

EFFECT OF FINANCING ALTERNATIVES ON THE PERFORMANCE OF SAVINGS AND CREDIT COOPERTIVES (SACCOS) IN RWANDA

(A CASE STUDY: UMURENGE -SACCOS OPERATING IN NYABIHU DISTRICT)

¹CHRISTOPHE MUNYARUGERO, ²PATRICK MULYUNGI, (PhD),
³PROF. MIKE IRAVO

¹Student at Jomo Kenyatta University of Agriculture and Technology, Kigali, Rwanda

²Lecturers at Jomo Kenyatta University of Agriculture and Technology, Kigali, Rwanda

Abstract: The deposit of U-Saccos have big contribution to its financing sources, however SACCOS are still having the problem of using manual procedures on collecting deposit from its customers, therefore this can affect negatively their performance. The general objective of this study is to examine the effect of financing alternatives on the performance of umurenge SACCOS in Rwanda. Descriptive research design was used in this study. The target population is 174 comprising of Board of directors members, Credit committee, Managers, Credit officers, Accountants and Cashiers of the 12 U-SACCOS operating in Nyabihu District. This study adopted stratification and simple random sampling. Simple random sample is considered a special case in which each population element has a known and equal chance of selection. The sample size of this study is equivalent to 100 respondents. The coefficients of model fitness on how factors influencing the performance of SACCO in Rwanda explained by Debt financing, equity financing and deposit financing. The effect of financing alternatives has an overall correlation with Umurenge SACCO performance. 0.762 is significant at 5%. These indicate good fit of the regression equation used. The overall significance of the regression estimation model. It indicates that the model is significant in explaining the relationship between effect of financing alternatives and performance at 5% level of significance. Analysis of Variance shows that f-calculated is greater than f – critical that is $5.221 > 0.00$. This implies that the regression equation was well specified and therefore the co-efficient of the regression shows that there is a strong relationship between two variables. The analysis of variance of the predictors of the model is significance at 0.000. Results indicate that deposit financing is the most significant in explaining the performance with a significance at 0.000 which is less than a p-value of 0.05 and beta value is 0.824. Researcher found that deposit financing plays a big role to the performance of Nyabihu Umurenge SACCO. The finding of this research implies that financing alternatives are important aspects for good SACCOS' performance. Further, they bring the implication that usage of debt financing is not a guaranteed to the performance of SACCO; and Sacco's performance depends on deposit financing and equity financing. Savings and credit cooperatives should change the way of receiving and withdraw money using handbook. It should use the modern technology (ATM and POS machine) in order to boost their performance and facilitating their cooperative members to withdraw money at any time.

Keywords: Co-operative, SACCO, Long term debt and Short term Debt.

1. INTRODUCTION

1.1. Background

The cooperative history dates back to 1852 when Herman Frank consolidated two pilot projects in Germany into credit unions. In 1864 another Germany, Raiffeisen founded the first rural credit union in rural Germany to cater for the needs of

the rural poor. The rural communities were considered unbankable because of very small, seasonal flows of cash and very limited human resources, WOCCU (2008). Since then, there has been a rapid growth in the cooperative movement worldwide based on the organizational methods of Raiffeisen. In the past decade, financial authorities in most developing and transitional economies have given more emphasis on bringing formal financial services to the large numbers of the world's poor who currently lack adequate access or excluded from formal financial service (CGAP, 2012).

The Rwandan Microfinance sector began to develop in 1975, and experienced rapid growth from the late 1990s. This growth has been attributed to a large inflow of donor funds directed towards relief oriented microfinance initiatives (following the genocide in 1994), as well as the provision by the Government of Rwanda of credit lines and grants to the microfinance sector to fast-track reconstruction. This rapid growth occurred in an unregulated system and ultimately led to instability within the sector, prompting the Government to launch a financial sector reform programme in 1995. However, in 2006 the limited success of these reforms was made apparent by the collapse of 9 MFIs that led to 195 000 depositors losing their savings. This caused the

Government to adopt a formal National Microfinance Policy, accompanied by an implementation strategy in September, (AFR, 2017).

