses**

To some extent, people ask for loans for income-generating business purposes. Income is the consumption and savings opportunity gained by an entity within a specified timeframe, which is generally expressed in monetary terms. However, for households and individuals, "income is the sum of all the wages, salaries, profits, interests payments, rents and other forms of earnings received... in a given period of time. In the field of public economics, the term may refer to the accumulation of both monetary and non-monetary consumption ability, with the former (monetary) being used as a proxy for total income. In economics, "factor income" is the return accruing for a person, or a nation, derived from the "factors of production": rental income, wages generated by labor, the interest created by capital, and profits from entrepreneurial ventures.

More still, income is increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants. For members of Umwalimu SACCO; if the loans granted are not repaid; the situation lead to the decrease of the revenue for the institution thus members can't be granted on credits and thereafter, the mission to generate income for Umwalimu SACCO's members is somehow failed. However, although the saving and credit cooperatives are considered to be successful, a recent research conducted in Malawi by Nkhoma (2011) in four cooperatives indicated that its membership and capital have been decreasing due to: loan default; inability to buy produce from members; and poor governance.

### **2.6.2 Education and Employment**

One of the purposes for asking for loans might for paying for one's education hoping to get financial return through employment. In its general sense is a form of learning in which the knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, or research. Education frequently takes place under the guidance of others, but may also be autodidactic. This is justified and applied by members of Umwalimu SACCO where majority of them with ordinary level of education granted credit for school fees and the educational system in Rwanda permitted them to pursue their undergraduate on the service at the same time and

the results show that UmwalimuSACCO has done an appreciable work in this domain. But unfortunately; some of our members who increased their level of education in other domain not educational are engaged in other services: Administration, banks or private sectors and due to non-passing their monthly salary in USACCO; the repayment of the granted loan occurred as a challenge and this conduct to the nonperforming loans, and this impacts on loans granting to new borrowers due to few amount to be disbursed and members to be given loans are limited thus, the noble mission to facilitate members for their educational promotion is blocked.

### **2.6.3 Real Estates and Housing**

Higher-scale businesses include real estates the purchasing and selling off of houses and apartments. Such lucrative business can be initiated by borrowing a loan from a financial institution such a bank.

Housing refers to homes, houses, places of residence, buildings, accommodation, living quarters; dwelling places, habitations, abodes, domiciles. Housing Unit refers to one of a house, apartment, mobile home, and group of rooms or single room, which are occupied or intended as separate living quarters. The separate living quarters that define a housing unit are those where the occupants live and eat separately from other residents in the structure or building, and have direct access from the building's exterior or through a common hallway. UmwalimuSACCO has now achieved appreciable facts in terms of housing of members. In fact; members of USACCO have bought houses, rehabilitated their residential, bought plots and or transforming their shelters. This lead to the amelioration of their economic conditions as assigned UmwalimuSACCO. For this reason; it is clear that to fail repayment of loans lead to influence negatively on availability of money to be given to new members in the way of being procured in houses.

### **2.6.4 Jobs and Service Availability**

Service availability is an extension of high availability, referring to services that are available regardless of hardware, software or user fault and importance. For human being, the availability of service is fundamental. UmwalimuSACCO plays an important role in loans granting to the members who after, proceed by investing in income

generating activities and thus, the need of personnel to run the business and so the service or employment is created in different domain: commerce, agriculture, livestock and other related activities. Meaning that if there is an increasing nonperforming loan in this financial institution, the decreasing revenue impacts negatively on granting loans process and thus, there was no loan to invest and no creation of job opportunity.

### **2.6.5 Income and Access to Preventive Medical Service**

Loan-borrowing has great benefit much as loan defaulting has negative effects as well. Public preventive medical service provides routine and urgent medical care, travel medicine, immunizations, as well as sexual health services, reproductive and gynecological services, and confidential HIV testing. Medical Services is organized to provide high quality, accessible, well-coordinated care. The model of care helps simplify and streamline more routine administrative needs and processes, including obtaining a referral, ordering lab tests, or receiving a prescription refills, for patients. That's why appointments made with your designated group practice are strongly encouraged. For members of UmwalimuSACCO; they get loans to be invested in business for farther improving welfare through access to preventive medical service even if they have medical insurance; the preventive medical service broadly referrers to food, hygiene, shelter,... which are not covered by any insurance but constitute a base of physiological needs for a human wellbeing. This is why the existence of UmwalimuSACCO to intervene in this matter for members to have loans and so to satisfy these basic needs. In other hand if there happen the nonperforming loans; there is no revenue and for this ; the deposits are decreasing and the ability to grant loans are also decreasing and consequently, it affects the economic condition of members (Direct and indirect beneficiaries).

The effect of non-performing loans can affect the general household. Studies have shown that it is the residents of poor neighborhoods that are most at risk of losing their children. Because children from low income homes are more likely to experience various forms of abuse and neglect, they are more likely to be placed in substitute care. African-American children in particular tend to be overrepresented among children in substitute care (Maluccio, Fein and Davis, 2004; Urban Strategies Council, 2006). Culturally

appropriate family preservation services may have some effect upon preventing substitute placement of poor children in foster or group care or facilitate reunification. Family preservation programs provide families of children at imminent risk of placement with intensive, home-based therapeutic and "concrete services" (i.e., child care, household goods, transportation, food, and so forth). In her 2002 study of a family preservation program in northern California, Marilyn Berry found a high success rate in terms of families avoiding removal of children and improving their health care, child care skills and living environments.

Additionally, several studies have found that to be most effective, provision of Concrete services was necessary to supplement the provision of therapeutic services to extremely low income families. In studies of family preservation programs in Utah and Washington, provision of Concrete services was associated with increased success (Fraser, Pecora& Lewis 1991 in Eamon 2004; City and County of LA, 2004). Other studies have found a link between program success and provision of income and resource supplements (Spaid, Lewis &Pecora 1991; Berry 2002 in Eamon, 2004). Researchers and practitioners speculate that this is because many of the stressors leading to crisis situations are direct outcomes of the conditions of living in poverty. As for the context of Rwanda, it is agreeable that a continuous crisis of non-performing loans has impacted greatly on the households of loan defaulters at different levels. Health care of the family members suffers from the effect of non-performing loans as the householders fail to meet financial demands of the family.

#### **2.6.6 Farming Economic Conditions &Social Support**

Loan-borrowing can be done for various purposes. One of these purposes might be to boost the borrower's farming and agricultural economic activities besides one's adhesion to an agricultural cooperative. According to Woldegebrail (2007), households do not simply join agricultural cooperative societies but there are motivating factors that arouse them to become member of the cooperative societies. One of the factors that attract people to join agricultural cooperatives is to solve their economic problems whereby loans are issued to cooperative members at reasonable interest. In his findings he said that the text and document analysis indicated that agricultural cooperative

societies are autonomous associations of rural people united voluntarily to meet their common economic, social and cultural needs through a jointly owned and democratically controlled enterprise. A research by Balogun (2007) showed that in Nigeria, credit has long been identified as a major factor in the development of agricultural sector. This shows that if cooperative members are facilitated to get agricultural loans the dreams of development become a reality. Farm credit can be obtained from either the formal source which include the banks and other government owned institutions or the informal sources which are self help group, money lender, cooperatives and non-government agencies (NGO).

Furthermore, according to Alufohai (2006), the informal source of credit is more popular among small scale farmers which may be to the relative ease in obtaining credit devoid of administrative delay, non existence of security or collateral, flexibility built into repayment which is against what is obtained in the formal sources. However, although the cooperative is considered to be successful, a research conducted in Malawi by Nkhoma (2011) in four cooperatives indicated that its membership and capital have been decreasing due to: loan default; inability to buy produce from members; and poor governance. All the above scholars believe that loan provision to cooperative members is a factor that increases agricultural sustainability.

All these scholars, however, conducted their studies outside Rwanda and it is not known entirely whether non-performing loans affects farming and agricultural economic activities significantly in the Rwandan context.

On the other hand, Saville in NAFES (2005) describes agricultural extension as a system of out-of-school education for rural people. NAFES (2005) also refers extension as a service or system which assists farm people, through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their standard of living and lifting social and educational standards. Concurring with previous scholars, Hougbo (2012) argues that Cooperatives are useful. However, they face the problems of excessive land fragmentation and instability in which farmers live.

Basically, the farmers who have individually some very small portions of land, would find relief by putting together their production factors: land, labor and capital. The status quo would have been different if there were effective agriculture extension services to the farmers. This pooling within cooperatives must enable cooperators for example: To adopt land conservation farming practices and modern production techniques that could not be applied under conditions of scarcity of land and to achieve economies of scale through the optimal use of production factors and reduced unit cost of the productions (Houngbo, 2012). Worth noting is that there is no indication however showing the reason as to why in countries like Rwanda where land is scarce and citizens experience economic problems cooperatives are not sustainable. The sustainability of agricultural cooperative may depend on external forces such as loan borrowing. Non-performing loans can, however, tremendously thwart the sustainability of an agricultural cooperative.

