



Full Length Research Paper

Assessing the Contribution of Umurenge Saving and Credit Cooperative (SACCO) Loans to the Household Income: A Case Study of Nyabihu District, Western Rwanda, from 2010 to 2011

Alphonse Nahayo^{1,*} Gisele Mukakimenyi², Isaac Ekise¹ and Edward Mutandwa²

1. Higher Institute of Agriculture and Animal Husbandry (ISAE) - Busogo; Faculty of Agricultural Engineering and Environmental Sciences; Department of Forestry and Nature Conservation; P.O.Box 210 Musanze, Rwanda

2. Higher Institute of Agriculture and Animal Husbandry (ISAE) - Busogo; Faculty of Agriculture and Rural Development; Department of Rural Development; P.O.Box 210 Musanze, Rwanda

**Corresponding author: Alphonse Nahayo*

Abstract

This study on the contribution of Umurenge SACCO (saving and credit cooperatives) loans in household economy was conducted in Jomba Sector, Nyabihu District, Western Rwanda. The survey was carried out within six cells of Jomba Sector which are Nyamitanzi, Gasura, Gisizi, Gasiza, Kavumu and Guriro. The survey questionnaire was prepared in English and Kinyarwanda. Formal interview was done by using a structured questionnaire. The sample size was 95 SACCO members. After determining the sample size, the sampling was done randomly based on the list of SACCO members. The results indicated that 25.3 % of respondents have access on Umurenge SACCO loans while 74.7 % did not have access; the average loan got from Umurenge SACCO (imbarutso y' ubukire) in Jomba Sector is more than 30,000 Rwf and the number of activities people invest in depends on the loan size. The business income is positive and Umurenge SACCO "imbarutso y' ubukire" contributes to the improvement of its members livelihood. SACCO members mentioned that the no guarantee is a constraint at 75.8 % followed by rejection of projects and loss of payment with 15.8 % and 8.4 % respectively while the release rate of loans is the last with 0.5 %; in addition, 90.5 % of respondents suggested the delivery of loans at time followed by extension of payment period and acceptance of other assets as guarantee with 82.1 % and 78.9 % respectively. 70.5 % and 69.5 % of respondents suggested respectively releasing important amount of loan and improving service delivery by using Information and Communication Technology. There is a need that the board of Umurenge SACCO financial Cooperative in Jomba Sector admits other assets as guarantee for the development of both SACCO and its members, the delivery of loans at time should also be considered.

Keywords: Saving, credits, cooperatives, household income, Jomba sector, Nyabihu District, Rwanda

Introduction

Poverty is the overarching problem in Africa and is deeply rooted in rural areas. Despite rapid urbanization, over 70 % of the poor still live in rural areas and up to 45 % of the people of the African continent live in absolute poverty (ADB, 2000). About 90 % of the people of Rwanda are poor and live in rural areas. They practice agriculture as an income generating activity and the limited possibilities of having access to credits and other financial services in the commercial bank or micro-finance are caused by the lack of securities (guarantees). The National Dialogue Meeting of December 2008 proposed a strategy of integration of the rural population in the financial system. This strategy should set up at least a COOPEC within each Umurenge throughout the country (Kantengwa, 2009).

Financial Cooperatives are therefore, created in situation where people cannot obtain essential services from investor's owned firm. The Cooperatives may reduce the obstacles faced by the farmers or other people and encourage them to create the income generating activities; the financial Cooperatives participate in poverty alleviation. SACCO is an easy way of organizing a community to save and recycle savings in a given locality. Since the nature of a SACCO is local, it mobilizes savings locally, within the community, and then the profits are returned to members in the form of loans (MINICOFIN, 2007). The money stays and works within the membership and the area. This mutually achieved success helps not only build a sense of ownership and pride in an area but also create a culture of saving and investing.

SACCO (saving and credit cooperative) is a financial institution under the cooperative form. It is a legal entity, in which individuals save their money and can get loans in order to invest in various activities. The basic structure of the SACCOs and credit unions is what differentiates them from banks; they are user-owned financial intermediaries. Members typically have a "common bond" based on geographic area, employer, community, industry or other affiliation (MINICOFIN, 2007). Each member has equal voting rights

regardless of their deposit amount or how many shares they own. The principal products of SACCOs are savings and credit, however some offer money transfers, payment services and insurance; they sometimes join together to create second-tier associations for the purposes of building capacity, liquidity management and refinancing; these second-tier associations can play a useful role in monitoring (MINICOFIN, 2011).

Banque Populaire du Rwanda (BPR) which is the most popular private institution for banking, has operated as a credit union until its recent merger with Rabobank. Organizations such as BPR and other credit unions and SACCOs play a vital role in the economic development of a country by providing access to services to all members of the population with a particular focus on the lowest income members and increase microfinance outreach, capacity, liquidity management and refinancing (DFID, 2010).

SACCOs need to be strongly supported in political terms by secondary structures such as the Ministry of Commerce and the Ministry of Local Government. In addition, government need to facilitate alliance formation between SACCOs and MFIs so SACCOs are able to delegate functions to their respective secondary structures in order to benefit from economies of scale and scope and also provide their clients with the opportunity to upgrade in order to access larger loans. SACCOs are characterised by different aspects including savings, ease, reach, stability and low overhead which are detailed below (MINICOFIN, 2007).