Credit cooperatives popularly known as Savings and credit Cooperatives (SACCOs) are a subsector of the wider cooperative movement. A co-operative is an independent group of individuals jointed willingly to achieve common desires and aspirations facilitated by a mutually owned and democratically restricted enterprise (Bottelberge & Agevi, 2010; ICA, 1995). SACCOs are formed with the objective of enhancing the savings of members and facilitate access to loans at relatively affordable interest rates. They also encourage savings among the members as well as encouraging them to make proper financial and investment decisions. As cooperatives, SACCOs follow the guidelines set by International Cooperatives Alliance (ICA, 1995). Thus SACCOs are based on social welfare concept (Muthama, 2011) where the main sources of capital are member contribution, retained earnings and at times donations. Other source of funds for SACCOs include member deposit and borrowing from commercial banks.

According to National Bank of Rwanda, the microfinance subsector is an integral component of Rwanda's financial system. The sector plays a critical role in driving financial inclusion (connecting the rural population and lower income groups to financial services). This sub-sector is comprised of MFIs with limited company status and SACCOs. Despite the challenging economic environment in 2016, the sector remained solvent, liquid and continued to finance the economy. The total number of microfinance institutions declined from 494 as at end December 2015 to 472 as at end December 2016. This decline is due to the restructuring of 2 unions (made up of a network of 14 SACCOs) that changed their legal status to 2 limited liability companies. 10 SACCOs were also liquidated and the Government in December 2016 refunded their depositors. As at December 2016, out of the 472 microfinance institutions operating in Rwanda, 17 are microfinance institutions with limited liability company status; 455 are Savings and Credits Cooperatives (SACCOs): These include 416 U-SACCOs and 39 non U-SACCOs

The microfinance sector balance sheet continued to expand in 2016. Total assets of the microfinance sector (MFIs) registered an increase of 6.6 percent (year-on-year) in December 2016 to FRW 223 billion, lower than the growth of 31 percent registered in the same period of 2015. The slowdown of growth of microfinance assets was partly caused by the RSSB decision to transfer "Mutuelle de santé" funds from U-SACCOs to its accounts in banks for better management. A total of FRW 13 billion was transferred. The decision aimed at improving reconciliation and monitoring of these funds, which is easier in banks with automated operational systems. Deposits of MFIs declined by 2.6 percent (year-on-year) in December 2016 from FRW 117 billion to FRW 114 billion. The main factor behind this reduction was: 1) The effect of the withdrawal of "Mutuelle de santé funds" by RSSB and; 2) Slowdown of economic activities, especially agriculture that reduced the depositing capacity of farmers. The two factors combined to reduce the deposit of MFIs, especially in U-SACCOs where deposits declined by 15.7 percent (BNR, 2017).

1.2. Statement of the problem

According to National Bank of Rwanda, In U-SACCOs, short-term deposits constituted 92 percent of total deposits, of which 95.6 percent are demand deposits. MFIs need to create incentives for long term funding, although this is a structural challenge for all deposit taking institutions (BNR, 2017). In addition the liabilities side, deposits constituted 79 percent of the total liabilities of MFIs and grew by 20 percent as at end-June 2016 (year-on-year) compared with 28 percent in the corresponding period in 2015. This means deposits remain the main source of funds for the microfinance sector, despite decelerated growth in June 2016.

Similar to what was observed in banks, MFIs deposits are mainly short term in nature (demand deposits) which again limits capacity of these institutions to finance long-term viable projects. In June 2016, demand deposits accounted for 75 percent of total MFIs' deposits, while this number went up to 89 percent in U-SACCOs (BNR, 2016). The deposit of U-SACCOs have big contribution to its financing sources. However, they are still having the problem of using manual procedures on collecting deposit from its customers; therefore, this can affect negatively their performance. The Most the previous researchers have focused on impact of member's socio-economic development and performance of SACCOs. There were also very limited studies on financing alternatives and performance of savings and credit cooperatives in Rwanda. The study therefore sought to investigate the effect of financing alternatives on the performance of SACCOs in Rwanda.