#### **2.6.7 Salary, Wages & Life style**

It is obvious that non-performing loan affects greatly the borrower's income in terms of salary and wages. The lifestyle of an individual may as well be influenced by that person's income and salary. The later, however, may suffer from non-performing loans, thus, altering the individual's lifestyle significantly. The crisis of non-performing loans may cause a person to cut down on their expenses, or moving from using first-hand items to second-hand items that can be easily afforded. In such instances, a person may be forced to take care of priorities and basic needs when it comes to financial spending.

#### **2.6.7 Banking and Saving**

Loan default and non-performing loans affect not only financial institutions but also individual bankers. A number of bank accounts have been closed because of the customers failing to pay off the borrowed loans. When the crisis of non-performing loans is overwhelming, a person may even opt to change the bank. It is obvious that when an individual's banking suffers, their saving in the bank will consequently suffer, and this may lead to a difficult economic condition of the person.

#### **2.7 Summary of Knowledge Gap**

The researcher reviewed a number of previous and recent studies on financial institutions, loan lending, and nonperforming loans. Many of the studies reviewed

indicated that losses of loans through nonperforming loans impact negatively on the development of financial institutions like USACCO as well as on the loan borrowers. The economic activities and conditions of loan beneficiaries suffer significantly from nonperforming loans.

Only a couple of research studies have examined the causes of nonperforming loans among loan borrowers. Despite these recent study findings, however, little attention was given to the impact of nonperforming loans on the beneficiaries' economic conditions. Therefore, the present study deemed it important to carry out a research to find out more about the causes of nonperforming loans and how nonperforming loans affect the economic conditions of the loan borrowers, particularly in Umwalimu SACCO, in Rwanda.

## **CHAPTER THREE**

### **RESEACH METHODOLOGY**

#### **3.1.Introduction**

This chapter presents the methodology and techniques that were used to conduct the research. It consists of the research design, locale of study, population, sample and sampling procedures, method of data collection, research instruments, validity and reliability of the instrument, data collection procedure, and data analysis procedure.

#### **3.2.Locale of the Study**

The study was carried out in Nyamabuye sector, Muhanga District, South Province where UMWALIMUSACCO operates. The sector has 64 secondary schools such as boarding schools, Nine years and twelve years Basic Education. It has also 84 primary schools except private schools. Teachers of Primary and secondary schools are considered as members (clients) of UMWALIMUSACCO. Muhanga Branch is operating in Muhanga District with 1921 members in general, among them 1192 is passing their salaries in USACCO and 1816; their savings are regular in this financial institution.

The level of poverty remains high with 53.6% of population below the poverty line and 24.1% in extreme poverty. The main economic activity is agriculture (78.5% of the active population) coupled with farmers livestock, where 76.9% of households raising livestock. The majority of populations in Muhanga District live in rural area with 76.7% living in isolated rural housing. Due to the high slop of terrain in Ndiza zone and mountains around Nyabarongo River, the regrouped habitat mode is virtually nonexistent except in trading centers (Kiyumba, Kibangu) and this hampers the access to adequate socio-economic development infrastructures. Access to energy is very low 13.1% as well as clean water 84.4% and basic sanitation 76.0% (Muhanga District Development Plan 2013-2018).

#### **3.3.Research Design**

The study was conducted using descriptive survey and correlation research design in order to describe the existing status of loan borrowing in Muhanga District and its challenges of nonperforming loans in SACCOMuhanga branch. The study used both

quantitative and qualitative approaches. Quantitative approach was used because numerical calculations were applied to explore behavior in the situations, from which numerical data including; frequencies, percentages, standard deviation, the mean and regression was obtained. Qualitative approach was used to explore performance of Umwalimu SACCO in Muhanga branch. The study qualitative approach involved the use of secondary data review and informal discussion and interview with respondents during data collection. Thus, descriptive research design was used under qualitative approach.

Eisner (1998) explained, “The point of using qualitative means to render and interpret the educational world is that it enables research to say what cannot be said through numbers-or at least cannot be said as well”. If used jointly, qualitative research enriches quantitative research as it involves a form of interaction between the researcher and participants (Gay, et al., 2009).

This research was an analytical study conducted at UmwalimuSACCOMuhanga branch. Analytical study is a research that uses observations of reality to test the objectives and help identify or develop an understanding of patterns behavior in the context of theory (Manheim et al., 1885). This study was analytical because it will go beyond merely describing the characteristics to analyzing the cause and impact of nonperforming loans on beneficiaries’ economic conditions in UMWALIMUSACCOMuhanga branch.

### **3.4. Population of the Study**

The population consisted of members of UMWALIMUSACCOMuhanga branch including its leaders, staff, and teacher members. The general population consisted of 1192. Target population was 1192 included primary and secondary teachers at different levels served in this current branch. Among the entire population, 111 members are in nonperforming loans and 27 staffs and 12 leaders of USACCO played a great role model in the present research.

### **3.5 Sample Size and Sampling Techniques**

A purposive sampling technique was used in selecting USACCO leaders and staff as it enabled the researcher to pick respondents who best meet the purpose of the study.

The respondents were purposively selected based on the strength of their experience in loan deals. Kenneth B. Bailey (1989:83) explains purposive sampling as a method of sampling where by the researcher uses his/her own knowledge about which respondents to choose, and picks only those who can best meet the purposes of the study. This technique enabled the researcher to get relevant detailed data.

Additionally, stratified random sampling was used in selecting loan beneficiaries from USACCO members only. Teachers were grouped according to their status and education level. Women and youths were primarily targeted because they form one of the major targeted groups reference made on the mission of USACCO. The Table 3:1 shows the target population selected from the general population consisting of USACCO leaders and its members including teachers. The researcher used Morgan’s formula to select the sample size. According to Krejcie, Robert, Morgan, and Daryle’s formula, the smaller the target population, the bigger the sample size vice versa

**Table 3 —Participant sample**

<b>Entire Population of USCCO</b>	<b>Target Population</b>	<b>N</b>	<b>Sample</b>	<b>%</b>
	USACCO leaders	12	8	67
1192	USACCO Teacher members	1173	260	23
	USACCO staff	27	18	67
<b>Total</b>		<b>1192</b>	<b>286</b>	

The sample size was calculated using Krejcie, Robert V., Morgan, and Daryle formula for determining sample size whereby N represents the population while S represents the sample size selected from the population. The sample size of 286 was selected from the population of 1192 referring to the formula in question (see annex 4)

### **3.6 Data Collection Instruments**

This section narrates the approach, techniques and procedures of data collection, processing and analysis. The scientific approach to be used for the purpose of this study was a system approach. The information was obtained by the use of questionnaires, interview guides and documentary analysis. Based on the kind of our topic, we have to get a population made up by customers and staff of UMWALIMUSACCOMuhanga branch and they were chosen purposively according to the topic:

### **3.6.1 Questionnaires**

The questionnaire contained demographic information of the respondents in term of Gender, age, education level, job title, department, work experience and professional qualification of the respondent. The key variables of the study were measured on two items and four item scales that are strong agree, agree, strongly disagree and disagree always, frequently, sometimes and never. Others were open ended for respondent to express personal views. This data collection instrument was used because it is the best through which accurate information could be drawn out in a study of this kind where the variable under investigation requires statement of facts and personal opinions.

The respondents were required to tick the appropriate column or select from the alternative answers and also provide significant through the few open ended questions. The questionnaires started with general questions regarding issues relevant to the participants. The purpose of these questions was to allow the participants to freely answer the question, raising their own ideas and reduce the risk of response bias.

### **3.6.2 Interviews**

Structured interviews were conducted with selected leaders in Umwalimu SACCO in Muhanga District. The interview consisted of both close-ended questions and open-ended questions. Interviews were used by the researcher because a face to face conversation can be limited to certain level. Thus an interviewee can be asked different questions in different directions which lead to emergence of ideas that are helpful to the researcher, and hence obtaining good quality data.

### **3.6.3 Documentation**

The documents include any written materials that contain information about the phenomenon one wishes to study. The documents to be used were from primary and secondary documents. The researcher will collect data from text books, journals, financial statements and annual reports of the financial institution under study.

### **3.7 Editing, Coding and Tabulation of Data**

Editing is a process where errors in complicated interview schedule and questionnaires are identified and eliminated wherever possible. Editing is done to check

completeness, accuracy, uniformity, legibility and comprehensibility of data (Williamson, 1982). With the collected questionnaires, we will have to check out how was answered in conformity with the objective of the study. Coding refers to the process of classifying alternative answers to a question into meaningful categories (Kendall, 1992). Thus, it was used to summarize data by classifying the different responses given into categories for easy manipulation. In our research, after collecting the questionnaires from UMWALIMUSACCO, we will have to sort out the responses from both staff and clients and analyzed them accordingly. Tabulation refers to the orderly arrangement of data in table or other summary format achieved by the counting the frequency of responses to the question (Churchill, 1992). The collected data from the UMWALIMUSACCO's staff and customers (teachers) was analyzed and the information to be summarized in tables along the themes and objectives of the study.

### **3.8 Validity and Reliability of Research Instruments**

The research tools were subjected to validity and reliability test before they actual use of gathering data. SPSS was applied to test the reliability of the questionnaire.

#### **3.8.1 Validity**

Validity of research instruments was established by discussing both questionnaire and interview guide items with research colleagues, and then the instruments were passed onto research experts including the research advisors for further evaluation and consideration before actual use of the tools.

