



**FACTORS INFLUENCING NON- PERFORMING LOAN OF UMURENGE SACCO IN RWANDA. CASE OF STUDY OF GIRINTEGO SACCO KIVURUGA. 2015/2020.**

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**Keywords**

**Non-performing loan,  
Umurenge,  
Girintego Sacco Kivuruga,  
SACCO,  
Rwanda,  
Umurenge,  
Savings,  
Microfinance,  
Credit cooperative,**

**ABSTRACT**

*This research entitles" investigate the factors influencing non-performing loan of Umurenge SACCO in Rwanda and was guided by the following specific objectives: To investigate effect of interest rate on Non-performing loans of GIRINTEGO SACCO KIVURUGA, To explore the effect of size of loan and savings on Non-performing loans of GIRINTEGO SACCO KIVURUGA, Examine the influence of loan monitoring practices on Non-performing loans of GIRINTEGO SACCO KIVURUGA. The study adopted a descriptive research design. The population under this study consisted employees, governance board, loan committee and clients of GIRINTEGO SACCO KIVURUGA, totaling 88 potential respondents which took randomly. The instrument of the study was self-made (questionnaire) and a set of questions was formulated. Data were collected using structured questions with 5-point Likert scales and an interview guide together with records. Quantitative data were analyzed using frequencies, percentages, standard deviation, means, and regression analysis. The finding from study concluded that there significant effect of interest rate on Non-performing loans of Girintego sacco Kivuruga, size, size of loan and savings on Non-performing loans of Girintego sacco Kivuruga, loan monitoring practices on Non-performing loans of Girintego sacco Kivuruga. The study recommend the following: It is also recommended that the board of management must increase the ownership level and financial literacy to have basic financial skills enabling them interpret financial statements, The study recommends that SACCOs should enhance their collection policy by adapting a more stringent policy to a lenient policy for effective debt recovery, The study also recommends that there is need for SACCOs to It is likewise suggested that the leading body of the board should build the proprietorship level and monetary education to have fundamental monetary*

*abilities empowering them decipher budget reports, the review suggests that SACCOs should upgrade their assortment strategy by adjusting a more severe arrangement to a permissive approach for powerful obligation recuperation, the concentrate likewise suggests that there is need for SACCOs to upgrade their customer examination methods to work on their monetary exhibition.*

## Introduction

SACCOs and credit union are not new things in the world, many countries around the world have SACCOs. The variety of credit union and SACCOs no one can confirms that there is one strategy that can be applied but they are standards that are international. The International Cooperative Alliance (ICA) indicated that SACCOs are specifically cooperatives. Cooperatives are local organization which are led by its members democratically and elaborate rule and regulation that they must follow, in addition that they can vote or organize policy (2016).

Many countries are putting more effort in developing socio-economic condition of their citizens through establishing micro-finances which can help the people in getting loans. Saving and credits cooperatives had started in 1938. Only three SACCOs were created during that time. Saving and credit cooperative was founded from Bangladesh in 1978 and it was started by Grameen Bank. It became well known in 1980 as government wanted to bring solution to the poor farmers (Tumwine, Mbabazize& Shukla 2015). Microfinance institutions(MFI) facilitates poorest class to access banking services around the world but MFI helped the poorest class to finance their small business and getting food access. Lending money is very important activity that plays significance important economically and socially. But the issue of non-performing is affecting many saving and credits cooperatives because of poor management, loan policy of the country or unqualified loan officers.

In Africa, there are many countries who are recognized in having good performing SACCOs like Kenya. Credit and saving cooperatives(SACCOs) grant financial services to the people of Kenya but the demand is high when one analyses the number of people that SACCO can serve in region (Marwa&Aziakpono, 2015). The expansion of SACCOs was hinder by inadequate capital of financial because it is not easy when clients need money that financial institution does not have.