1.3. Objectives of the study: The main objective of the study is to examine the effect of financing alternatives on the performance of umurenge SACCOs in Rwanda and the specific objectives are;

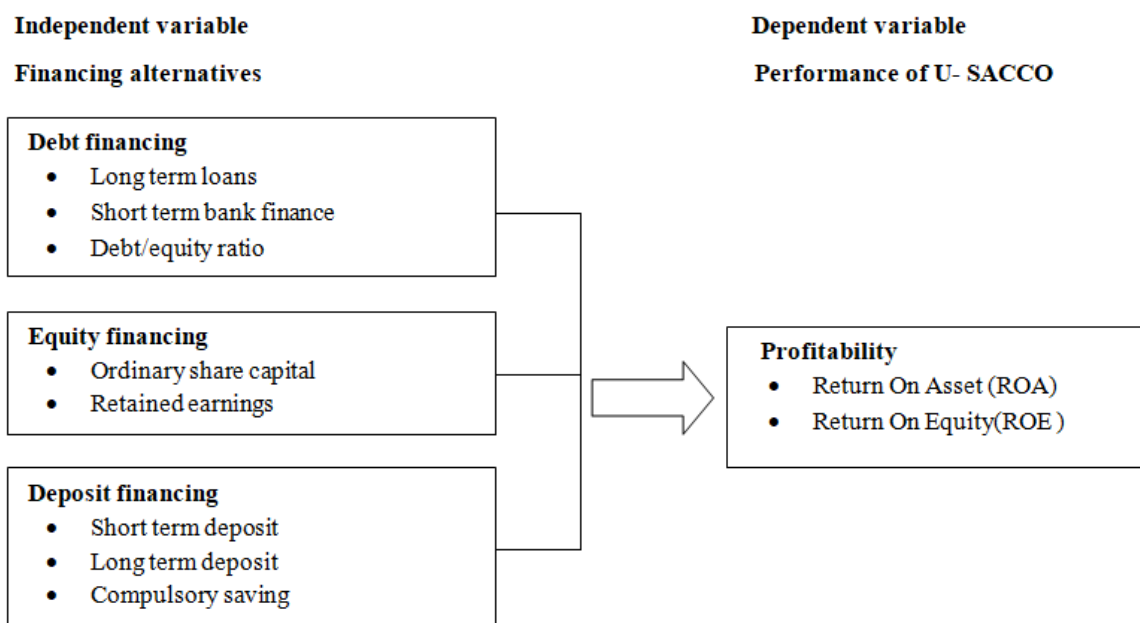
- i) To assess the effect of debt financing on performance of SACCOs,
- ii) To establish the effect of equity financing on performance of SACCOs,
- iii) To determine the effect of deposit financing on the performance of SACCOs

1.4. The Research questions are as follows;

- i) What is the effect of debt financing on performance of SACCOs?
- ii) Does equity financing affect the performance of SACCOs?
- iii) What is the effect of deposit financing on performance of SACCOs?

2. CONCEPTUAL FRAMEWORK

A conceptual framework is a model that presents and explains the relationship between various variables in the study. It indicates the logical view of research problem. Therefore, this study, the financing alternatives is the independent variable and Performance is dependent variable. Thus the financing alternatives of U-SACCO was measured by debt financing, equity financing and deposit financing and performance be measured by return on asset and return on equity.



Source: Researcher, (2018)

Figure 2.1: Conceptual framework

2.1. Empirical studies

This section explores the studies done by various authors on the effect of financing alternatives on the performance of SACCOs. The study was explored both international and local studies.