The researcher made use of Content Validity Ratio (CVR) developed by Lawshe (1975). It is essentially a method for gauging agreement among raters or judges regarding how essential a particular item is. Lawshe (1975) proposed that each of the subject matter expert raters (SMEs) on the judging panel respond to the following question for each item: *"Is the skill or knowledge measured by this item 'essential,' 'useful, but not essential,' or 'not necessary' to the performance of the construct?"* According to Lawshe, if more than half the panelists indicate that an item is essential, that item has at least some content validity. Greater levels of content validity exist as larger numbers of panelists agree that a particular item is essential. Using these assumptions, Lawshe developed a formula termed the content validity ratio: 
$$CVR = (n_e - N/2)/(N/2)$$

Where  $CVR$  =content validity ratio

$n_e$  = number of SME panelists indicating "essential"

$N$  =Total number of SME panelists

This formula yields values which range from +1 to -1; positive values indicate that at least half the SMEs rated the item as essential. The mean CVR across items may be used as an indicator of overall test content validity. The higher the ratio, the more valid the tool is.

### **3.8.2 Reliability**

The researcher followed the advice given by professional researchers who assert that “self-constructed measurement instruments should be pilot tested before use so as to determine validity, reliability, and feasibility” of the tool (Gay, et al., 2009).

Estimation of reliability of the instrument was done by pilot-testing the questionnaire and applying Cronbach's Alpha coefficient to ascertain the internal consistency of the research tool, namely, questionnaire. Should the Alpha Coefficient be  $\geq 0.70$ , then the instrument would be considered reliable for use to collect actual data. The researcher pilot tested the instrument and applied Cronbach's Alpha coefficient to ascertain the internal consistency of the research tool, namely, questionnaire.

### **3.9.3 Data Collection Procedures**

Data collection Procedures included the activity of gathering facts or information about a subject under the research study. After formulating research instruments and sampling tools, the researcher will inform respondents about the research and its intentions. A covering letter explaining the purpose of the study was attached to the research instruments in which it was used to introduce the study to the respondents, an introduction statement at the top of the questionnaire guided the respondents on how to answer the questionnaire and give the assurance of confidentiality. The completed questionnaires was picked after being appropriately and fully responded to. Permission to obtain and use these documents was adequately sought from the respondents with the assurance of their safety and confidentiality. This created a good interaction process between the researcher and respondents and consequently getting sincere responses from them.

### **3.9 Data Analysis Methods**

After collecting the data, the data were coded, edited and entered into computer by use of Statistical Package for Social Science (SPSS) version 18. Both the descriptive and correlation analysis was used. Both qualitative and quantitative methods of data analysis were used. Descriptive statistics (frequency, percentage, mean and Standard deviation) was used to analyze objective one, two and three and Pearson correlation was used to analyze objective 2 in establishing the relationship between nonperforming loans and economic conditions of loan beneficiaries, particularly teachers.

## CHAPTER FOUR

### STUDY FINDINGS AND DISCUSSION

#### **4.1.Introduction**

This chapter presents the results of the study and their discussion in line with research objectives. This discussion of the study results is done while comparing present research findings with those of previous and research studies related to the present research topic. Still in discussing the study results, the findings were used to answer the research questions drawn from the objectives of the study.

The study analyzed causes of nonperforming loans, their impact on beneficiaries' economic conditions, and finally analyze the strategies to be taken in consideration to overcome those causes, and Umwalimu SACCO can maintain their loans performing. The study sought to establish the relationship between the nonperforming loans and beneficiaries' economic conditions in Umwalimu SACCO in general and in Muhanga Branch particularly. Data are presented and analyzed using mainly descriptive statistics and qualitative thematic analysis.

#### **4.2.Demographic Characteristics of Research Participants**

The actual research participants included 286 respondents, and in the course of data collection, the researcher succeeded to collect all the questionnaires, that is; there was no questionnaire which represented an error of omission. Descriptive statistics, mainly frequency and percentages, were used to analyze data on objective one which was to find out the demographic profile of the respondents in terms sex, age, level of education, and membership duration in agricultural cooperative. The frequency and percentage were meant to establish the most frequently occurring responses and the least frequently occurring responses.

**Table 4 —Demographic Characteristics of the Respondents**

<b>Characteristic</b>	<b>Description of the Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Sex</b>	Male	147	51.4
	Female	139	48.6
<b>Age</b>	21-25 years	43	15.1
	26-30years	65	22.6
	31-35years	83	29.0
	36-40 years	58	20.4
	41 and above	37	12.9
<b>Education level</b>	Secondary	151	52.7
	University (undergraduate)	108	37.6
	University (Postgraduate)	27	9.7
<b>Marital Status</b>	Single	65	22.6
	Married	169	59.1
	Divorced	15	5.4
	Widow	37	12.9
<b>Loan Experience</b>	1-5 years	43	15.1
	6-10 years	89	31.2
	11-15 years	114	39.8
	15 years and above	40	14.0
<b>Reasons for USACCO Membership &amp; Loan Accessibility</b>	Loan at lower interest rate	280	97.8
	Easy to obtain loan	6	2.2

Source: *Primary data, 2013*

Results from Table 3 indicate that majority of respondents (**147 / 51.6%**) were male and only respondents (**139/ 48.4%**) were female. This implies that the study findings were influenced by male responses. This can be attributed to the fact that males (men) are usually involved in farming activities especially when it involves coming together and coming up with a cooperative in the commune. The fact that men outnumber2 women in the participation of study may as well indicate that majority of SACCO members are males. This is true simply because more men than women are likely to go to ask for loans from USACCO since men have high members with the SACCO, and therefore, they might have easy access to loans.

As indicated in Table 4.1 the majority of respondents (29.0%) were aged (31-35) years and 22.6% were aged between (26–30) years, 20.4% were aged (36–40), 15.1% were aged (21-25) and respondents aged from 41 years and above are estimated around 13%. Therefore, respondents who participated in the study were mature enough to give

rich and in depth responses besides they were in the age category that qualifies for employment and were aware and participating already in UmwalimuSACCO activities in usual service rendered or requesting kind of loans (Overdraft, Emergency, medium and long term loans).

Table 4.1 shows that the majority of teachers in employment are not so aged because the higher percentage of them representing the teachers with age between 31 and 35 while the second category represent some ones with age between 26 and 30). This is to signify that our population in teaching career is young and active. References to our study, this young population are active and collaborate with UmwalimuSACCO for improving their economic condition in front of our changing environment nowadays. They have to cope with UmwalimuSACCO, requesting loans for housing, education, small business and sometimes for the satisfaction of the basic needs.

The study examined respondents' marital status as well. This was because marital status affects a persons' need for social- economic condition in habitual life. As indicated in the table above, 59.1% of the respondents were married, 22.6% were single, 5.4% had separated or divorced from their spouses and around 13% had been widowed. These respondents had been widowed by the genocide or natural death. Therefore, all respondents had a marital status that creates a need for socio-economic promotion for their welfare. This is because they have a lot of responsibilities or are asked to work hard to achieve the desired economic condition, such as widows.

The prime reason as why the study examined the educational level of the respondents was that in one way or the other, education affects the individual and family ability to earn a living. Table 4.1 above shows the highest education attainment of respondents. The level of education attained by a person affects his potential to acquire gainful employment. It can be noted that 52.7% of the respondents had only Secondary education, 37.6% had University education with undergraduate while 9.7% had university education with postgraduate.

This finding shows that most of the respondents had education that could place them in the category of the people in a need of improvement of their wellbeing. Regarding the collaboration with UmwalimuSACCO; it reveals that the level of education refers to the revenue in term of monthly salary, which imply consequently on

the loan to be granted from their cooperative due to; more you gain your salary more you can be granted either a considerable amount as an overdraft, an emergency loan, a medium or long term loan reference made on your monthly revenue and your monthly savings.

Obviously, the high level of education of an individual may influence his or her desire to go to ask for a loan, especially when individual holds a reasonably well paying job.

The experience in handling borrowed loan may affect the economic condition of the loan borrower. The results presented in the table indicated that majority of respondents around 40% have between 11 and 15 years of experience, the second category 31.2% have between 5 and 10 years as experience while the young ones and the old ones have relative percentage in our respondents (the variation is between 14% and 15%). With regard to the collaboration with UmwalimuSACCO in terms of loans process; as the level of education implies on salary with consequence on loans to be granted, the experience also plays a role in determination of salary increase. In the other hand, with high experience in education and so in UmwalimuSACCO, it implicates the high savings according to the monthly savings and the experience that a member has; thus with this experience with USACCO, the credibility has been built and the facilities or chance to be served without resistance can occur. And also the issue of collateral is guaranteed somehow while the young one is exposing the problem of collateral to have medium or long term loans.

#### **4.3.Reasons for USACCO Membership and Access to Loans**

The prime rationale for people becoming members of any financial institutions could be for saving and accessing loans. The study investigated the reasons why SACCO members apply for a loan.

Regarding the reason of adhesion to UmwalimuSACCO as presented in Table 4.2; the majority of respondents reported the reason of getting loans at low interest rate 97.8% while 2.2% referred to the facilities to get loans. The point of customer care service in terms of loans granted didn't encounter any sign. This is to explain that teachers are now business oriented due, the adhesion in USACCO at 97.8% is influenced by the facilities to get loans at lower interest rate 11% - 13% while in the commercial bank, the interest

rate vary between 19% - 21%. And the facilities that pointed out here in getting loans; they mentioned the overdraft and the emergency loans that granted the same day of demand after completing the overdraft sheet and with Head Teachers recommendation only. During the study, respondents were asked of what the borrowed loan was used for.