The creation of cooperatives is being promoted in urban and rural areas in order to improve the socio-economic development of communities (MINICOM, 2006). This development is sustainable if members of these cooperatives get access to financial services in general; however there is still a knowledge gap and missing data on the contribution of these financial institutions to the improvement of communities' livelihood and economy. This study aims at assessing the contribution of Umurenge SACCO (Imbarutso y'Ubukire) loans in household economy in Jomba Sector of Nyabihu District, from 2010 up to 2011. In Jomba Sector, the SACCO has 2,978 members where 192 members got SACCO loans. The findings from this study will provide data on the importance of financial cooperative loans in the development of rural area that can be used by decision makers in different institutions for their planning and development projects for rural communities. The specific objectives of the study were the following:

1. To determine the average of loan size that rural people get from Umurenge SACCO
2. To determine different kind of business activities in which rural people invest these loans;
3. To determine business income from these activities;
4. To determine if Umurenge SACCO has significantly contributed to livelihood improvement;
5. To determine the constraints facing by rural people in access and use of Umurenge SACCO loans

Upon the completion of his study, the following hypotheses should be tested and verified: The hypotheses were formulated in the form of null hypotheses (Ho) and alternative hypotheses (H1)

1. Ho: The average loan that people get from Umurenge SACCO in Jomba Sector is not 30,000 Rwf; H1: The average of loan that people get from Umurenge SACCO in Jomba Sector is 30,000
2. Ho: There is no correlation between the amount of loan given by umurenge Sacco and the number of economic activities invested in; H1: The number of economic activities Umurenge SACCO members invest in depends on the amount of loan given.
3. Ho: The business income is not positive; H1: The business income is positive;
4. Ho: The contribution of Umurenge SACCO loans have not contributed to the positive change of poverty amongst members; H1: Umurenge SACCO loans have contributed to the change of livelihood amongst members;
5. Ho: Lack of guarantee and high rate of interest have no effect on the access and use of Umurenge SACCO loans by people; H1: Lack of guarantee and high rate of interest hinder the access and use of Umurenge SACCO loans by people

Materials and Methods

Study area description

The study was conducted in Jomba Sector, Nyabihu District of the Western Province, Rwanda. Jomba Sector is subdivided into six Cells namely Nyamitanzi, Gasura, Gisizi, Gasiza, Kavumu and Guriro. Its relief is very broken and is characterized by the high mountains; the steep slopes, the valley are very deep and the bottom which gush the small sources (Nyabihu DDP, 2006). Jomba Sector has no other financial institutions. The area has the altitude that ranges between 1,460 m and 4,507 m. The average monthly rainfall shows that there are four seasons with two rainy seasons (March-May and September-November) and two dry seasons (June-August and December to February). The soil of Jomba is very permeable with low depth on mountain and is very fertile. This type of soil is vulnerable to many erosion phenomena. More than 90 % of Jomba population is involved in agriculture; the agricultural land area is 82 % and the major grown crops include vegetables (cabbages and carrots), food crops (potatoes, beans, wheat, maize, and Irish potatoes), fruit (avocadoes, papaya, etc.) and tea as cash crop. The wildlife is generally threatened by human activities. The

livestock is still traditional and the exotic race is goat, sheep, cow, hen, duck, pig and rabbit. Regarding the flora, the natural vegetations have almost disappeared due to agriculture land demand. Now it is made of planted trees such as Eucalyptus, Cypress, pines, grasses and other species.

Methods

Data collection

The primary data have been collected from local government (sector level), land officers, Non-Governmental Organizations, farmers and community leaders. Purposive sampling method was used to select the study area. Random sampling method was used to select the key informants to be interviewed about the relevant issues using structured questionnaire. The secondary data were got from the key documents such as annual reports from the Districts, appropriate Ministries and microfinancing institutions. A structured questionnaire was administered to respondents randomly selected from Umurenge Sacco members' list. The structured questionnaire included the socioeconomic characteristics of respondents, types of known financial institutions, amount of money got from SACCO as loans, activities invested in and income earned as well as the challenges faced by SACCO members. The number of household in the study area is shown in the table 1 indicating also the number of SACCO members and those who got loans.

Table 1: Number of households in study area

| Cells | Number of population | Number of Households | Number of members of SACCO | Number of members who get credit (in 2011) |
|------------|----------------------|----------------------|----------------------------|--|
| Nyamitanzi | 3912 | 955 | 456 | 30 |
| Gasura | 3889 | 835 | 591 | 38 |
| Gisizi | 3515 | 578 | 385 | 29 |
| Gasiza | 2748 | 812 | 406 | 36 |
| Kavumu | 3543 | 702 | 431 | 27 |
| Guriro | 3484 | 721 | 709 | 32 |
| Total | 21091 | 4603 | 2978 | 192 |

The study area was purposively chosen as SACCO (Imbarutso y'ubukire) is the only one financial institution being in this sector. The stratified sampling method was used based on characteristics of the population (farmers, leaders and staff) such as age, gender or socio-economic status. Proportionate Allocation Sampling Method was used to get the sample size at the cell level. We have got different responses from different groups of people since we had staff, local leaders and farmers. The literature shows that a plethora of statistical formulas have been used to determine the sample size. These are inter alia: Kish (1965), Yamane (1967), Kothari (1985) and Poduri (2000). It is noted that each formula is only suitable for certain scenarios which depend on the expected accuracy of the study, the confidence interval and underlying characteristics of the population. In the context of this research, Poduri (2000) is used to determine the sample size. After the determination of the sample size, SACCO members was selected randomly based on the list of members.

$$n = \frac{Nz_{\alpha/2}^2}{z_{\alpha/2}^2 + 4(N-1)E^2} \quad (\text{Poduri, 2000})$$