2.2. Critical review

This section examines literature related to the subject of the study which is based on global view narrowing to the local view. The review entails studies that have been conducted in relation to the financing alternatives and performance of an organization including Savings and Credit cooperatives (SACCOs). A study conducted by Song Li, Zhang Bingbing (2010), on the state-owned holding company in Liaoning Province were analyzed from continuing operations, performance and business results showed a positive correlation between capital structures. Juan, Yang Fenglin (1998), 461 listed companies in Shanghai Stock Exchange for the study, empirical study of its capital structure condition, capital structure and performance studies show a positive correlation.

Tumwine et.al,(2015) in a study on Savings And Credit Cooperatives (Sacco's) Services' Terms and Members' Economic Development in Rwanda .The findings concludes that savings and credit terms at ZIGAMA have got a significant effect on members' economic development. Both savings and credit services terms are significantly correlated with members' economic development and significantly predict members' economic development. SACCO had services terms in place but were not being communicated properly to members and their review was not involving all stakeholders. Both savings and credit terms were rated moderately.

The above studies are in relation to the study and were focused on how the internal and external financing affect the firm performance. Findings of the above studied do not have similarity and did not show the effect of deposit financing as factor that affect the performance of SACCOs. However, this study will seek to study the effect of financing alternatives and performance of SACCOs in Rwanda which is a gap this study seeks to fill.

2.3. Research gap

From the literature and empirical review, globally and regionally, there are few studies that have been done on the internal and external financing and firm performance, their findings do not have similarity. Local studies were focused on Umurenge SACCO's performance and their contribution on socio- economic development of the members , In a study conducted by Tumwine et.al,(2015) on Savings And Credit Cooperatives (Sacco's) Services' Terms and Members' Economic Development in Rwanda .The findings concluded that savings and credit terms at ZIGAMA have got a significant effect on members' economic development . Thus, there are very limited local studies on financing alternatives of SACCOs. However, this study was sought to study the effect of financing alternatives and performance of Umurenge SACCOs in Rwanda, which is a gap this study seeks to fill.

3. RESEARCH METHODOLOGY

3.1. Research design

Research design is an overall plan for the methods to be used to collect and analyze the data of a research study (Hair et al., 2008). The research design involved coming up with the research approach that helped determine how the information would be obtained. Descriptive research design was used in this study to establish whether there is a relationship between effect of financing alternatives on the performance of savings and credit cooperatives. This is because it minimizes biasness in the collection of data (Hussey & Husey, 2007).

3.2. Target Population:

The targeted population was 174 individuals and the sample size was 100 respondents.

Table 3.1: Target population and Sample size determination

The sample size was determined by stratified sampling and random sampling techniques as indicated in the table below;

Key informants	Total population	Sample size	Percentage
Board of directors	60	34	34.5%
Credit committee	60	34	34.5 %
Managers	12	7	6.9 %
Credit officers	12	7	6.9 %
Accountants	12	7	6.9 %
Cashiers	18	10	10.3 %
Total	174	100	100%

Source: Researcher (2018)

The Formula employed to calculate the size of the sample is hereby outlined.

$$n = \frac{NC^2}{(C^2 + (N - 1)e^2)}$$

Where n, N, C, and e represent sample size, size of target population, coefficient of variation (21% ≤ C ≤ 30%), and error margin (2% ≤ e ≤ 5%).

The above equation is substituted as follows:

$$n = 174(0.3)^2 / ((0.3)^2 + (174-1)(0.03)^2)$$

$$n = 174(0.09) / (0.0009 + 173(0.0009))$$

$$n = 15.6 / (0.0009 + 0.1557)$$

$$n = 15.66 / 0.1566$$

$$n = 100$$

This implies that the sample size (n) is equivalent to 100 respondents

3.3. Data Collection, instruments, analysis and processing;

In conducting this research, the secondary data and primary data were used. The secondary data was used through the documentary reviews while on other hand primary data were collected through questionnaire and interview.

3.4. Data analysis and processing

This involves the analysis of examining the relationship between financing alternatives and performance of Umurenge SACCO in Rwanda. The data were analyzed with respect to the study objectives and using descriptive statistics such as frequencies and percentage. The regression analysis was used in order to capture relationship between two variables. The Microsoft SPSS Software was used to analyze data.