Rwanda development policy which was guided by Vision 2020 was the one which develop this statement. Rwanda wanted to transform Rwanda into middle income generating by 2020 but later Rwandan government adopted another Vision which is 2025. Achieving 2020 vision was not easy journey that everyone could dream that it will be the reality. It even elaborate the steps that will take them there which was financial sector Development Programme (FSDP) elaborated in 2006. The purpose of Financial Sector Development Program was to enhance strong and good financial sector in Rwanda. Through this program financial services became vibrant and financial institutions grow up. The main target of FSDP was empowering among Rwanda the culture of long term investment and saving (Irma GrundlingYakini Development Consulting,2012). Since 1994 government of Rwanda started encouraging the citizens to adopt modern ways of saving and investing money in most beneficial was because before citizens of Rwanda had culture of keeping their money horn and burying them somewhere far from family members but this traditional way of keeping money was risky. That money could be stolen by

thieves or owner could forget where money is kept even some of animals could can and pick that money. SACCOs and credit union in Rwanda is not something which is new within country, SACCOs and BPR is common in Rwanda, many credit unions has been working in Rwanda. But depending to the reports and other information SACCOs coverage area was still small compared to the people, it should save. With limited clients because only 3% save in SACCOs. To overcome this problem investigated as one of the factors that hinder economic development. National dialogue held in December 2008 recommended formation of SACCOs at least one for every Sector (Umurenge). Financial performance is the strategies of how financial institution can utilize well assets from basic primary firm and make income. This is also used to measure life of financial institution over given time of period. Basing on association of microfinance in Rwanda the return on assets (ROA) and return on equity (ROE) are the important factor to evaluate the quality of earning and achievement in Rwandan Microfinance sector.

### **Statement of the problem**

According to the reports from National Bank (2018), SACCOs was founded in line with UMURENGE SACCO program which was set off in 2009 by the government initiative to empower financial services. Finscope 2008 reports showed that around 21% people had an access and use of existent financial services, after elaboration of UMURENGE SACCOs and other initiative. The accessibility to financial services increased to 42 % (2012) and up to 68% in 2016. A saving and credit cooperative is financial institution which provides money services and its members have an access of saving and getting loan from SACCOs to invest in different activities. SACCO was created in order to attract Rwandan people to put money together as savings so that everybody can get an access to loan which can be invested in various businesses which are money generating. The aim of establishing SACCOs was to improve economic status and social living conditions of members who will come to borrow and save money. According to Kivuvo and Olweny (2014) indicated that desirable performance of saving and credit cooperative is determined by utilization of resources as result efficiency and effectiveness can be assessed. Management of transaction cost is also necessary. In Rwanda loan performance is not frequently made to check whether an institution is generating income or not. Mostly NPLS is not common in all SACCOs around the country, that it is the reason why some of institutions collapse because of lack of proper strategies to enhance loan performance in their institution. Non-performing loans lead to poor performance of UMURENGE SACCO while performing loan can rise SACCO. No one who is aware on strategies that can be adopted for mitigating the issue of non-performance loan for enhancing Saccos performance, specifically in GIRIMTEGO SACCO Kivuruga. The research like Nsengiyumva and Harerimana (2020) studied Loan Management on the Financial Performance of Umurenge Savings and Credits Cooperatives and Musengimana (2018) worked on non-performing loans and financial performance of microfinance. Many previous studies that was done around the country on the topics which are in the same field like this one indicated that none who have focused factors influencing non-performing loan in GIRINTEGE SACCOs KIVURUGA , this research intend to fill this gap which is in Rwanda. According to them, these structural changes have affected competition among SACCOs and increased credit risk by relaxing borrowing conditions leading to the destruction of the quality of Saccos' lending activities. That is the rate at which NPLS increases.

### **General objective**

General objective of this research is" investigate the factors influencing non-performing loan of Umurenge SACCO in Rwanda.

### **Specific objective**

- To investigate effect of interest rate on Non-performing loans of GIRINTEGO SACCO KIVURUGA
- To explore the effect of size of loan and saving on Non-performing loans of GIRINTEGO SACCO KIVURUGA

### **Research hypothesis**

A hypothesis is a logical estimated association between two or more variables termed in form of measurable statements. The researcher has made four null hypotheses for the study as stated below:

- $H_{01}$ : Interest rate does not significantly affect Non-performing loans of GIRINTEGO SACCO KIVURUGA.
- $H_{02}$ : Size of loan and saving and credit cooperative does not significantly affect Non-performing loans of GIRINTEGO SACCO KIVURUGA

### **LITERATURE REVIEW**

#### **Theoretical frame work**

The stewardship theory was invented by theorists called Donaldson and Davis (1991 & 1993). It consists of examining the relationship between two parties which are owners of firm and management team. The main objective of this theory was to investigate the underlying agency theory assumption which asserts that there is tension between risky property of principals and their agents. This implies that agents look the interests by focusing on activities that can minimize their personal risk at the expense of principal Mombo (2013). The theory of agency suggested that the owners of firm must know this tension and try to overcome agents' activities that have relationship with moral danger by monitoring and evaluating managers and then find strategies that align the profit of the agents with principals and then avoid hazardous action by agents Arthurs (2003).