Where n is the sample size to be determined

N is the Population Size

$Z_{\alpha/2}$ is the standard normal distribution at 5 % level

E is the precision error, which is assumed to be 10 % (0.1) in this case,

$$n = \frac{4603 * (1.96)^2}{1.96 + 4(4603 - 1) * (0.1)^2} = 95.04 \approx 95$$

To determine the sample size at the cell level, the proportionate allocation sampling method was used. Therefore, this formula was applied:

$$ni = \frac{Ni \times n}{N} \quad (\text{Kothari, 1985})$$

Where:

ni = the sample size proportion to be determined;

Ni = the population proportion in the stratum;

n = the sample size;

N = the total population

Table 2: Proportionate Allocation Sampling

| Cells | Number of population | Number of Household | Number of members of SACCO | Number of members who get credit | Sample at Cell level |
|------------|----------------------|---------------------|----------------------------|----------------------------------|----------------------|
| Nyamitanzi | 3912 | 955 | 456 | 30 | 20 |
| Gasura | 3889 | 835 | 591 | 38 | 17 |
| Gisizi | 3515 | 578 | 385 | 29 | 12 |
| Gasiza | 2748 | 812 | 406 | 36 | 17 |
| Kavumu | 3543 | 702 | 431 | 27 | 14 |
| Guriro | 3484 | 721 | 709 | 32 | 15 |
| Total | 21091 | 4603 | 2978 | 192 | 95 |

Data analysis

Descriptive and inferential statistics were used for data analysis. To test the hypotheses, the following tests were used: One sample t-test: The One-Sample T Test compares the mean score of a sample to a known value; Correlation (Pearson): Pearson's correlation coefficient (r) is a measure of the strength of the association between the two variables; the Wilcoxon signed-rank test is a non-parametric statistical hypothesis test used when comparing two related samples, matched samples, or repeated measurements on a single sample to assess whether their population mean ranks differ and Friedman test was used to detect differences in treatments across multiple test attempts.

Results and Discussion

Demographic characteristics

The demographic characteristics of respondents including location of respondents, sex, marital status, educational level and household size are detailed in below paragraphs. These factors are supposed to have an impact on the use of financial resources either in sustainable manner or not and this affect directly the livelihood of people and household economy.

Location of respondents by Villages

The location of respondents by Villages is presented in figure 1

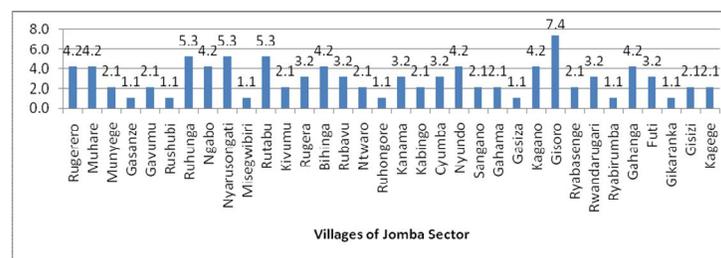


Figure 1: Location of respondents by Villages

The analysis of the figure 1 indicates that Gisoro village is the first one with 7.4 % of respondents followed by Ruhunga, Nyarusongati and Rutabu village with 5.3 % each. Many villages including Gikaranka, Gasanze, Rushubi and Ruhongore are the last one with 1.1 % each. Gisoro village has some infrastructure including road while the last villages are in remote area; Lack of adequate infrastructure including source of energy, access to EWSA (Energy and Water Sanitation) network, poor road network in some remote areas are the major factors hindering the expansion of MFIs (Micro Finance Institutions) and SACCOs to grass root level (MINICOFIN, 2007).

Sex of respondents

The Sex of respondents is presented in the table 4

Table 3: Sex of respondents

| Valid | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|--------------|---------------|--------------------|
| | Male | 64 | 67.4 | 67.4 | 67.4 |
| | Female | 31 | 32.6 | 32.6 | 100.0 |
| | Total | 95 | 100.0 | 100.0 | |

The analysis of the table 3 shows that 32.6 % of respondents were female and 67.4 % were male.

Education level of respondents

The Education level of respondents in Jomba Sector is presented in the figure 2

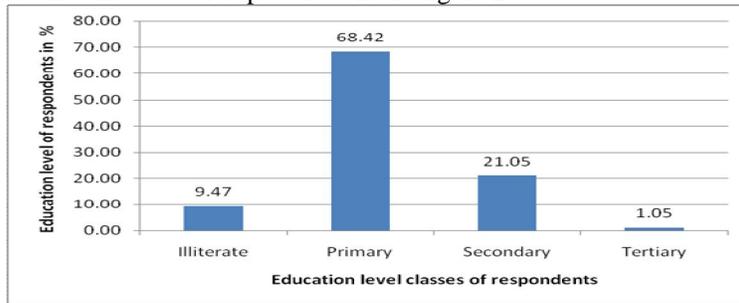


Figure 2: Education level of respondents

The figure 2 shows that 68.42 % of respondents attended primary school, 21.05 % of them attended secondary school; 1.05 % attended tertiary level while 9.47 % of them were illiterate.

