



COLLEGE OF ARTS AND SOCIAL SCIENCES

SCHOOL OF GOVERNANCE

MASTER'S PROGRAM IN LOCAL GOVERNANCE STUDIES

**FACTORS AFFECTING VUP-FINANCIAL SERVICES LOANS
REPAYMENT IN RWANDA; A case study of Gisagara District.**

**A DISSERTATION SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF SOCIAL SCIENCES IN
LOCAL GOVERNANCE STUDIES.**

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GISAGARA, February, 2021

DECLARATION

I, **KARANGWA Théogène**, hereby declare that, the work presented in this research project entitled “**FACTORS AFFECTING VUP-FINANCIAL SERVICES LOANS REPAYMENT IN RWANDA; A Case Study of Gisagara District**” is my original work and has never been presented elsewhere for any academic award.

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DEDICATION

To

God,

My Wife Munezero and Daughter K. Kirenga,

Family,

Teachers and Lecturers at all levels,

and

Friends.

ACKNOWLEDGEMENT

The success of this research work is a result of combined efforts of various people who deserve my sincere thanks and gratitude.

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I sincerely offer my thanks to all of them and May the Lord bless them for their unwavering support and encouragement.

LIST OF ABBREVIATIONS AND ACRONYMS

BNR: National Bank of Rwanda

CDF: Common Development Fund

CIB: International Council for Research and Innovation in Building and Construction

cPW: Classic Public Works

df: Degree of Freedom

DS: Direct Support

ePW: Expended Public Works

FARG: Genocide Survivors Assistance Fund

FRW: Rwandan Franc

FS: Financial Services

GoR: Government of Rwanda

H0: Null Hypothesis

H1: Alternative Hypothesis

LODA: Local Administrative Entities Development Agency

MFIs: Microfinance Institutions

MINALOC: Ministry of Local Government

MINECOFIN: Ministry of Finance and Economic Planning

MIS: Management Information System

NISR: National Institute of Statistics of Rwanda

NPL: Non-Performing Loans

PW: Public Works

RALGA: Rwandan Association of Local Government Authorities

RDRC: Rwanda Demobilization and Reintegration Commission

RLDSF: Rwanda Local Development Support Fund

SACCO: Saving and Credit Cooperative

S.E: Standard Error

SPSS: Statistical Package for Social Sciences

SWOT: Strengthens, Weaknesses, Opportunities and Treats

UK: United Kingdom

VUP: Vision 2020 Umurenge Programme

VUP-FS: Vision 2020 Umurenge Programme - Financial Services

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ABSTRACT

The purpose of this study was to analyze factors affecting VUP- Financial services loan repayment in Rwanda with specific reference to Gisagara District from 2010 to June 2019. The study achieved its goal through three objectives namely to determine the extent to which lender factors affect VUP financial services loan repayment, to determine the extent to which borrower factors affect VUP financial services loan repayment and finally to determine the extent to which business factors affect VUP financial services loan repayment in Gisagara District. The study reviewed applicable literature for defining the gap which the research has filled. The study included VUP-FS beneficiaries as target population and the sample size of 254 beneficiaries was selected for modelling a binary dependent variable. The research adopted descriptive research design where data were collected using questionnaire and analyzed using the binary logistic regression method. This study revealed that lender and business related factors are the most important factors, affecting VUP-FS loan repayment. Getting the profit from the business, full affection of the loan to the intended business, sufficiency of the loan to start the business, shifting responsibilities of delivering loans from the Sector to Umurenge SACCO and supervising the loan utilization have been found as the most significant determinants of VUP-FS loan repayment. The level of education is positively associated with the likelihood of repaying VUP-FS loan while the number of dependents is negatively affecting the VUP-FS loan repayment.

The study recommends that lender be obliged to have a compulsory monitoring and control the use and repayment of loans. Borrowers should also affect the loan to its purpose and not implementing other activities not related to the project. The study also recommends to fully finance the project and increase the loan ceiling by not only basing on the number of borrowers but also basing on the size and type of business. The study further recommends to extend the repayment period and to reduce the interest rate as they were considered as challenge for loan repayment. The study finally recommends the training of borrowers before and after receiving loans with an emphasis on project preparation, the management of the business, saving, book keeping and loan repayment as some borrowers were not aware of if the loan will be repaid back.

Keywords: Vision Umurenge Programme, Financial services, Loan repayment

CHAPTER ONE: GENERAL INTRODUCTION

1.1. Background

Social protection is an important dimension in the reduction of poverty and multidimensional deprivation (Shepherd, 2004). It describes a set of policies which governments can pursue in order to ensure protection both to the ‘economically active poor’, enabling them to participate more productively in economic activity, and to the less active poor, with considerable benefits for society as a whole. The government of Rwanda has developed its social protection strategy for the core mission of ensuring that all poor and vulnerable people are guaranteed a minimum income and access to core public services, providing the means of escaping poverty to those who can work and increasing numbers of people are able to access risk sharing mechanisms that protect them from crisis and shocks (MINALOC, 2011). Among government of Rwanda’s social protection programmes, there include Vision 2020 Umurenge Programme (VUP) initiated in 2007 as an integrated local development programme that mainly aimed at accelerating poverty eradication by 2020, rural growth, and social protection (GoR, 2007).

The “Vision 2020 Umurenge Program (VUP)” is part of the long-term “Vision 2020” developed by the Government of Rwanda “to accelerate and strengthening the social and economic transformation of the country including economic development and growth, availing jobs to unemployed people and reducing the extreme poverty, through a participative approach at local level” (GoR, 2007). The programme was established under the Ministry of Local Government (MINALOC) within the Common Development Fund (CDF), which became Rwanda Local Development Support Fund (RLDSF) in 2010 and later became Local Administrative Entities Development Agency (LODA) in 2013. It is supported by the Ministry of Finance and Economic Planning (MINECOFIN), Development Partners and different Non-Government Organizations.

VUP operates in three main components namely (i) the Direct Support which consists of cash transfer to the poorest households (classified as Ubudehe 1) and unable to work, (ii) the public works consists of wages (cash for work) to members of poor households (classified as Ubudehe 1 or 2), but are able to work and (iii) the financial services (FS) which consists to facilitating access to financial services through savings, loans and trainings for the poor. In its beginning in 2010, financial services component covered various Ubudehe categories, with more emphasis on inclusion of lower Ubudehe categories (CDF, 2009). Since 2011, loans provided before started to

be paid back as they had to be revolved as new loans to new beneficiaries according to the initial concept.

As one component of VUP, Loans provided in Vision 2020 Umurenge Programme (VUP) are not well paid back by beneficiaries. The repayment of financial loans is influenced by both lender's, borrower's and business's related characteristics (Angaine & Waari, 2014). Characteristics of lenders include their policies, attributes, objectives and work performance which govern the criteria of lending (Angaine & Waari, 2014). The conditions under which the VUP-financial services loans were granted, objectives and types of financed projects had an influence on the repayment of these loans.

On the side of the borrower, identifying and analyzing their characteristics is an essential issue to be taken into account by the credit managers to determine if the borrowers applies the lowest efforts to honor the credit obligations (Angaine & Waari, 2014). The borrower's characteristics also consist of gender, age, level of education, occupation, marital status, experience in borrowing and number of dependents and all have an influence on loan repayment. In VUP-financial services, loans are also delivered in both groups of borrowers and individuals and these have an influence on repayment.

Besides the lender's and borrower's characteristics, business characteristics have also an influence on loan repayment. Default loans in the microfinance sector may be attributed to business-related characteristics (Angaine & Waari, 2014). The types of business are classified under the manufacturing sector, the service industry, the agriculture sector and the trade sector and they all count different cases of loan repayment defaults. The duration of the business, its location and profits generated play a significant role in the repayment of the invested loans.

According to Derban *et al.* (2005), "The loan defaulting reasons could be classified into three major categories including the essential borrowers and businesses' characteristics, lenders' characteristics and appropriateness of the loan product and finally the influence of external factors like political and /or economic business environment and their associated risks."

1.2.Problem statement

The loans provided under VUP financial services have not been well recovered. In Gisagara District, these loans have been delivered in two different periodic schemes and only six (6) Sectors were concerned. During the period between 2010 to June 2014, loans were provided by the management team at Sector on the interest rate of 2% per year. From July 2014 to June 2019, loans were managed by Umurenge SACCO and the interest rate was 11% per year. Only six Sectors in the District were considered by these two schemes and include Gishubi, Kigembe, Muganza, Mugombwa, Nyanza and Save. Even though the life span of loans was expired, the repayment rate of loans managed by the Sector and Umurenge SACCO was respectively 59% and 81.39% by June 2019 (Gisagara District, 2019).

From 2010 to June 2014, VUP-FS beneficiaries have received a total loan amounting to 666,081,629 FRW and 679,403,262 FRW were supposed to be repaid and only 400,863,997 FRW have been repaid as at 30th June 2019 yielding 59.0% of loan repayment rate for the 1st scheme despite of the expiration of loan repayment span. From July 2014 to June 2019 for the 2nd scheme, VUP-FS beneficiaries have received a total loan amounting to 474,488,018 FRW and 385,291,422 FRW were supposed to be repaid and only 313,602,575 FRW have been repaid as at 30th June 2019 yielding 81.39% of loan repayment rate (Gisagara District, 2019).

From these figures, non-performing loans (NPL) were 41% for the 1st scheme and 19.6% for the 2nd scheme and were considered unsatisfactory compared to the norm of at most 5% (BNR, 2009). By effect, as fewer loans are paid back, little amount is revolved as new loans and if this issue persists, the process and the program can be closed, otherwise the government is obliged to refund the program. Factors influencing loan repayment are categorized into lender, borrower and business related characteristics (Angaine F. & Nderi D., 2013). Till the study is conducted, the influencing rate of each single characteristic (factor), the extent at what each factor contributes to VUP-FS loan repayment or non repayment and the percentage at which each factor increases or reduces the probability of VUP-FS loan repayment were not yet known.

Having some VUP-Financial services loans not yet repaid back, thus this study therefore sought to fill the knowledge gap by providing information on the factors affecting VUP-financial services loans repayment in Rwanda in general and Gisagara District in particular.

1.3. Research questions

This study has responded to the following research questions:

- i. To what extent do lender factors affect VUP financial services loan repayment in Gisagara District?
- ii. To what extent do borrower factors affect VUP financial services loan repayment in Gisagara District?
- iii. To what extent do business factors affect VUP financial services loan repayment in Gisagara District?

1.4. Research hypothesis

The hypothesis refers to an assumption, built on thinking and evidence, to be examined in research through observations and experiments, which then gives facts and predict possible outcomes.

The following null hypotheses were to be verified, proved or rejected from this the study:

- i. H₀₁: Lenders related factors don't affect VUP financial services loan repayment in Gisagara District.
- ii. H₀₂: Borrowers associated factors affect VUP financial services loan repayment in Gisagara District.
- iii. H₀₃: Factors linked to business affect VUP financial services loan repayment in Gisagara District.

1.5. Research objectives

Research objectives are divided into:

1.5.1. General objective

The study mainly aimed at analyzing the factors affecting VUP-financial services loans repayment in Rwanda.

1.5.2. Specific Objectives

The study was driven by the following three specific research objectives:

- i. To determine to what extent lender factors affect VUP financial services loan repayment in Gisagara District.

- ii. To determine to what extent borrower factors affect VUP financial services loan repayment in Gisagara District.
- iii. To determine to what extent business factors affect VUP financial services loan repayment in Gisagara District.

1.6.Variables of the study

The study has analyzed the relationship between dependent and independent variables. In this study the dependent variable was loan repayment (financial services loans) whereas the independent variables were Lender factors, Borrower factors and Business factors.

1.7.Significance of the study

VUP and financial services loans in particular, are important determinants for poverty reduction and creation of businesses and employment opportunities in Rwanda. Good loan repayment rate of loans got under VUP microcredit scheme is one of key factors for their profitability, sustainability and expansion of the services. The motivation of conducting this study was to have a better understanding of factors of loan repayment problems by getting borrowers' views to eventually ascertain the causes of default loans. The study is important to different stakeholders as follows:

Lending institutions: understanding factors of VUP financial services loan repayment problem helps use friendly lending strategies and set policies that help to reduce the level of loan defaults. These eventually encourage lenders to increase their deposits and profits and boost the economic status of poor people who are committed to excel.

The Government of Rwanda: findings from this study are useful in policy formulation and decision making in respect to VUP micro-credit scheme. The understanding of the causes leading to loan repayment failure enables policy makers to take corrective measures that mitigate future problems with regard to loans repayment and hence positive impact on poverty alleviation.

Scholars and researchers: the findings of the study contribute to the existing body of literature and knowledge and act as a source of reference materials for further researches. The findings also fill in the gap on the factors leading to VUP loan defaults.

1.8.Scope of the study

The study will be limited to VUP financial services loans repayment. It focused on sampled beneficiaries. The period of the study is between 2010 to June 2019 whereby, from 2010 to June 2014, loans were managed by the Sector through a designated committee, while this responsibility was transferred to Umurenge SACCO from July 2014. Geographically, the study covered six Sectors of Gisagara District, namely Gishubi, Kigembe, Muganza, Mugombwa, Nyanza and Save

1.9.Organization of the study

The study comprised of five chapters. Chapter one introduced the study by looking at the background of the study, statement of the problem, research objectives, research questions, variables, research hypothesis, significance of the study and the scope of the study. Chapter two discussed the literature relevant to the study including the theoretical and the conceptual framework. Chapter three dealt research methodology used in collection and analysis of data. It focused on research design, target population, sample and sampling method, data collection and analysis tools, ethical standards and the operationalization of variables. Chapter four dealt with data analysis, presentation and interpretation while Chapter five provided a summary of findings, conclusion and recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1.Introduction

This chapter discusses the literature relevant to the study including the theoretical and the conceptual framework.

2.2.Key concepts

This study encompasses the following key concepts:

- **Vision 2020 Umurenge Programme (VUP):** The “Vision 2020 Umurenge Program (VUP)” is part of the long-term “Vision 2020” developed by the Government of Rwanda “to accelerate and strengthening the social and economic transformation of the country including economic development and growth, availing jobs to unemployed people and reducing the extreme poverty, through a participative approach at local level” (GoR, 2007).
- **Financial services:** “The financial services are economic services provided by the finance industry, which consist of a widely range of businesses that manage money, including credit unions, banks, credit-card companies, insurance companies, accountancy companies, consumer-finance companies, stock brokerages, investment funds, individual managers and some government-sponsored enterprises” (Türkeköle, 2015).
- **Loan repayment:** According to Bhatt *et al.* (2002), loan repayment is the act of paying back money previously borrowed from a lender. Repayment terms on a loan are detailed in the loan's agreement which also includes the contracted interest rate. Typically, the return of funds happens through periodic payments, which include both principal and interest. The principal refers to the original sum of money borrowed in a loan. Interest is the charge for the privilege of borrowing money and a borrower must pay interest for the ability to use the funds released to him/her through the loan. Loans can usually also be fully paid in a lump sum at any time, though some contracts may include an early repayment fee.
- **Loan repayment default:** The meaning of loan repayment default may vary depending on MFIs policy. According to Pearson and Greeff (2006), loan repayment default is a risk presented to an institution by a borrower by failing to pay at least three installments referring to the loan agreement. This provides an indication of increased risk that a borrower will certainly fail to make all the repayments and eventually failing to repay the loan. Similarly, according to Woradithee (2011) defines loan repayment default as a failure to repay the interest

and/or principal of a loan by a borrower when the debt is due. This means that if an individual or institution fails to make an interest payment on a loan borrowed at a predetermined time or as specified in the loan contract, then the person or institution is in default. Usually, a person or institution in default is likely to lose any property that was presented as collateral for the loan.