Theory of stewardship was developed as the way of defining behavioral premises, it examines the situation where managers does not have intrinsic motivation or their individual target but are stewards by motives which has relationship with the aims of their principals. The underlying assumption of commonality among managers and cooperatives owners focus and explain the assumption of uniqueness. And other people that institutional economists had given as role model of business management in a market place.

#### **Interest rate**

Interest rate is among the most significant factor that enhance any saving and credit cooperative to perform. Interest rate is a cost that a borrower pays because he/she has taken money from lender of saving and credit institution or on the assets taken form there by him/her (Crowley, 2007). Interest rate is an economic factor that contributes in the development of national economy. According to Corb (2012) stated that interest rate is most important instruments that central banks use to manage inflation and improve development of country. It is widely known that fluctuation of interest rate at the market affect commercial bank in different ways may be positively or negatively. Cooperative performance increases as the interest rate is increased to because saving and credits cooperative gain profit by controlling interest rate. But this should be done by committee in charge loan because when

interest rate is too high become burden to the borrower which can contribute to non-performing loan. Loan performing of saving and credits cooperative is measured in terms of profits that they earn.

Literature shows that another major loan term is interest rate. The reviewed literature indicated that another loan word is interest rate. This consists of the costs of having accessibility and use of credit resources and it indicates the borrower request for money as foundation of financing. Charging interest rate on loan generate income to institution. Saving and credit cooperative especially SACCOs interest rate should be moderate so that they can gain high number of borrowers and avoiding that their clients cannot fail to pay back money. Because most of saving and credit cooperatives were formed as the strategy of helping local community to rise their socio economic life of citizens, it can be a shame that loan from cooperative become among the major factors that put community into poverty and poor life conditions.

According to Fernando (2006) the current interest that borrower reimburse to a MFI is not only determined by national interest rate but also the way contract is signed and ways they have calculated installment of payment. Saving and credits cooperatives have been playing an important role in the development of East Africa. But even if they experienced different events like failures and success but no other financial institutions which brought people like they did in Africa. Interest rate is an important issue to be discussed in credit and saving institution, because it plays significant role on both side to the lender and borrower. Interest rate when it is high, hinder borrower to gain income and even can fail to repay back money from bank while for SACCO when interest rate is low it does not gain income or get sufficient profit.

According to Laile (2015) indicated that clients routine, the amount of money that lender gave borrower, the understanding of borrower on repayment schedule, capacity of generating income, availability of having professional development and seminars, type of the business is going to invest in and number of dependent in family and objective of creating the business both influence payment schedule that borrower should follow without interference. Interest rate can be harmonized with the types of loan borrower wants from cooperative as interest rate goes the higher risk of defaulting credit goes up too. Even if there people who fail to pay back loan because other factors apart for high interest rate such end of contract at job, natural disasters that can destroy business, family conflicts and poor management of borrowed money. But always, interest rate should be moderated to the level of the clients.

### **Size of loan and saving and credit cooperative**

Same researchers like Chaplin, Emblow and Michael (2000), indicated that the size of cooperative can influence loan recovery performance in different ways, as the Sacco is wide the more it experience loan performing practices because having many employees and clients, give chance to the loan management team an experience of how they can deal with loan performance strategies. This implies that the more companies is big the more it enjoys economies unlike small companies which can be affected by high crisis in the time clients defaults loan or fail to pay on time. Sacco which is big is expected to have sufficient capital that can allow it to continue serving it members while small Sacco is affected by clients' poor payment of loan. This affectthem because their liquidity is always low. When the size of loan is too big the borrower can fail to reimburse hence non-performing experienced.