Marital status

The marital status of respondents is presented in the figure 3

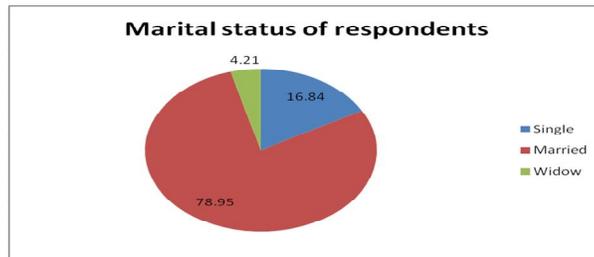


Figure 3: Marital status of respondents

In Jomba Sector, 78.95 % of respondents were married, 16.84 % of them were single while 4.21 % were widow.

Household size

The household size of respondents in Jomba Sector is presented in the figure 4.

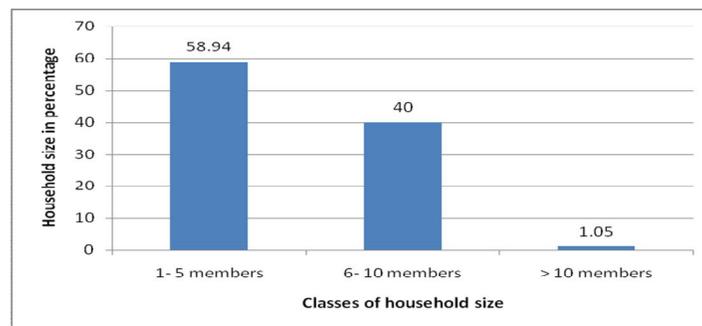


Figure 4: Household size of respondents

The analysis of the figure 4 shows that 58.94 % of respondents account between 1 and 5 persons, 40 % account between 6 and 10 persons while 1.05 % account over 10 persons.

Economic Activities

Profession of respondents

The profession of respondents in Jomba Sector is presented in the figure 5

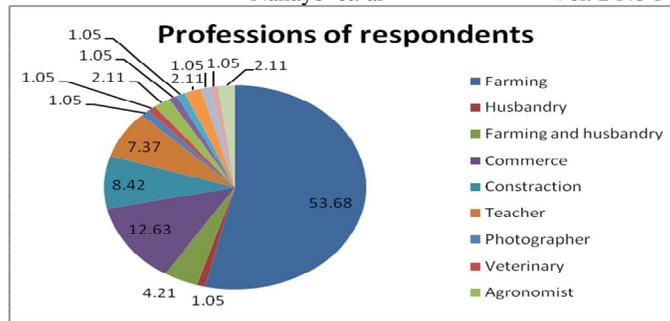


Figure 5: Profession of respondents

The figure 5 shows that the profession of respondents in Jomba Sector is different. 53.68 % of them are involved in farming activities; 12.63 % are involved in commerce (trading); it is followed by 8.42 % and 7.37 % who were involved in construction and teaching respectively. The profession of veterinary, photographer and commerce are the last ones with 1.05 % each (Figure 5).

Possession of land

Land possession for respondents is shown in the table 5

Table 4: Land possession

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 71 | 74.7 | 74.7 | 74.7 |
| | No | 24 | 25.3 | 25.3 | 100.0 |
| | Total | 95 | 100.0 | 100.0 | |

The table 4 shows that the answer on land possession in Jomba Sector is different; 74.7 % own land while 25.3 % do not have land.

Land size per household

The land size per household is shown in the table 6

Table 5: Land size per household

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 0 | 24 | 25.3 | 25.3 | 25.3 |
| | 0.004 | 1 | 1.1 | 1.1 | 26.3 |
| | 0.02 | 1 | 1.1 | 1.1 | 27.4 |
| | 0.05 | 2 | 2.1 | 2.1 | 29.5 |
| | 0.1 | 1 | 1.1 | 1.1 | 30.5 |
| | 0.18 | 1 | 1.1 | 1.1 | 31.6 |
| | 0.2 | 6 | 6.3 | 6.3 | 37.9 |
| | 0.25 | 11 | 11.6 | 11.6 | 49.5 |
| | 0.3 | 8 | 8.4 | 8.4 | 57.9 |
| | 0.4 | 1 | 1.1 | 1.1 | 58.9 |
| | 0.5 | 14 | 14.7 | 14.7 | 73.7 |
| | 0.8 | 1 | 1.1 | 1.1 | 74.7 |
| | 1 | 20 | 21.1 | 21.1 | 95.8 |
| | 1.5 | 2 | 2.1 | 2.1 | 97.9 |
| | 2 | 1 | 1.1 | 1.1 | 98.9 |
| | 10 | 1 | 1.1 | 1.1 | 100.0 |
| Total | 95 | 100.0 | 100.0 | | |

The table 5 shows that for those who owned the land; 21.1 % have the land of 1 ha; they are followed by 14.7 % who owned the land of 0.5 ha; 11.6 % owned the land of 0.25 ha and 6.3 % owned the land of 0.2 ha; 1.1 % of respondents owned the land per each category (10 ha; 2 ha; 0.8 ha; 0.4 ha; 0.1 ha and 0.02 ha).