- **Lender/ Institutional characteristics:** These are internal factors to the lending institution that is advancing the loan facility and these influence the loan repayment rate (Angaine F. & Nderi D., 2013). They include the amount of time taken to approve the loans, grace period before repayment starts, the repayment period, amount and sufficiency of the loan, the conditions under which loans have been delivered (1st and 2nd schemes for VUP financial loans) and work performance of the institution including monitoring and supervision.
- **Borrowers' characteristics:** Borrowers' characteristics include personal characteristics of the borrower that may have an influence on loan repayment. These include like sex, age, occupation, marital status, level of education, training, experience, wealth quartile, number of dependents and the affectation of the loan (Angaine F. & Nderi D., 2013).
- **Business characteristics:** Business related characteristics include factors like location, registration (either informal or formal), size, duration, type and nature of business and the profit generated. Mpunga (2004) linked the income generated by the business to its size.
- **Gisagara District:** is one of the 8 Districts that make up Southern Province of Rwanda. It is located in the South-Eastern part of the country and is composed of 13 Sectors, 59 Cells and 524 administrative Villages (www.gisagara.gov.rw).

2.3.Social protection programme

2.3.1. Overview of the programme

Social protection is an important dimension in the reduction of poverty and multidimensional deprivation (Shepherd, 2004). It is an approach towards thinking about the processes, policies and interventions which respond to the economic, social, political and security risks and constraints poor and vulnerable people face, and which will make them less insecure and less poor, and more able to participate in economic growth. More narrowly, it describes a set of policies that governments can pursue in order to provide protection both to the 'active poor', enabling them to participate more productively in economic activity, and to the less active poor, with considerable

benefits for society as a whole. Such policies can help to fulfil states' obligations to ensure basic rights for all individuals. Social protection policies are always part of a broader set of policies on macroeconomic stability, enterprise and employment development, health, and education aimed at reducing risk and vulnerability and encouraging pro-poor growth.

2.3.2. Purpose of social protection

According to Shepherd (2004), the social protection mainly aims at:

- Preventing, mitigating and enhancing the ability to cope with and recover from the major hazards faced by all poor people;
- contributing to chronically poor people's ability to emerge from poverty, deprivation and insecurity, and to challenge the oppressive socio-economic relationships which could be keeping them poor, by increasing livelihood security and linking such increases to the promotion of enhanced livelihoods;
- Enabling the less active poor to live a dignified life with an adequate standard of living, such that poverty is not passed from one generation to the next.
- Supporting economic growth, social integration and political stability, human development, and human rights objectives.

2.3.3. Social protection in Rwanda

2.3.3.1. Introduction

In recent years Rwanda has managed to achieve a good level of economic growth. However, there is still much to be done if the government's aspirations for poverty reduction are to be achieved (MINALOC, 2011). In 2006, almost 57 percent of the population still lived in poverty, while levels of inequality were on the rise (NISR, 2005). A number of categories of the population are particularly vulnerable to poverty including older people, those living with disabilities, young children, female-headed households, genocide survivors and the historically marginalized. Young people are a group that also need support, given the difficulties many have in finding jobs due to low skill levels. From this background, the Government of Rwanda through the Ministry of Local Government has developed the National Social Protection programmes and among these programmes, there include Vision 2020 Umurenge Programme (VUP) initiated in 2007 (GoR, 2007).

2.3.3.2. Dimensions of Rwandan social protection programme

The Strategy defines social protection across two main dimensions:

- As a Social Protection Sector, which essentially comprises the system of regular and predictable cash transfers that will provide income support to those living in poverty and vulnerable to falling into poverty;
- As a means of ensuring access to other public services – such as health and education – by enabling poor households to overcome the financial barriers that they may face.

2.3.3.3. Missions of Rwanda social protection programme

The long-term mission for social protection in Rwanda is to build a system that comprises two guiding elements:

- a) A social protection floor for the most vulnerable households and individuals, comprising:
 - Cash transfers, providing a minimum income and livelihood security, and
 - Continuing extension of access to core essential services for poor and vulnerable households, in particular health, education, shelter and water and sanitation;
- b) Increased participation of the informal sector in the contributory social security system, with more people enjoying the benefits of labor legislation.

2.3.3.4. Principles of Rwanda social protection programmes

Underpinning Rwanda’s vision for social protection system are three important principles:

- being protective: providing essential support to those living in poverty,
- being preventative: providing a safety-net to those in danger of falling into poverty, and
- Being promotive: supporting people to pull themselves out of poverty and graduate from the need for social protection.

The integration of these aspects is critical to the success of the programme.

2.3.3.5. Objectives of Rwanda social protection programme

The Global Objective of the social protection sector is to: “build a social protection system that tackles poverty and inequality, enables the poor to move out of poverty, helps reduce vulnerability

and protect people from shocks, helps improve health and education among all Rwandans, and contributes to economic growth by” (MINALOC, 2011):

- Increasing economic growth through encouraging and enabling poor and vulnerable households to invest in more productive activities, stimulating consumption and market activity, and extending the reach of the country’s financial system;
- Contributing to slowing down population growth through greater household income security, thereby reducing the imperative for young parents to invest in large numbers of children as a means of enhancing their own security in old age;
- Directly tackling extreme poverty by providing cash transfers to poor households with limited labor capacity while also supporting the economic empowerment of those who can become more self-sufficient and graduate out of poverty, and by contributing to improved access to health and education services and improved nutrition;
- Providing greater efficiency in poverty reduction through the development of a comprehensive electronic management information system (MIS), efficient delivery of cash benefits, and strengthening co-ordination in the delivery of social protection across government and civil society.

2.4.Vision 2020 Umurenge Program

2.4.1. Introduction

The “Vision 2020 Umurenge Program (VUP)” is part of the long-term “Vision 2020” developed by the Government of Rwanda “to accelerate and strengthening the social and economic transformation of the country including economic development and growth, availing jobs to unemployed people and reducing the extreme poverty, through a participative approach at local level” (GoR, 2007). The VUP is Rwanda’s social protection programme established in 2008 under the Ministry of Local Government (MINALOC) within the Common Development Fund (CDF), which became Rwanda Local Development Support Fund (RLDSF) in 2010 and later on Local Administrative Entities Development Agency (LODA) in 2013. It is supported by the Ministry of Finance and Economic Planning (MINECOFIN), Development Partners and different Non-Government Organizations.

2.4.2. Objectives

The VUP aims at eradicating extreme poverty by 2020. It is expected to be achieved by speeding up the poverty reduction along with the following key objectives (GoR,2007):

- ♣ Bringing people's productive capacities (Potentials) and providing solutions tailored to their needs;
- ♣ Boost collective living assets (e.g. restoration of ecosystems) and ensure their safe use;
- ♣ Increasing social protection targeting for the most vulnerable.

2.4.3. VUP principles

The "Vision Umurenge Programme" has the following guiding principles as its basis:

- **Subsidiarity:** the leading programmes, sub-programs and policies are drawn up at the central level; management, planning and accounting are carried out at the level of sector; activities and operations are carried out at the village level.
- **A participative strategy from bottom up:** Desires, needs and complaints are defined at village level, and solutions are found and implemented at the lowest level possible, operating from the bottom upwards.
- **Accountability and ownership:** base on existing participatory structures, governance processes, budget initiatives, socio-cultural norms known to work; encourage their incorporation to enhance interconnectivity and, where possible, reform their functions to enhance public participation and openness through Village councils.
- **Targeted Monitoring and Evaluation:** basing on expected output and outcome of each component, data collected from monitoring activities and timely reporting inform different stakeholders at central and local levels on the progress and elements to improve during the implementation and new sub-components to introduce.
- **Fiscal and financial accountability:** starting from public finance management principles defined by the Ministry of Finance, VUP components are taken into account during national and local planning and budgeting. The execution of activities and budget respects the PFM principles and other guidelines from concerned sector ministries and donors.
- **Versatile and adaptable:** VUP take into considerations other current programs and projects for effective delivery rather than competition.

2.4.4. VUP Components

The implementation of VUP pivots around three major components (GoR,2007):

1. Public Works (PW, launched in May 2008) uses the labor intensive technic to build productive community assets. Participants are selected according to Ubudehe socio-economic categories, but they must be able to work on project sites. It covers the classic public works (cPW) and expended public works (ePW).
2. Direct Support (DS, launched in January 2009) consists of a direct cash transfer, on monthly basis, to extremely poor households who are unable to work.
3. Financial Services (FS, introduced in January 2010) as a microcredit scheme providing loans from poor households at moderate interest rates to individuals, groups or cooperatives. It goes with the formal training on financial literacy, loan application, use and repayment.

2.4.5. VUP Financial services

VUP financial services is a component of social protection programme, which provides small loans to individuals, groups or cooperatives at low interest rates (GoR, 2009).

2.4.5.1.Target group

The following categories are eligible to apply for VUP financial services loans:

- Any individual belonging to a household in Ubudehe category 1 and 2
- Households in Ubudehe category 3, may apply for a Financial Services loan provided that they do so as part of a group containing households from Ubudehe categories 1 and/or 2.
- People in category 3 who are likely to fall back in ubudehe category 1 and 2; these include people who were previously in social protection program (LODA, FARG, RDRC, Women headed households with caring responsibility who have never been in social protection programs such as VUP, youth and other people with caring responsibility to people with severe disability because this caring responsibilities undermine their families' productive capacities).
- VUP beneficiaries eligible for public works and Direct Support.

2.4.5.2.Objectives of VUP-FS component

The VUP-FS helps poor and disadvantaged households to establish sustainable income generation activities by offering structured financial literacy training; technical assistance to the creation of micro-credit application requests; and micro-enterprise management coaching (GoR, 2009)".

2.4.5.3. Requirements to benefit from VUP FS loan

For benefiting VUP FS loan as an individual, a group or a cooperative, the followings are required:

- Loans/credit award is not based on households but individuals
- Persons aged below 65 years are only eligible to apply for loan under VUP-FS credit scheme.
- Only income generating projects are acceptable to be funded by VUP- financial services loans.
- Projects should show the ability to become a sustainable business capable of providing a livelihood for the beneficiaries after the loan has been repaid and repay the principle and interest within the agreed loan repayment period.
- Loan applicants should show the ability to organize and manage a successful micro-business and properly manage the loan funds and the funds which the micro-business will generate.
- A group is eligible to apply for a loan if it complies with the following:
 - The group should not have less than 7 persons and not more than 15 persons, the eligible members as stipulated above should not be below 70% of the group members,
 - All members of the group should be at least 18 years and below 65 years,
 - An eligible beneficiary cannot belong to more than one group
 - The group members should have been working together for at least the preceding three (3) calendar months and should be able to produce evidence of this as part of their loan application.
 - Evidence might include: the statements from officials witnessing the group's earlier operations or bank statements from an active group bank account.
 - The loan application to the Sector Loan Committee should include a list of all group members who have previously been working together and the circumstances under which their work took place accompanied by their identity numbers and signatures.
 - The group loan project is a joint project and under no circumstances should a group split the loan amount individually.
- A cooperative is eligible to apply for a loan if it complies with the following:
 - 70% of cooperative members comply with eligibility criteria and guidelines, other members should be allowed in as long as they are not beyond 30% in order to orient cooperative members in business related matters and safeguard the socio-economic order, and the socio dynamic.

- The loan application should be a joint project among the cooperative members and under no circumstances should the cooperative members share the loan amount individually.
- The minute of the meeting with regards to loan application
- The list of cooperative members, identifications and their respective signatures,
- A copy of the cooperative license should be presented with the loan application

2.4.5.4.Loan application and the ceiling amount

Individuals, eligible groups and eligible cooperatives may submit an application for a loan and amount of the loan applied for should be appropriate for the project proposed and cannot exceed the following ceiling (LODA, 2014):

- Individual loan: 100,000 FRW
- Group composed of 7 to 10 persons: 1,500,000 FRW
- Group composed of 11 persons and more: 2,000,000 FRW
- For a group where 70% of members are females or youths: 2,000,000 (7-10 persons) and 2,500,000 FRW (11-15 persons)
- A Cooperative of 7 persons: 1,050,000 FRW
- A Cooperative of 8 to 15 persons: 2,400,000 FRW
- A Cooperative of 16 to 30 persons: 4,500,000 FRW
- A Cooperative of more than 30 persons: 5,000,000 FRW
- Being females or young people at 80% in cooperative, there shall be an increment of 20% to the initial ceiling amount as provided for above.

2.5.Loan repayment factors

According to Derban et al. (2005), “The defaulting reasons could be classified into three main categories including the borrowers’ characteristics and essential businesses’ characteristics, lenders’ characteristics and appropriateness of the loan product and finally the influence of external factors like political and /or economic business environment and their associated risks”.

2.5.1. Lenders/Institutional factors

These are internal factors to the lending institution that is advancing the loan facility and these influence the loan repayment rate. They include the amount of time taken to approve the loans,

grace period before repayment starts, the repayment period, amount and sufficiency of the loan, the conditions and scheme under which loans have been delivered and work performance of the institution including monitoring and supervision.

In their study, Roslan et al. (2007) conclude that Close and informal relationships between Microfinance Institutions and Borrowers can help in monitoring and quickly detecting problems which can occur when loans are not repaid.

Khan and Ahmed (2001) argued that some of the variables of banks regarding to the mechanisms of managing their risk, play a role in loan defaulting and should be blamed for. Among these variables, there include tax technics used in analyzing credit risk, incompetence in tracking loan defaults, unqualified staff, insider loans and inadequate procedures of collecting credit. "Awarding credit is a process whose success depends on the approach used to evaluate and award the credit. The process starts with the loan application by obtaining the credit sales and ends when the debt is paid in full" (Chijoriga, 1997).

According to Sundarajan (2007), inability of staff of the lending institution to be close to their clients leads to not frequently updating customer information and borrowers' circumstances and this may cause in turn the failure in supervising funded projects.

Godquin (2004) argued that the loan repayment problem is the main cause of failure of MFIs. There is no mechanism of tracking their clients' behaviors, either they are dishonest or trustworthy. The lenders can only track the effects of their loans, when the clients pay back or not. Therefore, a strong network between borrower and lender can be extended by monitoring, business consultant and frequent meeting to minimize the non-repayment issues. In addition, the lender can implement a program of incentives for those who timely paid the requested loan, such as refund or discount.

2.5.2. Borrowers'/individual factors

Borrowers' characteristics include personal characteristics that may have an influence on loan repayment. These include like sex, age, occupation, marital status, level of education, training, experience in borrowing, wealth quartile, number of dependents and the affectation of the loan.

Different studies (Coyle, 2000; Ozdemir & Boran, 2004) showed that if loan isn't paid back, this could be due to the inability and/or unwillingness of the borrowers to repay it. Stiglitz and Weiss

(1981) recommend that The lenders should differentiate and select good from bad borrowers and monitor the borrowers for ensuring the efficient use of the loan. This is necessary for ensuring the repayment of loans for borrowers.

Greenbaum and Thakor (1995) propose looking at the historical records and economic predictions of the borrower for determining whether or not he is likely to pay back. For the role of financial trainings, Roslan & Mohd (2009) found that borrowers with no business-related trainings have a high risk of default.

Maigua (2017) quoting Nawai & Sharrif (2010) argued that there are factors that are specific to the borrower which may influence his/her loan repayment and these include the income level of the borrower, age and the gender of the individual. According to the study by Maigua (2017), the age of the borrower, the number of years he/she banked with the microfinance institution and the kind of collateral had effect on the rate of loan repayments.

Awoke (2004) argued that much of the default resulted from weak management practices, diversion of loans and refusal to repay loans. The diversion of borrowed funds by the customer influences loan repayment default. Diversion of funds leads to non-financing of the projects which the borrower intended to finance and as a result the projects fail to generate cash flows as projected by the lender leading to loan defaults. The character of the individual determines if the loan will be repaid or not. Some borrowers borrow with no intention of repaying back the loan which definitely leads to loan repayment default.