**Table 5 —Reasons for USACCO membership and purpose for loans**

<b>Reasons for USACCO membership</b>	<b>Frequency</b>	<b>Percent</b>
Loan at lower interest rate	280	97.9
Easy requirements to obtain loan	6	2.1
<b>Purpose for loan received by members of Muhanga branch</b>		
Buy a land	46	16.1
Buy or rehabilitate a house	89	31.2
Satisfy the basic needs, such as food, clothes, and shelter	6	2.2
Pay for medical treatment	22	7.6
Pay school or tuition fees	117	40.9
Agriculture and livestock economic activities	6	2.2

*Source: Primary data 2013*

The Table 5 indicates that majority of respondents have affected the loan granted in paying school fees (41%); this reveals that teachers have engaged in their capacity building which permit them to increase their salary when continued the career or changed in other career than education. The categories of teachers who pursue their studies are those in age category between 21 and 35 years old. The second considerable category is grouping those who's their loans have been used in buying or rehabilitating houses. This is true because; after education issue, another crucial issue is the shelter and in the Rwandan culture; housing is an important, essential and primordial issue for a human being and for an esteemed person. This category has a percentage of 31.2%. These two categories have a considerable frequencies while the loans used in buying land or plot represent 16.1%, 7.6% of loans received have been used in paying medicine at hospital; there are some members who have chronic disease or complicated illness, so even they have medical insurance (RSSB), they have to deal with financial institution or elsewhere for completing the percentage that are asked to pay for medicines, transports facilities or/and other basic needs for a patient or his accompanied person. The last categories of

loans affectation is regarding the payment of the satisfaction of primary needs with 2.2%, the same for the investment in agriculture and livestock 2.2%. This sector is not exploited by USACCO's members due asking more amount to invest, long term to produce, high risk in the area and enough time to monitor the project.

The study finding indicating that some individuals go to seek loan for agricultural purposes parallels with other research findings. A research by Balogun (2007) showed that, in Nigeria, credit has long been identified as a major factor in the development of agricultural sector. This shows that if cooperative members are facilitated to get agricultural loans the dreams of development become a reality. Farm credit can be obtained from either the formal source which include the banks and other government owned financial institutions or the informal sources which are self help group, money lender, cooperatives like SACCO, and non-government agencies.

#### **4.4 Real Purpose for Loan Borrowing**

There may be diverse reasons why individuals go for loans from financial institutions like SACCO. Some borrowers reported different purposes for loan borrowing other purposes rather when they were applying for a loan. The researcher was interested in finding out the real purpose for borrowing a loan from USACCO in Rwanda. Results in Table 6 table indicate whether all borrowers use the loans for real purpose.

**Table 6 —Real purpose for borrowing loan**

<b>Question item</b>	<b>Scale</b>	<b>Frequency</b>	<b>Percent</b>
The loan granted was used to serve the real purpose	No	80	28.0
	Yes	206	72.0

*Source: Primary data, 2013*

Regarding the question of loans granted if they have been used for the real purpose, the results presented in Table 6 show that 72% of respondents have used properly the loans as agreed while 28% have used the loans for other purposes because of first of all the calamities when house fallen out, the need of shelter seems to be priority, the second reason is the disease, the third is the school fees especially for the children and sometimes for few number it was due to the employment lost.

There are some recent studies that can be related to the present research study. For instance, a study carried out by Hu et al. (2006) analyzed the relationship between NPLs and ownership structure of commercial banks in Taiwan with a panel dataset covering the period 1996-1999. The study shows that banks with higher government ownership recorded lower nonperforming loans. Hu et al (2006) also show that bank size is negatively related to NPLs while diversification may not be a determinant.

Additionally, another recent research done by Khemraj and Pasha (2005) examined the relationship between the NPLs ratio and two categories of elements: macroeconomic and bank specific variables. The results show a positive relationship between the loans to asset ratio with NPLs, a positive relationship between real interest rate and NPLs ratio while the credit growth is negatively related to NPLs ratio and is highly significant.

#### **4.5 Initiators of the Project Presented when Applying for a Loan**

A business plan or a project is usually request to any loan applicant to get a loan. Some of the applicants may prepare it themselves, a friend or colleague can help them or any other person in the region like a consultancy firm can help them. Table 4.4 presents the initiators of the projects for loan presented to Umwalimu SACCO

**Table 7 —Initiators of the project presented when applying for a loan**

<b>Variable</b>	<b>Parameters</b>	<b>Frequency</b>	<b>Percent</b>
Loan-project initiator	Myself	9	3
	From my colleague	221	77.4
	From the region	56	19.6
	Other	00.0	000.0

*Source: Primary data, 2013*

Table 7 indicates that for the proper preparation of their project, 77.4% confirm that they got the project from their colleagues or they experienced them in the region 19.4% while 3% planed themselves their projects. This is the reason why they need training in business management and in other related domain due fewest of them have attained the training organized by UmwalimuSACCO where we have about 2% only trained in entrepreneurship and project management. The members of UmwalimuSACCO are in a need to be trained as it stipulated in cooperative principles (Cooperative Rwandan Law, 2010).

#### 4.6 Loan Risk Taker when the Borrower Failed to Repay the Loan

A borrower can be a risk taker when he/she fails to pay, the government itself or other partners may be risk takers. The following table highlights the main risk takers of the loans in Umwalimu SACCO.

**Table 8 —Loan risk taker**

<b>Study variable</b>	<b>Loan initiator</b>	<b>Freq</b>	<b>Percent</b>
If I get a loan and abandon the carrier of teaching, the person to be asked to continue the payment of the loan will be (ownership on their cooperative):	Myself	231	80.6
	Government of Rwanda	55	19.4
	Other	00.0	00.0

Source: *Primary data, 2013*

Referring on the question on who would be asked to pay the loan in case of changing the career or simply failed to repay, results presented in Table 8 indicate that majority of respondents 81% knew that they were willing to continue the repayment wherever they go, while other says that the government or UmwalimuSACCO would pay the loans 19.4%. This reflects the sense of ownership where the majority of teachers think that they belong to their cooperative, so that they must participate in its management.

It is a fact that thinking seriously about the possible risks of taking a loan can help an individual to take a good decision after thinking twice. A recent study examined some of the reasons why people go for loans from financial institutions like SACCO. Using a pseudo panel-based model for several Sub-Saharan African countries, Fofack (2005) finds evidence that economic growth, real exchange rate appreciation, the real interest rate, net interest margins, and inter-bank loans are significant determinants of NPLs in these countries. The author attributes the strong association between the macroeconomic factors and nonperforming loan to the undiversified nature of some African economies.

#### 4.7 Causes of Nonperforming Loans in Muhanga Branch

The first objective of the research was to identify the causes of nonperforming loans in USACCO in Rwanda. The research participants were asked multiple questions related to what cause them to fail pay the borrowed loans. With reference to the main causes of nonperforming loans, Table 9 presents the frequencies of respondents in terms

of some non-exhaustive variables which may influence the non-repayment of the contacted loans in Umwalimu SACCO by members of whom the majority are teachers.

**Table 9 — Causes of Nonperforming loans**

<b>Study variables: Miscellaneous Causes</b>	<b>Frequency</b>	<b>Percent</b>
Weak loan portfolio management by USACCO staff especially weak credit analysis from the beginning	37	12.9
Lack of transparency by borrowers	34	11.8
Change of USACCO's credit policies	43	15.1
Inexperienced or lack of entrepreneurial skills	95	33.3
Natural calamities	21	7.5
Change in economic condition like inflation	9	3.2
Unfaithfulness of USACCO staff	19	6.5
Lack of reliable market information	24	8.4
Allocation of funds by borrowers to the businesses other than agreed.	4	4.3

Source: *Primary data, 2013*

Table 9 presents the main causes of nonperforming loans and at the first position, 33.3% of respondents reported inexperience and lack of entrepreneurial skills by loan borrowers as cause of NPLs. This can be evident because as said, the question comes from the inexperience and the illiteracy in financial business. And 15.1% of respondents reported change of Umwalimu SACCO's credit policies being a cause of nonperforming loans. This is developed due to many changes encountered in the credit department either regarding the overdraft and the emergency loans or the procedures to have short or long term credit. The Weak credit analysis from the beginning with 13% took the fourth position; as said, either for the credit staff or for Umwalimu SACCO members ;the financial institution itself; both are new and the capacity building on financial literacy (business management, Project management, investment, competition in business, and so forth) is highly needed as it was a question above.

The results of this study are supported by the findings of a number of research studies that have been conducted on causes of nonperforming loans. A recent study done in Spain revealed that using a dynamic model and a panel dataset covering the period 1985-1997 to investigate the determinants of problem loans of Spanish commercial and saving banks, Salas and Saurina (2002) discovered that real growth in GDP, rapid credit

expansion, bank size, capital ratio and market power explained variation in nonperforming loans. Later on, Jimenez and Saurina (2005) examined the Spanish banking sector from 1984 to 2003 and their investigation provided evidence that NPLs are determined by GDP growth, high real interest rates and lenient credit terms. The same situation exists in Rwandan financial institutions like SACCO.