Large cooperatives enjoy great economies on large scale and they do not vulnerable at high extent when clients do not pay back loan while small Sacco are affected by any failures from the borrowers. Hence small Saccos are less in their operating system. At the international arena, it is understandable that Big Saccos can penetrate to regional and international market easily than small Sacco, most they can command more share that small one. Basing on the model of Saccos, it is believable that in the time of bankruptcy, large cooperatives in terms of properties, indicated that large cooperatives are more competent and solvent than small cooperatives, even if their numerical calculations are the same (Beaver, 1966). This implies that probability of failing on large or big Saccos are lower than small one. The evidence in literature review explains this view (Mitchell, Shaver & Yeung, 1994).

Loan performing in any firm is affected by its size because many financial institutions mostly stands longer than small institutions because big financial institution have sufficient capital that help it to give loan to the borrower and engage in different activities that can generate income. When size of Sacco is large even their members are many as members are many saving that they keep in banks increases too. It is great advantage for big cooperatives the reach to performance while for small one it is not easy to performance. Large saving and credit cooperatives gain money to spend in the activities that can contribute in attracting the clients like advertisement, giving rewards for some clients who manifested honey in payment of money, in motivating the employees, hiring the expert in business creation so that they can expand what they do.

### **Research gap**

Although credit and saving cooperative in Rwanda is not something new in the ears of people in Rwanda. Everyone knows SACCOs and their role in Rwanda. History of SACCOs was not ancient event. It recent when you read the time first SACCOs was established in Rwanda. But their performance is still an issue for discussing. Many researcher have been researching on the effect of performing loan on in SACCOs but none of them has investigated the factors influencing non- performing loan on financial performance of Umurenge SACCO in Rwanda. Especially in GIRINTEGO SACCO KIVURUGA. Therefore, it is evident that none has done the same topic as mine, it is the reason why I have decided to fill this gap as research.

### **Research methodology**

Research design is a strategy that the researcher uses to carry out any given plan that was intended to be done in specific time (Herbst and Coldwell, 2004). According to Mugenda and Mugenda (2003) stated that research design is an arrangement or work plan that the researcher used while conducting research in any given field but it goes hands in hands with minimization of costs (Kothari, 2004). Simply, it clarifies the procedure that the researcher used to reach the answer of research question. Target population of this study comprised of 18 target people who are subdivided as follow: 8 employees, 5 governance board and 5 people in charge of loan and 85 clients who paid loan and those who terminated their loan. These people seem to be permanent and are the one who have information related to performing loan and non-performing loan.

According to Mbwesa (2006) validity of data collection instruments is the capacity in which an instruments has an ability to measure what is was set to measure. Validity was made to easy the understanding of questionnaire. The questionnaire is sent to the University expert who validate it and make further comments, and later questionnaire was given to an expert in English to check grammatical

errors. Reliability of data collection instruments consist the degree of consistency that the instruments manifest after passing through many different trials. Pre-test of reliability of the instruments, piloting study happened when the questionnaire is used to sample of some respondents in that SACCO but those were not included in final test. Cronbach's coefficient alpha technique is also used to measure reliability. After data collection from field, data were entered in computer for further analysis. Quantitative data was collected by using questionnaire. Data from questionnaire was entered in Statistical Package for Social Science (SPSS). Qualitative data was analyzed by judgment means. The data was put into thematic means.

## Findings

The findings are going to be presented, analysed, and interpreted. The presentation will use tables; the interpretation will base on the analysed data through descriptive statistics (mean and standard deviation), inferential statistics (regression), and qualitative data collected through interview. Interpretation will be done according to the objectives and research hypotheses that guided this study.

## Descriptive statistics of involved variables

The variables which were utilized by the researcher were interpreted and analyzed below using mean, standards deviation.

**Table 1: Descriptive Statistics for Sacco interest rate and Non-performing loans**

Statements	N	Min	Max	Mean	Std.
The clients participate in fixing interest rate on loan	88	1.00	5.00	4.2841	.81578
In this SACCO interest rate is fair	88	1.00	5.00	4.3523	.78842
In this SACCO interest rate is lower than other credit and saving bank	88	1.00	5.00	4.0455	1.31227
In this SACCO interest rate in linked to the market	88	1.00	5.00	4.5341	.72633
In this SACCO interest rate goes hands in hands with prices fluctuation	88	1.00	5.00	4.5795	.65603
In this SACCO interest rate is determined depending the inflation	88	1.00	5.00	4.2045	.81873
In this SACCO interest rate match full recourse loans with collaterals	88	1.00	5.00	4.2386	.89692
In this SACCO interest rate depends on the types of loan	88	1.00	5.00	4.1932	1.00411
In this SACCO interest rate is not burden to the borrower	88	1.00	5.00	4.2955	.94879
In this SACCO interest rate is fairly calculated depending to clients income generating.	88	1.00	5.00	4.3182	.83797
<b>Valid N (listwise)</b>	<b>88</b>			<b>4.3045</b>	<b>0.88053</b>