2.5.3. Business factors

Business related characteristics include factors like location, registration (either informal or formal), size, duration, type and nature of business and the profit generated. Mpunga (2004) linked the income generated by the business to its size. According to Mpunga (2004), the nature of the collaterals offered to the lenders is directly associated to the income of the business.

Oke et al. (2007) linked the repayment rate to firm characteristics and noted that the firm's profit had a major impact on the repayment of loans. In their study on Grameen Bank, Khandker et al., (1995) found a partial impact on loan repayment by the region characteristics. Electricity generation, road size and distance, basic education facilities, availability and accessibility of commercial bank are positively associated with a low default rate and the expected pay for

managers. Besides this, Paxton (1996) also found that greater repayment performance was related to exposure to other credit sources, business sales practices and urban region.

2.6.The theoretical literature review

The Theoretical Literature Review covers the theories that are relevant to the study conceptualization, including the followings:

2.6.1. Information Asymmetry Theory

The Theory of Information Asymmetry is based on the notion that the lender may not have all the information about the projects the borrower is financing using the borrowed funds (information failure). As a result of the information gaps, Cases of problems of Moral Hazards and adverse selection arise (Lewis, 2011).

Both moral hazard and adverse selection are used in economics, risk management, and insurance to describe situations where one party is at a disadvantage as a result of another party's behavior.

Moral hazard occurs when there is asymmetric information between two parties and a change in the behavior of one party occurs after an agreement between the two parties is reached. Asymmetric information refers to any situation where one party to a transaction has greater material knowledge than the other party. Moral hazard frequently occurs in the lending and insurance industries, but it can also exist in employee-employer relationships. Any time two parties come into an agreement with each other, moral hazards can be present.

Adverse selection refers to a situation where sellers have more information than buyers have, or vice versa, about some aspect of product quality, although typically the more knowledgeable party is the seller. Adverse selection occurs when asymmetric information is exploited.

2.6.2. Agency theory

Agency theory is the study of how actors of the economy make contractual agreements based on the asymmetric information available (Shapiro, 2005). The presentation of a decision-making behavior when presented with various circumstances and finally marking the optimal is the standard way of practicing agency theory. This strength of this theory lies in the ability to find theoretical ways to motivate agents to make the right decision even under insurance contract. The

procedure has been used in agency theory framework and in several typical situations known as adverse selection moral hazard.

In adverse selection models, the characteristic of the agent is not open to the principal. Adverse selection is defined as market processes the buyers, seller have access to asymmetric information, and undesired results occur. On the other hand, in moral hazard model, the access to various information is granted to the principals, and the principals verify the agents' actions.

The relationship between agency theory and the chances of a borrower failing to make loan repayment is so important for this research study to overlook. The information available on both the microfinance institution and the borrowers created opportunities for some borrowers when their loan creditworthiness is close to zero. This study recognizes the relationship between Agency theory and the likelihood of borrowers to default their loan obligations. Information asymmetry between the Microfinance Institutions and their borrowers leads to some borrowers to acquire loan even when the probability of repayment is low.

In normal situations, borrowers are expected to choose actions that result into additional cost when there is additional program management. Normally, it is expected that the borrower will choose actions such that the additional benefit of each action equals its additional cost. This is not the same when there is no perfect information about the borrower. In addition, the borrower does not take full responsibility of loan defaults if there is no collateral. The lender is not also in a position to specify perfectly how their borrowers should run their business. This is because some of the borrowers' actions are costly to obtain.

In this study, the Lenders (Sectors & SACCOs) are the principals while VUP-FS beneficiaries (borrowers) are the agents who have been given the loan and are expected to repay the loan according to the rules and requirements of their respective lending institutions. The inability to of the lending institutions (Sectors & SACCOs) to extract borrowers' information about socioeconomic life, experience and general business as a whole may result on loan repayment default. Moreover, the study proposes that in some instances, the loan supervisors, who become Agents of lending institutions (Sectors & SACCOs), fail to meet the interest of financial institutions to ensure that borrowers are well scouted and signals the principal for any sign of

default for immediate measures. This study will also use the agency theory that supports the MFIs to provide loans to customers without full financial information on the borrower.

2.6.3. The Theory of Delegated Monitoring of Borrowers

This theory aims at reducing the cost of monitoring borrowers by the use of available information which is important in resolving problems that might arise between the borrower and the lender (Maigua, 2017). The Monitoring of a borrower is done before and after loan advancement. It involves gathering all the relevant information and screening all the available information about a borrower prior to the advancement of a loan. After the loan is processed, the lenders also monitor the borrower to ensure that the monies are not diverted to other subdivision of borrowed funds to other projects other than the intended use is a major contributor of Loan non repayment. This Theory is of importance to this study as it highlights the importance of monitoring Borrowers and ensuring that they adhere to the Terms of agreement as stipulated in the Loan contract. Lenders require borrowers to open and operate accounts with them. This helps to ensure that they monitor the cash inflows and outflows as well as the loan payments.

2.6.4. Loan Utilization Theory

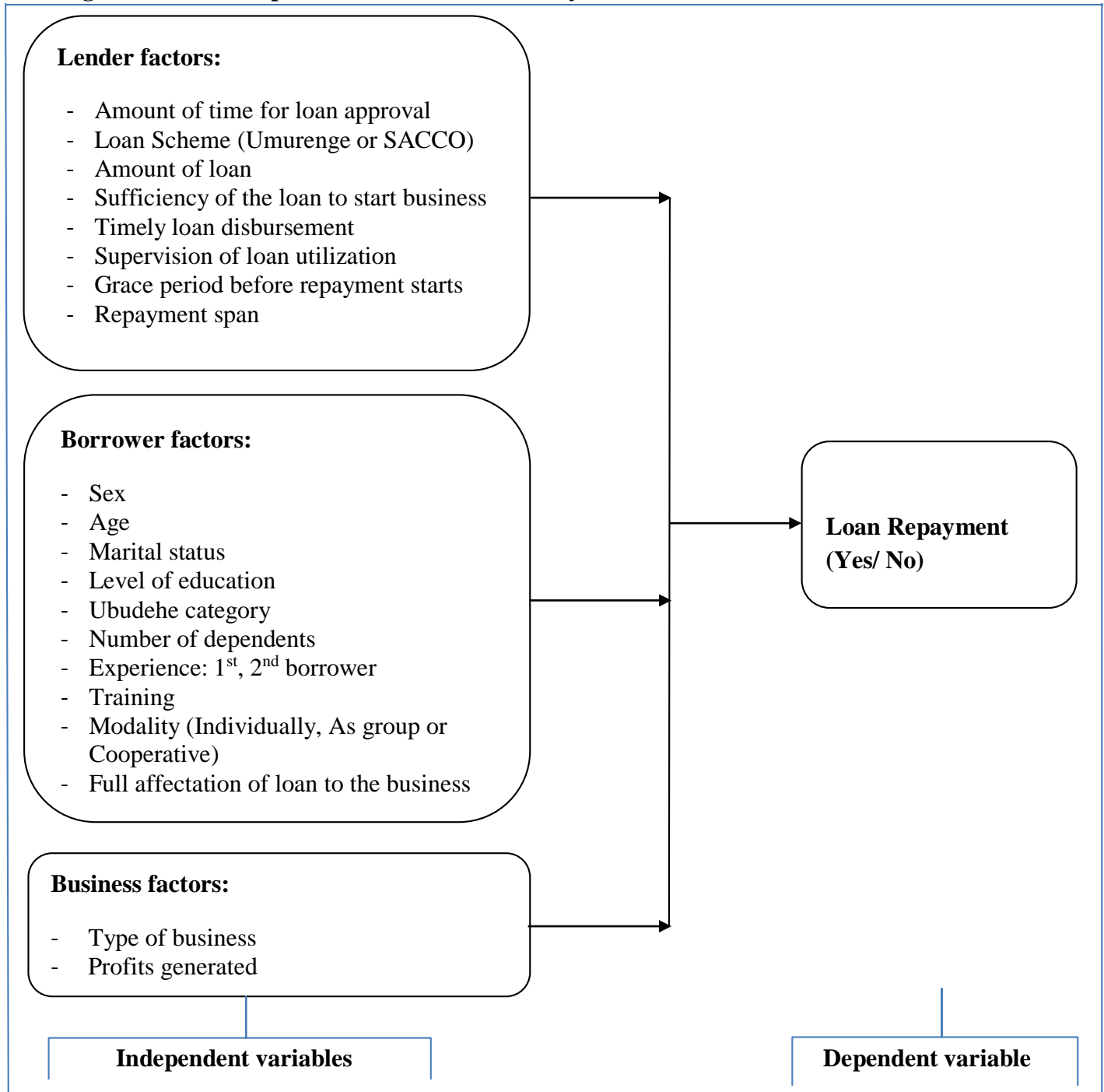
The theory states that monitoring of loan utilization helps members to take their businesses seriously and to avoid destroying the business by taking money from the business for their families (Simanowitz, 2000). This means: monitoring of loan utilization avoid unplanned usage of loan. The monitoring also gives an early warning of problems which can then be dealt with. The traditional microcredit throughout the world have faced loan diversion as a result of borrowers using their loan not for the purpose given on the loan application form or prescribed by the project, but for another more pressing purposes. Often loans are diverted for providential or non productive purposes to meet emergence medical educational expense or any other. This study was guided by this theory because it will give clear explanation to VUP-Financial services loans beneficiaries to take their businesses seriously and use loan for intended purposes.

2.7.The conceptual framework

The conceptual framework creates and effectively expresses a consciousness and perception of the situation under research. As per Mugenda & Mugenda, 2003, the conceptual framework includes the creation of ideas on relationships between variables in the study and the diagrammatic

presentation of those relationships. This study will follow the conceptual framework shown in figure 1 below:

Figure 1: The conceptual framework of the study



Source: Researcher, 2019

2.8. The SWOT Analysis of VUP Financial services component

According to Gürel & Tat (2017), “SWOT Analysis is a tool used for strategic planning and strategic management in organizations”. SWOT Analysis is a process that involves four areas into two dimensions. It has four components, namely Strengths, Weaknesses, Opportunities, and Threats. Strengths and Weaknesses are internal factors and attributes of the organization while Opportunities and Threats are external factors and attributes of the environment. According to Thompson *et al* (2007), “SWOT Analysis is a simple but powerful tool for sizing up an organization’s resource capabilities and deficiencies, its market opportunities, and the external threats to its future”. From this concept, the SWOT analysis of VUP financial services component has been drawn and presented below basing on the functioning of the programme under study.

Table 2.1: The SWOT Analysis of VUP Financial services component

Strengthens	Weaknesses
<ul style="list-style-type: none"> - Strong political will through the financial sector by facilitating the access to finance and even financing poor people - Availability of funds, from the Government of Rwanda and other Partners - Availability of local financial institutions (Imirenge SACCOs) supporting the implementation of the Programme - Available staff in charge of loan management from the National to Local level - Enabling environment for business taking at all levels 	<ul style="list-style-type: none"> - Limited membership to Saving and Credit Cooperatives (SACCOs) as requirement for accessing VUP loans - Inadequate supervision for effective loan utilization as one of lender’s responsibilities - High annual interest rate of 11% for the 2nd scheme July 2014 to June 2019 - Limited financial literacy and trainings before accessing loan as prerequisite.

Opportunities	Treats
<ul style="list-style-type: none"> - Strong support from development partners, intervening through MINECOFIN and LODA. - Strong Institutional and coordination mechanisms at all level, from National level to local level (MINALOC, LODA, Province, Districts, Sectors, SACCOs, ...) - Availability of Technical assistance, mainly for projects designing (Business Development Advisors, BDAs in partnership with Business Development Funds, BDF) - Use of ICT (LODA_MEIS) in management of financial loan under VUP. 	<ul style="list-style-type: none"> - High rate of Non Performing Loans (some beneficiaries are unwilling to pay) - Projects deviation: implementing other projects rather than planned ones - Groups dissolution after accessing group loan and sharing the group loan for personal management. - Ghost groups, created for only accessing the loan with only moral members - Climatic conditions deteriorating agricultural related projects - Diseases affecting livestock related projects

Source: Researcher, 2019

CHAPTER THREE: RESEARCH METHODOLOGY

3.1.Introduction

This chapter deals with the methodological aspects of this study. It presents the research design, target population, sampling method and sample, data collection, and data analysis techniques, ethical standards and the operationalization of variables.

3.2. Research design

According to Cooper and Schindler (2003), “the research design is a research plan setting out the required procedures for obtaining needed information to organize and resolve the research problems”.

To study the subject in details, the study has adopted descriptive study design. A researcher can gather data from this design, describe the state of affairs (explain how things stand) and answer questions relating to the study subject. “Descriptive analysis defines and informs how things are, and also lets a researcher explain a phenomenon in terms of attitude, characteristics and value” (Mugenda & Mugenda, 2003). Designed questionnaires have been addressed to a sample of defaulters and non-defaulters VUP-FS beneficiaries.

3.3. Target Population

According to Kumar (2008), “A population also known as a universe pertains to all research items”. Under this study, the population consisted of VUP-FS loans beneficiaries (defaulters and non-defaulters). As there were two periodic lending schemes and procedures (loans delivered by the Sector from 2010 to June 2014 and by Umurenge SACCOs from July 2014 to 2019), six sectors of Gisagara District are concerned by these two lending schemes and the research has been conducted in these Sectors. These Sectors are Gishubi, Kigembe, Muganza, Mugombwa, Nyanza and Save and the targeted population (Borrowers) is summarized in the table 3.1.

Table 3.1: Target Population

Loan repayment status	Sector	Old scheme (By Umurenge 2010 - June 2014)				New scheme (By SACCO July 2014 - June 2019)				Grand total
		Individuals	Groups	Cooperatives	Sub-total	Individuals	Groups	Cooperatives	Sub-total	
Non-defaulters	Gishubi	154	83	2	239	207	21	0	228	467
	Kigembe	18	176	11	205	112	27	0	139	344
	Muganza	13	93	8	114	36	21	0	57	171
	Save	12	92	1	105	36	95	1	132	237
	Mugombwa	0	102	0	102	206	16	0	222	324
	Nyanza	2	127	10	139	99	51	1	151	290
	Sub-total	199	673	32	904	696	231	2	929	1833
Defaulters	Gishubi	156	105	1	262	105	8	0	113	375
	Kigembe	16	174	9	199	56	10	0	66	265
	Muganza	15	142	7	164	26	14	0	40	204
	Save	14	64	1	79	10	8	0	18	97
	Mugombwa	0	155	0	155	104	6	0	110	265
	Nyanza	2	169	4	175	51	19	0	70	245
	Sub-total	203	809	22	1034	352	65	0	417	1451
Grand total	402	1482	54	1938	1048	296	2	1346	3284	

Source: Gisagara District, 2019

3.4. Sampling Techniques

Ngechu (2006) pointed out the significance of selecting a representative sample by creating a sampling frame. “From the population frame; the appropriate number of respondents, elements, subjects or firms would be selected for determining a sample” (Ngechu, 2006). Stratified sampling has been used where borrowers have been divided into different strata namely defaulters and non-defaulters per category of borrowers.

As the dependent variable (loan repayment) has two possible values, either “Yes” or “No” labeled “1” and “0” respectively, a binary logistic regression model has been used. “Binary logistic regression is regression analysis where a dependent variable is qualified as binary with only two possible responses” (Park, 2013).

According to Peduzzi et al. (1996), the minimum sample size for modelling a binary dependent variable, the following formula is applied:

$$\text{Sample size (for logistic regression model); } n = \frac{10 k}{p}$$

With n as the sample size, k as the number of independent variables (covariates) and p is the smallest of the proportions of positive or negative cases in the population. If the found value of the sample is less than 100, it should be increased to 100 (Long, 1997). For our case under study, positive cases are non-defaulters and negative cases were defaulters.