3.4.1. Analytical model

The below regression model was used to analyze the relationship between the variables (independent and dependent)

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where;

Y: Stands for performance of SACCO

X₁: Stands for equity financing

X₂: Stands for debt financing

X₃: Stands for deposit financing

B₁-β₃: Stands for coefficient of independent variables

β₀: Stands for a constant term

ε: error term

The basic statistical tests that was used to test for statistical significance are the coefficient of determination (R squared), t-test for overall model significance, and the results was tested at 95% confidence level and 5% level of significance.

4. RESEARCH FINDINGS AND DISCUSSIONS

This chapter present the information obtained from the field. The information is presented in table for simple interpretation easy understanding. The first section presents the general information of the respondent while the subsequent parts resent the detailed information regarding the subject matter and were in line with the objective of the study.

4.1 Respondent's Profile

Respondents profile provides the demographic information of the respondents in order to understand the character of the sampled group. This provides credibility to the study by ensuring that the researcher selects proper representation in the study to avoid bias. The researcher sampled 100 respondents from SACCOs of Nyabihu district.

Table 4.2 : Age of respondents

	Frequency	Percent
21 –30 years	7	7.0
31 – 40 years	51	51.0
41-50 years	24	24.0
51-60 years	17	17.0
Total	100	100.0

Source: Primary data, 2018

The results shows that all respondents are mature enough based on their age. These findings left the researcher with the knowledge about the competence of his research outcomes since the study involved mature respondents who are mostly respected as far as providing the trusted information is concerned hence unbiased findings.

Table 4.3 : Gender of respondent

	Frequency	Percent
Male	77	77.0
Female	23	23.0
Total	100	100.0

Source: Primary data, 2018

The above Table 4.3 shows that SACCOs in Nyabihu District employ both male and female. Both marital statuses they contribute to the performance of SACCOs in Nyabihu district.

Table 4.4: level of education

	Frequency	Percent
Secondary	19	19.0
Bachelor	70	70.0
Masters	11	11.0
Total	100	100.0

Source: Primary data, 2018

The above Table 4.4 the results shows that those who have higher levels of education are more successful because higher education provides them knowledge and modern managerial skills and making them more conscious of the reality of the life style of the world and thus in a position to use their learning capabilities to enhance the SACCO performance.

4.2 The influence of financing alternatives on the performance of SACCO

Table 4.5: The influence of debt financing to the performance of Umurenge SACCO

Statements	SA	A	N	D	SD
1. Long term loans influence the performance of Umurenge Sacco.	(24.0)	(76.0)	-	-	-
2. The performance of Umurenge SACCO relaying on long term loan	(1.0%)	-	(10.0%)	(89.0%)	-
3. Short term bank finance influences the performance of Umurenge SACCO	(1.0%)	-	(2.0%)	(97.0%)	-
4. Debt/equity ratio influence the performance of Umurenge Sacco	-	-	(10.0%)	(90.0%)	-
5. SACCO use external finance to influence its performance.	(18.0%)	(18.0)	-	-	-
6. Umurege SACCO use external debt for increasing membership size and cover operation of its expenses	(14.0%)	(86.0%)	-	-	-

Source: Researcher, 2018

The above Table 4.5 shows that Nyabihu SACCO are not relaying on the long term loan. The appreciation of respondents on short term bank finance to the performance of Umurenge SACCO, The respondents from nyabihu SACCO are appreciated the use of external debt for increasing membership size and cover operation of their expenses, 14.0% are strongly agree while 86.0% are agreed too.