The Annual Report of bank supervision of 1995-2007 in Rwanda indicated that economic conditions, deficient practices in granting and managing loans, and difficult terms of collateral are some of the reasons for the high level of non-performing loans in the banking sector (National Bank of Rwanda, March 2008).

Additionally, as presented in Table 4.7, it was revealed that 12.9% of respondents reported weak loan portfolio management by USACCO staff especially weak credit analysis from the beginning as a cause of nonperforming loans, and 11.8% of respondents reported lack of transparency on members as the cause. This can happen during the loan request process and when the loan is granted, the customer uses it for other purpose than agreed; the point which conduct to the nonperforming loans. The natural calamities with 7.5% is determined here due the mountaineer region and when it rains, sometimes erosion or collapsed soil causing destruction of houses, damaging livestock and plants.

The respondents also pointed out the problem of unfaithfulness of USACCO staff 6.5%. The question of corruption is a crucial problem in banking system but in UmwalimuSACCO, the strategies to discourage the practice have been taken and already applied for any one with evidence to be implicated in the practice. Due to the Rwandan law against corruption condemn both the corrupted and the corrupter; it is difficult to gain the exhibit of corruption. Several previous studies have explained some of the causes of loan losses. A study carried out by Keeton and Morris (1987) showed that local economic conditions along with the poor performance of certain sectors explain the variation in loan losses recorded by the banks.

The three last items developed as causing the nonperforming loans are lack of reliable market information with 5.4% of respondents to confirm this, and 4.3% of respondents revealed the problem of allocation of funds by borrowers to the businesses other than agreed and at the end of the list, we have the change in economic condition like inflation with (3.2%). Simply put, it seems that the internal criteria

(UmwalimuSACCO as institution with its change in credit policies, the USACCO's Staff on capacity building and unfaithfulness for borrowers or members on their inexperience, lack of transparency) are dominant than external criteria like inflation and market information. So, reference made on this situation; it is easy for UmwalimuSACCO management to address these issues and maintain performing the disbursed loans.

Taken all together, the study results indicated that inexperience and lack of entrepreneurial knowledge and skill by loan borrowers is comes on top of the causes of nonperforming loan USACCO in Rwanda. Several studies which followed the publication of Keeton and Morris (1987) have since proposed similar and other explanations for problem loans in the US. Sinkey and Greenwalt (1991), for instance, investigate the loan loss-experience of large commercial banks in the US; they argue that both internal and external factors explain the loan loss rate (defined as net loan charge offs plus NPLs divided by total loans plus net charge-offs) of these banks. These authors find a significant positive relationship between the loan loss rate and internal factors such as high interest rates, excessive lending, and volatile funds. Similar to the previous study, Sinkey and Greenwalt (1991) report that depressed regional economic conditions also explain the loss-rate of the commercial banks. The study employs a simple log-linear regression model and data of large commercial banks in the United States from 1984 to 1987. It is clear that the challenge of loan losses in financial institutions like SACCO is global rather than regional or local in Rwanda.

#### **4.8 Impact of Nonperforming Loan in Muhanga Branch on their Beneficiaries**

The research investigated the possible impact of nonperforming loan in USACCO/Muhanga branch on the beneficiaries. Respondents were asked if failure of repayment was a barrier to the improvement of the welfare and economic development of teachers who had borrowed money from the SACCO. Still in the same context, the respondents were asked about the role of loan or if the granted from the SACCO could improve teachers' welfare and boost their economic development. The research participants gave various responses to these key questions. Table 4.8 presents the results on this variable.

**Table 10 —The impact of nonperforming loan**

<b>Questions</b>	<b>Scale</b>	<b>Frequency</b>	<b>Percent</b>
Failure of repayment was a barrier to the improvement of the welfare and economic development of teachers	No	31	10.8
	Yes	255	89.2
According to you, can the granted loan from the USACCO improve teachers' welfare and boost their economic development?	No	21	7.5
	Yes	265	92.5

Source: *Primary data, 2013*

As presented in Table 10, research participants responded in different ways when if granted loan can promote the welfare and economic development of teachers. Results from the Table indicate that majority of respondents strongly agree with 92.5% while 7.5 % only show that the loans received cannot change anything on their economic conditions. The same angle of vision confirm that the fail of repaying loans in USACCO can be the barrier of the improvement of the welfare of teachers 89% while only 11% of the respondents rejected the idea. The reasons in this case are many like the decrease in deposits (Cash) with consequence to not distributing loans, the staff turnover due to loss of job or un-payment. Another specified consequence is difficulties in obtaining loans if colleagues failed to pay the contacted loans 87% of respondents confirm the assertion while 13% agreed that the institution can continue running and so obtaining the loans as usually those ones who believe in this conviction referred to the government grant but they are wrong reference made on their colleagues' understanding because the government support is time-limited.

On the other hand, the reason for not getting loan easily after the failing of members' repayment; most of the respondents revealed 76% that the origin could be the lower deposits (Cash in bank) due to nonperforming loans while 24% of remaining respondents are sharing the ideas on long process to deliver the credit in USACCO and the bad service delivery on their understanding.

This research study finding is supported by a recent study conducted by Nkhoma (2011) in Malawi. The study examined to expectations of cooperative members and discovered in four cooperatives that their membership and capital have been decreasing due to loan default, inability to buy produce from members, and poor governance and management of the cooperatives. Such as situation of loan crisis is also existent in Muhanga district, Rwanda.

#### 4.9 Impact of Failure of Loans Repayment on Stakeholders in Muhanga Branch

The study was as well interested in investigating the impact of failure of loan repayment on stakeholders of USACCO/Muhanga Branch. Suppose the majority of USACCO's members failed to pay back the loan given, the consequences will likely affect other stakeholders of the SACCO besides loan beneficiaries.

**Table 11 —The impact of failure of loans repayment on stakeholders**

<b>Study Variables</b>	<b>Frequency</b>	<b>Percent</b>
USACCO's staff will not receive the salary and so go elsewhere.	65	22.7
The Cooperative will be closed	108	37.6
The USACCO's members will suffer from the lost service delivery	58	20.4
Other connected customers will be affected by the crisis	21	7.5
Others	34	11.8

Source: *Primary data, 2013*

Results presented in Table 11 indicate that other SACCO stakeholders besides loan beneficiaries are as well affected by the failure of loan payment. The findings indicated that for each stakeholder where, in case of failed repayment of loans; the cooperative itself could be affected 37.6% of respondents confirm this, while 22.6% said that the USACCO's staff could not receive their salaries and so go elsewhere. The third position to be affected could be the USACCO's members/ customers with 20.4% of respondents to confirm that they could suffer from the lost service delivery. On the other side 11.8% of the respondents revealed that the government program and USACCO's policies could be failed. Not only for these instances but also the connected customers would be affected at 7.5% as mentioned by the respondents. Regarding the question on non-repayment loans, if some government policies were or not achieved; 62% of respondents confirmed that some government policies will not be achieved while 38% said that the failure of non-repayment of loans in Umwalimu SACCO can't influence anywhere the government policies.

#### 4.10 Weighted Policies for Nonperforming in Muhanga Branch

During the process of the study, the researcher was interested in finding out about the weighted policies with regard to Nonperforming in USACCO/Muhanga Branch. The study results revealed different views on these policies.

**Table 12 —Weighted Policies due Nonperforming in Muhanga Branch**

	Frequency	Percent
The improvement of teacher’s welfare	89	31.2
Business orientation for all Rwandan	71	24.7
Education quality to all level failed	83	29.0
No success of EDPRS	43	15.1

Source: *Primary data, 2013*

The results presented in Table 4.10 indicate that late payment or non-repayment of loans to USACCO can influence negatively the improvement of teachers welfare 31.2% confirm the assertion while 29.0% of respondents reveal the failed education quality at all level, at the third position the respondents point out un-succeeded business orientation for Rwandan special teachers with 24.7% as percentage and lastly 15.1% of respondents reveal nonsuccess of EDPRS (Economic Development for the Poverty Reduction Strategy). Studies that examined other financial systems also provide similar results to those in the US. For instance, Bercoff et al (2002) examine the fragility of the Argentinean Banking system over the 1993-1996 period; they argue that NPLs are affected by both bank specific factors and macroeconomic factors. To separate the impact of bank specific and macroeconomic factors, the authors employ survival analysis. Using a dynamic model and a panel dataset covering the period 1985-1997 to investigate the determinants of problem loans of Spanish commercial and saving banks, Salas and Saurina (2002) reveal that real growth in GDP, rapid credit expansion, bank size, capital ratio and market power explain variation in NPLs.

#### 4.11 Relationship between Loans Received and Effective Use

Furthermore, the researcher was interested in establishing a significant relationship between loans received and their purpose of use. Respondents were asked a number of questions as why or for what the loan they have borrowed they would use it.