As detailed in the conceptual framework of the study (figure 1), the study has analyzed the role played by 20 covariates on VUP-FS loan repayment and the proportions of cases are calculated in the table 3.2:

Table 3.2: Proportion of loan repayment cases

Status	Frequency	Proportion of positive cases	Proportion of negative cases
Non-defaulters	1833	$\frac{1833}{1451} = 1.26$	
Defaulters	1451		$\frac{1451}{1833} = 0.79$

The table above shows that the proportion of negative cases is the smallest proportion and is considered in the determination of the sample size as follow:

$$n = \frac{10 * 20}{0.79} = 254$$

With different sizes of cases within strata, “a simple random selection technique with probability proportional to size is applied to assure that cases in larger sites have the same chance of being sampled as on smaller sites and vice versa” (Amahia, Chaubey, & Rao, 1989). The selection was detailed below:

Table 3.3: Sample size

Loan repayment status	Sector	Old scheme (By Umurenge 2010 - June 2014)				New scheme (By SACCO July 2014 - June 2019)				Grand total
		Individuals	Groups	Cooperatives	Sub-total	Individuals	Groups	Cooperatives	Sub-total	
Non-defaulters	Gishubi	12	6	0	18	16	2	0	18	36
	Kigembe	1	14	1	16	9	2	0	11	27
	Muganza	1	7	1	9	3	2	0	5	14
	Save	1	7	0	8	3	6	1	10	18
	Mugombwa	0	8	0	8	16	1	0	17	25
	Nyanza	0	10	1	11	8	4	0	12	23
	Sub-total	15	52	3	70	55	17	1	73	143
Defaulters	Gishubi	12	8	0	20	8	1	0	9	29
	Kigembe	1	13	1	15	4	1	0	5	20
	Muganza	1	11	1	13	2	1	0	3	16
	Save	1	5	0	6	1	0	0	1	7
	Mugombwa	0	12	0	12	8	0	0	8	20
	Nyanza	0	13	0	13	4	2	0	6	19
	Sub-total	15	62	2	79	27	5	0	32	111
Grand total	30	114	5	149	82	22	1	105	254	

3.5.Data collection

According to Wilson (2010), “data are categorized into two key types, namely primary data collected for research purposes and directly from the source, and secondary data collected from published works of other authors”.

This work has used not only primary data but also secondary ones as sources of information where primary data have been collected from the VUP-FS beneficiaries using a questionnaire. According to Brace (2008), a questionnaire is a list of different questions designed for the survey participants

to complete themselves. For secondary data that support primarily collected data, were different reports of VUP Managers at Sector and District levels.

3.6.Data Analysis

3.6.1. Introduction

According to Walsh & Wiggins (2003), data are analyzed qualitatively and/or quantitatively depending to their type. According to Wilson (2010), “Statistical software packages and frequency tables are used to analyze quantitative data”. With regard to this study, data analysis was performed after all data were collected, entered and cleaned. In this research, descriptive statistics produced from Statistical Package for Social Sciences SPSS (V. 20.0) were used to analyze quantitative data.

3.6.2. Model formulation and estimation

Given that this study has a dichotomous dependent variable with two values, 1 (when the borrower has paid the loan) or 0 (otherwise), data were analyzed using the binary logistic regression method (Hosmer & Lemeshew, 1989). The set of independent variables is made by continuous, ordinal and categorical/dichotomous variables on lenders-related and business-related characteristics, and those capturing the socioeconomic and demographic situation of borrowers. The generic mathematical relationship can be formulated as follows:

$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip} + \varepsilon_i$ (1) with ε_i assumed to be independent and identically

distributed with a logistic distribution. The probability that a household i has paid the loan is given

by the function: $\pi_i(X) = \frac{e^{\beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip}}}{1 + e^{\beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip}}}$ (2), and then $\frac{\pi_i}{1 - \pi_i}$ is the odds in favor of the

household paying loan. Hence, from (2) we have $\frac{\pi_i}{1 - \pi_i} = \frac{1}{e^{-(\beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip})}}$ (3). By

applying the natural logarithm on both sides of (3), the logit model is then written as:

$\ln\left(\frac{\pi_i}{1 - \pi_i}\right) = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip}$ (4). Equation (4) is estimated by the maximum

likelihood estimation method and the basic assumptions of normality, linearity, and homogeneity of variance for the independent variables are not a requirement. The variables selected for this study are defined in the table below.

Table 3.4: Variables in the logistic regression model

Dependent variables	Independent variables		
	Lender factors	Borrower factors	Business factors
Y= loan repayment as measured by the level of nonperforming loans (1, if the respondent has repaid the loan, 0, otherwise).	<ul style="list-style-type: none"> - Amount of time for loan approval (x_1) - Loan Scheme (x_2) - Amount of loan (x_3) - Sufficiency of the loan to start business (x_4) - Timely loan disbursement (x_5) - Supervision of loan utilization (x_6) - Grace period before repayment starts (x_7) - Repayment span (x_8) 	<ul style="list-style-type: none"> - Sex (x_9) - Age (x_{10}) - Marital status (x_{11}) - Level of education (x_{12}) - Ubudehe category (x_{13}) - Number of dependents (x_{14}) - Experience: 1st, 2nd borrower (x_{15}) - Training (x_{16}) - Modality (x_{17}) - Full affectation of loan to the business (x_{18}) 	<ul style="list-style-type: none"> - Type of business (x_{19}) - Profits generated (x_{20})

As we have multiple independent variables (20) in this study, the general logistic model is constructed as follow (equation 5):

$$\begin{aligned}
 \text{logit}(y) = \ln(\text{odds}) = \ln\left(\frac{p}{1-p}\right) &= \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \\
 &+ \beta_7x_7 + \beta_8x_8 + \beta_9x_9 + \beta_{10}x_{10} + \beta_{11}x_{11} + \beta_{12}x_{12} + \beta_{13}x_{13} + \beta_{14}x_{14} + \beta_{15}x_{15} + \beta_{16}x_{16} + \\
 &\beta_{17}x_{17} + \beta_{18}x_{18} + \beta_{19}x_{19} + \beta_{20}x_{20} \quad (5)
 \end{aligned}$$

From equation (5), the probability is predicted as follow:

$$p = \frac{e^{\alpha + \beta_1x_1 + \beta_2x_2 + \dots + \beta_{20}x_{20}}}{1 + e^{\alpha + \beta_1x_1 + \beta_2x_2 + \dots + \beta_{20}x_{20}}} = \frac{1}{1 + e^{-(\alpha + \beta_1x_1 + \beta_2x_2 + \dots + \beta_{20}x_{20})}}$$

3.6.3. Evaluation of binary logistic regression model

Evaluating the overall model and assessing the significance of every independent variable are prerequisite for valuing the logistic regression. The overall model is evaluated by likelihood ratio test, Chi-square goodness of fit test and the Hosmer-Lemeshow test and all are estimated as follow:

- “If the p-value for the overall model is smaller than 0.05, the null hypothesis is rejected and it is concluded that at least one of the explanatory variables has an influence on explained variable or on the outcome” (Park, 2013).
- Hosmer and Lemeshow test: if the calculated Chi-square is greater than the tabulated one and P-value is greater than 0.05, the goodness data fit of the model (Hosmer & Lemeshow, 1989).
- Coefficient of determination; The Nagelkerke’s R^2 (adjusted Cox and Snell R^2), the model explains percentage of the variation in the outcome (Nagelkerke, 1991).
- Besides the significance of the overall model, single variable results were considered and evaluated at a significance level of either 5% or 10%.

3.7. Ethical Considerations

For accessing VUP financial services related reports from the District Unit of Business Development and Employment that is in charge of financial services, the researcher officially requested these data from the District leadership before starting the study. The same to the respondents’ responses, this was meant to assure the District that it was purely for academic purpose and would be treated confidentially. Because of the sensitivity of some information, the researcher was morally obliged to treat such information as properly as possible.

3.8. Operationalization of variables

According to Smyth (2004), “Operationalization is formulating an idea or explanation. The operation plan describes each of the sequence of key steps, variables and expected inter-linkage from the beginning and the end of the process by which the work depends on”. In this study the dependent variable was VUP-FS loan repayment whereas the independent variables were grouped into Lender factors, Borrower factors and Business factors as detailed in the table below:

Table 3.5: Operationalization of variables

Objectives	Independent variables	Indicators	Unit/Value
To determine to what extent lender factors affect VUP financial services loan repayment in Gisagara District.	Lender factors	<ul style="list-style-type: none"> - Amount of time for loan approval - Loan Scheme - Amount of loan - Sufficiency of the loan to start business - Timely loan disbursement - Supervision of loan utilization - Grace period before repayment starts - Repayment span 	<ul style="list-style-type: none"> - Days - 0: Sector, 1: SACCO - Rwandan Francs - 0: No, 1: Yes - 0: No, 1: Yes - 0: No, 1: Yes - Months - Months
To determine to what extent borrower factors affect VUP financial services loan repayment in Gisagara District	Borrower factors	<ul style="list-style-type: none"> - Sex - Age - Marital status - Level of education - Ubudehe category - Number of dependents - Experience: 1st, 2nd borrower - Training - Modality - Full affectation of loan to the business 	<ul style="list-style-type: none"> - 0: Male, 1: Female - Count - 1: Single, 2: Legally married, 3: Illegally married, 4: Divorced, 5: Separated, 6: Widowed - 1: No education, 2: Primary 1-3, 3: Primary, 4: Secondary School, Lower level, 5: Secondary school, 6: University and above ordinal - 1, 2, 3, 4 - Count - 0: 1st time, 1: More than once - 0: No, 1: Yes - 1. Individually, 2. As group, 3. As Cooperative - 0: No, 1: Yes
To determine to what extent business factors affect VUP financial services loan repayment in Gisagara District	Business factors	<ul style="list-style-type: none"> - Type of business - Profits generation 	<ul style="list-style-type: none"> - 1: Agriculture, 2: Livestock-Farming, 3: Trading, 4: Other - 0: No, 1: Yes

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1.Introduction

This chapter presents and analyses the results from the research with regard to the factors affecting VUP-financial services loans repayment in Rwanda generally and in Gisagara District in particular.

4.2.Response Rate

The research targeted a sample size of 254 respondents (143 loan non defaulters and 111 loan defaulters). All distributed questionnaires were completed and returned making the response rate of 100%.

4.3.Characteristics of respondents

In this research, characteristics of the respondents consisted of their sex, age, marital status, level of education, family size and dependents, occupation, Ubudehe category and modality under which the loan was delivered.

4.3.1. Sex of the respondents

The research described the respondents by sex and results show that 67.72% are male while 32.28% are female as shown in the table 4.1 below:

Table 4.1: Sex of respondents

Sector Residence	Sex				Total
	Male	% Male	Female	% Female	
Gishubi	44	67.69	21	32.31	65
Kigembe	38	80.85	9	19.15	47
Muganza	13	43.33	17	56.67	30
Mugombwa	35	77.78	10	22.22	45
Nyanza	23	54.76	19	45.24	42
Save	19	76.00	6	24.00	25
Total	172	67.72	82	32.28	254

Source: Survey result, 2019

4.3.2. Age of respondents

The research has also described respondent by age, where age groups have been formed for having frequency table of respondent and their corresponding percentages as presented in the table below:

Table 4.2: Age of respondents

Age group	Frequency	Percentage
21-30	17	6.69
31-40	81	31.89
41-50	67	26.38
51-60	62	24.41
61-70	25	9.84
71-80	2	0.79
81+	0	0.00
Total	254	100.00

Source: Survey result, 2019

The table 4.2 shows that majority of respondents were concentrated in the age groups of 31 to 40, 41 to 50 and 51 to 60 with the rate of 31.89%, 26.38% and 24.41% respectively. Young people represents a low level of participation in the research as it is for VUP loan application.

4.3.3. Marital status of respondents

The marital status of the respondents has been analyzed to estimate its effect on VUP financial services loans repayment, and its frequencies are presented in the table 4.3 below:

Table 4.3: The marital status of respondents

Marital status		Frequency	Percentage
Valid	Single	20	7.9
	Legally married	156	61.4
	Illegally married	47	18.5
	Divorced	1	.4
	Separated	6	2.4
	Widowed	24	9.4
Total		254	100.0

Source: Survey result, 2019

According to the results in table 4.3, the high number of respondents were married. Among this category, 61.4% were legally married whereas 18.5% of respondents were illegally married. 9.4% of respondents were widowed and 7.9% were single.

4.3.4. The level of education

The level of education was among personal characteristics of respondents and related details are presented in the table below.

Table 4.4: The level of education of respondents

Level of education		Frequency	Percentage	Cumulative Percentage
Valid	No education	23	9.1	9.1
	Primary 1-3	58	22.8	31.9
	Primary	143	56.3	88.2
	Secondary School, Lower level	17	6.7	94.9
	Secondary school	6	2.4	97.2
	University and above	7	2.8	100.0
Total		254	100.0	

Source: Survey result, 2019

As described in the table 4.4 above, 56.3% have completed their primary education and 22.8% have only covered at most three primary years. Among respondents, 9.1% had no education while 2.4% and 2.8% have completed their secondary and university education respectively.

4.3.5. Occupation of respondents

VUP- Financial services beneficiaries were occupied by different activities as presented in the table 4.5. These activities mostly determined the projects for which requested loans were invested. As detailed in the table 4.5 below, majority of respondents representing 61% were occupied by agriculture. The following bigger number is related to those respondents who combine both agriculture and livestock (23.6 %). Trading activities represent 7.9% and livestock is 3.1% while only 0.8% of respondents were public servants.

Table 4.5: The Occupation of respondents

Occupation of respondents		Frequency	Percentage
Valid	Agriculture	155	61.0
	Livestock	8	3.1
	Agriculture and livestock	60	23.6
	Trading	20	7.9
	Public servant	2	.8
	Security maintenance	3	1.2
	Other	2	.8
	Nothing	4	1.6
Total		254	100.0

Source: Survey result, 2019

4.3.6. Number of dependents

The personal characteristics of respondents also included the number of dependents. These refer to direct and indirect family members. The table below summarizes the grouped number of dependents where 34.3% of beneficiaries had below 5 dependents and 65.7% have at least 5 dependents and above.

Table 4.6: Number of dependents to respondents

Number of dependents	Frequency	Percentage	Cumulative Percentage
1-4	87	34.3	34.3
5-8	152	59.8	94.1
9+	15	5.9	100.0
Total	254	100.0	

Source: Survey result, 2019

4.3.7. Ubudehe socio-economic categories of respondent

Ubudehe socio-economic categories of respondents were analyzed as personal characteristics and the result is presented in the table below:

Table 4.7: Ubudehe socio-economic categories of respondents

Ubudehe categories		Frequency	Percentage	Cumulative Percentage
Category	1	56	22.0	22.0
	2	147	57.9	79.9
	3	51	20.1	100.0
	4	0	0.0	100.0
	Total	254	100.0	

Source: Survey result, 2019

According to the table 4.7 above, 79.9% of respondents were cumulatively from Ubudehe category one and two. They had accessed VUP-FS loans as either single individuals or as group or cooperative members. 20.1% of respondents were from category three and had only accessed loans through groups or cooperatives according to VUP-FS guidelines.

4.4.Loan application and accessibility

This section analyzes loan application and accessibility procedures with their associated characteristics and effects.

4.4.1. Loan accessibility criteria

According to VUP-FS guidelines, eligible beneficiaries of loans are both single individual from Ubudehe category one or two, groups of individuals or cooperatives. The table below describes the distribution of loans by accessibility criteria.