**Note:** Strongly Disagree = [1] = **Very Low mean**; Disagree= [1-2] =**Low mean**; Neutral= [2-3] =**moderated mean**; Agree= [3-4] =**High mean**; Strongly Agree= [4-5] = **Very High mean**

The results from the table 7, indicated that majority of respondents strongly agreed that there positive effect of interest rate on non-performing loan: as indicated below: The clients participate in fixing interest rate on loan(Mean=4.2841 and STD=.81578 ), In this SACCO interest rate is fair(Mean=4.3523 and STD=.78842 ), In this SACCO interest rate is lower than other credit and saving bank(Mean=4.0455 and STD=1.31227 ), In this SACCO interest rate in linked to the market(Mean=4.5341 and STD=.72633 ), In this SACCO interest rate goes hands in hands with prices fluctuation(Mean=4.5795 and STD=.65603), In this SACCO interest rate is determined depending the inflation(Mean=4.2045 and STD=.81873), In this SACCO interest rate match full recourse loans with collaterals(Mean=4.2386 and STD=.89692), In this SACCO interest rate depends on the types of loan(Mean=4.1932 and STD=1.00411), In this SACCO interest rate is not burden to the borrower(Mean=4.2955 and STD=.94879), In this SACCO interest rate is fairly calculated depending to clients income generating(Mean=4.3182 and STD=.83797). The overall Mean and standard deviation from the table are (Mean=4.3045 and STD=0.88053). Most of the respondents approved that SACCO interest rate affect non-performing loan.

The findings of this study was similar to the research made by Ndiege and Kazungu, (2020 indicated that interest rate has significant effect on non-performing loans of SACCOs. Depending to the management team and loan committee when the sit and balance interest rate and make it moderate so that many clients can afford it. The outcome become very meaningful.

#### Descriptive Statistics for Size of loan and saving and non-performing loan

Statements	N	Min	Max	Mean	Std.
Amount borrowed is adequate to undertake reasonable investment	88	1.00	5.00	4.3523	.74340
Are there penalties for investors defaulters	88	1.00	5.00	4.4773	.77277
In your own opinion do you agree that loan repayment affects SACCOs' non-performing loan	88	1.00	5.00	4.2159	.92784
This SACCO has many clients that save and borrow money	88	1.00	5.00	4.4432	.77100
This SACCO has capability of hosting large number of clients	88	1.00	5.00	4.4091	.81136
This SACCO employees many people in different services	88	1.00	5.00	4.3068	.82152
Amount borrowed is negotiable in respect to any other acceptable security other than savings	88	1.00	5.00	4.1591	.93325
In this SACCO loan restructuring is done on time comparing to real time clients declare fail	88	1.00	5.00	4.2727	.84046
Amount borrowed is negotiable in respect to any other acceptable security other than savings	88	1.00	5.00	4.6250	.74760
Loan size always graduates to bigger amount depending on successful payment of previous loans	88	1.00	5.00	4.1023	1.00619
<b>Valid N (listwise)</b>	<b>88</b>			<b>4.3363</b>	<b>0.83753</b>



**Note:** Strongly Disagree = [1] = **Very Low mean**; Disagree= [1-2] =**Low mean**; Neutral= [2-3] =**moderated mean**; Agree= [3-4] =**High mean**; Strongly Agree= [4-5] = **Very High mean**