Income from economic activities

The income from economic activities is presented in the table 6

Table 6: Income from economic activities

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------|-----------|---------|---------------|--------------------|
| Valid | 15000 | 3 | 3.2 | 3.2 | 3.2 |
| | 20000 | 15 | 15.8 | 15.8 | 18.9 |
| | 26000 | 1 | 1.1 | 1.1 | 20.0 |
| | 30000 | 6 | 6.3 | 6.3 | 26.3 |
| | 40000 | 2 | 2.1 | 2.1 | 28.4 |
| | 45000 | 1 | 1.1 | 1.1 | 29.5 |
| | 50000 | 13 | 13.7 | 13.7 | 43.2 |
| | 60000 | 5 | 5.3 | 5.3 | 48.4 |
| | 69650 | 1 | 1.1 | 1.1 | 49.5 |
| | 70000 | 4 | 4.2 | 4.2 | 53.7 |
| | 80000 | 2 | 2.1 | 2.1 | 55.8 |
| | 90000 | 1 | 1.1 | 1.1 | 56.8 |
| | 100000 | 11 | 11.6 | 11.6 | 68.4 |
| | 130000 | 1 | 1.1 | 1.1 | 69.5 |
| | 150000 | 7 | 7.4 | 7.4 | 76.8 |
| | 157000 | 1 | 1.1 | 1.1 | 77.9 |
| | 160000 | 1 | 1.1 | 1.1 | 78.9 |
| | 170000 | 1 | 1.1 | 1.1 | 80.0 |
| | 200000 | 3 | 3.2 | 3.2 | 83.2 |
| | 250000 | 1 | 1.1 | 1.1 | 84.2 |
| | 300000 | 2 | 2.1 | 2.1 | 86.3 |
| | 320000 | 1 | 1.1 | 1.1 | 87.4 |
| | 322000 | 1 | 1.1 | 1.1 | 88.4 |
| | 330000 | 1 | 1.1 | 1.1 | 89.5 |
| 350000 | 3 | 3.2 | 3.2 | 92.6 | |
| 380000 | 2 | 2.1 | 2.1 | 94.7 | |
| 460000 | 1 | 1.1 | 1.1 | 95.8 | |
| 500000 | 1 | 1.1 | 1.1 | 96.8 | |
| 590000 | 1 | 1.1 | 1.1 | 97.9 | |
| 972000 | 1 | 1.1 | 1.1 | 98.9 | |
| 2450000 | 1 | 1.1 | 1.1 | 100.0 | |
| Total | 95 | 100.0 | 100.0 | | |

The income from economic activities is different: 15.8 % of respondents got 20,000 Rwf; 13.7 % got 50,000 Rwf while 11.6 % of respondents got 100,000 Rwf.

Respondents' participation in SACCO**Knowledge of financial institutions**

The respondents' knowledge of financial institutions is presented in the table 7

Table 7: Respondents' knowledge of financial institutions

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----|-----------|---------|---------------|--------------------|
| Valid | Yes | 95 | 100.0 | 100.0 | 100.0 |

The above table 7 shows that all respondents (100 %) know different financial institutions.

Sources of knowledge

The source of knowledge on financial institutions is presented in the figure 6

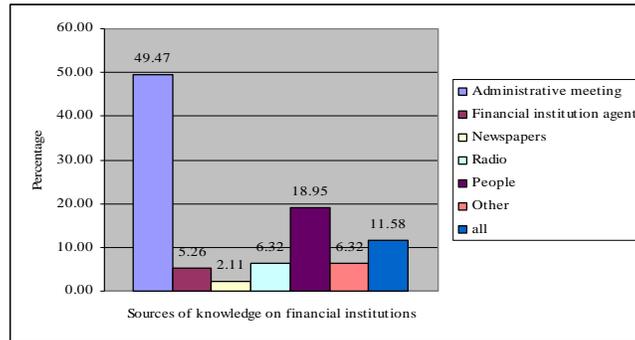


Figure 6: Sources of knowledge on financial institutions

The figure 6 shows that most of the people (49.47 %) got the information on financial institutions from administrative meeting followed by 18.95 % who got the information from other people and 11.58 % got the information from different sources. Radio and financial institution agents are other sources of knowledge with 6.32 % and 5.26 % respectively; the newspapers are the last with 2.11 %.

Types of financial institutions

The types of financial institutions that respondents are aware of are presented in the figure 7

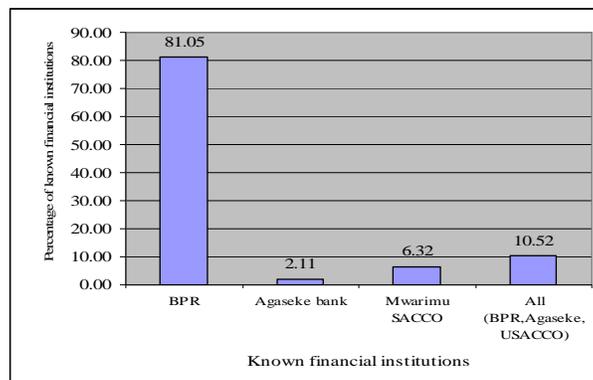


Figure 7: Known financial institutions

The above figure 7 shows that the knowledge on financial institutions is different; 81.05 % of respondents know BPR, 10.52 % of respondents know all highlighted financial institutions (BPR, Agaseke Bank and Umwalimu SACCO); 6.32 % of respondents know Umwalimu SACCO while 2.11 % of respondents know agaseke Bank.

Respondents' knowledge of SACCO

The attitude of respondents on knowing Umurenge SACCO is presented in the table 8

Table 8: Respondents' knowledge of Umurenge SACCO

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----|-----------|---------|---------------|--------------------|
| Valid | Yes | 95 | 100.0 | 100.0 | 100.0 |

The above table shows that all respondents (100 %) know Umurenge SACCO.