Table 4.8: Loan accessibility criteria

Criteria		Frequency	Percentage	Cumulative Percentage
Valid	Individually	112	44.1	44.1
	Group	136	53.5	97.6
	Cooperative	6	2.4	100.0
	Total	254	100.0	

Source: Survey result, 2019

As detailed in the table above, 44.1% of respondents had accessed individual loans, where 53.5% and 2.4% had accessed VUP-FS loans as groups and cooperatives respectively.

4.4.2. Groups and cooperative members' connection

The study has also assessed the level of interconnection between group and cooperative members. As 44.1% have individually request and access the loan, 55.9% have accessed loan as groups and/or cooperatives. Among groups and/or cooperatives, 5.1% of them have members who were not known each other as presented in the table below. Among core reasons behind this, they include the size of groups/cooperative and limited meetings as members mainly after getting the loan.

Table 4.9: Groups and cooperatives' connection

Knowing members of group/ cooperative	Frequency	Percentage	Cumulative Percentage
Valid No	13	5.1	5.1
Yes	129	50.8	55.9
Not Concerned	112	44.1	100.0
Total	254	100.0	

Source: Survey result, 2019

4.4.3. Use of group/cooperative loans

The table below shows the frequency of either collectively or individually using the group or cooperative loan. As detailed in the table, 44.1% of beneficiaries have requested the loan as single individuals and are “not concerned” by this issue of sharing or collectively using the group loan.

Table 4.10: The collective use of group loan

Collective use of group/cooperative loan	Frequency	Percentage	Cumulative Percentage
Valid Yes	81	31.9	31.9
No	61	24.0	55.9
Not Concerned	112	44.1	100.0
Total	254	100.0	

Source: Survey result, 2019

By principles, group and cooperative loans should be used to finance and implement common projects for the benefit of all members. Contrarily, the study has found that only 31.9% have used the collective loan for collective projects while 24% have shared the loan for implementing personal projects instead of collective ones. These increased the risk of failure in project implementation and inability to pay the loan as detailed in the table below.

Table 4.11: The implication of collective use of group loan on its repayment

Using the loan in the collective project	Timely loan repayment				Total	
	Yes		No			
	Count	%	Count	%	Count	%
Yes	56	69.1	25	30.9	81	31.9
No	17	27.9	44	72.1	61	24.0
Not Concerned	70	62.5	42	37.5	112	44.1
Total	143	56.3	111	43.7	254	100.0

Source: Survey result, 2019

As shown in the table above, among borrowers who requested the loan as group or a cooperative and after use that loan for implementing the collective project, 69.1% have paid the loan while 30.9% have failed to pay. Compared to those who collectively implemented the common project, beneficiaries who have shared the loan and implemented personal project or misused funds, only 27.9% have paid the loan while 72.1% have failed to do so. This shows the effect of sharing the group loan before implementing the collective planned project and complicates the loan repayment process. Besides beneficiaries who have requested the loan in groups or cooperatives, 62.5% of those who individually requested the loan, have timely payed the loan compared to 37.5% who failed to pay the requested loan. Generally, 56.3% of beneficiaries have timely paid the loan while 43.7% have failed.

4.4.4. Loan request frequencies

Among VUP beneficiaries, some of them are experienced in loan utilization while the majority of them was their first time to request and use the loan. The table below shows that 70.9% of beneficiaries were their first time to request, access and use the loan compared to 29.1% who were experienced in loan utilization.

Table 4.12: The loan request frequency

Loan experiencing	Frequency	Percentage
Valid 1st time	180	70.9
More than once	74	29.1
Total	254	100.0

Source: Survey result, 2019

On the side of repaying previously requested loan before VUP loans, 2.3% have failed to repay compared to 26.8% who timely repaid the loan and 70.9% who were not concerned by the repayment of previous loan as it was their first time to request and access loan as detailed in the table below.

Table 4.13: The well repayment of the loan before VUP loan

Repayment of previous loan		Frequency	Percentage	Cumulative Percentage
Valid	No	6	2.3	2.3
	Yes	68	26.8	29.1
	Not concerned	180	70.9	100.0
Total		254	100.0	

Source: Survey result, 2019

4.4.5. Timely delivery of the loan

The loan is issued after verifying the completeness of all requirements. Once the borrower fulfilled and submitted all necessary documents, the VUP-FS loan should be released within five days. The table below shows that 50.8% of borrowers have received their loan on time while 49.2% of borrowers have received their loan after the due time.

Table 4.14: Timely loan releasing

Was the loan timely issued?		Frequency	Percentage
Valid	No	125	49.2
	Yes	129	50.8
Total		254	100.0

Source: Survey result, 2019

Timely or not timely releasing the loan have a direct effect on the borrower and the project to undertake. The following table describes the impact of not timely delivering the loan, where 29.1% of planned projects have been implemented at late time, 9.8% of beneficiaries have been affected by the changes in price of planned items under their projects, 7.1% of projects have been changed and the loans have been used by deviating the intended purpose and then 2.8% of projects have been cancelled. Only 50.8% of projects have been funded on time and they were “not concerned” by the delay of releasing the loan.

Table 4.15: The effect of delaying to release the loan

The effect of delaying to release the loan		Frequency	Percentage
Valid	Cancelling the project	7	2.8
	Changing the project	18	7.1
	Delay in project implementation	74	29.1
	Price fluctuation	25	9.8
	Other	1	.4
	Not Concerned	129	50.8
Total		254	100.0

Source: Survey result, 2019

4.4.6. The sufficiency of the loan amount

VUP-FS loan applications have been submitted to Sectors or “Imirenge” SACCOs by individuals, eligible groups or eligible cooperatives. The loan amount based on the proposed project and ceilings already predetermined by LODA as the National Agency in charge of the management of these loans. Among interviewed beneficiaries, 55.9% have received enough loan amount to finance the intended projects and 44.1% have received insufficient amount to finance their projects as presented in the following table.

Table 4. 16: The sufficiency of the loan to the intended purpose

Sufficiency of the loan amount		Frequency	Percentage
Valid	Yes	142	55.9
	No	112	44.1
Total		254	100.0

Source: Survey result, 2019

Getting enough or insufficient loan to the planned project influences the use of the loan by either implementing the planned project as specified in the loan agreement or implementing other projects not specified before. The table below indicates that 79.9% of beneficiaries have maintained their planned projects while 20.1% have deviated the loan agreement. Among the reasons of not using the loan to the intended purpose, the insufficiency of the loan was the main reason at 10.2% (table 4.28).

Table 4. 17: Spending the entire loan on the intended purposes

Spending the entire loan on intended purpose		Frequency	Percentage
Valid	Yes	203	79.9
	No	51	20.1
Total		254	100.0

Source: Survey result, 2019

4.5. Training of borrowers

Under the components of VUP- Financial services, there include the financial literacy where beneficiaries are trained on financial matters and the access to finance. For VUP FS beneficiaries, it is assumed that they are trained before received the loan mainly on the utilization of the loan and the project implementation. As described in the following table, 43.3% of borrowers have been trained before receiving the loan while 56.7% have skipped the training phase.

Table 4. 18: Training of borrowers before receiving the loan

Training before receiving loan		Frequency	Percentage
Valid	No	144	56.7
	Yes	110	43.3
Total		254	100.0

Source: Survey result, 2019

The borrowers have mainly been trained on project management, saving and caring customers at 25.1%, 14.2% and 2.4% respectively as presented in the table below.

Table 4. 19: Training modules

Training topics		Frequency	Percentage
Valid	Project management	64	25.2
	Saving	36	14.2
	Marketing	1	0.4
	Customer care	6	2.4
	Other	3	1.2
	No training	144	56.7
Total		254	100.0

Source: Survey result, 2019

4.6. Supervision of borrowers

As one of the responsibilities of the lender, the supervision regarding an effective loan utilization and its repayment was conducted to ensure and support the borrowers to effectively use the loan and repay it.

4.6.1. The supervision regarding an effective loan utilization and its repayment

Considering the figures of the following table, 53.1% of borrowers have been monitored for an effective loan utilization and 60.6% have been visited for requesting them to repay the loan and these variables are positively correlated.

Table 4. 20: Supervision of borrowers

Supervision	For loan utilization		For loan repayment	
	Frequency	Percentage	Frequency	Percentage
Valid Yes	135	53.1	154	60.6
No	119	46.9	100	39.4
Total	254	100.0	254	100.0

Source: Survey result, 2019

4.6.2. Supervision and loan repayment

The supervision and monitoring regarding to effective loan utilization has a direct impact on loan repayment as it reduces the risks of funds misuse and deviating the intended purpose of the loan. As indicated in the following table, 53.1% of borrowers have been supervised for an effective loan utilization compared to 46.9% of borrowers who have never been supervised on that matter. Among borrowers who haven't been supervised for checking the loan affectation and the progress of the project, only 23.5% have successfully repaid the loan and 76.5% have failed to repay. Nonetheless, among borrowers who have been supervised, 85.2% have timely and effectively repaid the loan compared to 14.8% who didn't repay the requested loan. Generally, 56.3% of borrowers have successfully repaid the loan compared to 43.7% who did not repay the loan.

Table 4. 21: Supervision for effective loan utilization and repayment

Supervision for effective loan utilization	Timely loan repayment				Total	
	No		Yes			
	Count	%	Count	%	Count	%
No	91	76.5	28	23.5	119	46.9
Yes	20	14.8	115	85.2	135	53.1
Total	111	43.7	143	56.3	254	100.0

Source: Survey result, 2019

Besides the supervision regarding an effective loan utilization, borrowers have also been supervised and visited by requesting them to repay the loan. The table below indicates that 60.6% of borrowers have been visited for loan repayment compared to 39.4% of borrowers who have not been supervised on that matter. As the majority of borrowers have been visited by requesting them to repay, this shows how the process of recovering VUP-FS loans is complicated as more beneficiaries are not willing to repay the loan.

Table 4. 22: Supervision for loan repayment

Supervision for loan repayment	Timely loan repayment				Total	
	No		Yes			
	Count	%	Count	%	Count	%
No	23	23.0	77	77.0	100	39.4
Yes	88	57.1	66	42.9	154	60.6
Total	111	43.7	143	56.3	254	100.0

Source: Survey result, 2019

Among borrowers who have who have been visited for loan repayment, only 42.9% have repaid the loan while 57.1% have not repaid the loan. For borrowers who have not been visited for loan repayment, 77.0% have timely and successfully repaid the loan. 23.0% of borrowers who have not been visited for loan repayment, have failed to repay in late days while they were on track at the beginning. From this, it is noted that what is important, is not the supervision for loan repayment as this happens after the refusal and/or inability of the borrower to repay the loan. The lender should more focus on supervision for effective loan utilization rather than supervision for loan repayment.

4.7. Projects analysis

VUP- Financial services loans are requested by beneficiaries for implementing designed and selected projects basing on their needs and available opportunities.

4.7.1. Business opportunities

The existence of surrounding positive externalities plays a great role for the selection and implementation of any project. Except 7.5% of beneficiaries who have selected their projects without any existing opportunity, others have based on available opportunities during the selection and implementation of the projects as shown in the table below. Available opportunities facilitate the implementation of projects and ignoring them probably leads the failure in project implementation.

Table 4. 23: Availability of other business opportunities

Availability of opportunities		Frequency	Percentage
Valid	Yes	235	92.5
	No	19	7.5
Total		254	100.0

Source: Survey result, 2019

Among predominant opportunities as detailed in the table 4.24, the market and appropriate land counted around 50%. Enough production and customers counted 15.0% and 14.6% respectively as other major opportunities in the selection and implementation of projects. Favorable climate for mainly agriculture related projects counted 5.9% and road accessibility has motivated the selection of projects at 3.5%. Only 7.5% have selected their projects without any motivating opportunity.

Table 4. 24: Categories of opportunities motivating project implementation

Categories of opportunities		Frequency	Percentage
Valid	Enough production	38	15.0
	Appropriate land	57	22.4
	Favorable climate	15	5.9
	Enough customers	37	14.6
	Market	70	27.6
	Road	9	3.5
	Electricity	3	1.2
	Other	6	2.4
	None	19	7.5
Total		254	100.0

Source: Survey result, 2019

4.7.2. The duration of project implementation

The duration of project implementation depends of its nature and business category and has an impact on the profitability of the business and the return of the invested capital. Referring to the table below, the majority of projects have a life span of seven to twelve months and around 71% of projects have been implemented within one year and below. Only 6.7% of projects have been implemented in the period exceeding two years and only 3 projects have not been implemented and the fund for these projects have been misused.

Table 4. 25: The duration of project implementation (Months)

The duration of project (Months)		Frequency	Percentage	Cumulative Percentage
Valid	0	3	1.2	1.2
	1-6	76	29.9	31.1
	7-12	101	39.8	70.9
	13-18	20	7.9	78.7
	19-24	37	14.6	93.3
	24+	17	6.7	100.0
Total		254	100.0	

Source: Survey result, 2019

4.7.3. Success of projects and loan repayment

The loans requested by beneficiaries have been mainly invested in agriculture, livestock and trading related projects. As presented in the table below, only 52.8% of projects have achieved their intended objectives and 47.2% of implemented projects have failed. Among borrowers whose successful projects, 94.0% have timely repaid the loan compared to 85.8% of borrowers whose unsuccessful projects did not repay the loan. Besides these, 14.2% of borrowers whose unsuccessful projects have tried to repay the loan, where 6.0% of borrowers whose successful projects have failed to repay the loan.

Table 4. 26: Success of the projects and loan repayment

Succeeded projects	Timely loan repayment				Total	
	No		Yes			
	Count	%	Count	%	Count	%
No	103	85.8	17	14.2	120	47.2
Yes	8	6.0	126	94.0	134	52.8
Total	111	43.7	143	56.3	254	100.0

Source: Survey result, 2019

4.7.4. Project profitability and loan repayment

The table below summarizes the level of project profitability per category of business and the repayment rate associated to these projects.

Table 4. 27: Profitability and loan repayment per project

Primary purpose of the loan	Getting the profit				Timely loan repayment				Total	
	No		Yes		No		Yes			
	Count	%	Count	%	Count	%	Count	%	Count	%
Agriculture	33	37.5	55	62.5	39	44.3	49	55.7	88	34.6
Livestock	34	42.0	47	58.0	37	45.7	44	54.3	81	31.9
Trading	40	49.4	41	50.6	35	43.2	46	56.8	81	31.9
Other	0	0.0	4	100.0	0	0.0	4	100	4	1.6
Total	107	42.1	147	57.9	111	43.7	143	56.3	254	100.0

Source: Survey result, 2019

Basing on the information detailed in the table 4.27 above, 34.6% of implemented projects were related to agriculture, 31.9% to livestock the same as trading activities while 1.6% were related to other activities different from agriculture, livestock and trading. Generally, 57.9% of respondents affirmed that their projects had made the profit and 56.3% have paid the loan.

Among beneficiaries that had implemented agricultural related projects, 62.5% had made the profit and 55.7% had timely repaid the loan. 58.0% of livestock related projects had made the profit and 54.3% of livestock projects implementers had timely paid the loan. As far as trading related projects are concerned, only 50.6% had made the profit and 56.8% had timely repaid the loan.

For agriculture and livestock related projects on the one hand, it was realized that the profitability rate is superior to the repayment rate. On the other hand, for the trading projects, the profitability rate is inferior to the repayment rate.

After getting the loan, on the one hand, some beneficiaries changed either totally or partially the intended purpose of the loan. Some other beneficiaries, on the other hand, did not even implement proposed project at all. The table below summarizes reasons for this situation.