The table below 8, indicated that the size of loan contribute in non-performing loan in SACCO as explain by the following factors: Amount borrowed is adequate to undertake reasonable investment(Mean=4.3523 and STD=.74340), Are there penalties for investors defaulters(Mean=4.4773 and STD=.77277), In your own opinion do you agree that loan repayment affects NPLS (Mean=4.2159 and STD=.92784), This SACCO has many clients that save and borrow money(Mean=4.4432 and STD=.77100), This SACCO has capability of hosting large number of clients(Mean=4.4091 and STD=.81136), This SACCO employees many people in different services(Mean=4.3068 and STD=.82152), Amount borrowed is negotiable in respect to any other acceptable security other than savings(Mean=4.1591 and STD=.93325), In this SACCO loan restructuring is done on time comparing to real time clients declare fail(Mean=4.2727 and STD=.84046), Amount borrowed is negotiable in respect to any other acceptable security other than savings(Mean=4.6250 and STD=4.6250 ), Loan size always graduates to bigger amount depending on successful payment of previous loans(Mean=4.1023 and STD=1.00619).The overall Mean and standard deviation from the table are (Mean=4.3363 and STD=0.83753). Most of the respondents approved that Size of loan and saving and credit cooperative affect non-performing loan (NPLS).

The findings from this study was also seems to like the findings of Wambugu, (2014) asserted that loan size have significant effect on non-performing laon of saving and credit bank. Some of the Saccos make the mistakes of providing loan without analyzing the capability of the clients, some of the size loan given can be a burden to them so that repayment be difficult. This affect financial performance of Saccos

### Descriptive Statistics on non-performing loan

Statements	N	Min	Max	Mean	Std
SACCO have huge terrible obligations occasioned by credit facilities.	88	1.00	5.00	4.2614	.85089
Duration of default in credit facilities is high	88	1.00	5.00	4.2045	.85982
SACCO exhibit great degree of forbearance when dealing with loan borrowers.	88	1.00	5.00	4.3523	.92276
SACCO keep on restructuring terms of credit facilities in order to address non-performing loan	88	1.00	5.00	4.3295	.82659
The SACCO has unfair continuing to prompt loss of information of the Guarantors	88	1.00	5.00	4.5114	.71107
There is robust appraisal program for Underwriters	88	2.00	5.00	4.3295	.73846

SACCO does not have consistently and continuously evaluation of borrower files	88	1.00	5.00	4.4091	.83922
There is not effective penalties in case a default by borrowers	88	1.00	5.00	3.8636	1.03036
SACCO has no committed debt collectors	88	1.00	5.00	4.2841	.99364
Some SACCO staff are corrupted while processing loan to borrowers	88	1.00	5.00	4.2386	.85761
<b>Valid N (listwise)</b>	<b>88</b>			<b>4.2784</b>	<b>0.86304</b>

**Note:** Strongly Disagree = [1] = **Very Low mean**; Disagree= [1-2] =**Low mean**; Neutral= [2-3] =**moderated mean**; Agree= [3-4] =**High mean**; Strongly Agree= [4-5] = **Very High mean**

The results from the table 11, indicated that most of the respondents strongly agreed that the following variables affect non-performing loan: SACCO have huge terrible obligations occasioned by credit facilities(Mean=4.2614 and STD=.85089),Duration of default in credit facilities is high(Mean=4.2045 and STD=.85982 ), SACCO exhibit great degree of forbearance when dealing with loan borrowers(Mean=4.3523 and STD=.92276 ), SACCO keep on restructuring terms of credit facilities in order to address non-performing loan(Mean=4.3295 and STD=.82659), The SACCO has unfair continuing to prompt loss of information of the Guarantors(Mean=4.5114 and STD=.71107 ), There is robust appraisal program for Underwriters(Mean=4.3295 and STD=.73846),SACCO does not have consistently and continuously evaluation of borrower files(Mean=4.4091 and STD=.83922 ), There is not effective penalties in case a default by borrowers(Mean=3.8636 and STD=1.03036 ), SACCO has no committed debt collectors (Mean=4.2841 and STD=.99364 ), Some SACCO staff are corrupted while processing loan to borrowers (Mean=4.2386 and STD=.85761). The overall Mean and standard deviation from the table are (Mean=4.3363 and STD=0.83753). Most of the respondents approved that was experienced in SACCO because of the factors discussed above.

### Presentation of findings through inferential statistics (regression analysis)

This part consists of the information taken from the respondents using questionnaire. The answers were transformed into inferential statistics. It includes model summary, the analysis of variance and coefficients. As they are described in table below:

### Model Summary for Sacco interest rate on non –performing loans

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 <sup>a</sup>	.811	.787	.07859

a. Predictors: (Constant), Saccointerestrates

The results from table above indicated that Sacco interest rate has effect of 81.1% of the variation in non-performing loans as explained by  $R^2$  of .811, which indicated that model is good prediction.