Time of joining SACCO

The time of joining Umurenge SACCO in years is shown in the table 9

Table 9: Time of joining Umurenge SACCO

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 2009 | 14 | 14.7 | 14.7 | 14.7 |
| | 2010 | 38 | 40.0 | 40.0 | 54.7 |
| | 2011 | 21 | 22.1 | 22.1 | 76.8 |
| | 2012 | 22 | 23.2 | 23.2 | 100.0 |
| | Total | 95 | 100.0 | 100.0 | |

The table 9 shows that the time of joining Umurenge SACCO in Jomba Sector is different; many respondents (40 %) joined Umurenge SACCO in 2010 followed by 23.2 % who joined it in 2012 while 22.1 % and 14.7 % joined Umurenge SACCO in 2011 and 2009 respectively. This is an evidence since little education/sensitization of the population is a challenge for the development of SACCOs including Umurenge SACCO; in addition, SACCOs and MFIs in general are characterized by low solvency, high bad loans, little safety for deposits, corruption, and poor governance (MINICOFIN, 2011).

Accessibility to loans from SACCO

The accessibility of loans from Umurenge SACCO is presented in the table 10

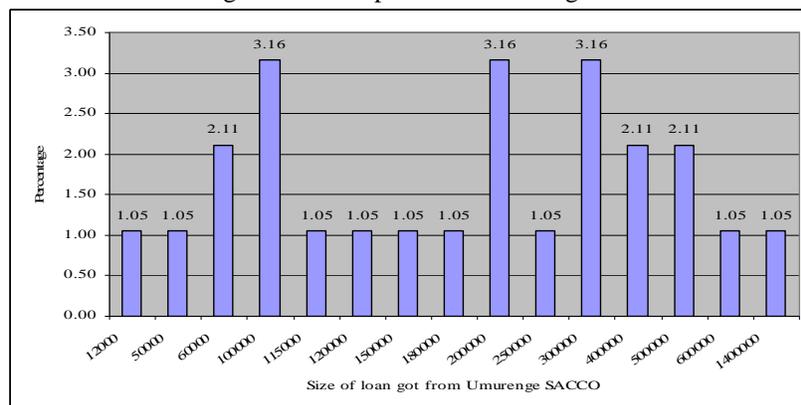
Table 10: Accessibility to SACCO loans

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----|-----------|---------|---------------|--------------------|
| Valid | Yes | 24 | 25.3 | 25.3 | 25.3 |
| | No | 71 | 74.7 | 74.7 | 100.0 |
| Total | | 95 | 100.0 | 100.0 | |

The analysis of the table 10 shows that the answer on access on Umurenge SACCO loans in Jomba Sector is different; 25.3 % of respondents reported to have access on those loans while 74.7 % didn't have access.

Loan size received

The loan size received by members from Umurenge SACCO is presented in the figure 8

**Figure 8:** The size of received loans

The analysis of the above figure 8 indicates that the size of loan from Umurenge SACCO is different; 3.16 % of respondents reported to receive the amount of 100,000 Rwf; 200,000 Rwf and 300,000 Rwf respectively per each category. These are followed by 2.11 % of respondents who reported to receive the amount of 60,000 Rwf; 400,000 Rwf and 500,000 Rwf per each money category.

Uses of loans

The Uses of loans from Umurenge SACCO are presented in the figure 9

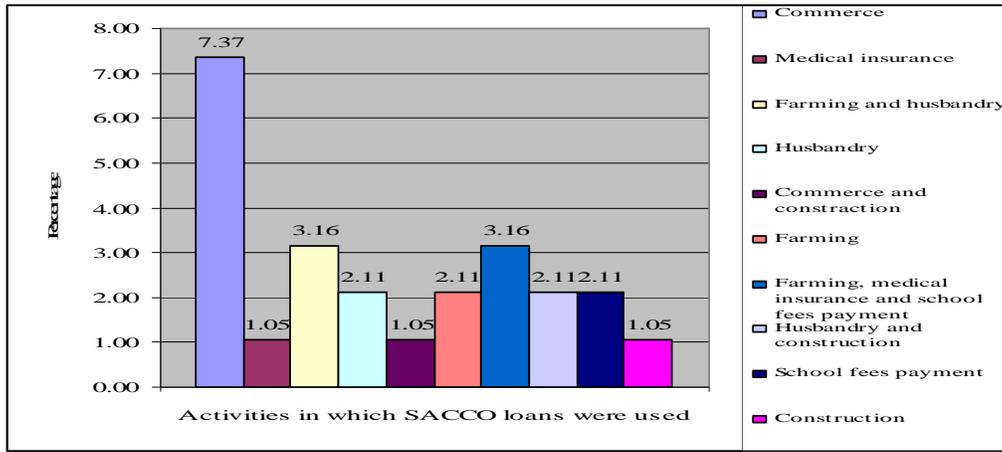


Figure 9: Uses of SACCO loans

The figure 9 shows that the use of loans by SACCO members is different where 7.37 % of respondents use the loan in commerce while 3.16 % of respondents use the loan in farming and husbandry. 2.11 % use the loan in farming, husbandry and construction respectively per each activity and 1.05 % of respondents use the loan in medical insurance and construction respectively per each activity.