**Table 13 —The relationship between loans received and effective use**

Study variable	Parameters of Purpose	Scale	Frequency	Percent
What the loan you received was used for.	Buy a land	Yes	248	86.7
		No	38	13.3
	Buy /Rehabilitate a house	Yes	237	82.8

	No	49	17.2
Satisfy the basic needs	Yes	143	50
	No	143	50
Pay medicine at hospital	Yes	163	57.1
	No	123	42.9
Pay school fees	Yes	173	60.5
	No	113	39.5
Agriculture and livestock	Yes	286	100
	No	0	00
Any other business purpose	Yes	0	0
	No	0	0

*Source: Primary data, 2013*

Findings presented in Table 4.12 indicate that various purposes for which the loans were granted for. Results show that 86.7% of respondents reported that the loans were got for buying a land, was used for real purpose; 82.8% reported that the loan to buy or rehabilitate a house was used for real purpose, 50% of the loan for satisfying the primary needs was used for real purpose, 57.1% of the loan for paying medicine at hospital was used for real purpose, 60.5% of the loan for paying the school fees was used for real purpose while 100% of the loan for agriculture and livestock was real purpose.

The effective use of received loan is linked to the priority reason that an individual has for asking for the loan.

#### **4.12 Major Indicators of the Impact of Nonperforming Loans in Muhanga Branch**

During the study process, the researcher found it important to single out the major indicators of the impact of nonperforming loans in USACCO/Muhanga Branch. Concerning the variable of the negative effect of nonperforming loan in USACCO on teachers' economic condition, respondents were asked to choose one dominant indicator of the impact as a response to the question.

**Table 14—Major indicators of the areas affected by nonperforming loans**

<b>Study variables</b>	<b>Frequency</b>	<b>Percent</b>
Income-generating activities	105	36.6
Secondary and tertiary education	52	18.3
Access to private housing	43	15.1
Health and sanitation	49	17.2
Social support& status	22	7.6

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*Source: Primary data, 2013*

Results presented in Table 14 indicate that the nonperforming loans have a negative impact on income 36.6% while the second position occupied by 18.3% with respondents who said that the consequence is observed in education area and thirdly, it observed in the sanitation area with 17.2% as confirmed by respondents. The housing as an indicator of well-being for Rwandan came with 15.1% of respondent to confirm the assertion while 7.6% of respondents reported the question of social support. The point of life style came with 5.2%. These items gradually show the impact of nonperforming loans in USACCO/Muhanga Branch on their beneficiaries as revealed by our respondents.

The critical impact of nonperforming loans extends from loan lender institutions to loan borrowers. A few of previous studies revealed this fact, asserting that nonperforming loans can lead to efficiency problem for banking sector. It was found by a number of economists that failing banks tend to be located far from the most-efficient frontier (Berger and Humphrey (1992), Barr and Siems (1994), DeYoung and Whalen (1994), Wheelock and Wilson (1994)), because banks don't optimize their portfolio decisions by lending less than demanded. What's more, there are evidences that even among banks that do not fail; there is a negative relationship between the non-performing loans and performance efficiency (Kwan and Eisenbeis (1994), Hughes and Moon (1995), Resti (1995)). This same situation is apparent in financial institutions such as USACCO in domestically in Rwanda.

The researcher intended to examine the extent to which nonperforming loans negatively affect the economic conditions of loan beneficiaries in Muhanga District. Pearson correlation was used to establish the relationship as Table 14 presents.

#### **4.13 Relationship between Nonperforming loans and Economic Conditions of Beneficiaries**

The research was interested in establishing the relationship between nonperforming loans and economic conditions of loan beneficiaries in Muhanga district.

The research used Pearson Correlation moment to establish the relationship between the two variables under the study. Table 15 portrays the calculation of the correlation.

**Table 15—Relationship between nonperforming and economic conditions**

<b>Description</b>	<b>Measure Value</b>
Pearson Correlation(r)	0.124 <sup>**</sup>
P – Value	0.037
Coefficient of Determination (r <sup>2</sup> )	0.015
N = 286	

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

Generally in the predictive correlational studies like this one, Pearson **r** is best used to establish either positive or negative relationship between two variables. As indicated in Table 15, there is a relatively weak positive relationship (**r = 0.124, p = 0.037 < 0.05**) between nonperforming loans and economic conditions of beneficiaries, the coefficient of determination is low, being **0.124 X 0.124 = 0.0153**, which simply implies it is only nearly **2%** level of nonperforming loans affecting beneficiaries’ economic conditions. In other words, the likelihood of finding a correlation at this level, simply by chance, is less than zero in **1,000**. So the researcher can be confident that there is a correlation between nonperforming loans and economic conditions of beneficiaries in Muhanga district in the southern province of Rwanda. This study finding implies that when many loan borrowers fail to pay off their loans, their economic conditions are also negatively affected. From what the study reveals, the ongoing phenomenon of nonperforming loans significantly increases the decline in the beneficiaries’ economic conditions.

#### **4.14 Approaches to Overcome Nonperforming Loans in Muhanga Branch**

The last objective of the study was to suggest practical strategies of overcoming nonperforming loans USACCO. Some of the key approaches are presented in Table 4.13 in line with respondents’ responses.

**Table 16 —Approaches to overcoming nonperforming loans**

<b>Study variables</b>	<b>Frequency</b>	<b>Percent</b>
Frequent contact with borrowers; creating environment to make the USACCO as a problem solver and trusted advisor.	80	28.0

Attend some of borrowers business meetings	46	16.1
Perform offsite supervision trough management accounts.	21	7.5
Conduct dinner party and other social events with customers.	46	16.1
Frequent follow up on key business issues	25	8.6
Through caring the customers and make sure we deliver good service and give reasonable charges.	68	23.7

*Source: Primary data, 2013*

Results presented in Table 4.13 indicate various way of overcoming nonperforming loans USACCO/Muhanga Branch. When asked, 28.0% of respondents suggested that the first strategy should be frequent contact with loan borrowers; creating environment to make the USACCO as a problem solver and trusted advisor. And 23.7% of respondents suggested that good caring of the loan customers' good service delivery with reasonable charges on loan interest could help curb the problem of NPLs. Still some few respondents suggested that SACCO leaders should endeavor to attend some of loan borrowers business meetings with the same frequency as conduct dinner party and other social events with customers; the frequency is around 16.1% both for the two assertions. The frequent follow up on key business issues as revealed by the respondents is 8.6% while 7.5% of respondents suggested that SACCO managers should conduct offsite supervision trough management accounts to help and advice more loan borrowers on how effectively and successfully to use the granted loans.

The suggested strategies for reducing and alleviating nonperforming loans in SACCO related to what previous and recent studies were interested in in other countries. For instance, a recent study by Hu et al. (2006) analyzed the relationship between NPLs and ownership structure of commercial banks in Taiwan with a panel dataset covering the period 1996-1999. The study shows that banks with higher government ownership recorded lower nonperforming loans. Hu et al (2006) also show that bank size is negatively related to NPLs while diversification may not be a determinant.

Still, another research study by Khemaraj and Pasha (2005) investigated the significant relation between the nonperforming loans ratio and two categories of elements: macroeconomic and bank specific variables. The results show a positive relationship between the loans to asset ratio with NPLs, a positive relationship between

real interest rate and NPLs ratio while the credit growth is negatively related to NPLs ratio and is highly significant. Additionally, recently, Espinoza and Prasad (2010) analyzed the macroeconomic and bank variable that determine the nonperforming loans. The authors discovered a strong negative relationship between the real GDP and the NPLs ratio.

Similarly, the condition of the global financial markets has also affected the nonperforming loans ratio. A recent study indicated that many East Asian countries have been burdened with monstrous nonperforming loans portfolio since 1997 Asian crisis. Among the countries that emerged with successful nonperforming loans recovery stories like Korea, Japan and Thailand, similar to china; there have been strategies to be implemented so as to reduce the increasing nonperforming loans. The eloquent example was KAMCO (Korea Asset Management Corporation) which gain success in Korea and became a model advisor within the cited Asian country to deal with nonperforming loans ([www.kamco.or.kr/eng/](http://www.kamco.or.kr/eng/)).

The suggested approaches to alleviating nonperforming loans in financial institutions like USACCO in Rwanda might be practical and effective unless they are harmonized with financial policies that are meant to benefit both the loan lending institutions and individual loan borrowers.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1. Summary of the Study

The study examined the causes and impact of nonperforming loans on beneficiaries' economic conditions in Muhanga Branch in Rwanda. During the research, the nonperforming loan was defined as a sum of borrowed money upon which the debtor has not made his or her scheduled payments for at least 90 days. The nonperforming loan is a crucial issue in any financial institution because it can impact on financial statement not only causing the failure of banks or microfinance but also affecting negatively the loan borrowers' economic development. The study was guided by the following specific research objectives.

- (a) To find out the causes of nonperforming loans in USACCO in Muhanga District
- (b) To examine the impact of nonperforming loans on beneficiaries' economic development in UMWALIMU SACCO.
- (c) To suggest, by means of study findings, strategies to alleviate the problem of nonperforming loans in USACCO in Muhanga District.

The economic conditions have been defined as a combination of variables influencing the welfare of the human being such as the income, the shelter, and sanitation, availability of employment, education and life style. Study findings were used to answer research questions. Various reasons in multiple researches have been raised to justify the causes of nonperforming loans either in developed and economically emerging countries such as African countries like Rwanda.