Table 4. 28: Reasons of not implementing the intended project

Reasons of not implementing the intended project	Frequency	Percentage
The insufficiency of loan amount	26	10.2
The loan agreement didn't suit the initial aim	1	.4
Market problem	5	2.0
To repay another loan	2	.8
To make a more profitable business	6	2.4
Other	11	4.3
Not Concerned	203	79.9
Total	254	100.0

Source: Survey result, 2019

As displayed in the table 4.28 above, the predominant reason of not implementing the intended projects was reported to be insufficiency of loan amount representing 10.2%. Changing the project by making a more profitable business counts 2.4% while market problem represents 2.0%. The repayment of another loan and the change in loan agreement counted 0.8% and 0.4% respectively. As presented in table 4.27 above, 57.9% of implemented projects had made profit while 42.1% faced loss due to different reasons as shown in the table below:

Table 4. 29: Main causes of loss for VUP projects

Main causes of loss	Frequency	Percentage
Valid Not implementing the intended project	23	9.1
Implementing other activities not related to the project	26	10.2
Poor project monitoring and supervision	19	7.5
Stolen	3	1.2
Bad debts	3	1.2
Poor agricultural harvest	8	3.1
Other	25	9.8
Not Concerned	147	57.9
Total	254	100.0

Source: Survey result, 2019

According to the result presented in the table 4.29 above, the implementation of other activities not related to the planned projects caused the loss at 10.2%. Not implementing the intended project and poor project monitoring and supervision had led to the loss at 9.1% and 7.5% respectively. Poor agricultural harvest caused the loss at 3.1%.

4.8. Loan repayment

4.8.1. Timely loan repayment

The VUP-FS services loan repayment was the dependent variable under the study and had two possible outcomes, either yes or no as summarized in the table below:

Table 4. 30: Loan repayment

Timely loan repayment	Frequency	Percentage
Valid No	111	43.7
Yes	143	56.3
Total	254	100.0

Source: Survey result, 2019

As shown in the table 4.30 above, 56.3% of beneficiaries had successfully and timely repaid the loan while 43.7% had failed to repay the loan. The reasons of not repaying the loan had been analyzed and summarized in the table below:

Table 4. 31: Reasons of not repaying the loan

Reasons of not repaying the loan		Frequency	Percentage
Valid	Failed project	44	17.3
	Not implementing intended project	18	7.1
	Implementing other activities not related to the project	18	7.1
	Personal choice	5	2.0
	Not informed if the loan has to be repaid back	19	7.5
	Money stolen	3	1.2
	Bad debts	3	1.2
	Other	1	.4
	Not Concerned	143	56.3
	Total	254	100.0

Source: Survey result, 2019

As presented in the table 4.31 above, failed project counted 17.3% as a reason of not repaying the loan. 7.5% of beneficiaries were not aware of if the loan has to be repaid; they treated the loan as a support to improving their living conditions. Other predominant reasons of not repaying the loan were the implementation of other activities not related to the project and not implementing the intended project representing 7.1% of respondents each. 2.0% of beneficiaries had personally decided to not repay the loan and 1.2% represents cases of money stolen and bad debts as well.

4.8.2. Challenges faced in loan repayment

For loan repayment, both defaulters and non-defaulters had faced different challenges that affected the repayment process as detailed in the table 4.32 below. The loss was the most encountered challenge for loan repayment and it represents 23.2%. VUP-FS beneficiaries' projects that faced loss during implementation were at high risk of not timely repaying the loan. Diseases for livestock and poor production for agriculture projects were other challenges for loan repayment at 18.1% and 15.7% respectively. Besides these challenges, lack of customers and high interest rate also hindered the repayment of VUP-FS loans. Only 27.6% of beneficiaries had not faced any challenge for loan repayment

Table 4. 32: Challenges faced in loan repayment

Challenges	Frequency	Percentage
Valid Loss	59	23.2
High interest rate	15	5.9
Diseases in Livestock	46	18.1
Poor production	40	15.7
Lack of customers	17	6.7
Other	7	2.8
Not concerned	70	27.6
Total	254	100.0

Source: Survey result, 2019

4.8.3. Feeling to be affected by loan defaulting

Among reasons of loan defaulting detailed in the table 4.31, some beneficiaries were not aware if the loan should be repaid back. From this and as described in the following table, 16.9% of borrowers felt no effects from loan defaulting and considered the repayment or defaulting as the same and their choice while 83.1% of borrowers felt to be affected by loan defaulting.

Table 4. 33: Feeling to be affected by loan defaulting

Feeling effects from not repaying the loan		Frequency	Percentage
Valid	Yes	211	83.1
	No	43	16.9
Total		254	100.0

Source: Survey result, 2019

4.8.4. The suitability of the repayment period

The repayment period is one of the critical point of the loan agreement and is discussed between the lender and borrower. Based on criteria and conditions of VUP- FS loans, there is a set maximum repayment period as these loans are revolved as new to other beneficiaries. As explained in the table below, 46.1% of borrowers were not satisfied with the repayment period compared to 53.9% of borrowers who were satisfied with the repayment period.

Table 4. 34: The suitability of the repayment period

Suitability of the repayment period		Frequency	Percentage
Valid	No	117	46.1
	Yes	137	53.9
Total		254	100.0

Source: Survey result, 2019

4.9.Keeping accounting records

For the purpose of monitoring and controlling the progress and performance of business, necessary accounting information are recorded. This also helps business owner, outsiders and stakeholders to get information on the business deemed necessary. As described in the table below, only 14.6% of borrowers kept accounting information while 85.4% didn't record any accounting information.

Table 4. 35: Keeping accounting information

Keeping accounting information		Frequency	Percentage
Valid	No	217	85.4
	Yes	37	14.6
Total		254	100.0

Source: Survey result, 2019

Among key reasons of not keeping accountings records, there include transactions too small to keep records at 52.8% and the lack of knowledge at 20% as detailed in the table below.

Table 4. 36: The reasons of not keeping accounting records

The reasons of not keeping accounting records		Frequency	Percentage
Valid	Lack of knowledge	51	20.0
	Transaction too small to keep a record	134	52.8
	Other	32	12.6
	Not Concerned	37	14.6
Total		254	100.0

Source: Survey result, 2019

4.10. Opinions for the effective VUP-FS loan

For VUP- financial services to be more effective, beneficiaries have suggested key areas for improvement. Among these areas to improve, around 70.1% of beneficiaries have suggested the trainings to all borrowers, affecting the loan to the intended purpose, supervision for effective loan utilization, increasing the loan ceiling and timely delivering the loan. As some beneficiaries have faced a challenge of the shortest repayment period, high interest rate, mainly for SACCO loan scheme, and partial finding of the projects; 9.1% have suggested the extension of repayment period, 7.9% wished the reduction of the interest rate and 3.9% have suggested to fully fund the project.

Table 4. 37: Opinions for effective VUP-FS Loan

Opinions for the effective VUP-FS loan	Frequency	Percentage	Cumulative Percentage
Valid Training	55	21.7	21.7
Affecting the loan to its purpose	35	13.8	35.5
Supervision for effective loan utilization	33	13.0	48.5
Increasing the loan ceiling	29	11.4	59.9
Timely delivering the loan	26	10.2	70.1
Extending the repayment period	23	9.1	79.2
Reducing the interest rate	20	7.9	87.1
Full funding the project	10	3.9	91.0
Refunding (other loans)	9	3.5	94.5
Project design and analysis	8	3.1	97.6
Timely paying the loan	3	1.2	98.8
Group loans	1	0.4	99.2
Individual loans	1	0.4	99.6
Training and supervision	1	0.4	100.0
Total	254	100.0	

Source: Survey result, 2019

4.11. Analysis of factors affecting VUP financial services loan repayment among respondents

Concerning the factors affecting VUP-FS loan repayment, the results of the logit estimation are presented in table below:

Table 4. 38: Binary Logistic Regression model: Estimation results

Variables	B	S.E.	df	Sig.	Exp(B)
<i>Lender factors</i>					
Amount of time for loan approval	-.020	.019	1	.286	.980
Loan scheme	2.415	1.049	1	.021*	11.195
Amount of Loan	.000	.000	1	.825	1.000
Sufficiency of the loan to start business	2.829	.881	1	.001*	16.935
Timely Loan disbursement	.346	.795	1	.663	1.414
Supervision of loan utilization	2.378	.820	1	.004*	10.780
The grace period	-.030	.056	1	.592	.970
Repayment span	.379	.141	1	.007*	1.460
<i>Borrower factors</i>					
Sex	-.621	1.056	1	.556	.537
Age	.056	.041	1	.167	1.058
Marital status	-1.091	.450	1	.015*	.336
Education level	.749	.422	1	.076**	2.115
Ubudehe socio-economic Category	-.617	.709	1	.384	.540
Number of dependents	-.470	.253	1	.064**	.625
Experience: 1 st , 2 nd borrower,...	.600	.766	1	.433	1.823
Training before receiving the loan	-1.306	.853	1	.126	.271
Loan Modality	-1.339	.912	1	.142	.262
Full affectation of loan to the business	4.569	1.338	1	.001*	96.464
<i>Business factors</i>					
Type of business	.243	.447	1	.587	1.275
The Profit generation	5.453	1.180	1	.000*	233.385
Constant	-10.187	3.666	1	.005	.000

Source: Survey result, 2019

With: B= regression coefficient, Exp (B)= odds ratio, Sig.= significance, df= degree of freedom

(*): significant at 5% and (**): significant at 10%

Omnibus test: Chi-square=273.657, P-value=0.000

Hosmer and Lemeshow test: Chi-square=6.601 & P-value=0.580

Model summary: -2 Log likelihood=74.420; Cox and Snell R²=0.660; Nagelkerke R²=0.884

4.11.1. The significance of the overall model

Having a significance level that is less than 0.05, it is concluded that there is a statistically significant association between the variables under study and the VUP-FS loan repayment. Moving on the Hosmer and Lemeshow test of the goodness of fit suggests the model is a good fit to the data as P-value (0.580) is greater than 0.05. With the Nagelkerke's R^2 of 0.884 (adjusted Cox and Snell R^2), the model explains 88.4% of the variation in the outcome (Nagelkerke, 1991). A negative constant indicates a very low proportion of VUP-FS loan repayment occurrences in the original sample in the absence of further influence from these variables under study.

4.11.2. The discussion of single variable results

Besides the significance of the overall model, single variable results are discussed. This study analyzed the factors affecting VUP-FS loan repayment in Gisagara District, in the period starting from 2010 to 2019 and results detailed the influencing rate of each factor and its influencing direction. The results revealed that business related and lender factors are the most important factors, affecting VUP-FS loan repayment.

- **Business related factors**

Under this study, business related factors included the profit generation and type of business. The generation of the profit in the business increases the probability of repaying the VUP-FS loan by 545.3% and a VUP-FS loan beneficiary who has a business that generated the profit is about 233.4 times more likely to repay the loan than a beneficiary who recorded a business loss. This empirical finding support the assertions that firm's profit importantly influenced loan repayment (Oke et al., 2007). However, the estimated coefficient on the type of business as a variable is not statistically significant and was not found to be a factor affecting the VUP-FS loan repayment.

- **Lender related factors**

The sufficiency of the loan to start business increases the probability of repaying VUP-FS loans by 283.0% and a VUP-FS loan beneficiary who has a sufficient loan amount to start the business is about 16.93 times more likely to repay the loan than a beneficiary who has insufficient loan amount. As loans were issued by either the Sector or Umurenge SACCO, delivering loans under Umurenge SACCO scheme is positively significant in determining the probability of repaying the loan at 241.5% and a beneficiary who received a loan from Umurenge SACCO is about 11.2 times more likely to repay the loan than a beneficiary who received a loan from the Sector as an administrative unit.

The results also showed that when the lending institution monitors and supervises the borrowers for effective loan utilization, the probability of repaying that loan increases by 237.8%. This may be explained by the fact that when lending institutions regularly supervise borrowers, they check the compliance of the loan agreement, provide advices and corrective measures may be quickly taken in case of wrong practices or any challenge during the project implementation is early discussed on and sorted out by concerned parties (Roslan, et al., 2007). The results also showed that the extension of the loan repayment period increases the probability of repaying the VUP-FS loan by 37.9%.

However, the estimated coefficients on the waiting period for loan approval, amount of loan, timely loan issuing and the grace period before the repayment starts are not statistically significant and were not found to be factors affecting the VUP-FS loan repayment. The timely loan disbursement depends on the fulfillment of loan application requirements and the grace period is negotiated between the lender and borrower depending on the type of the project and provided the repayment of the loan within two years according to guidelines.

- **Borrower related factors**

Full affectation of the requested loan to the intended business also increases the probability of repaying the VUP-FS loan by 456.9%. These empirical findings support the assertions that the diversion of borrowed funds by the customer influences loan repayment default (Awoke, 2004). In addition to this, a beneficiary that has exhaustively used the loan to the intended purpose is about 96.5 times more likely to repay the loan than a beneficiary that had deviated the loan from the intended business.

The marital status is significantly and negatively influencing loan repayment. As the family heads shift from being single or from living in couple to either divorces or separation or being widowed, the probability of repaying the VUP-FS loan decreases by 109.1% and the changes in marital status are directly linked to the family size and number of dependents. The level of dependence is negatively related to VUP-FS loan repayment. A unit increase in number of dependents decreases the probability of repaying VUP-FS loans by 47.0%. On the side of education level as one of borrowers' characteristics, the probability of repaying the loan increases by 74.9% as the respondent's level of education gets higher.

However, the estimated coefficients on sex, age, Ubudehe socio-economic category, experience in borrowing, training before receiving the loan and loan accessibility modalites are not statistically

significant and were not found to be factors affecting the VUP-FS loan repayment. These results are not in line with those found in the literature (for instance, Roslan and Mohd Zaini, 2009; Nawai & Sharrif, 2010; Maigua, 2017) in regards to loan repayment.

This may find its explanation in the fact that some variables like sex of the applicant, age, experience in borrowing are not among the main requirements for accessing VUP-FS loans. Results shows that Ubudehe socio-economic categories has no significant impact on loan repayment. Groups and cooperatives were composed of members from different Ubudehe categories and loan defaulting or non defaulting was not resulting from the composition of members but from the use of the loan.

Business training leads to increased business knowledge and better business practices. However, Giné & Mansuri (2014) found that training has no significant impact on repayment rates for microfinance clients. There were some factors beyond the control of business implementers and other practices that are contrary to business requirements. For VUP-FS beneficiaries, Climatic conditions leading to the failure of some agricultural projects and diseases affected some livestock projects are among key challenges affecting the repayment and they are beyond the training scope.

4.11.3. The measurement of association

Under this study, nine variables were statistically significant at either 5% or 10%. Even though a chi-square test showed statistical significance between these variables and loan repayment, the relationship between those variables may not be substantively important. The Cramer's V Coefficient (V) helps to evaluate the relative strength of a statistically significant relationship (Akoglu, 2018). The coefficient ranges from 0 to 1 (No association to a perfect association), where a value ranging above 0.25 indicates a very strong association, above 0.15 indicates a strong association, a value ranging above 0.10 stands for a moderate association and above 0.05 indicates a weak association while below 0.05 indicates a very weak association (Akoglu, 2018). Under this study, Cramer's V correlation results are presented in the table below:

Table 4. 39: Cramer’s V correlation results

Category	Variables	Value	Sig.
Business factor	The Profit generation	0.759	.000
Lender factor	Scheme/ Source of loan	0.224	.000
	Supervision regarding an effective loan utilization	0.620	.000
	Repayment span	0.273	.092
	Sufficiency of the loan to start business	0.353	.000
Borrower factor	Educational level	0.217	.360
	Number of dependents	0.354	.000
	Full affectation of loan to the business	0.509	.000
	Marital status	0.179	.079

Source: Survey result, 2019

According to the results in the table above; profit generation, supervision regarding an effective loan utilization and full affectation of the loan to the intended business were very strongly associated to the VUP-FS loan repayment at 75.9%, 62.0% and 50.9% respectively. Getting a sufficient loan to start business, number of dependents and the repayment period were also very strongly associated to loan repayment at 35.3%, 35.4% and 27.3% respectively. Besides these variables that are very strongly associated to loan repayment, shifting the delivery of loan to Umurenge SACCO from the Sector, the educational level and marital status of beneficiaries were strongly associated to VUP-FS loan repayment at 22.4%, 21.7% and 17.9% respectively.