Impact of Umurenge Sacco

Member’s perceptions on the impact of Umurenge Sacco

The Member’s perceptions on the impact of Umurenge SACCO are presented in the figure 10

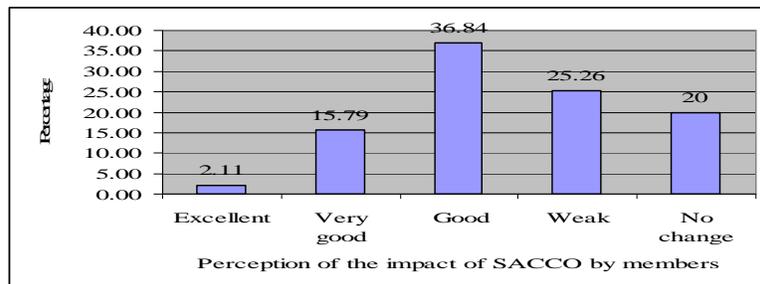


Figure 10: Member’s perceptions on the impact of Umurenge SACCO

The figure 10 shows that the members’ perception on the impact of Umurenge SACCO is different; 36.84 % of respondents stated that the impact is good; they are followed by 25.26 % of respondents who stated that the impact of SACCO in their livelihood is weak. 20 % reported that there is no change in their livelihood while 15.79 % and 2.11 % reported that the impact of SACCO in very good and excellent respectively.

Testing and verifying the hypotheses

The average of loan that people get from Umurenge SACCO in Jomba Sector is more than 30,000 Rwf.

Table 11: Average of loan analyzed by one sample test

One-Sample Test

| | Test Value = 30000 | | | | | |
|-----------------------|--------------------|----|-----------------|-----------------|---|-----------|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Amount of loan in Rwf | 4.172 | 23 | .000 | 244875.000 | 123460.83 | 366289.17 |

Ho: The average loan of Umurenge SACCO is 30000 Rwf

Ha: The average loan of Umurenge SACCO is more than 30000 Rwf

P-value is < the significance level ($0.000 < 0.05$); we reject the H_0 and accept the alternative hypothesis; this means that the probability that the average loan equals to 30,000Rwf is 0.000; hence the average loan is more than 30,000 Rwf.

The loans from Umurenge SACCO are invested in different economic activities such as agriculture, building and trading

The analysis of loans from Umurenge SACCO by correlations is shown in the table 12.

Table 12: Loans from SACCO by correlations

| | | Number activities | Amount of loan in Rwf |
|-----------------------|---------------------|-------------------|-----------------------|
| Number activities | Pearson Correlation | 1 | .012 |
| | Sig. (2-tailed) | | .956 |
| | N | 24 | 24 |
| Amount of loan in Rwf | Pearson Correlation | .012 | 1 |
| | Sig. (2-tailed) | .956 | |
| | N | 24 | 24 |

According to this table 12 of bivariate correlation analysis, P value is $P\text{-value} > \text{the significance level}$ ($0.956 > 0.05$), we fail to reject the hypothesis and conclude that the number of activities people invest in depends on the size of loan; however this dependency is still very low since the Pearson Correlation is 0.012.

Positive business income

The analysis of business income using one sample test is shown in the table 13

Table 13: Business income analysed by one sample test

One-Sample Test

| | Test Value = 0 | | | | | |
|--|----------------|----|-----------------|-----------------|---|-----------|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Income got from the loan activity in Rwf | 3.093 | 19 | .006 | 305500.000 | 98772.01 | 512227.99 |

H_0 : The business income equal 0

H_a : The business income is positive

P-value is < the significance level ($0.006 < 0.05$); we reject the H_0 and accept the alternative hypothesis and conclude that the business income is positive.

Contribution of Umurenge SACCO loans to livelihood is appreciated by people

The test of the contribution of UMURENGE SACCO loans to livelihood by Wilcoxon Signed Ranks Test is shown in the table 14.

Table 14: Wilcoxon Signed Ranks Test

Ranks

| | N | Mean Rank | Sum of Ranks |
|---|-----------------|-----------|--------------|
| Poverty category on ubudehe card after joining sacco - Negative Ranks | 0 ^a | .00 | .00 |
| Poverty category on ubudehe card before joining sacco | 31 ^b | 16.00 | 496.00 |
| Ties | 64 ^c | | |
| Total | 95 | | |

- a. Poverty category on ubudehe card after joining sacco < poverty category on ubudehe card before joining sacco
- b. Poverty category on ubudehe card after joining sacco > poverty category on ubudehe card before joining sacco
- c. Poverty category on ubudehe card after joining sacco = poverty category on ubudehe card before joining sacco

The analysis of the above table 14 on the appreciation of Umurenge SACCO by members shows that no one has moved from positive rank to negative rank while 31 respondents moved to positive rank and 64 respondents remained on their previous level after joining Umurenge SACCO. This shows that SACCO is really contributing to the livelihood improvement of SACCO members in Jomba sector but the improvement is not significant. This is probably due to the lack of guarantees and short time of loan payment as highlighted by SACCO members.

Constraints of Umurenge SACCO members on getting loans

It is within this framework that during this study the respondents ranked the constraints encountered in their area as it is shown by the figure 11 below.

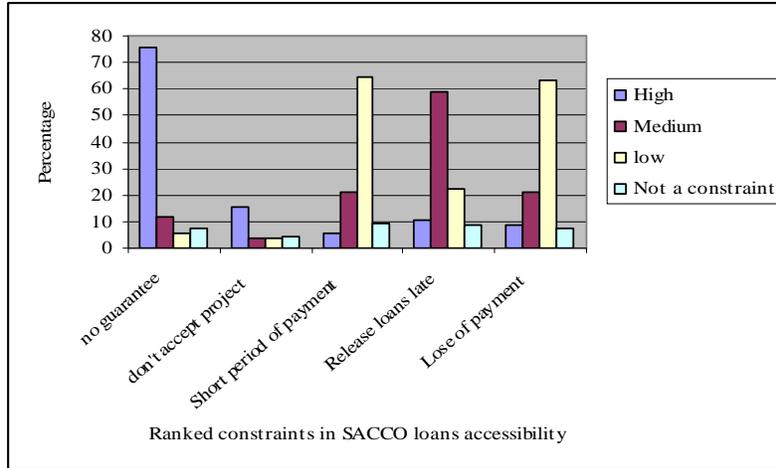


Figure 11: Constraints in SACCO loans accessibility

The members of Umurenge SACCO in Jomba Sector face different constraints which can be classified as social or economic. The constraints concerned in this research are those that can influence people in this Sector not to be interested in credit and saving activities of this SACCO.