The study results were used to answer the proposed research questions. The last research question was related to the strategies to be adopted in order to overcome the nonperforming loans. While making reference to experience from other countries; the strategies have been raised and the success from South East Asian countries, the sub Saharan African country like Tanzania; the willing is on the top to reduce the nonperforming loans in Muhanga Branch and thereafter work hard for the promotion of the teachers' welfare.

With regard to the causes of Nonperformance loans in Muhangabbranch, respondents reported some important causes of nonperforming loans. During the study, 33.3% of respondents reported inexperience and lack of entrepreneurial skills by loan borrowers as cause of NPLs. This can be evident because as said, the question comes from the inexperience and the illiteracy in financial business. And 15.1% of respondents reported change of Umwalimu SACCO's credit policies being a cause of nonperforming loans. This is developed due to many changes encountered in the credit department either regarding the overdraft and the emergency loans or the procedures to have short or long term credit. Additionally, 13% of respondents reported weak credit analysis from the beginning of loan process as a cause of nonperforming loans. Still, 5.4% of respondents reported lack of reliable market information, 7.5% of respondents reported natural calamities, and 3.2% of respondents reported change in the country's economic condition like inflation to be the causes of nonperforming loans.

Concerning the impact of NPLs on loan beneficiaries' economic conditions, the study results indicated that majority of respondents strongly agree with 92.5% of responses that loans granted from USACCO improve beneficiaries' welfare and boost their economic development while 7.5 % of respondents reported that loans received cannot change anything in their economic conditions. Additionally, 89.2% of respondents reported that failure to pay off loans in USACCO can be the barrier to the improvement of the welfare and economic development of beneficiaries, while only 11% of the respondents rejected the idea.

The respondents reported also the problem of copy pest projects, the financial illiteracy, the no sense of ownership and some teachers with conviction that USACCO is granted by the Government so, if failed to repay the loan, the Government or UmwalimuSACCO will pay the failed contracted loan. Concerning the impact of Nonperforming loans on beneficiaries' economic conditions in Muhanga branch, the study findings indicated that nonperforming loans impact negatively on beneficiaries' economic development.

The study also suggested practical approaches to reduce nonperforming loans in UmwalimuSACCO. The key strategies suggested in the included recruitment of qualified personnel, capacity building of the personnel, the board of directors and members

themselves, the credit policy well elaborated and recommended to be implemented in all branches by all branch managers and loans officers. Regarding international strategies, Umwalimu SACCO/Muhanga Branch could make use of strategies against the failure of the financial institution due to nonperforming loans.

On the other hand, the respondents tried to specify strategies which can be used by USACCO in order to reduce nonperforming loans. Some of the key strategies included frequent contact with borrowers; creating an environment to make the USACCO as a problem solver and trusted advisor, attend some of borrowers' business meetings, Perform offsite supervision through management accounts, effective recovery services of Muhanga branch, Conduct dinner parties and other social events with customers, Frequent follow up on key business issues through caring for the customers and make sure we deliver good service and give reasonable charges. These strategies plus others following the daily management and experiences gained; the nonperforming loans in Umwalimu SACCO could have a solution and so; the financial institution well managed will improve teachers' economic development.

## **5.2. Conclusion**

The researcher concluded that the crisis of nonperforming loans is apparent in financial institutions like USACCO in Muhanga District and Rwanda at large. It also concluded that the nonperforming loans have a significant impact on loan borrowers' economic development. Findings suggest that causal factors controllable by financial institutions to be a major contribution to nonperforming loans, specifically mismanagement of funds, weak credit analysis at the beginning from credit analysts, lack of transparency by borrowers, change of USACCO's credit policies, inexperienced or lack of entrepreneurial knowledge, natural calamities, change in economic condition like inflation, unfaithfulness of USACCO staff, lack of reliable market information and allocation of funds by borrowers to the businesses other than agreed are common causes of nonperforming loans and justified either in the developed or developing countries.

The situation of nonperforming loans becomes critical if the borrower is not honest and decides to hide the actual performance of investment in order to avoid paying

his or her obligations to the lender. This was also evidenced in this study where results show that some borrowers lack integrity is not transparent.

Despite the on-going crisis of nonperforming loans and their negative impact of beneficiaries' economic conditions, the study findings contended that the USACCO establishing a good relationship with its members could be the most favorable strategy to be to curb the problem of nonperforming loans. Besides, such an approach could be coupled with the SACCO attending meetings of its members, delivering good service with reasonable, affordable interest rate and charges on loans in order to motivate loan borrowers and help them meet successfully the responsibility of paying off their loans at agreed upon deadline.

### **5.3.Recommendations**

The study findings were used to make practical recommendations to financial institutions like SACCO stakeholders and loan beneficiaries.

#### **5.3.1. Government**

- (a) To create a guarantee funds for teachers having collateral problems with loan management.
- (b) To increase the teachers' monthly income in order for them to meet loan interests at maximum.

#### **5.3.2. Umwalimu SACCO**

- (a) To elaborate a strong channels of communication between USACCO its members in order to sustain the members' ownership.
- (b) To train members on financial intelligence, project management and advise them on how they can solve their own economic problems.
- (c) To elaborate and follow up the regulation or instructions related to the credit policy and avoiding changes every year.
- (d) To recruit loan recovery officers, if not create a recovery committee at branch level.
- (e) To strengthen USACCO regulation and having adequate provisions to compensate for Non-performing Loans.

### **5.3.3. Financial-Loan-Lending Institutions**

- (a) To be transparent and vigilant in their attributions day to day before granting loans and after;
- (b) To respect five Cs of credit worthiness: character (honesty, ethical reputation), capacity (cash flow), capital (real worth), collateral, conditions (vulnerability to economic fluctuation, especially downturns).

### **5.3.4. SACCO Members**

- (a) To be empowered in the capacity building in financial domain
- (b) To be faithful in business
- (c) To create and develop cooperatives at school center levels for easy access
- (d) To increase the monthly savings
- (e) To develop the sense of ownership of their cooperative, being aware on decisions taken in general assembly and follow up how their cooperative is running.

### **5.4.Suggestion for Further Studies**

The researcher made suggestion for further studies on following topics related to the financial and economic development of both SACCOs and their members:

- (a) Financial-loan-lending institutions and micro businesses development.
- (b) Internal and external services affecting the sustainability of saving and credit cooperatives in Rwanda.
- (c) Loan management and beneficiaries' socioeconomic development.
- (d) Service delivery in financial institutions and beneficiaries' development.

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## APPENDICES

### Appendix 1

#### LETTER TO RESEARCH PARTICIPANTS

University of Rwanda  
College of Business and Economics  
P. O. Box 432  
Kigali, Rwanda

February 18, 2014

Dear Participant,

Re: Request for Participation in an Academic Research Study

I am RYUMUGABE Innocent, a graduate student from University of Rwanda, pursuing a Master's degree in Business Administration (MBA). As part of the requirements to complete my course, I am carrying out a research with the title: *"The Causes and Impact on Nonperforming loans on Beneficiaries' Economic Conditions in Umwalimu SACCO: A case study of USACCO/Muhanga Branch,"* Muhanga District, Rwanda.

With reference to the above subject, I am requesting for your participation in this academic research by responding to the questions presented in the questionnaire and interview. Your confidentiality will be guaranteed during and after the study as any information given will be used exclusively for the academic purpose. To help me keep your confidentiality, please don't write your name or telephone number anywhere on this questionnaire.

You can access the findings of this research on personal request, either in writing or on phone after three months from the date of data collection. Your participation will be appreciated. Please, find attached a consent form to confirm your participation.

Yours faithfully,

RYUMUGABE Innocent

## Appendix 2

### QUESTIONNAIRE FOR RESEARCH PARTICIPANTS

#### INSTRUCTIONS TO RESPONDENTS

Dear respondent, note following before you start answering questions in this questionnaire:

- ✓ To protect your confidentiality, do not write your name on this questionnaire.
- ✓ Use only a pen to answer questions.
- ✓ Mark off with a tick ✓ against the best response where it required.
- ✓ Give a brief written response where it is required.
- ✓ Do not answer more than once unless required.

#### SECTION A

#### RESPONDENTS' DEMOGRAPHIC CHARACTERISTICS

Please, tick off ✓ in the box to indicate the alternative that best describes you.

**1) Gender (Sex) :**

- Male
- Female

**2) Age:**

- a) Aged between 21 and 25
- b) Aged between 25 and 30
- c) Aged between 30 and 35
- d) Aged between 35 and 40
- e) Aged 40 and above

**3) Marital Status:**

- Married
- Single
- Divorced
- Widow

**4) Education level :**

- Secondary
- University
- Post graduate
- Masters

**5) Experience**

- a) Between 1 year and 5 years
- b) Between 6 year and 10 years
- c) Between 11 year and 15years

- d) Above 15 years

### SECTION B

#### REASONS FOR BECOMING A MEMBER OF USACCO

**Please, tick off  $\surd$  the most reason which motivated you to become a member of USACCO**

- a) Customer care service
- b) Over draft bank
- c) Loan at lower interest rate
- d) Easy to obtain a loan

### SECTION C

#### PERCEIVED PURPOSES FOR LOANS FROM USACCO

**Please, tick off  $\surd$  the best reason for borrowing loan from USACCO.**

**1. The loan received was used to:**

- (a) Buy a land
- (b) Buy /Rehabilitate a house
- (c) Satisfy the primary needs(food, drink, clothes)
- (d) Pay medicine at hospital
- (e) Pay school fees
- (f) Other reasons , indicate them below

.....  
.....