**Table 2: Analysis of variance for Sacco interest rate and non-performing loans**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.212	1	.212	34.336	.000 <sup>b</sup>
	Residual	.049	8	.006		
	Total	.261	9			

a. Dependent Variable: non-performing loans

b. Predictors: (Constant), Saccointerestrates

The results from variance analysis in table 13 indicated regression coefficient as showed that there is significance effect on non-performing loans (P value >0.05). Conclusively there is significant effect of SACCO interest rate on loan performing in UMURENGE SACCO. Then, null hypothesis is rejected while alternative is accepted.

**Table 3: Regression coefficients for Sacco interest rate and non-performing loans**

Coefficients <sup>a</sup>					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	.101	.713		.141
	Saccointerestrates	.971	.166	.901	5.860

a. Dependent Variable: non-performing loans

The results from table 14 indicated that there was a positive and significant effect of SACCO interest rate on non-performing loans (B=0.971, P value >0.05). This explain that one unit of change in Sacco interest rate, increases non-performing loans by 0.971units.

**Table 4: Model Summary for size of loan and saving and credit cooperatives**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.881 <sup>a</sup>	.776	.748	.08562

a. Predictors: (Constant), size of loan

The results in table 9 indicated that 77.6 % of the variation in dependent variables (non-performing loans can be explained by for size of loan and saving and credit cooperatives the remaining percentage can be attributed to other variables which are not mentioned in this model.

**Table 5: Analysis of variance for size of loan and saving and credit cooperatives and NPLS**

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.203	1	.203	27.665	.001 <sup>b</sup>
	Residual	.059	8	.007		
	Total	.261	9			

a. Dependent Variable: non-performing loans

b. Predictors: (Constant), size of loan and saving and credit cooperatives

The results from variance analysis in table 16 indicated regression coefficient as showed in table there is significance effect (P value >0.05). Conclusively there is significant effect of size of loan and saving and credit cooperatives on non-performing loans. Then, null hypothesis is rejected while alternative is accepted.

**Table 6: Regression coefficients for size of loan and saving and credit cooperatives and non-performing loan**

### Coefficients<sup>a</sup>

		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	.168	.782		.215
	Size of loan	.948	.180	.881	5.260

a. Dependent Variable: non-performing loans

The results from table 17 indicated that there was a positive and significant effect of size of loan and saving and credit cooperatives on non-performing loans (B=0.948, P value >0.01). This explain that one unit of change in Sacco interest rate, increases non-performing loans by 0.948 units.

### Conclusion

Basing on the findings of the study” Factors influencing non- performing loan on financial performance of Umurenge SACCO in Rwanda, indicated that interest rate, To explore the effect of size of loan and SACCO on non-performing loans of GIRINTEGO SACCO KIVURUGA, Both have significance relationship with non-performing loans in SACCO in Rwanda, since none of hypothesis tested negative or were rejected and all alternative hypothesis s were accepted. Sharpened the objective of this research because the researcher came up with conclusion that there is effect of non- performing loan on performance of Umurenge SACCO in Rwanda. As indicated by other researchers such as Riasi, (2018) indicated non-performing loan affect financial performance in UMURENGE SACCO.

### **This study recommend the following:**

1. It is likewise suggested that the leading body of the board should build the proprietorship level and monetary education to have fundamental monetary abilities empowering them decipher budget reports.
2. The review suggests that SACCOs should upgrade their assortment strategy by adjusting a more severe arrangement to a permissive approach for powerful obligation recuperation.

### **Acknowledgement**

First of all glory be to God having helped and guided me to accomplish this work in the scheduled time. I owe gratitude to my lovely WIFE for his constant financial support. To my lovely brothers and sisters, colleagues and all my friends who helped me, without their guidance and prayers I could not make it. I would like to express gratitude and appreciation to my supervisor **Mr. MARINGA Elijah** for his time, guidance and comments have been of great importance towards the completion of this work. I am very grateful to his to have been available whenever I needed his help. Lastly I wish to declare my thanks to all my classmates for their fruitful help and encouragement the cultivated in me in the due process of writing my thesis may God bless you abundantly.

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