The above figure shows that 75.8% of respondents ranked as high the constraint of no guarantee, 11.6 % as medium; 5.3 % as low while 7.4% mentioned that it is not at all a constraint. The rejection of projects follows the no guarantee constraint where 15.8 % of respondents ranked it at a high level, 4 % at a medium level, 4 % at a low level and 4.2 % mentioned that it is not a constraint. A proportion of 8.4 % mentioned that the loss of payment is a constraint at a high level, 21.1 % at a medium level, 63.2 % at a low level and 7.4 % stated that it is not a constraint. Regarding the other constraints, 5.3 % of respondents highlight short period of payment at a high level, 21.1 % at a medium level, 64.2 % at a low level and 9.5 % stated that it is not a constraint. A proportion of 0.5 % mentioned that the release rate of loans is a constraint at a high level, 58.9 % at a medium level, 22.1 % at a low level and 8.4 % stated that it is not a constraint.

Suggestions

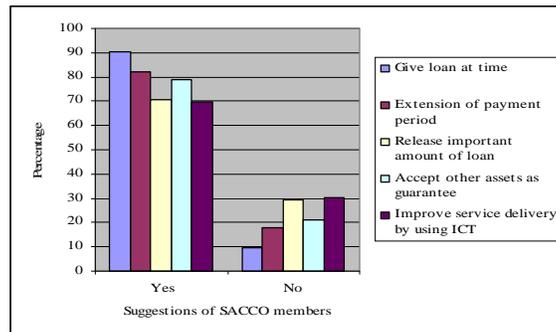


Figure 1: Suggestions

The consideration of people' views can help get better credit and saving in different Micro Finance Institutions (MFIs) and SACCOs in particular rather than top down decisions. Hence, along this study, it was very important to keep respondents free so that they highlight their suggestions to alleviate the constraints. The figure 12 indicates that most of respondents (90.5 %) suggested the delivery of loans at time followed by extension of payment period and acceptance of other assets as guarantee with 82.1 % and 78.9 % respectively. 70.5 % and 69.5 % of respondents suggested respectively to release important amount of loan and improving service delivery by using Information and Communication Technology (ICT). With the personal observation, indeed the late of delivering loans affects deeply the planned activities of the people that read to poverty instead of development.

Conclusion

SACCO is an easy way of organizing a community to save and recycle savings in a given locality; since the nature of a SACCO is local, it mobilizes savings locally, within the community, and then the profits are returned to members in the form of loans. The money stays and works within the membership and the area. This mutually achieved success helps to not only build a sense of ownership and pride in an area but also it creates a culture of saving and investing. Based on the findings of the present study, 25.3 % of respondents reported to have access on Umurenge SACCO loans while 74.7 % didn't have access. The average loan get from Umurenge SACCO in Jomba Sector is more than 30,000 Rwf. The number of activities people invest in depends on the loan size. The business income is positive. Umurenge SACCO contributes to the improvement of its members' livelihood. SACCO members mentioned that the no guarantee is a constraint at 75.8 % followed by rejection of projects and lack of payment with 15.8 % and 8.4 % respectively while the release rate of loans is the last with 0.5 %. 90.5 % of respondents suggested the delivery of loans at time followed by extension of payment period and acceptance of other assets as guarantee with 82.1 % and 78.9 % respectively. 70.5 % and 69.5 % of respondents suggested respectively releasing important amount of loan and improving service delivery by using ICT.

Acknowledgements

The authors acknowledge the technical contribution of the Higher Institute of Agriculture and Animal Husbandry (ISAE) for conducting this research. We would also like to thank all staff members of the Faculty of Agriculture and rural development, in particular the Department of Rural Development and Agribusiness. The valuable contribution from all ISAE colleagues and friends is also greatly appreciated. Many thanks are also due to the administration of Nyabihu District, Jomba Sector and the board of Umurenge SACCO Financial Cooperative that facilitated this research.

References

- ADB, African Development Bank (2008). Rwanda Country Strategy Paper, 2008-2011.
- DFID, 2010. Macroeconomic Variables Public Dataset.
- Kantengwa, 2009. PBF in Rwanda: what happened after the BTC-experience?
- Kish, L. 1965. Introduction to survey sampling and analysis procedures.
- Kothari, C.R., 1985. Research Methodology- Methods and Techniques, New Delhi, Wiley Eastern Limited.
- MINICOM, 2006. New National Strategy to enhance Cross border Trade. Kigali, Rwanda
- MINICOFIN, 2007. The development indicator edition 5. Kigali, Rwanda
- MINECOFIN, 2011. Document de la stratégie de la réduction de la pauvreté. Kigali, Rwanda
- Nyabihu District Development Plan (DDP). 2006
- Poduri S. R. S. Rao. 2000. *Sampling Methodologies with Applications*. Chapman and Hall/CRC Press, London and New York.
- Yamane, T. 1967. *Statistics: An Introductory Analysis*, 2nd Ed.