Table 4.6: Appreciation of equity financing to the performance of Umurenge SACCO

Statements	SA	A	N	D	SD
1. Ordinary share capital influences the performance of Umurenge Sacco.	(77.0%)	(23.0%)	-	-	-
2. Sacco earns more money from the ordinary shares capital of their shareholder.	(89.0%)	(10.0%)	(1.0%)	-	-
3. Retained earnings influence the performance of SACCO in Nyabihu district	(59.0%)	(41.0%)	-	-	-
4. SACCO use external finances for their portfolios investments.	(69.0%)	(31.0%)	-	-	-
5. It is easy for SACCO in Rwanda to access external finances.	(18.0%)	(42.0%)	-	(28.0)	(12.0%)

The above Table4.7 shows the appreciation of respondents on the influence of equity financing to the performance of Umurenge SACCO. The views of respondent's shows that ordinary share capital influences the performance of Umurenge Sacco, where 77.0% and 23.0% of respondents are strongly agree and agree. The majority of respondents their views shows that Sacco earns more money from the ordinary shares capital of their shareholder, 99.0% are appreciated. Sometimes SACCO uses external finances for their portfolios investments, 59.0% and 41.0% of the respondents are strongly agree and agree. This means that SACCO of Nyabihu district they not only relaying their performance on loan but they relay also from others investments.

Table 4.7: The influence of deposit financing to the performance of SACCO

Statements	SA	A	N	D	SD
1. Compulsory saving enhance the performance of SACCO	(64.0%)	(36.0%)	-	-	-
2. SACCO use deposit as internal source of financing its operations	(62.0%)	(38.0%)	-	-	-
3. Short-term deposit influence the performance of SACCO	(86.%)	(13.0%)	(1.0%)	-	-
4. Long-term deposit influence the performance of SACCO	(59.0%)	(41.0%)	-	-	-

Table 4.8 shows the influence of deposit financing to the performance of SACCO.

The funds for Umurenge SACCOs include member deposit and borrowing from commercial banks particularly Cooperative bank of Rwanda. It is also important to note that the main business of Umurenge SACCOs is lending and as such loans form the biggest assets for Umurenge SACCOs.

Accordingly, the Coop Africa paper ads, in 2007, SACCOs in Kenya had over 6 million shareholders, and majority of the members are actively engaged in the borrowing activities of the SACCO. The growth of the SACCOs is therefore instrumental in creating income generating activities to the people Finance, (2009) and boosts the performance of Saccos.

4.3 Regression Analysis

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426 ^a	.762	.614	221

Predictors: (Constant), Debt financing, equity financing and deposit financing

Table 4.9 presents the coefficients of model fitness on how factors influencing the performance of SACCO in Rwanda explained by Debt financing, equity financing and deposit financing. The effect of financing alternatives has an overall correlation with Umurenge SACCO performance. 0.762 is significant at 5%. These indicate good fit of the regression equation used.

The rule of Thumb said that, usually an R square of more than 50% is considered as better. This study proves the rule of Thumb the R² is (0.762). In this study the rule of thumb is that, usually an R square of more than 50% is considered as better.

Table 4.9: ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	24.612	3	6.401	5.221	.000 ^a
	Residual	.742	96	.010		
	Total	32.355	99			

a. Predictors: (Constant), Debt financing, equity financing and deposit financing

b. Dependent Variable: Performance.

Table 4.10 shows the overall significance of the regression estimation model. It indicates that the model is significant in explaining the relationship between effect of financing alternatives and performance at 5% level of significance. Analysis of Variance shows that f-calculated is greater than f-critical that is 5.221 > 0.00. This implies that the regression equation was well specified and therefore the co-efficient of the regression shows that there is a strong relationship between two variables. The analysis of variance of the predictors of the model is significant at 0.000.