4.11.4. Hypothesis verification

Having a significance level (P-value=0.000) that is less than 0.05; it is concluded that there is a statistically significant association between the variables under study and the VUP-FS loan repayment. From this, the null hypotheses (H0) are rejected and it is proved that a least one of lenders, borrowers and business related variables has an influence on VUP-FS loan repayment in Gisagara District as stated under the alternative hypothesis.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter discussed key data findings from the study. The conclusions and recommendations drawn were based on the main intent of this study which was to analyze the factors affecting VUP-FS loan repayment in Rwanda, case of Gisagara District in the period of 2010 to June 2019.

The study sought to find out to what extent lenders', borrowers' and business factors affect VUP-FS loan repayment in Rwanda generally and Gisagara District in particular.

5.2. Summary of findings

In summary, four variables under lender factors are statistically significant at 5% and positively affecting VUP-FS loan repayment. Shifting loan delivery from the Sector loan committee to Umurenge SACCO, giving enough loan to start the business, supervising the loan utilization and extending the repayment period, all increase the probability of VUP-FS loan repayment. Other lender related variables were not statistically significant and were not found to be factors affecting the VUP-FS loan repayment.

On the side of borrower factors, fully affectation of the loan to the intended purpose and the level of education were statistically significant at 5% and 10% respectively and positively affected the VUP-FS loan repayment. The level of dependence was statistically significant at 10% and negatively affected loan repayment. Getting the profit, as business related factor, was the most influencing factor of loan repayment. It positively affects loan repayment and increases the probability of loan repayment by 545.5%.

5.3. Conclusion

This study analyzed the factors affecting VUP-FS loan repayment in Gisagara District, in the period starting from 2010 to June 2019. In this context, three null hypotheses have guided this study and were statistically rejected. These were:

- i. Lenders factors don't affect VUP financial services loan repayment in Gisagara District.
- ii. Borrowers factors don't affect VUP financial services loan repayment in Gisagara District.
- iii. Business factors don't affect VUP financial services loan repayment in Gisagara District.

The results revealed that lender and business related factors are the most important factors, affecting VUP-FS loan repayment. Getting the profit from the incurred business, exhaustive the

loan utilization to the business, the sufficiency of the loan to start the business, shifting responsibilities of delivering loans from the Sector to Umurenge SACCO and supervising the loan utilization have been found as the most significant determinants of VUP-FS loan repayment. The level of education is positively associated with the likelihood of repaying VUP-FS loan while the number of dependents is negatively affecting the VUP-FS loan repayment.

5.4. Recommendations

The findings of this study have implications for policy, programme and research. The study found the effect of lender, borrower and business factors on VUP-FS loan repayment in Rwanda in general and in Gisagara District in particular from the period of 2010 to June 2019. On the basis of this study the following recommendations are proposed:

- ✚ From the findings and conclusion, the study recommends that Lenders should have compulsory monitoring and supervision of borrowers on the use and repayment of the loan. Such supervision will enable monitoring the performance of borrowers compared to the intended purpose. Regular meetings between lender and borrowers, field monitoring and introduction of business advisers can mitigate the repayments problems.
- ✚ The study recommends to fully finance the project and increase the loan ceiling by not only basing on the number of borrowers but also basing on the size and type of business. The study found that the loan might not be affected to the intended purpose due to its insufficiency to start the business and the loan agreement which do not coincide with the initial intention.
- ✚ The study further recommends to extend the repayment period and to reduce the interest rate as they have been found as challenges for loan repayment. By shifting from the Sector to Umurenge SACCO, the interest rate has increased from 2% to 11% and this high interest rate was not in favor of borrowers and has complicated the repayment.
- ✚ The study recommends that borrowers should affect the loan to its initial purpose. Not implementing the intended project and/or implementing other activities not related to the project were among major reasons of not repaying the loan.
- ✚ Finally, the study recommends that borrowers have to be trained before and after receiving the loans. The training module should focus on project design, business management, saving, book keeping and loan repayment as the study found some borrowers that were not aware of if the loan will be repaid back.

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APPENDICES

Appendix 1: Questionnaire for VUP-FS Beneficiaries, English version

Introduction Letter

KARANGWA Théogène

Gisagara District

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Tel. 0783641228

Dear Respondents,

I am a postgraduate student at the University of Rwanda, undertaking a research on “**FACTORS AFFECTING VUP-FINANCIAL SERVICES LOANS REPAYMENT IN RWANDA; A case study of Gisagara District**” Which is a requirement for the award of the Degree of Master of Arts in Local Governance Studies.

I am therefore requesting your assistance to fill the attached questionnaires by ticking and recording the appropriate answers. The information given will be handled confidentially, and will only be used only for academic intention.

Yours faithfully,

KARANGWA Theogene

Questionnaire for VUP-FS services beneficiaries

(Mention the response where it is underlined _____) Date _____

I. PERSONAL DETAILS

- 1.1. Place of Residence: Sector: _____ Cell: _____ Village: _____
- 1.2. Date of birth (Year) _____
- 1.3. Sex _____ (1. Female 0. Male)
- 1.4. Marital status _____ (1. Single, 2. Legally married, 3. Illegally married, 4. Divorced, 5. Separated, 6. Widowed)
- 1.5. Educational level _____ (1. No education, 2. Primary 1-3, 3. Primary, 4. Secondary School, Lower level, 5. Secondary school, A2, 6. University and above)
- 1.6. Family size _____
- 1.7. Number of dependents: Within the household _____ Outside the household _____
- 1.8. Occupation: _____ (choose the most important: 1. Agriculture, 2. Livestock, 3. Agriculture and livestock, 4. Trading, 5. Public servant, 6. Security maintenance, 7. Other, 8. Nothing)
- 1.9. Ubudehe Category _____
- 1.10. Access to loan modalities _____ (1. Individually, 2. As group, 3. As Cooperative)

II. INFORMATION ON GROUP/COOPERATIVE FORMATION

- 2.1. Did you have to join a group before you were to get a loan from VUP? _____ (1. Yes 0. No)

If No, go to part III (Not Concerned)

- 2.2. How many members does the group in which you belong have? _____
- 2.3. Did you know all members in your group? _____ (1. Yes, 0. No)
- 2.4. Did you use the loan in the common group project?? _____ (1. Yes, 0. No)
- 2.5. Have you shared the amount of requested loan? _____ (1. Yes, 0. No)
- 2.6. Do you attempt to know or monitor the loan utilization of the other members of your group? _____ (1. Yes 0. No)
- 2.7. Have you found a better loan utilization? _____ (1. Yes 0. No 2. Not concerned)
- 2.8. If No, what action do you take in case you observed wrong utilization of the loan (for non-intended purpose)?
_____ 1) Inform loan officer at Sector/ SACCO, 2) Inform local leaders, 3) Provide advice, 4) Put social sanction 5) Other (specify) _____ 6) Not concerned

- 2.9. Did you feel responsible to other members of your group? _____ (1. Yes 0. No)
- 2.10. Did you have the feeling that you might be sued in case of failure to repay the Loan? _____ (1. Yes 0. No)

III. LOAN UTILIZATION

- 3.1. How many times on which you have requested this loan repaid with interest (experience)? _____ (0. 1st time 1. More than once)
- 3.2. When did you receive the loan (year)? _____
- 3.3. From which scheme/Source, have you got the loan? _____ (1. Umurenge SACCO, 0. Administrative Sector)
- 3.4. How long did it take to receive the loan after submitting a request? _____ (Day)
- 3.5. How much were financing costs for getting a loan? _____ FRW (Project design), _____ FRW (loan application), _____ FRW (project analysis), _____ FRW (Project insurance), _____ FRW (Collateral).
- 3.6. What was the primary purpose for which the loan was taken _____?
- 1) Agriculture, 2) Livestock-Farming, 3) Trading, 4) Other (specify) _____
- 3.7. What was the total cost of the project? _____ FRW
- 3.8. How much was the loan amount? _____ (FRW)
- 3.9. Was the amount of loan you took enough for the purpose intended (Sufficiency of the loan to start the business)? _____ (1. Yes, 0. No)
- 3.10. If No, what was the gap? _____ (FRW)
- 3.11. Did you spend the entire loan on purposes specified in the loan agreement? (1. Yes, 0. No)
- 3.12. If No, state those non-intended purposes and the amount spent on them

Purpose/Item	Amount spent
1) _____	_____
2) _____	_____
3) _____	_____

- 3.13. Which was the reason of using the loan on non-intended purposes? _____ 1. The loan amount was not enough for the intended purpose, 2. The loan agreement did not coincide

with my initial intention **3.** Market problem, **4.** To repay another loan, **5.** To make a more profitable business, **6.** Other (specify) _____

IV. PROJECT

- 4.1. Where was the Site of Business implementation? _____ **1.** City, **2.** Business center, **3.** Rural area, **4.** Other (specify) _____
- 4.2. In the implementation sites, were other opportunities facilitating the project implementation? (**1.** Yes, **0.** No)
- 4.3. If Yes, which opportunities were there? **1.** Enough production, **2.** Appropriate land, **3.** Favorable climate, **4.** Enough customers, **5.** Market, **6.** Road, **7.** Electricity, **8.** Other (Specify) _____
- 4.4. What was the duration of project implementation? _____ (Months)
- 4.5. How much was the intended profit? _____ (FRW)
- 4.6. Did you get the profit from the project? (**1.** Yes, **0.** No)
- 4.7. If Yes, how much was the profit? _____ (FRW)
- 4.8. If No, what was the main cause of the loss? **1.** Not implementing the intended project, **2.** Implementing other activities not related to the project, **3.** Poor project monitoring and supervision, **4.** Stolen, **5.** Bad debts, **6.** Other (Specify) _____ **7.** Not Concerned

V. SUPERVISION, ADVISORY VISITS AND TRAINING

- 5.1. Have you ever been supervised regarding effective loan utilization by lender? _____ (**1.** Yes, **0.** No)
- 5.2. If yes, how many times were you supervised? _____
- 5.3. Have you ever been supervised for loan repayment? _____ (**1.** Yes, **0.** No)
- 5.4. If yes, how many times were you supervised? _____
- 5.5. Do you consider supervision as being important for loan repayment? _____ (**1.** Yes, **0.** No)
- 5.6. Has the supervision allowed the loan repayment? _____ (**1.** Yes, **0.** No)
- 5.7. Did you get any training before receiving loan? _____ (**1.** Yes, **0.** No)
- 5.8. If Yes, what kind of training have you received? _____ **1.** Project management, **2.** Saving, **3.** Marketing, **4.** Book keeping, **5.** Customer care, **6.** Other (specify) _____ **7.** Not concerned

5.9. Do you think that the training has helped you to implement your project? ____ (1. Yes, 0. No)

5.10. Have you faced any challenge during and for loan repayment? ____ (1. Yes, 0. No)

5.11. If Yes, which challenge? ____ (1. Loss, 2. High interest rate, 3. Diseases in Livestock, 4. Poor production, 5. Lack of customers, 6. Other (specify) _____ 7. Not concerned

VI. EMPLOYMENT

6.1. Are you self-employed in your business? ____ (1. Yes, 0. No)

6.2. How many workers other than yourself are helping you in your business? _____

6.3. Has the project been successful? ____ (1. Yes, 0. No)

6.4. Did employees play a role for the success of the project? ____ (1. Yes, 0. No, 2. Not concerned)

6.5. Explain that role:

VII. LOAN REPAYMENT

7.1. Have you timely repaid the loan? ____ (1. Yes, 0. No)

7.2. If No, how much amount is unpaid? _____ FRW

7.3. What was the reason of not repaying the loan? ____ 1. Failed project, 2. Not implementing intended project, 3. Implementing other activities not related to the project, 4. Personal choice, 5. Not informed if the loan has to be repaid back, 6. Money stolen, 7. Bad debts, 8. None requested me to repay, 9. Other (specify) _____ 10. Not concerned

7.4. Do you feel to be affected by not repaying these VUP-FS loans? ____ (1. Yes, 0. No)

7.5. Have you provided the collateral for these VUP-FS? ____ (1. Yes, 0. No)

7.6. What can be so that the VUP-FS loan can be repaid? ____ 1. Undertaking personal properties, 2. Collaterals resale, 3. Social sanction, 4. Other (Specify) _____ 5. Not concerned

7.7. On your side, what has complicated the VUP-FS loan repayment?

- 7.8. Did you have any source of loan before other than the one from VUP _____ (1. Yes, 0. No)
- 7.9. If Yes, what was your source? _____ 1. Bank, 2. Money lenders, 3. Social groups, 4. Friends/relatives, 5. Other (specify) _____ 6. Not concerned
- 7.10. What was the amount of that other loan? (Before VUP-FS loan) _____ FRW
- 7.11. Have you well repaid this other loan? _____ (1. Yes, 0. No, 2. Not concerned)
- 7.12. Have you started the project with the VUP-FS loan? _____ (1. Yes, 0. No)
- 7.13. If No, how long have you been in the business before looking for a loan you are having (Months) _____
- 7.14. How is the loan interest rate? _____ For how long? _____ how much you borrowed? _____ in total, how much you supposed to pay back during the repayment period _____
- 7.15. How long was the grace period before you started repayment schedules? _____ (Months)
- 7.16. What is the length of repayment period? _____ (Months)
- 7.17. What amount of monthly deposit (repayment amount)? _____
- 7.18. Is the repayment period set by the lender suitable in your opinion? _____ (1. Yes, 0. No)
- 7.19. If no, recommend a suitable repayment period: _____ (Months)
- 7.20. Was the loan timely issued? _____ (1. Yes, 0. No)
- 7.21. If No, what was the impact of the delay? _____ 1. Cancelling the project, 2. Changing the project, 3. Delay in project implementation, 4. Price fluctuation, 5. Other (Specify) _____ 6. Not Concerned

VIII. ACCOUNTING BOOKS & OTHER INFORMATION

- 8.1. Did you have a saving account before benefiting in VUP Financial services? _____ (1. Yes, 0. No)
- 8.2. If yes, what is the average amount that you managed to monthly save? _____ FRW
- 8.3. Do you have a saving account after loan involvement? _____ (1. Yes, 0. No)
- 8.4. If Yes, what is the average monthly amount of your saving? _____ FRW
- 8.5. Do you keep accounting records? _____ (1. Yes, 0. No)
- 8.6. If yes, for what purpose? _____ 1. To evaluate profit and loss, 2. For loan repayment purpose, 3. Other (specify) _____ 4. Not concerned

8.7.If no, explain the reason(s) of not keeping records? _____ **1.** Lack of knowledge, **2.**
Transaction too small to keep a record, **3.** Other (specify) _____ **4.**
Not concerned

8.8.Has your living condition improved in general because of accessing VUP-FS loan? _____
(**1.** Yes, **0.** No)

8.9.What is your overall opinion about how effective the Lender and borrowers can do to
become productive in their intended cause of delivering and obtaining loan and the timely
repayment?

**THE END. THANKS FOR YOUR TIME AND PARTICIPATION IN FILLING THIS
QUESTIONNAIRE. "MAY GOD BLESS YOU"**

Appendix 2: Questionnaire for VUP-FS Beneficiaries, Kinyarwanda version
Ibaruwa yo gusaba amakuru (Umugenerwa bikorwa w'inguzanyo za VUP)

KARANGWA Théogène

Akarere ka Gisagara

katheoss@yahoo.fr

Tel. 0783641228

Madamu/Bwana

Ndi umunyeshuri mu Cyiciro cya Gatatu cya Kaminuza muri Kaminuza y'u Rwanda mu Ishami ry'Imiyoborere y'Inzego z'Ibanze "Local Governance Studies".