### SECTION D

#### MISCELENEIOUS RELATED LOANS QUESTIONS

**Please, tick off  $\surd$  the best response form the given alternatives.**

**1. The loan granted served for the real purpose?**

- Yes
- No

**2. Who was the initiator of the project of loan?**

- a) Myself
- b) From my colleague
- c) From the region
- d) From the internet

**2. Did you attend the seminar on loan skills prepared by USACCO?**

- Yes

No

**3. If you attended a seminar on loan management skills, which skills did you get from the seminar?**

- a) Investment skills
- b) Skills on risk management
- c) Business project planning
- d) Business management
- e) Other areas of skills, indicate below

.....  
 .....

**4. If you get a loan and you abandon the carrier of teaching, who is asked to continue the payment of the loan?(ownership on their cooperative)**

- a) Myself
- b) My employer
- c) The Government of Rwanda
- d) UmwalimuSACCO
- e) No one

**SECTION E**

**CAUSES OF NONPERFORMING LOANS IN USACCO**

Likert Scale Measurement

**Please, read the following statements carefully and circle corresponding number in the cell to indicate whether you 1= strongly disagree (SD), or 2= disagree (D), or 3= are undecided (U), or 4= agree (A), or 5= strongly agree (SA) with the statement.**

No	Variables under study	1=SD	2=D	3=U	4=A	5=SA
1	Poor management of funds					
2	Weak loan portfolio management by USACCO staff especially weak credit analysis from the beginning	1	2	3	4	5
3	Lack of transparency by borrowers	1	2	3	4	5
4	Change of USACCO's credit policies	1	2	3	4	5
5	Inexperienced or lack of entrepreneurial knowledge and skills	1	2	3	4	5
6	Natural calamities	1	2	3	4	5
7	Change in economic condition like inflation	1	2	3	4	5
8	Ineffective recovery service of USACCO/Muhanga Branch	1	2	3	4	5
9	Unfaithfulness of USACCO staff	1	2	3	4	5
10	Lack of reliable market information for commercial products	1	2	3	4	5
11	Allocation of funds by borrowers to the businesses other than agreed	1	2	3	4	5

## SECTION F

### PERCEIVED IMPACTS OF NONPERFORMING LOANS ON BENEFICIARIES' ECONOMIC CONDICTIONS IN USACCO

Likert Scale Measurement

**Please, write the corresponding number in the provided blank space before the statement to indicate whether you 1= strongly disagree (SD), or 2= disagree (D), or 3= are undecided (U), or 4= agree (A), or 5= strongly agree (SA) with statement.**

1	2	3	4	5
_____	_____	_____	_____	_____
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

- (1) \_\_\_\_\_ The granted loan in USACCO fails to promote the welfare of teachers.
- (2) \_\_\_\_\_ Failure to pay off loan in USACCO can be the barrier to the improvement of the welfare of teachers.
- (3) \_\_\_\_\_ If your colleagues fail to pay the loan, you can still obtain the loan easily.
- (4) \_\_\_\_\_ Failure to pay loan affects greatly beneficiaries' farming economic activities such as crop growing, or cattle keeping, or poultry keeping.
- (5) \_\_\_\_\_ Nonperforming loan in USACCO has a negative effect on teachers' income.
- (6) \_\_\_\_\_ Nonperforming loan in USACCO has a negative effect on teachers' job performance.
- (7) \_\_\_\_\_ Nonperforming loan in USACCO has a negative effect on teachers' side-businesses, such as shop retailing, tailoring, and so forth.
- (8) \_\_\_\_\_ The nonperforming loan in USACCO has a negative effect on teachers' life style.
- (9) \_\_\_\_\_ If the loans are not paid back, some government financial policies will not be effective.
- (10) \_\_\_\_\_ Failure to pay the loan may cause the beneficiary to lose their property or job of teaching.

## SECTION G

### APPROACHES TO ALEVIATING NONPERFORMING LOANS AMONG USACCO LOAN BORROWERS

- 1. Choose by ticking off  $\checkmark$  only one best approach among those listed below that USACCO can initiate to avoid nonperforming loans.**

- (a) Frequent contact with borrowers; creating environment to make the USACCO as a problem solver and trusted advisor.
  - (b) Attend some of borrowers business meetings
  - (c) Perform offsite supervision through management accounts.
  - (d) Conduct dinner party and other social events with customers.
  - (e) Frequent follow up on key business issues
  - (f) Through caring the customers and make sure we deliver good service and give reasonable charges.
2. Suggest three means USACCO can use to help its customers to manage effectively the borrowed loans.  
.....  
.....
  3. Suggest three practical strategies the government can lay to reduce the mismanagement of loans among beneficiaries.  
.....  
.....
  4. Please, suggest three possible practical ways in which USACCO members can manage their received loans effectively.  
.....  
.....

END

Thank you for your participation and be blessed!

### **Appendix 3**

#### **INTERVIEW GUIDE**

##### **INTERVIEW WITH USACCO LEADERS AND STAFFS**

- 1) How nonperforming loans are reviewed in Umwalimu SACCO?
- 2) Do you get an opportunity to talk about nonperforming loan in your financial institution (USACCO)?
- 3) If any, what are the causes of nonperforming loans in your financial institution from your own observation?
  - a. From borrowers (Members).
  - b. From the Institution (USACCO).
  - c. From the Government
  - d. From other ( be specific)
- 4) Do you think that there is impact of nonperforming loans on beneficiaries' economic condition?
  - a. State any for members.
  - b. State any for USACCO
  - c. State any for Government
- 5) What are strategies that can be taken to reduce the nonperforming loans in USACCO?
  - a. By members
  - b. By USACCO
  - c. By Government
- 6) If you are a decision maker at the top level, what is the policy to be formulated reference made on NPLs to:
  - a. Members of USACCO
  - b. Umwalimu SACCO
  - c. Government
- 7) According to you, is there any relationship between nonperforming loans and beneficiaries' economic condition in Umwalimu SACCO?
- 8) Have you the loan recovery officer in your financial institution?
- 9) What are facilities or difficulties you encounter in your recovery process?
- 10) Is there any external influence causing nonperforming loan in USACCO?
- 11) If any, which one and how it influence nonperforming loans in USACCO?
- 12) Have you the approach related to the following up and monitoring of granted credits in Umwalimu SACCO?

Thank you for your kind collaboration!

## Appendix 4

**Table for Determining Sample Size from a given Population**

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	<b>290*</b>	<b>165*</b>	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

\*The estimation where the sample size of the actual study participants falls.

Note: “N” is population size

“S” is sample size.

Krejcie, Robert V., Morgan, Daryle W., “Determining Sample Size for Research Activities”, Educational and Psychological Measurement, 1970.

**Appendix 5**  
**CONSENT FORM**

I have been asked to participate in a research to respond to emerging need to help both financial-loan-lending institutions and individual loan borrowers in Rwanda. The information yielded from Umwalimu SACCO, particularly in the Umwalimu SACCO Muhanga branch in Muhanga district, Rwanda will serve as a guide for the strategies meant to help USACCO and other sister loan lending institutions to curb nonperforming loans and maximize the achievement of SACCO's goals and loan borrowers' goals. The topic of the study is "*Causes and Impact of Nonperforming Loans on Beneficiaries' Economic Conditions in Umwalimu Sacco: A Case Study of Umwalimu SACCO/Muhanga Branch in Muhanga District, Rwanda (2009-2013)*" USACCO objectives include among others to avail members an opportunity to obtain loans from their and to establish strong system of control that would ensure security of the member's savings. I understand that RYUMUGABO Innocent, the primary investigator, will use the information collected toward the completion of his Master of Business Administration (MBA) thesis at University of Rwanda.

I was selected to be a possible research participant because of my experience, knowledge of the topic, membership in USACCO, and familiarity with those who benefit from SACCO loans in Rwanda. I have been identified as a potential contributor to the research by the researcher and research assistant. A total of about 93 people have been asked to participate in the study.

If I agree to be in this study, I will be asked to participate in a semi-structured interview and self-constructed questionnaire. My participation may be asked for one day. I understand that the risks involved in participating in this research are no more than would normally be expected on a daily basis. I will not be financially compensated.

To maximize any risks for me for my participation in this study, my responses will be coded and a pseudonym will be given to me. This research study is confidential. The records of this study will be kept private. No identifiers linking me to the study will be included in any sort of report that might be published.

My decision whether or not to participate in this study will not affect my current or future relations with Umwalimu SACCO and University of Rwanda. If I decide to participate, I am free to refuse to answer any of the questions that may make me feel uncomfortable. I may not withdraw from the study at any time without my relations with any of the mentioned institutions being affected, nor will it affect my job or benefits. I can contact RYUMUGABE Innocent at (Email: [mugaby01@yahoo.fr](mailto:mugaby01@yahoo.fr)) with any question concerning this study

I have read the above information. I have asked questions and received answers to my satisfaction. I have been given a copy of this consent document for my records. By signing this consent document, I willingly consent to participate in this research study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Researcher: \_\_\_\_\_ Date: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

Date \_\_\_\_\_ Initial \_\_\_\_\_