Table 4.10: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	.136	.081		1.728	.000
	Debt financing	.244	.031	.833	22.050	.000
	Equity financing	.674	.043	.052	1.631	.000
	Deposit financing	.786	.012	.014	.122	.000

a. Dependent Variable: Performance

From Table 4.11, the regression model therefore becomes:

$$Y = 0.136 + 0.644x_1 + 0.824x_2 + 0.636x_3 + \varepsilon$$

Deposit financing is positively related to the performance of Nyabihu Umurenge SACCO and therefore a unit increase of deposit financing would lead to an increase in the performance of SACCO in Nyabihu district. However, this is significant at 5% level of confidence.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Summary of major findings

Objective one: to assess the effect of debt financing on performance of SACCO

Table 4.5 shows the influence of debt financing to the performance of Nyabihu Umurenge SACCO. The perception of the respondents shows that long term loans influence the performance of Umurenge Sacco, where 24.0 % of the respondents are strongly agree and 76.0 are agree. The performance of Umurenge SACCO relying on long term loan as appreciated by (1.0%) are strong agree and (10.0%) are agree. This means that Nyabihu SACCO are not relying on the long term loan. The appreciation of respondents on short term bank finance to the performance of Umurenge SACCO, show that 1.0% of respondents are strong agree and 2.0% are agree while 97.0% are disagree. This means that short term loan doesn't contribute to the performance of SACCO in Nyabihu district. The respondents from nyabihu SACCO are appreciated the use of external debt for increasing membership size and cover operation of their expenses, 14.0% are strongly agree while 86.0% are agreed too

Objective two: to establish the effect of equity financing on performance of SACCOs

Table 4.11 show the appreciation of respondents on the influence of equity financing to the performance of Umurenge SACCO. The views of respondent's shows that ordinary share capital influences the performance of Umurenge Sacco, where 77.0% and 23.0% of respondents are strongly agree and agree. The majority of respondents their views shows that Sacco earns more money from the ordinary shares capital of their shareholder, 99.0% are appreciated. Sometimes SACCO uses external finances for their portfolios investments, 59.0% and 41.0% of the respondents are strongly agree and agree. This means that SACCO of Nyabihu district they not only relying their performance on loan but they relay also from others investments.

Objective three: to determine the effect of deposit financing on the performance of SACCOs

Table 4.12 show the influence of deposit financing to the performance of SACCO. The views of the respondent's shows that compulsory saving enhances the performance of SACCO as strongly appreciated by 66.0%.0 of the respondents and 36% are also appreciated. The views of respondents show that SACCO use deposit as internal source of financing its operations, where 62.% are strongly appreciate and 38.0% are appreciated too. Long-term deposit influence the performance of Umurenge SACCO in Nyabihu district, as strongly appreciated by 59.0% of the respondents and 41.0 are also appreciated.

5.2 Conclusions

Currently Nyabihu Umurenge SACCOs in Rwanda are still in developing stage, and there is a divergence of practices among the different players. Researcher found that deposit financing plays a big role to the performance of Nyabihu Umurenge SACCO.

The finding of this research implies that financing alternatives are important aspects for good SACCOS' performance. Further, they bring the implication that usage of debt financing is not a guaranteed to the performance of SACCO; and Sacco's performance depends on (deposit financing and equity financing). It is therefore recommended that SACCOS should capitalize on efficient mobilization of members' savings and borrow less, unless they get cheap sources of external funds such as soft loans. Nyabihu SACCOs are encouraged to use deposit financing instead of debt financing for their business investment. In addition to that, they should focus on best corporate governance practices so that they will not experience poor performance as they grow. This will make them sustainable operationally and financially.

5.3 Recommendations

In summary there is some glimmer of hope on the performance of Umurenge SACCOs compared to the current negative view on the ground. However, There are some challenges in the performance affecting the prosperity of the Umurenge SACCOs which need to be addressed. These challenges call for a collective intervention by working jointly with the government, SACCOs' management, members and private financiers. The study suggests close monitoring and

continuous performance evaluation coupled with an enabling environment for performance improvement of the SACCO industry in Rwanda.

In order to improve and strength Saccos performance in Nyabihu district, the following recommendations are suggested:

Savings and credit cooperatives should change the way of receiving and withdraw money using handbook. It should use the modern technology (ATM and POS machine) in order to boost their performance and facilitating their cooperative members to withdraw money at anytime.

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