Mu rwego rwo gusozza iki cyiciro cy'amashuri navuze haruguru, ndi gukora ubushakashatsi ku nguzanyo zatanze muri gahunda ya VUP (VUP Financial Services) mu Rwanda muri rusange no mu Karere ka Gisagara by'umwihariko, ku ntego ***"GUSUZUMA IBIGIRA URUHARE MU KWISHYURA INGUZANYO ZITANGWA MURI GAHUNDA YA VUP mu Karere ka Gisagara"***

Ni muri urwo rwego mbasaba gusubiza neza urutonde rw'ibibazo ruri ku mugereka. Amakuru muzatanga azagirwa ibanga, acungwe neza kandi akoreshwe gusa ku mpamvu z'ubushakashatsi mu ishuri.

Murakoze,

KARANGWA Théogène

Urutonde rw'ibibazo: Ibibazo bigenewe umugenerwa bikorwa w'inguzanyo za VUP

(**Igisubizo gikwiriye cyandikwa ahari umurongo _____**) Itariki _____

I. AMAKURU Y'UMUNTU

- 1.1. Aho umuntu atuye: Umurenge: _____ Akagari: _____
Umudugudu: _____
- 1.2. Umwaka w'amavuko _____
- 1.3. Igitsina _____ (1. Gore 0. Gabo)
- 1.4. Irangamimerere _____ (1. Ingaragu, 2. Washatse byemewe n'amategeko, 3. Babana k'ubwumvikane, 4. Baratandukanye byemewe n'amategeko, 5. Baratandukanye, 6. Umupfakazi)
- 1.5. Amashuri wize _____ (1. Ntiyize, 2. Amashuri byibura 3 abanza, 3. Amashuri 6 abanza, 4. Amashuri atatu y'isumbuye, 5. Amashuri yisumbuye, A₂, 6. Kaminuza A₀ gukomeza)
- 1.6. Muri abantu bangahe mu rugo? _____
- 1.7. Utunze/ ubeshejeho abantu bangahe? Mu rugo ____ Hanze y'urugo _____
- 1.8. Ukora iki: _____ (Hitamo kimwe cy'ingenzi: 1. Ubuhinzi, 2. Ubworozi, 3. Ubuhinzi n'ubworozi, 4. Ubucuruzi, 5. Umukozi wa Leta, 6. Ucuha umutekano, 7. Ikindi, 8. Ntacyo)
- 1.9. Uba mu cyiciro cya kangahe cy'ubudehe? _____
- 1.10. Ese inguzanyo ya VUP wayihawe mu buhe buryo? _____ (1. Ku giti cyanjye, 2. Nk'itsinda, 3. Nka Koperative)

II. AMAKURU KU ITSINDA

- 2.1. Hari itsinda wabagamo mbere yuko waka inguzanyo ya VUP? _____ (1. Yego 0. Oya)
- Niba ari Oya, Komereza ku gice cya III
- 2.2. Itsinda ryanyu rigizwe n'abantu bangahe? _____
- 2.3. Abo mubana mu itsinda bose urabazi? ____ (1. Yego, 0. Oya)
- 2.4. Ese inguzanyo mwasabye nk'itsinda, mwayikoresheje mu mushinga w'itsinda? ____ (1. Yego, 0. Oya)
- 2.5. Ese inguzanyo mwasabye nk'itsinda, mwagabanye amafaranga mwagujije? ____ (1. Yego, 0. Oya)

- 2.6.Waba waragerageje kumenya cyangwa gukurikirana uko abandi banyamuryango bakoresha inguzanyo basabye? _____ (1. Yego 0. Oya)
- 2.7.Ese wasanze inguzanyo ikoresha neza/ icyo yagenewe? _____ (1. Yego 0. Oya)
- 2.8.Niba ari oya, ni iki wakoze umaze kubona ko inguzanyo itari gukoreshwa neza/ idakoreshwa icyo yakiwe? _____ **1)** Kumenyesha ushinzwe inguzanyo ku Murenge/ SACCO, **2)** Kumenyesha ubuyobozi, **3)** kumugira inama, **4)** Kumunengera mu itsinda **5)** Ikindi (kivuge) _____
- 2.9.Wumva hari inshingano ufite ku banyamuryango b'itsinda? _____ (1. Yego 0. Oya)
- 2.10. Ese wumva ushobora kugerwaho n'ingaruka mbi mu gihe itsinda ryananiwe kwishyura inguzanyo ryatse? _____ (1. Yego 0. Oya)

III. GUKORESHA INGUZANYO

- 3.1.Ni ubwa kangaha wari ufashe inguzanyo yishyurwa n'inyungu? _____
- 3.2.Wahawe inguzanyo ryari? Umwaka _____
- 3.3.Wahawe inguzanyo nande? _____ (1. SACCO, 0. Umurenge)
- 3.4.Byasabye igihe kinganga iki ngo ubone inguzanyo wasabye? _____ (Iminsi)
- 3.5.Byagusabye ikiguzi (financing costs) kingana iki kugira ngo uhabwe inguzanyo? _____
FRW (Gukoresha umushinga), _____ FRW (Gusaba inguzanyo), _____ FRW (Gusuzuma / Kwiga umushinga), _____ FRW (Ubwiteganyirize bw'umushinga), _____ FRW (ingwate).
- 3.6.Ni iyihe mpamvu nyamukuru yatumye waka inguzanyo ya VUP (Umushinga)? _____
1) Ubuhinzi, **2)** Ubworozi, **3)** Ubucuruzi, **4)** Ikindi (kivuge) _____
- 3.7.Umushinga wari ufite agaciro kangana iki mu mafaranga? _____ FRW
- 3.8.Wahawe inguzanyo ingana iki? _____ (FRW)
- 3.9.Ese inguzanyo wahawe yari ihagije ku mushinga? _____ (1. Yego, 0. Oya)
- 3.10. Niba ari Oya, waburaga amafaranga angaha? _____ (FRW)
- 3.11. Ayo wagujije yose, wayakoresheje mu mushinga wari wayakiye? (1. Yego, 0. Oya)
- 3.12. Niba aro Oya, garagaza ibindi wayakoresheje kandi bitari biteganyijwe:

Igikorwa	Ingano y'amafaranga
1) _____	_____
2) _____	_____

3) _____

3.13. Ni iyihe mpamvu yatumye ukoresha amafaranga ikinyuranye nicyo wayakiye? _____

1. Inguzanyo ntiyari ihagije ku mushinga, **2.** Nasabwe guhindura umushinga n'abampaye inguzanyo **3.** Ikibazo cy'isoko, **4.** Kwishyura indi nguzanyo, **5.** Guhindura umushinga wunguka cyane, **6.** iyindi (yivuge) _____

IV. UMUSHINGA

4.1. Ese umushinga wakorewe he? _____ **1.** Mu mujyi, **2.** Mu gasanteri nk'ubucuruzi, **3.** Mu cyaro kure, **4.** Ahandi (havuge) _____

4.2. Aho umushinga wakorewe, hari andi mahirwe yari ahari yoroshyaga ishyirwa mu bikorwa ry'umushinga? (**1.** Yego, **0.** Oya)

4.3. Niba ari yego, ayo mahirwe ni ayahe? **1.** Umusaruro uhagije, **2.** Ubutaka bwiza, **3.** Ikirere cyiza, **4.** Abakiriya benshi, **5.** Isoko, **6.** Umuhanda, **7.** Amashanyarazi, **8.** Ayandi (yavuge) _____

4.4. Ese umushinga wamaze igihe kingana iki ushyirwa mu bikorwa? _____ (Amezi)

4.5. Ese wateganyaga inyungu ingana iki mu mushinga wakiye inguzanyo? _____ (FRW)

4.6. Hari inyungu wakuye mu mushinga? (**1.** Yego, **0.** Oya)

4.7. Niba ari yego, yanganaga iki? _____ (FRW)

4.8. Niba ari oya, ni iki cyaguteye guhomba? **1.** Sinashyize mu bikorwa umushinga nateguye, **2.** Hari amafaranga nakoreshye ibindi bitateguwe mu mushinga, **3.** Sinakurikiranye neza umushinga, **4.** Naribwe, **5.** Abo nakopye baranyambuye, **6.** Iyindi (yivuge) _____

V. GUKURIKIRANA, UBUJYANAMA N'AMAHUGURWA

5.1. Waba warigeze usurwa n'abaguhaye inguzanyo mu rwego rw'ubujyanama? _____ (**1.** Yego, **0.** Oya)

5.2. Niba ari yego, wasuwe kangahe? _____

5.3. Waba warigeze usurwa n'abaguhaye inguzanyo mu rwego rwo kukwishyuzwa? _____ (**1.** Yego, **0.** Oya)

5.4. Niba ari yego, wasuwe kangahe? _____

5.5. Ese ku bwawe, wumvaga ari ngombwa gusurwa n'abaguhaye inguzanyo? _____ (**1.** Yego, **0.** Oya)

5.6.Gusurwa bakwishyura, hari icyo byaba byaramaze ku kwishyura kwawe? _____ (1. Yego, 0. Oya)

5.7.Hari amahugurwa wabonye mbere y'uko uhabwa inguzanyo? _____ (1. Yego, 0. Oya)

5.8.Niba ari yego, wahawe amahugurwa ku biki? _____ 1. Gucunga umushinga, 2.

Kwizigamira, 3. Kwamamaza ibikorwa, 4. Kuzuza no kubika neza ibitabo, 5. Kwakira neza abakiriya, 6. Ibindi (bivuge) _____

5.9.Hari icyo amahugurwa yakumariye mu gushyira mu bikorwa umushinga wawe? ____ (1. Yego, 0. Oya)

5.10. Hari imbogamizi wahuye nayo mu kwishyura inguzanyo? _____ (1. Yego, 0. Oya)

5.11. Niba ari yego, wahuye n'iyihe mbogamizi? _____ (1. Igihombo, 2. Inyungu nini ku nguzanyo, 3. Indwara mu matungo, 4. Kubura umusaruro, 5. Kubura abakiriya, 6. Iyindi (yivuge) _____

VI. UMURIMO

6.1.Uri umwe mu bakozi bakora mu mushinga wakiye inguzanyo? _____ (1. Yego, 0. Oya)

6.2.Uretse wowe, ukoresha abanda bakozi bangahe mu mushinga wawe? _____

6.3.Umushinga mwakoze wageze ku ntego zawo? _____ (1. Yego, 0. Oya)

6.4.Hari uruhare abakozi bagize mu kugera ku ntego z'umushinga? _____ (1. Yego, 0. Oya)

6.5.Sobanura uruhare bagize n'uburyo barugize:

VII. KWISHYURA INGUZANYO

7.1.Ese wishyuye inguzanyo nkuko byagombaga? _____ (1. Yego, 0. Oya)

7.2.Niba ari oya, harimo ibirarane bingana iki? _____ FRW

7.3.Ese ibyo birarane byatewe niki? _____ 1. Umushinga warahombye, 2. Sinashyize mu bikorwa umushinga nateguye, 3. Hari amafaranga nakoresha ibindi bitateguwe mumushinga, 4. Ubushake buke, 5. Nari nzi ko amafaranga atazishyurwa, 6. Amafaranga barayibye, 7. Abo nakopye baranyambuye, 8. Ntawanyishuje, 9. Iyindi (yivuge) _____

7.4.Ubona hari ingaruka wagirwaho no kutishyura neza inguzanyo za VUP? _____ (1. Yego, 0. Oya)

- 7.5. Ese hari ingwate mwatanze kuri iyi nguzanyo ya VUP? _____ (1. Yego, 0. Oya)
- 7.6. Kugira ngo wishyure inguzanyo ya VUP, urabona hakorwa iki? _____ 1. Gufatira imitungo yawe, 2. Gufatira ingwate, 3. Kunengwa mu ruhame, 4. Iyindi (yivuge) _____
- 7.7. Mu ruhande rwawe, ni iki ubona kigora mu kwishyura inguzanyo ya VUP?
- _____
- _____
- _____
- 7.8. Hari indi nguzanyo wari waratse mbere y'iyi nguzanyo yo muri VUP? _____ (1. Yego, 0. Oya)
- 7.9. Niba ari yego, wari warayatse hehe? 1. Banki, 2. Ikimina, 3. Itsinda, 4. Umuntu, 5. Ahandi (havuge) _____
- 7.10. Wari watse inguzanyo yindi ingana iki? (Mbere y'iyi ya VUP) _____
- 7.11. Ese inguzanyo watse mbere y'iyi yo muri VUP wayishyuye neza? _____ (1. Yego, 0. Oya)
- 7.12. Ese inguzanyo ya VUP niyo watangije umushinga wawe? _____ (1. Yego, 0. Oya)
- 7.13. Niba aro oya, watse inguzanyo ya VUP, umaze igihe kingana iki utangiye umushinga wayisabiraga (Amezi) _____
- 7.14. Inyungu ku nguzanyo (interest rate) ingana ite? _____ Mu gihe kingana iki? _____ Wagujije amafaranga angana iki? _____ Hamwe n'inyungu uzishyura amafaranga angaha yose hamwe? _____
- 7.15. Ese hashira igihe kingana iki mbere yo gutangira kwishyura inguzanyo? _____ (Amezi)
- 7.16. Ese igihe cyo kwishyura inguzanyo kingana gute? _____ (Amezi)
- 7.17. Wishyura amafaranga angaha buri kwezi? _____
- 7.18. Ese ubona igihe cyo kwishyura cyari gihagije ku rwawe ruhande? _____ (1. Yego, 0. Oya)
- 7.19. Niba ari oya, ubona igihe gihagije cyo kwishyura cyangana gute? _____ (Amezi)
- 7.20. Ese inguzanyo mwayiherewe igihe nkuko mwari mwabiteganyije? _____ (1. Yego, 0. Oya)

7.21. Niba ari Oya, ni izihe ngaruka zaturutse kuri ubwo bukererwe? _____ **1.** Kureka umushinga nari nateguye, **2.** Guhindura umushinga, **3.** Gutinda gutangira umushinga, **4.** Guhinduka ku ibiciro ku isoko, **5.** Iyindi (yivuge) _____

VIII. KWIZIGAMA N'IBITABO BY'UMUTUNGO

8.1.Hari konti yo kwizigamira wagiraga mbere yo yo kwaka inguzanyo ya VUP? _____ (**1.** Yego, **0.** Oya)

8.2.Niba ari Yego, buri kwezi wizigamaga amafaranga angahe? _____ FRW

8.3.Hari konti yo kwizigamira ufite nyuma yo kwaka inguzanyo? _____ (**1.** Yego, **0.** Oya)

8.4.Niba ari yego, ugereranyije, wizigamira amafaranga angana iki buri kwezi? _____
FRW

8.5.Ugira ibitabo by'ibaruramari n'ibarura mutungo? _____ (**1.** Yego, **0.** Oya)

8.6.Ibyo bitabo bigufasha iki? _____ **1.** Kugenzura inyungu/igihombo, **2.** Kwishyura inguzanyo, **3.** Iyindi (yivuge) _____

8.7.Nib anta bitabo ugira, ni ukubera iki? _____ **1.** Kubura ubumenyi, **2.** Singombwa bitewe n'ingano y'ibyo nkora, **3.** Iyindi (yivuge) _____

8.8.Ese imibereho yawe yaba yarabaye myiza bitewe no gukoresha inguzanyo ya VUP? _____ (**1.** Yego, **0.** Oya)

8.9.Ubona hakorwa iki kugira ngo abagenerwa bikorwa b'inguzanyo ya VUP barusheho kuyikoresha neza bityo bibabyarire inyungu kandi n'inguzanyo yishyurwe neza?

Umusozo

Murakoze kubw'uyu mwanya muduhaye no gusubiza ibi bibazo.

Imana ibahe umugisha